The Archaeology of Biblical Tamar: 
Preparation Reader for 2008 Excavation Activities

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BIB4013 Biblical Archaeology: Theory, Method, and Context  
BIB4123 Archaeology of Biblical Tamar in Israel (Fieldwork)  
BIB5013 Biblical Archaeology: Theory, Method, and Context [graduate level]  
BIB5123 Archaeology of Biblical Tamar in Israel (Fieldwork) [graduate level]

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COURSE DESCRIPTIONS:

An archaeological overview of the cultural and political history of the Land of Israel from the Bronze Age through the Iron Age (Canaanite and Israelite periods 3200-586 BCE) with special focus on Biblical Tamar (aka Ein Hatzeva). The primary goal of the course is the integration of biblical studies with the archaeology of Tamar by involving students in lectures, discussion, research, and virtual archaeology via computer and, for those who elect to do the fieldwork, actual excavation of the material culture at Tamar and examination of artifacts from Tamar stored at the Israel Museum in Jerusalem.

The graduate level of the courses will require extensive additional reading and a more complex research project.

OBJECTIVES:
As part of our ongoing assessment program, the following objectives will be met in this course:

1. Students will develop critical thinking skills regarding Old Testament material cultural within its ancient Near Eastern context by engaging in readings, simulations, oral presentations, written assignments, and scholarly research.
2. Students will participate weekly in intellectual exchange beyond the classroom by engaging in discussions regarding assigned readings, multimedia presentations, and relevant scholarly articles.
3. Students will be able to write and speak confidently with clarity, coherence, and conciseness regarding the theories, praxis, importance, and potential for biblical archaeology for increasing an exegetical and theological understanding of the Old Testament.
4. Students will appreciate and participate in the benefits of collaborative work within a Christian community.

TEXTBOOKS AND MATERIALS: those marked with * are required; the rest are suggested; those marked with ++ are required in addition for the graduate version of the courses.

[Soon-to-be out of print. If necessary this will be photocopied from the original with permission.]
[Suggested resource, relevant material could be photocopied into a reader.]

[Outstanding, elementary, step-by-step, comprehensive hands-on workbook that will either be required for those going to Israel or from which several sections will be photocopied for the required reader.]

[Exceptional introduction to theory, method, and practice.]

[Suggested resource, relevant material could be photocopied into a reader.]

[Suggested resource, relevant material could be photocopied into a reader.]

[Exceptional resource that is reference handbook with succinct, authoritative information on all aspects of biblical/Syro-Palestinian archaeology.]

*CD-ROM with Virtual Biblical Tamar: Archaeology, Artifacts, Texts, and History. [In preparation at Rochester College.]

*Reader produced by Professors Bowman (Rochester) and Shipp (Austin Graduate School of Theology) with specific readings and course material exclusive to Tamar.

WebCT component and Internet access to http://tamar.rc.edu required.

Section One: Getting Started: What are we doing?
What is archaeology?
What is field excavation?
Recognition of typical finds.
History of Syro-Palestinian Archaeology
Focus on Tamar
    Visuals, Site Report, Photographs, Artifacts, Video
History of Excavation at Tamar
Readings: TBA

Section Two: *Why do we dig this way?*
Stratification and Stratigraphy as method
The strata at Tamar: 6 through 1
Methods employed at Tamar

Readings: TBA

Section Three: *Interpretation: What do we do with this information?*
Understanding ancient societies
"A day in the life of ancient Israel"
Technology, gender roles, death and burial
Ethnicity, commerce and trade
The Royal Fortresses at Tamar
The 4 Room House at Tamar
The Environmental Context at Tamar, the Arava, and the Negev

Readings: TBA

Section Four: *The Intersection of History and Theology: Answering the big questions*
Chronology: Where does Tamar fit within Judean/Israelite/ANE historical periods?
Theology: Where does Tamar fit within Judean/Israelite/ANE historical periods?
Who was there and when?
Why were they there?
What did they do?
Who did they interact with?
What did they believe and practice religiously?

Readings: TBA

**ASSESSMENT AND GRADING** for Biblical Archaeology: Theory, Method, and Context

1. Interactive Reading Journal 20%
2. Section Reviews (online) 20%
3. Theory and Methods Research Paper 30%
4. Final Exam 30%
Section Five: Fieldwork at Tamar in Israel
For most students 2 weeks split between Jerusalem and Tamar with at least 5 days of intensive excavation and preservation of ruins at Tamar.

Assignments: (1) Fieldwork notebook; (2) Proposal for major research paper prior to trip to Israel; (3) Major research paper integrating theory, praxis, biblical texts, and ancient Israelite and Near Eastern history (submitted within 4 weeks of return from Israel; topic to be discussed with professor while at Tamar).

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The Golden Marshalltown: A Parable for the Archaeology of the 1980s

KENT V. FLANNERY
University of Michigan

I am happily too busy doing science to have time to worry about philosophizing about it. [Arno Penzias, Nobel Laureate, 1978]

This is a story about archeological goals and rewards, and no one should look for anything too profound in it. It's really just the story of a ride I took on an airplane from San Diego to Detroit. That may not sound very exciting to those of you who fly a lot, but this particular trip was memorable for me. For one thing, it was my first time on a 747. For another, I met someone on that plane who became one of the most unforgettable characters I've ever run across.

The flight was taking me home to Ann Arbor after the Society for American Archaeology meetings in May of 1981. I was leaving San Diego a day early because I had endured all the physical stress I could stand. I didn't particularly feel like watching the movie, so as soon as the plane was airborne and the seat belt sign had been turned off, I went forward to the lounge area of the plane. There were only two people there, both archeologists, and both recognized me from the meetings. So I had no choice but to sit down and have a beer with them.

I want to begin by telling you a little about my two companions, but you have to understand, I'm not going to give their actual names. Besides, their real identities aren't important, because each considers himself the spokesman for a large group of people.

The first guy, I suppose, came out of graduate school in the late 1960s, and he teaches now at a major department in the western United States. He began as a traditional archeologist, interested in Pueblo ruins and Southwestern prehistory, and he went on digs and surveys like the rest of us. Unlike the rest of us, he saw those digs and surveys not as an end in themselves, but as a means to an end, and a means that proved to be too slow. After a few years of dusty holes in hot, dreary valleys he was no closer to the top than when he had started, and in fact, he was showing signs of lamentable fallibility. In 50 tries at laying out a 5-ft square, he had never come closer than 4 ft 10 in by 5 ft 3 in, and he'd missed more floors than the elevator in the World Trade Center. And then, just when all seemed darkest, he discovered Philosophy of Science, and was born again.

Suddenly he found the world would beat a path to his door if he criticized everyone else's epistemology. Suddenly he discovered that so long as his research design was superb, he never had to do the research; just publish the design, and it would be held up as a model, a brass ring hanging unattainable beyond the clumsy fingers of those who ac-

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tually survey and dig. No more dust, no more heat, no more 5-ft squares. He worked in an office now, generating hypotheses and laws and models which an endless stream of graduate students was sent out to test; for he himself no longer did any fieldwork.

And it was just as well, for as one of his former professors had said, "That poor wimp couldn't dig his way out of a kitty litter box."

In all fairness to the Born-Again Philosopher, he was in large measure a product of the 1960s, and there are lots more like him where he came from. And let us not judge him too harshly until we have examined my other companion in the lounge, a young man whose degree came not from 1968, but from 1978. I will refer to him simply as the Child of the Seventies.

Like so many of his academic generation, the Child of the Seventies had but one outstanding characteristic: blind ambition. He had neither the commitment to culture history of my generation nor the devotion to theory of the generation of the 1960s. His goals were simple: to be famous, to be well paid, to be stroked, and to receive immediate gratification. How he got there did not matter. Who he stepped on along the way did not matter. Indeed, the data of prehistory did not matter. For him, archeology was only a vehicle—one carefully selected, because he had discovered early that people will put up with almost anything in the guise of archeology.

As a graduate student, the Child of the Seventies had taken a course in introductory archeology from a man I will simply refer to as Professor H. Professor H. worked very hard on the course, synthesizing the literature, adding original ideas and a lot of his own unpublished data. The Child of the Seventies took copious notes. Sometimes he asked questions to draw the instructor out, and sometimes he asked if he could copy Professor H.'s slides. When the professor used handouts, he bound them in his notebook.

At graduation, the Child of the Seventies went off to his first job at Springboard University. The day he arrived, he went directly to Springboard University Press and asked if they would like a textbook on introductory archeology. Of course they did. The Child polished his notes from Professor H.'s course and submitted them as a book. It was published to rave reviews. Today it is the only textbook on the subject that Professor H. really likes, and he requires it in his course. The faculty at Springboard U overwhelmingly voted the Child of the Seventies tenure. Professor H., on the other hand, has been held back because he hasn't published enough. "He's a great teacher," his colleagues say. "If only he could write more. Like that student of his at Springboard U."

To his credit as an anthropologist, the child had merely discerned that our subculture not only tolerates this sort of behavior, it rewards people for it. But the story doesn't end there.

The Child of the Seventies had written a six-chapter doctoral dissertation. Now he xeroxed each chapter and provided it with an introduction and conclusion, making it a separate article. Each was submitted to a different journal, and all were published within a year. He then persuaded Springboard University Press to publish a reader composed of his six reprinted works. In that reader, the chapters of his dissertation were at last reunited between hard covers. He added an overview, recounting the ways his perspective had changed as he looked back over the full sweep of his 18 months as a professional archeologist.

His publisher asked him to do another reader. This time, he invited six colleagues to write the various chapters. Some were flattered. Some were desperate. All accepted. He wrote a three-page introduction and put his name on the cover as editor. The book sold. And suddenly, his path to the top was clear: he could turn out a book a year, using the original ideas of others, without ever having an original idea himself. And in the long run, he would be better known and better paid than any of his contributors, even though they worked twice as hard.
I ordered a Michelob, and paid my buck-fifty a can, and sat wondering exactly what I could say to these two guys. It isn’t easy when you know that one will criticize any idea you put forth, and the other will incorporate it into his next book. Fortunately I never had to say anything, for it was at exactly that moment that the third, and most important, character of this story entered the lounge.

He stood for a moment with his battered carryon bag in his hand, looking down at the three of us. He was an Old Timer—no question about that—but how old would have been anybody’s guess. When you’re that tanned and weather-beaten you could be 50, or 60, or even 70, and no one could really tell. His jeans had been through the mud and the barbed-wire fences of countless field seasons, his hat had faded in the prairie sun, and his eyes had the kind of crow’s feet known locally as the High Plains squint. I could tell he was an archeologist by his boots, and I could tell he was still a good archeologist by the muscle tone in his legs.

(You see, I have a colleague at Michigan—an ethnologist—who claims that since archeologists have strong backs and weak minds, when an archeologist starts to fade, it’s the legs that go first. On the other hand, his wife informs me that when an ethnologist starts to fade, the first thing to go is not his legs.)

The Old Timer settled into the seat next to me, stowed his carryon bag, and turned to introduce himself. I failed to catch his name because the stewardess, somewhat out of breath, caught up with him at that moment and pressed a bourbon and water into his hand. “Thank you, ma’am,” he said, sipping it down; and he stared for a moment, and said, “I needed that. And that’s the God’s truth.”

“I know what you mean,” I said. “The meetings can do that to you. Six hundred people crammed into the lobby of a hotel. Two hundred are talking down to you as if you’re an idiot. Two hundred are sucking up to you as if you’re a movie star. Two hundred are telling you lies, and all the while they’re looking over your shoulder, hoping they’ll meet somebody more important.”

“This year it was worse than that, son. Last night my department retired me. Turned me out to pasture.”

“I wouldn’t have guessed you were retirement age,” I lied.

“I’m not. I had two years to go. But they retired me early. Mostly because of an article in the New York Times Sunday Magazine by an ethnologist, Eric Wolf. You remember that one?”

“I read it,” I said, “but I don’t remember him calling for your retirement.”

The Old Timer reached into his pocket, past a half-empty pouch of Bull Durham, and brought out a yellowed clipping from the Sunday Times of November 30, 1980. I caught a glimpse of Wolf’s byline, and below it, several paragraphs outlined in red ink. “See what he says here,” said the Old Timer.

An earlier anthropology had achieved unity under the aegis of the culture concept. It was culture, in the view of anthropologists, that distinguished humankind from all the rest of the universe, and it was the possession of varying cultures that differentiated one society from another. . . . The past quarter-century has undermined this intellectual sense of security. The relatively inchoate concept of “culture” was attacked from several theoretical directions. As the social sciences transformed themselves into “behavioral” sciences, explanations for behavior were no longer traced to culture; behavior was to be understood in terms of psychological encounters, strategies of economic choice, strivings for payoffs in games of power. Culture, once extended to all acts and ideas employed in social life, was now relegated to the margins as “world view” or “values.” [Wolf 1980]

“Isn’t that something?” said the Old Timer. “The day that came out my department called me in. The chairman says, ‘It has come to our attention that you still believe in
culture as the central paradigm in archeology.' I told him yes, I supposed I did. Then he says, 'We've talked about it, and we all think you ought to take early retirement.'

"But that's terrible. You should have fought it."

"I did fight it," he said. "But they got my file together and sent it out for an outside review. Lord, they sent it to all these distinguished anthropologists. Marvin Harris, Clifford Geertz. And aren't there a couple of guys at Harvard with hyphenated names?"

"At least a couple." I assured him.

"Well, they sent my file to one of them. And to some Big Honcho social anthropologist at the University of Chicago. And the letters started coming back.

"Harris said he was shocked to see that in spite of the fact that I was an archeologist, I had paid so little attention to the techno-eco-demo-environmental variables. Geertz said as far as he could tell, all I was doing was Thick Description. The guy from Harvard said he wasn't sure he could evaluate me, because he'd never even heard of our department."

"And how about the guy from Chicago?"

"He said that he felt archeology could best be handled by one of the local trade schools."

There was a moment of silence while we all contemplated the heartbreaking of an archeologist forced into early retirement by his belief in culture. In the background we could hear our pilot announcing that the Salton Sea was visible off to the right of the aircraft.

"They sure gave me a nice retirement party, though," said the Old Timer. "Rented a whole suite at the hotel. And I want to show you what they gave me as a going-away present."

His hand groped for a moment in the depths of his battle-scarred overnight bag, and suddenly he produced a trowel. A trowel such as no one had ever seen. A trowel that turned to yellow flame in the rays of the setting sun as he held it up to the window of the 747.

"This was my first Marshalltown trowel," he said. "You know what an archeologist's first Marshalltown is like? Like a major league's first Wilson glove. I dug at Pecos with this trowel, under A. V. Kidder. And at Aztec Ruin with Earl Morris. And at Kincaid with Fay-Cooper Cole. And at Lindenmeier with Frank Roberts. Son, this trowel's been at Snaketown, and Angel Mound, and at the Dalles of the Columbia with Luther Cressman."

"And then one night, these guys from my department broke into my office and borrowed it, so to speak. And the next time I saw it, they'd had that sucker plated in 24-karat gold."

"It sure is pretty now. And that's the God's truth."

The trowel passed from hand to hand around our little group before returning to the depths of the Old Timer's bag. And for each of us, I suppose, it made that unimaginably far-off day of retirement just a little bit less remote.

"What do you think you'll do now?" asked the Child of the Seventies, for whom retirement would not come until the year 2018.

"Well," said the Old Timer, "so far the only thing that's opened up for me are some offers to do contract archeology."

The Born-Again Philosopher snickered condescendingly.

"I take it," said the Old Timer, "you have some reservations about contract archeology."

"Oh, it's all right, I suppose," said the Philosopher. "I just don't think it has much of a contribution to make to my field."

"And what would that field be?"

"Method and theory."


"No particular region or time period?"
"No. I wouldn't want to be tied down to a specific region. I work on a higher level of abstraction."
"I'll bet you do," said the Old Timer. "Well, son, there are some things about contract archeology I don't like either. Occasional compromises between scientific goals and industrial goals. Too many reports that get mimeographed for the president of some construction company, rather than being published where archeologists can read them. But in all fairness, most of the contract archeologists I know express just as strong an interest in method and theory as you do."
"But they're law consumers," said the Philosopher. "I'm committed to being a law producer."

The Old Timer took a thoughtful drag on his bourbon. "Son," he said, "I admire a man who dispenses with false modesty. But you've overlooked what I see as one of the strengths of contract archeologists: they still deal directly with what happened in prehistory. If I want to know what happened in Glen Canyon, or when agriculture reached the Missouri Basin, or how long the mammoth hunters lasted in Pennsylvania, often as not I need to talk to a contract archeologist. Because the answers to the cultural-historical questions don't always lie on a 'higher level of abstraction.'"
"No," said the Born-Again Philosopher. "Only the important questions lie on that level."

There was an interruption as the stewardess reappeared before us, pushing an aluminum beverage cart. We ordered another round of beer, and she picked up our empty cans, depositing them in a plastic trash bag attached to the cart.
"I'd like to ask a favor," said the Born-Again Philosopher. "Before our 10-minute stopover in Tucson, I'd like to examine the contents of that bag."
"Now I've heard everything," said the stewardess.
"No, it's not a come-on," said the Philosopher. "It's a favor for a friend. I have a colleague, Bill Rathje, who's doing a study of garbage disposal patterns in the city of Tucson [Rathje 1974]. He's got the internal system pretty well mapped out, but he realizes that Tucson is not a closed system: garbage enters and leaves via planes, cars, and backpacks. I promised him if I were ever on a plane landing or taking off from Tucson, I'd sample the refuse on board."

The stewardess struggled to remove all trace of emotion from her face. "Well," she said, "I suppose if you clean up everything when you're done—."
"I'll be checking the refuse in the tourist-class cabin," said the Philosopher, "while my friend here" (indicating the Child of the Seventies) "will be checking the first-class cabin, and coauthoring the paper with me."
"And what do you call your profession?" she asked.
"Archeology."
"You guys are weird," she called over her shoulder as she and the cart disappeared down the aisle.

The Born-Again Philosopher settled back in his seat with a pleased smile on his face. "Now there's a perfect example of why archeologists should not restrict themselves to the study of ancient objects lying on the surface or underneath the ground. If we're to develop a truly universal set of covering laws, we must be free to derive them from any source we can.
"In my opinion," he said, "the greatest legacy we can leave the next generation is a body of robust archeological theory."
"Well, son, I'll give you my opinion," said the Old Timer. "I don't believe there's any such thing as 'archeological theory.' For me there's only anthropological theory. Ar-
archeologists have their own methodology, and ethnologists have theirs; but when it comes
to theory, we all ought to sound like anthropologists."

"My God, are you out of it!" said the Born-Again Philosopher. "For ten years we've
been building up a body of purely archeological laws. I myself have contributed 10 or
20."

"I'd love to hear a few," I said. And I could see I was not the only one: the Child of the
Seventies was getting ready to write them down unobtrusively on his cocktail napkin.

"Number One," said the Philosopher: "Prehistoric people did not leave behind in the
site examples of everything they made. Number Two: Some of the things they did leave
behind disintegrated, and cannot be found by archeologists."

"I don't want to sound unappreciative," I said, "but I believe Schliemann already knew
that when he was digging at Troy."

"If he did," said the B.A.P., "he never made it explicit. I have made it explicit."

"Son," said the Old Timer, "I guess we can all sleep easier tonight because of that."

"I also came up with the following," the Philosopher went on. "Number Three: Ob-
jects left on a sloping archeological site wash downhill. Number Four: Lighter objects
wash downhill farther than heavy objects."

"Hold it right there, son," said the Old Timer, "because you've just illustrated a point I
was hoping to make. So often these things you fellows call archeological laws turn out not
to be laws of human behavior, but examples of the physical processes involved in the for-
modation of sites. And so, those are no more than the products of geological laws."

The Born-Again Philosopher's face lit up in a triumphant smile. "That objection has
been raised many times before," he said, "and it was disposed of definitively by Richard
Watson, who is both a geologist and a philosopher. In his 1976 American Antiquity ar-
ticle, Watson (1976:65) makes it clear (and here I am paraphrasing) that even when
hypotheses are directly dependent on laws of geology, they are specifically archeological
when they pertain to archeological materials."

Now it was the Old Timer's turn to smile. "Oh. Well. That's different," he said. "In
that case, I guess, archeology just barely missed out on a major law."

"How's that?" asked the Child of the Seventies earnestly, his pencil at the ready.

"Well, following your argument, the Law of Uniform Acceleration could have been an
archeological law if only Galileo had dropped a metate and mano from the Leaning
Tower of Pisa."

"I don't think you're taking this seriously," the Born-Again Philosopher complained.

"Son," said the Old Timer, "I'm taking it fully as seriously as it deserves to be taken.
And as far as I'm concerned, so far the only legitimate archeological law I know of is the
Moss-Bennett Bill."

The Born-Again Philosopher drew himself erect. "I think I'd better go back and start
my inventory of the tourist-class trash," he said, and he began working his way down the
aisle toward the galley.

"You're being awfully hard on him," said the Child of the Seventies. "You have to
remember that he's the spokesman for a large number of theoretical archeologists who
hope to increase archeology's contribution to science and philosophy."

The Old Timer took a long, slow pull on his bourbon. "Son, do you watch Monday
Night Football?" he asked.

"Occasionally," said the Child. "When I'm not correcting page proofs."

"I have a reason for asking," said the Old Timer. "I just want to try out an analogy on
you."

"During Monday Night Football there are 22 players on the field, 2 coaches on the
sidelines, and 5 people in the broadcast booth. Two of the people in the booth are former
players who can no longer play. One of the people in the booth never played a lick in his
life. And who do you suppose talks the loudest and is the most critical of the players on the field?"

"The guy who never played a lick," I interrupted. "And the guys with him, the former players, are always saying things like, 'Well, it's easy to criticize from up here, but it's different when you're down on the field.'"

"Well said, son," the Old Timer chuckled. "And I want you to consider the symbolism for a moment. The field is lower than everything else; it's physical, it's sweaty, it's a place where people follow orders. The press box is high, detached, Olympian, cerebral. And it's verbal. Lord, is it verbal.

"Now football is a game of strategy, of game plans (or 'research designs,' if you will), and what are called differing philosophies. In our lifetime we've witnessed great innovations in strategy: the nickel defense, the flex, the shotgun, the wishbone — and the list goes on. How many of them were created in the press box?"

"None," I said. "They were created by coaches."

"By coaches, many of them former players, who are still personally involved in the game, and who diligently study their own mistakes, create new strategies, and return to the field to test them in combat," said the Old Timer.

"I think I see what you're driving at," said the Child of the Seventies, but we knew he was lying.

"There are estimated to be more than 4,000 practicing archeologists in the United States," said the Old Timer. "Most of them are players. Sure, many of us are second- or third-string, but when we're called upon to go in, we do the best we can. And we rely on the advice and strategy of a fair number of archeological 'coaches' — veterans, people we respect because they've paid their dues the same as we have.

"What's happening now is that we're getting a new breed of archeologist. A kind of archeological Howard Cosell. He sits in a booth high above the field, and cites Hempel and Kuhn and Karl Popper. He second-guesses our strategy, and tells us when we don't live up to his expectations. 'Lew Binford,' he says, 'once the fastest mind in the field, but frankly, this season he may have lost a step or two.' Or, 'It's shocking to see a veteran like Struve make a rookie mistake like that.'"

"What I worry about, son, is that every year there'll be fewer people down on the field and more up in the booth. There's a great living to be made in the booth, but it's a place that breeds a great deal of arrogance. No one in the booth ever fumbles a punt or, for that matter, misclassifies a potsherd or screws up a profile drawing. They pass judgment on others, but never expose themselves to criticism. The guys in the booth get a lot of exposure, and some even achieve celebrity status. What rarely gets pointed out is that the guys in the booth have had little if any strategic and theoretical impact on the game, because they're too far removed from the field of play.

"But the players know that. Especially the contract archeologists, and those of us who perennially work in the field. Because we have the feeling the guys in the booth look down on us as a bunch of dumb, sweaty jocks. And we're damn sick of it, son, and that's the God's truth."

"But you sure don't deny the importance of theory in archeology," said the Child of the Seventies. "I'm sure you've used what Binford [1977] calls middle-range theory in your own work."

"Of course," said the Old Timer. "I've used it to organize and make sense out of my data. Which is, when you stop to think about it, one of the main purposes for theory. The problem came when the guys in the booth began to think of 'archeological theory' as a subdiscipline in its own right — a higher and more prestigious calling than the pursuit of data on prehistory, which they see as a form of manual labor. As if that weren't bad
enough, some of them are now beginning to think of themselves as philosophers of
science."

"I find that exciting," said the Child of the Seventies.

"Son," said the Old Timer, "it would be exciting, if they were any good at it. Unfortu-
nately, in most cases, it's the only thing they're worse at than field archeology."

"But some are establishing a dialogue with philosophers," said the Child.

"That's right," said the Old Timer. "Now we're going to have philosophers who don't
know anything about archeology, advising archeologists who don't know anything about
philosophy."

"They want archeology to make a contribution to philosophy," said the Child.

"I'll tell you what," said the Old Timer. "I'd settle for making a contribution to ar-
cheology. I guess I'd rather be a second-rate archeologist than a third-rate philosopher."

"But doesn't archeology have more to offer the world than that?"

The Old Timer leaned back in his seat and sipped at his bourbon. "That's a good ques-
tion," he said. "We hear a lot about archeology's relevance to anthropology in general.
To the social sciences. To the world. And of course, we're all waiting for our recently
departed friend to come up with his first Great Law. But I'd like to turn the question
around and ask What does the world really want from archeology?

"If I turn on television, or walk through a paperback bookstore, I'll tell you what I see.
I see that what the world wants is for archeology to teach it something about humanity's
past. The world doesn't want epistemology from us. They want to hear about Olduvai
Gorge, and Stonehenge, and Macchu Picchu. People are gradually becoming aware that
their first three million years took place before written history, and they look to ar-
cheology as the only science—the only one—with the power to uncover that past.

"I remember Bill Sanders telling me once that the only legitimate reason to do ar-
cheology was to satisfy your intellectual curiosity. And I suspect that if we just try to do a
good job at that, the more general contributions will follow naturally. I don't think Isaac
Newton or Gregor Mendel ran around saying 'I'm a law producer.' Their laws grew
unself-consciously out of their efforts to satisfy their own curiosity.

"Son, if the world wants philosophy, it will surely turn to philosophers, not ar-
cheologists, to get it. I'd hate to see us get so confused about what the world wants from
archeology that we turn our backs on what we do best. In my opinion, our major respon-
sibility to the rest of the world is to do good, basic archeological research."

"You know," said the Child of the Seventies, "as I listen to you talk, I'm thinking how
nice it would be to have you write an overview for the book I'm editing right now. A book
on future directions in archeology."

"I'm not sure how excited I am about some of the future directions," said the Old
Timer.

"That's why your overview would give us needed balance," said the Child. "Why,
you're our link with the past. You've stepped right out of the pages of archeology's rich,
much maligned empiricist tradition."

"You overestimate me, son."

"No. You're too modest," said the Child, who was not used to being turned down. "I
feel that you may well be the most significant figure of your generation, and I'd consider
myself deeply honored to have your overview in my book."

"Horsefeathers," said the Old Timer.

The Child of the Seventies stood up with a gesture of frustration. "I've got to inventory
the trash in the first-class cabin, or I won't get to coauthor that article," he said. "But
think over what I said. And don't say anything important until I get back."

We watched him disappear through the curtain into the first-class section.

"You must have been inoculated against soft soap," I told the Old Timer.
"Son," he said, "if that young fellow’s nose were any browner, we’d need a Munsell Soil Color Chart to classify it."

"If you think he’s at all atypical," I suggested, "take a good look around you at the next archeology meeting."

"And you know," said the Old Timer, "we’re partly to blame for that. All of us in academic departments.

"We hire a young guy, right out of graduate school, and we give him all our introductory courses to teach. Then we tell him it’s publish or perish. His only choices are to write something half-baked, or make an article out of an attack on some already established figure. You take those two kinds of papers out of American Antiquity, and you got nothing left but the book reviews.

"What we ought to do, if we really want these young people to grow, is give them their first year off, so they can go collect their own data and make their own positive contribution. How can we give them eight courses to teach and then put pressure on them to publish?"

"You’re right," I said. "But our two friends here have discovered how to beat the system. One has created a specialty that never requires him to leave his office, and the other has figured out how to get other people to write his books for him. And we reward both of them for it."

"But not without some reservations," said the Old Timer. "You know, archeologists don’t really like having a colleague who’s so ambitious he’d kick his own grandmother’s teeth in to get ahead. Businessmen, or perhaps show-business people, will tolerate it. They’ll say, ‘He’s a real S.O.B., but he gets things done.’ But archeologists don’t want a colleague who’s a real S.O.B. They’re funny that way."

The stewardess with the beverage cart paused by our seats for a moment to see if we needed a refill. We did. And I took that opportunity to ask how our friends were coming with their inventory of her garbage.

"The one in the aft cabin seems to have hit a snag," she said thoughtfully. "I think he ran into a couple of airsickness bags."

"Well," said the Old Timer, "nobody said fieldwork was easy."

"What are those guys trying to find out, anyway?" she asked.

"As I understand it," I said, "they’re trying to provide us with a better basis for archeological interpretation. Since archeologists study the garbage of ancient peoples, they hope to discover principles of garbage discard that will guide us in our work."

The Old Timer’s eyes followed the stewardess as she passed through the curtain into the next cabin.

"Son," he said, "I want to hit you with a hypothetical question. Let’s say you’re working on a 16th-century Arikara site in South Dakota. There’s lots of garbage—bison scapula hoes, Catlinite pipes, Bijou Hills quartzite, cord-marked pottery—you know the kind of stuff. You got to interpret it. You got an 18th-century French account of the Arikara, and you got a report on Tucson’s garbage in 1981. Which would you use?"

"I think you already know the answer to that one," I smiled.

"Then why do I have the distinct impression that these two kids would use the report on Tucson’s garbage?" he demanded.

"Because you still believe in culture," I said, "and these kids are only concerned with behavior."

"I guess that’s right," he said thoughtfully. "I guess I believe in something called ‘Arikara culture,’ and I think you ought to know something about it if you work on Arikara sites."

"But suppose, as Eric Wolf suggests in that Times article, you’re one of those people who no longer looks to culture as an explanation for behavior," I suggested. "Suppose you
believe that behavior is explained by universal laws, or psychological encounters, or strategies of economic choice. Then it really doesn’t matter whether your interpretive framework comes from tribal ethnohistory or 20th-century industrial America, does it?"

"Nope. And that’s sure going to simplify archeology," said the Old Timer. "For one thing, we can forget about having to master the anthropological literature."

He fell silent as the Born-Again Philosopher and the Child of the Seventies returned to their seats, their notebooks filled with behavioral data and their faces flushed with success.

"Did we miss much?" asked the Child.

"Not much," said the Old Timer. "I was just fixing to ask my friend here where he thinks anthropology will go next, now that it no longer has culture as its central paradigm."

"I’m kind of worried about it," I admitted. "Right now I have the impression that anthropology is sort of drifting, like a rudderless ship. I have the feeling it could fragment into a dozen lesser disciplines, with everybody going his own way. Somehow it’s not as exciting as it used to be. Enrollments are down all over the country. The job market sucks. I suspect one reason is that anthropology is so lacking in consensus as to what it has to offer, it just can’t sell itself compared to more unified and aggressive fields."

"Doesn’t Wolf tell you in his Times article what the next central paradigm will be?" asked the Child of the Seventies. He was hoping for a title for his next book.

"No," said the Old Timer. "He mentions other things people have tried, like cultural materialism, cultural ecology, French structuralism, cognitive and symbolic anthropology, and so on. But you know, none of those approaches involves more than a fraction of the people in the field."

"But it’s useful to have all those approaches," I suggested.

"That’s the God’s truth," he agreed. "But what holds us all together? What keeps us all from pursuing those things until each becomes a separate field in its own right? What is it that makes a guy who works on Maori creation myths continue to talk to a guy who works mainly on Paleoindian stone tools?"

"In my department," I said, "they don’t talk any more."

"Nor in mine," he said. "But they used to. And they used to talk because however obscure their specialties, they all believe in that ‘integrated whole,’ that ‘body of shared customs, beliefs, and values’ that we called culture."

"That’s right," I said. "But now the Paleoindian archeologist would tell you his stone tools were best explained by Optimal Foraging Strategy. And the Maori ethnologist would tell you his creation myths are the expression of a universal logic inside his informants’ heads."

"You know," said the Old Timer, "we’ve got an ethnologist like that on our faculty. He told me once, ‘I’m not interested in anything you can feel, smell, taste, weigh, measure, or count. None of that is real. What’s real is in my head.’ Kept talking and talking about how what was in his head was what was important. For a long time, I couldn’t figure it out."

"Then one day he published his ethnography, and I understood why what was in his head was so important. He’d made up all his data."

The Born-Again Philosopher stirred restlessly in his seat. "It’s incredible to me," he said, "that you people haven’t realized that for more than a decade now the new paradigm has been Logical Positivism. It’s hard to see how you can do problem-oriented archeology without it."

Slowly the Old Timer rolled himself a cigarette. The Child of the Seventies sat up momentarily, leaned forward to watch, then slumped back in his seat with disappointment when he realized it was only Bull Durham.
"Have you considered," said the Old Timer deliberately, "the implications of doing problem-oriented archeology without the concept of culture?"

"Now you're putting us on," said the Philosopher.

For just a moment, the Old Timer allowed himself a smile. "Consider this," he said. "An ethnologist can say, 'I'm only interested in myth and symbolism, and I'm not going to collect data on subsistence.' He can go to a village in the Philippines and ignore the terraced hillsides and the rice paddies and the tilapia ponds, and just ask people about their dreams and the spirits of their ancestors. Whatever he does, however selective he is in what he collects, when he leaves the village, it's still there. And next year, if a Hal Conklin or an Aram Yengoyan comes along, those terraces and paddies and fish ponds will still be there to study.

"But suppose an archeologist were to say, 'I'm only interested in Anasazi myth and symbolism, and I'm not going to collect data on subsistence.' Off he goes to a prehistoric cliff dwelling and begins to dig. He goes for the pictographs, and figurines, and ceremonial staffs, and wooden bird effigies. What, then, does he do with all the digging sticks, and tumplines, and deer bones that he finds while he's digging for all the other stuff? Does he ignore them because they don't relate to his 'research problem'? Does he shovel them onto the dump? Or does he pack them up and put them in dead storage, in the hope that he can farm them out to a student some day to ease his conscience? Because, unlike the situation in ethnology, no archeologist will be able to come along later and find that stuff in its original context. It's gone, son."

"It's as if—well, as if your Philippine ethnologist were to interview an informant on religion, and then kill him so no one could ever interview him on agriculture," I ventured.

"Exactly, son," he said. "Archaeology is the only branch of anthropology where we kill our informants in the process of studying them."

"Except for a few careless physical anthropologists," I said.

"Well, yes, except for that."

"But hasn't that always been the conflict between 'problem-oriented' archeology and traditional archeology?" asked the Born-Again Philosopher. "Surely you have to have a specific hypothesis to test, and stick pretty much to the data relevant to that hypothesis, rather than trying to record everything."

"And what about other archeologists with other hypotheses?" I asked. "Don't you feel a little uncomfortable destroying data relevant to their problem while you're solving yours?"

"Well, I don't, because I really don't do any digging now," said the Philosopher. "I see my role as providing the hypotheses that will direct the research efforts of others. There are lots of archeologists around who can't do anything but dig. Let them do the digging."

"Look," he said, "I can't say it any better than Schiffer [1978:247] said it in Dick Gould's 1978 volume on ethnoarchaeology. To paraphrase him: I feel free to pursue the study of laws wherever it leads. I do not feel the need to break the soil periodically in order to reaffirm my status as archeologist."

"Son," said the Old Timer, "I think I just heard 10,000 archeological sites breathe a sigh of relief."

There was a moment of air turbulence, and we all reached for our drinks. The sleek ribbon of the Colorado River shimmered below us, and over the audio system we could hear the captain advise us to keep our seat belts loosely fastened. Hunched in his seat, reflective, perhaps just a little sad, the Old Timer whispered in my ear: "That's what the ethnologists will never understand, son. There's a basic conflict between problem-oriented archeology and archeological ethics. Problem orientation tells you to pick a specific topic to investigate. Archeological ethics tell you you must record everything.
because no one will ever see it in context again. The problem is that except for certain extraordinary sites, archeological data don't come packaged as 'cognitive' or 'religious' or 'environmental' or 'economic.' They're all together in the ground—integrated in complex ways, perhaps, but integrated. That's why the old concept of culture made sense as a paradigm for archeology. And it still does, son. That's the God's truth."

I wish I could tell you how the rest of the conversation went, but at this point I could no longer keep my eyes open. After all, you wear a guy out at the meetings, and then give him six beers and start talking archeological theory, and that guy's going to fall asleep. So I slept even through those bumpy landings in the desert where the Child of the Seventies and the Born-Again Philosopher retired to their respective universities, and then somewhere between St. Louis and Detroit, I started to dream.

Now, I don't know whether it was because of the beer or the heated discussion we'd had, but my dream was a nightmare. I don't really know what it means, but my friends who work with the Walbiri and the Pitjandjara tell me that Dream Time is when you get your most important messages. So let me talk about it for a minute.

In this dream, I'd been released by the University of Michigan—whether for moral turpitude or believing in culture is really not clear. No job had opened up anywhere, and the only work I could find was with Bill Rathje's Garbage Project in Tucson. And not as a supervisor, just as a debagger. Sorting through the refuse of a thousand nameless homes, Anglo and Chicano, Pima and Papago, hoping against hope for that discarded wallet or diamond ring that could underwrite my retirement program.

And then, one day, I'm standing on the loading dock with my gauze mask on, and my pink rubber gloves, and my white lab coat with "Le Projet du Garbage" embroidered on the pocket, and this huge garbage truck pulls up to the dock and unloads a 30-gallon Hefty Bag. The thing is heavy as the dickens, and I wrestle it onto a dolly, and wheel it inside the lab; and we dump it onto the lab table, where the thing splits under its own weight and its contents come out all over the place.

And you know what's in it?

Reprints.

Reprints of my articles. Every single reprint I ever mailed out. All of them. And I'm not just talking reprints; I'm talking autographed reprints. The kind where I'd written something in the upper right-hand corner like, "Dear Dr. Willey, I hope you find this of interest."

You know, you can mail 'em out, but you never know whether they keep 'em or not.

And I suddenly realize that my whole career—my entire professional output—is in that Hefty Bag. Along with a couple of disposable diapers, and a pair of pantyhose, and a copy of Penthouse with the Jerry Falwell interview torn out.

But that's not the worst part.

The worst part is that the form Rathje's people fill out doesn't have a space for "discarded reprints." So my whole career, my entire professional output, simply has to be recorded as "other."

And that's where the nightmare ended, and I woke up on the runway at Detroit. I was grabbing my carryon bag as I bumped into the stewardess on her way down the aisle. "The Old Timer who was sitting next to me," I said. "What stop did he get off at?"

"What Old Timer?" she asked.

"The old guy in the boots and the faded hat with the rattlesnake hatband."

"I didn't see anybody like that," she said. "The only 'old guy' in the lounge was you."

"Have a nice day," I said sweetly. And I caught the limousine to Ann Arbor, and all the way home to my front door I kept wondering whether I had dreamed the whole thing. Now I'll bet some of you don't think this all really happened. And I was beginning to
doubt it myself until I started to unpack my carryon bag, and I was almost blinded by a gleam. A 24-karat gleam.

And there, hastily stuffed into my bag with a note wrapped around the handle, was the golden Marshalltown.

And the note read: "Son, where I'm going, I won't be needing this. I know you and I see eye to eye on a lot of things, so I'm going to ask a favor. I want you to save it for—well, just the right person."

"First off, I don't see any paradigm out there right now that's going to replace culture as a unifying theme in archeology. If some ethnologists want to go their separate ways—into sociobiology, or applied semiotics, or social psychology—well, fine, they can call themselves something else, and let us be the anthropologists. I sort of felt that the concept of culture was what distinguished us from those other fields and kept us all from drifting apart for good."

"Because of the way our data come packaged in the ground, we pretty much have to deal with all of them to deal with any of them. It's harder for us to abandon the traditional concerns of anthropology, and we can't afford sudden fads, or quixotic changes in what's 'in' this year. We need long-term stability. And because we kill our informants as we question them, we have to question them in ways that are less idiosyncratic and more universally interpretable. And we have to share data in ways they don't."

"Because of that, we have to have a kind of integrity most fields don't need. I need your data, and you need mine, and we have to be able to trust each other on some basic level. There can't be any backstabbing, or working in total isolation, or any of this sitting on a rock in the forest interpreting culture in ways no colleague can duplicate."

"That's why we can't afford too many S.O.B.s. We can't afford guys whose lives are spent sitting in a press box criticizing other people's contributions. Son, all of prehistory is hidden in a vast darkness, and my generation was taught that it was better to light one tiny candle than curse the darkness. Never did I dream we'd have people whose whole career was based on cursing our candles."

"In the old days we mainly had one kind of archeologist: a guy who scratched around for a grant, went to the field, surveyed or excavated to the best of his ability, and published the results. Some guys labored patiently, in obscurity, for years. And one day, their colleagues would look up and say, 'You know, old Harry's doing good, solid work. Nothing spectacular, mind you, but you know—I'd trust him to dig on my site.' I believe that's the highest compliment one archeologist can pay another. And that's the God's truth."

"Now that doesn't sound like much, son, but today we got archeologists that can't even do that. What's more, they're too damn ambitious to labor in obscurity. So they've decided to create a whole new set of specialties around the margins of the field. Each defines himself (or herself) as the founder of that specialty, and then sets out to con the rest of us into believing that's where all the action is."

"And because archeologists will believe anything, pretty soon you've got a mass migration to the margins of the field. And pretty soon that's where the greatest noise is coming from."

"Now, don't get me wrong. A lot of these kids are shrewd and savvy, and they'll make a contribution one way or another. But that's one out of ten. The other nine are at the margins because things weren't moving fast enough for them in the main stream. You know, some of these kids think archeology is a 100-meter dash, and they're shocked and angry when no one pins a medal on them after the first 100 meters. But I'll tell you a secret: archeology is a marathon, and you don't win marathons with speed. You win them with character."
"Son, after our talk this afternoon, I got to wondering about what archeology needed the most.

I decided there probably isn't an urgent need for one more young person who makes a living editing other people's original ideas. I decided there probably wasn't an urgent need for one more kid who criticizes everyone else's research design while he or she never goes to the field. And I decided we probably didn't need a lot more of our archeological flat tires recapped as philosophers. There seem to be enough around to handle the available work.

"What I don't see enough of, son, is first-rate archeology.

"Now that's sad, because after all, archeology is fun. Hell, I don't break the soil periodically to 'reaffirm my status.' I do it because archeology is still the most fun you can have with your pants on.

"You know, there are a lot of awards in archeology. The Viking Fund Medal, the Kickder Medal, the Aztec Eagle, the Order of the Quetzal. But those awards are for intellectual contributions. I'd like to establish an award just for commitment to plain, old-fashioned basic research and professional ethics. And that's what this trowel is for.

"So, son, some day when you meet a kid who still believes in culture, and in hard work, and in the history of humanity; a kid who's in the field because he or she loves it, and not because they want to be famous; a kid who'd never fatten up on somebody else's data, or cut down a colleague just to get ahead; a kid who knows the literature, and respects the generations who went before—you give that kid this golden Marshalltown."

And the note ended there, with no signature, no address, and no reply required.

So that, I guess, is what I'm really here for tonight: to announce an award for someone who may not exist. But if any of you out there know of such a kid coming along—a kid who still depends on his own guts and brains instead of everyone else's—a kid who can stand on the shoulders of giants, and not be tempted to relieve himself on their heads—have I got an award for him.

And that's the God's truth.

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PLANNED EXCAVATION: RESEARCH DESIGN

TYPES OF EXCAVATION
Sampling
Site Testing
Vertical Excavation
Area, or Horizontal, Excavation
DIGGING, TOOLS, PEOPLE
RECORDING
STRATIGRAPHIC OBSERVATION

EXCAVATION PROBLEMS
Open Campsites and Villages
Caves and Rockshelters
Mound Sites
Earthworks and Forts
Shell Middens
Ceremonial and Other Specialist Sites
Burials and Cemeteries
REBURIAL AND REPATRIATION

We all have dreams of digging into a mysterious, undisturbed tomb. Then, suddenly, a sealed door. You break down the door and find yourself in an undisturbed, gold-strewn sepulcher that puts Tutankhamun's burial chamber to shame. But in reality modern archaeological excavation is a precise, slow-moving process, working with trowels and brushes, often without a spectacular find, from one day to the next.

In this chapter we describe some of the basic principles of excavation and many excavation problems that archaeologists can encounter in the field. Realize, though, that each site presents distinctive challenges and requires modification of the basic principles enumerated here.

PLANNED EXCAVATION: RESEARCH DESIGN

The first principle of excavation is that digging is destructive. As archaeologist Kent Flannery once remarked, we are the only scientists who murder their informants (our sites) when we question them! The archaeological deposits so carefully examined during a dig are destroyed forever. Site contents are removed to a laboratory, permanently divorced from their context in time and space in the ground. And this is a radical difference from other disciplines: A chemist can readily recreate the conditions of a basic experiment, a biologist can return to the archives to reevaluate the complex events in a politician's life, but an archaeologist's archives are destroyed during the dig. All that remains from an excavation are the finds from the trenches, the unexcavated portions of the site, and the photographs, notes, and drawings that record the excavator's observations for posterity. One of the tragedies of archaeology is that much of the available archaeological data have been excavated under far from scientific conditions. Our archives of information are uneven at best. Increasingly, the ethics of archaeology research require absolutely minimal excavation consistent with acquiring essential scientific information.

The treasure hunter ravages a site in search of valuable finds and keeps no records. Archaeologists demolish sites as well, but with a difference: They create archives of archaeological information that document contexts for the objects they take back to the laboratory with them. Although they have destroyed the site forever, they have created a data bank of information in its place, the only archive their successors will be able to consult to check their results. Archaeologists have serious responsibilities: to record and interpret the significance of the layers, houses, food remains, and artifacts in their sites, and to publish the results for posterity. Without accurate records and meaningful publication of results, an excavation is useless. Many CRM investigations in North America are now funded under contracts that require prompt reporting, even if only for limited circulation.

A generation ago, an archaeologist's first inclination was to dig sites to solve problems. Nowadays, there is increased awareness that excavation destroys irreplaceable evidence of the past, and we dig only when we must. Anyone who excavates without serious attention to record keeping and all of the other processes of excavation is committing vandalism of an unforgivable kind.

At the core of every modern archaeological excavation lies a sound research design, a design that very often has a regional rather than a specific site focus (see Chapter 5). The research design is developed to answer specific questions and to acquire maximum information with minimum disturbance of finite archaeological resources. It is, of course, a flexible, ever-changing plan, modified as hypotheses are tested, proved wrong, validated, or refined as a result of knowledge acquired in the ongoing excavation.

The design extends beyond the excavation itself. The end products of even a month's excavation on a moderately productive site are boxes upon boxes of potsherds, stone tools, animal bones, and other finds that have been cleaned, sorted, and bagged in the field. Rolls of drawings and stacks of computer disks hold valuable stratigraphic information. So do slides, photographs, and hundreds of pages of field notes compiled by excavation staff as the long days of toil continue. At the same time, radiocarbon and soil samples are collected for later analysis. Freshwater shells and charcoal fragments are packed for shipment to specialist investigators. It takes months to analyze the notes and finds from even a small excavation. The dozens of boxes, hundreds of notebook pages, and megabytes of computer data contain a vast array of data that must be collated to reconstruct what happened at the site. It follows, then, that the excavation research design is constantly reevaluated to determine the future course of the dig and to monitor the long months of analysis and interpretation that follow. The days when a site was dug simply because it "looked good" are long gone.

The organization of even a moderate-sized excavation requires careful planning at the implementation stage of the research design. One classic example of such planning comes from the Midwest. Illinois archaeologists James Brown and Stuart Struever spent many field seasons in the 1970s excavating the Koster site in the lower Illinois River Valley. Here, at least 12 human occupations are represented at one site, the earliest of which dates to before 5100 B.C. Koster is a deep site, probably abandoned before A.D. 1000 after generations of Indians had settled at this favorable locality. It offered Brown and Struever a unique opportunity to examine the changing cultures of the inhabitants over
more than 6,000 years. But the organizational problems were enormous. Koster is more than 9 meters (30 feet) deep, with each of the 12 cultural horizons separated from its neighbor by zones of sterile soil. Brown and Struver were fortunate in that they were able to treat each occupation level of this large site as an entirely separate digging operation.

The archaeologists had two options. One was to dig small test trenches and obtain samples of pottery and other finds from each stratigraphic level. But this approach, although cheaper and commonly used, was inadequate for the problems to be investigated at the Koster site. The excavators were interested in studying the origins of agriculture in the lower Illinois Valley. Brown and Struver therefore decided to excavate each living surface on a sufficiently large scale to study the activities that had taken place there. This procedure would enable them to examine minute economic changes. Thus the emphasis in the Koster excavations was on isolating the different settlement types that lay one on top of the other.

In developing the Koster research design, Brown and Struver needed to control a mass of complex variables that affected their data. They had to invent special procedures to ensure the statistical validity of their excavations. In order to acquire immediate feedback on the finds made during the excavations, they organized an elaborate data-processing system that sorted the animal bones, artifacts, vegetable remains, and other discoveries on location in the field. The tabulated information on each sorted find was then fed by remote access terminal to a computer many miles away. The excavators had instant access to the latest data from the dig. This system meant that overall research design could be modified while an excavation was still in progress (Figure 6.1).

The Koster site is a classic example of elaborate research design that used complex computer technology. The dig employed dozens of people each field season. Most excavations operate on a far smaller scale, but the ultimate principles are the same: sound research design, very careful recording of all data, and scientifically controlled excavation. The Koster excavation was designed, like all good digs, to solve specific research problems formulated in the context of a sound research design.

![Flow chart of the organization of an archaeological excavation.](image)

**TYPES OF EXCAVATION**

People commonly ask the same questions when they visit an excavation. How do you decide where to dig? What tools do you use? Why are your trenches in this configuration? How deep do you excavate? Every site differs in its complexity and special problems, but here are some general principles.

You can decide where to dig on a site by the simple, arbitrary choice of a spot that has yielded a large number of surface finds or one where traces of stone walls or other ancient structures can be seen above ground. When Richard Daughery dug the Ozette whale-hunting site on the Washington coast, he began by digging through the place where the largest occupation sequence seemed to be. Why? He needed to obtain as complete a cultural sequence as possible. The logical way to do so was to dig through the deepest part of the site. There was, of course, no guarantee that his trench would penetrate to the earliest part of the whale-hunters' site. But his choice was a practical way to start attacking the fundamental questions of when and for how long the whale hunters lived at Ozette. Similar decisions have been made at thousands of other sites all over the world.

**Sampling**

In these days of high digging costs and CRM projects, archaeologists rely more heavily on statistical sampling than their predecessors did. Sampling is used in digging shell heaps or dense accumulations of occupation debris containing thousands of artifacts. Obviously, only a small sample of a large garbage heap can be dug and analyzed. To ensure validity of the statistical samples, some form of unbiased sampling must be used to choose which part of a site is to be dug.

Sampling is the "science of controlling and measuring the reliability of information through the theory of probability." Sampling techniques allow us to ensure a statistically reliable basis of archaeological data from which we can make generalizations about our research data. Most archaeologists make use of probabilistic sampling, a means of relating small samples of data in mathematical ways to much larger populations. The classic example of this technique, commonly used in the disciplines of statistics and statistical theory, is the political opinion poll, testing national feelings from tiny samples, perhaps as few as 1,500 people. In archaeology, probabilistic sampling improves the likelihood that the conclusions reached from a survey or excavation on the basis of the samples are relatively reliable.

The use of formal sampling techniques in archaeology is still in its early stage. Simple random sampling is quite commonly used, for example, when an archaeologist wishes to obtain an unbiased sample of artifacts from an ancient shell mound. One can arrive at this result by laying out a rectangular grid of squares on a site and then selecting the squares to be dug by using a table of random numbers. The excavated samples are thus chosen at random, rather than on the basis of surface finds or other considerations.
Stratified sampling, whereby the investigator uses previous knowledge of an area, such as its topographic variation, to structure further research, enables one to sample some selected units intensively, others less thoroughly.

Archaeological sampling, based as it is on descriptive and inferential statistics, is a complex subject. I urge you to consult the references at the back of this book.

Site Testing

In these days of subsurface radar technology and sophisticated geomorphological studies, site testing has become more sophisticated than it was even a few years ago. However, a number of testing approaches amplify such data or are used as stand-alone ways of deciding whether a site is worth further investigation or to establish its date, function, or type of occupation. Such methods are especially important on CRM projects.

Augers and other forms of borers can be used to explore archaeological deposits, especially hydraulic corers, which provide column samples of subsurface layers and allow one to follow conspicuous or distinctive strata over considerable distances, even if they are buried far beneath the surface.

However, the test pit remains the most useful way of obtaining preliminary information on stratigraphy and culture history in advance of largerscale excavation. Some test trenches are small control pits, dug carefully as a way of anticipating subsurface stratigraphy and occupation layers. Such excavations are reference points for planning an entire dig. More often, test pits are laid out in lines and over considerable distances to establish the extent of a site, basic stratigraphy in different areas (Figure 6.2). Sometimes their locations are selected by statistical means, at others on the basis of surface finds or exposed features. Kent Flannery once called such trenches “telephone booths,” an apt description of small cuttings placed to acquire highly specific information.

Shovel pits are a variation on the test pit theme, usually used in surface survey to trace occupation deposits. They are little more than small holes dug with a shovel a few inches below the surface and are much used to establish the boundaries of shallow settlement sites and features.

Vertical Excavation

The layout of small digs is determined not only by surface features, density of surface finds, or sampling techniques, but by available funds as well. Most excavations are run on a shoestring, so small-scale operations have to be used to solve complex problems with minimal expenditure of time and money. Some of the world’s most important sites have been excavated on a small scale by vertical excavation, digging limited areas for specific information on dating and stratigraphy (Figure 6.3). Vertical trenches can be used to obtain artifact samples, to establish sequences of ancient building construction or histories of complex earthworks, and to salvage sites threatened with destruction. The small trenches are often dug in areas where the deposits are likely to be of maximal thickness or where important structures may be found. Much vertical excavation consists of long cross sections cut across mounds, buildings, or other structures designed to establish their chronology and architectural sequence.

Vertical excavation comes into its own in small sites such as caves and rockshelters, where space is limited and the excavators have to cope with hidden boulders from ancient rock falls and other such obstructions. Sometimes the deposits spill out from the cave itself to the steep slope in front of the site, necessitating the use of a long, stepped vertical cutting, as was the case at the Klasies River Cave in South Africa, which records some of the earliest activities of Homo sapiens sapiens in tropical Africa. Vertical excavation is also important when investigating the banks and ditches of such sites as Roman forts or Iron Age encampments like Maiden Castle in Europe, and is widely used when investigating Adena and Hopewell burial mounds in North America.

Area, or Horizontal, Excavation

Large-scale excavations are normally used to uncover wider areas of a site. These area, or horizontal, excavations, used to uncover house plans and settlement layouts, are expensive (Figure 6.4). As a general rule, the only sites that are completely excavated are very small hunter-gatherer camps, isolated structures, and burial mounds. With larger settlements, all one can do is excavate

![Figure 6.2 ](image) A line of test pits at Quirigua, a Maya ceremonial center, laid out at 15-meter (49.2-foot) intervals and aligned with the site grid.
several portions of the site in order to sample areas representative of the entire settlement. Again, modern archaeological ethics require minimal horizontal excavation consistent with the carefully controlled objectives of the investigation.

Area excavations expose large, open areas of ground to a depth of several feet. A complex network of walls, houses, or abandoned storage pits may lie within the site. Each of these ancient features relates to other structures, a relationship that must be carefully recorded if the site is to be interpreted correctly, as was the case at the Koster site. Horizontal excavation exposes large parts of a site, but the excavator is confronted with the problem of maintaining stratigraphic control from one side of the trench to the other. Many area excavations are organized on grid systems, which allow walls (often called balks) to be left between adjoining squares.

Horizontal excavation is highly effective with small hunter-gatherer sites, such as the artifact-and-bone scatters at Olduvai Gorge and other early human sites in East Africa, where the position of every stone flake and animal bone is recorded in place. Such an approach also works well with complex structures like Iroquois longhouses, which survive as complexes of decayed wooden postholes buried under a few inches of topsoil (Figure 6.5). Such structures were often expanded, rebuilt, or sited on top of another structure, resulting in a jigsaw of posthole patterns that can only be deciphered with a large area excavation. Perhaps the most remarkable horizontal excavations are those of historic gardens, among them King Henry VII's private garden at Hampton Court by the River Thames in London. Archaeologist Brian Dix located long-vanished flower beds, paths, and other features with a huge area excavation that exposed the entire buried garden, which was then reconstructed for modern visitors.

Large open area excavations require accurate recording over considerable distances, made much easier when the position of houses and finds can be
recorded with a **total data station**, an electronic distance-measuring device with recording computer, which records data that can be downloaded into laptop computers at the end of the day's work.

Any form of horizontal excavation is expensive, even if earthmoving machinery is used to remove sterile overburden, but it provides a unique overall, horizontal view of human occupation or entire human settlements obtainable in no other way.

There are numerous variations on the vertical and horizontal excavation theme, depending on the circumstances of the dig, the funding available, and the time available. In these days of tightly scheduled CRM excavations, a combination of excavation methods is used to acquire and record the maximum amount of information in the most cost-effective manner possible while maintaining high scientific standards. Some of the most complex excavations are conducted underground, such as those in London deep under high-rise buildings and in subway stations (Figure 6.6).

**DIGGING, TOOLS, PEOPLE**

How do you do the digging? Much depends on the type of site you are excavating. A huge burial mound on the Ohio River may be more than 6 meters (20 feet) deep. Much of the sterile deposit covering the burial levels is removed with earthmoving machinery and picks and shovels. Earthmoving machinery in particular is now widely used on CRM excavations to save time, where its use has been brought to a fine art, involving minimal destruction. But as soon as the archaeologists reach layers in which finds are expected, they dig with meticulous care, removing each layer in turn, recording the exact position of their finds upon discovery. Smaller caves or cemeteries are excavated centimeter by centimeter. The earth surrounding the finds is passed through fine screens so that tiny beads, fish bones, and myriad small items can be found.

Excavation is in part a recording process, and accuracy is essential. The records will never be precise unless the dig is kept tidy at all times. The trench walls must always be straight. Why? So you can record the layers you are digging and follow them across the site. Surplus soil is dumped well away from the trenches so it does not cascade into the dig or have to be shifted when new areas are opened. The excavation is a laboratory and should be treated as such.

All archaeological digs are headed by a director, who is responsible both for organizing the excavation and for overseeing the specialists and diggers. Many larger academic and CRM digs involve a team of specialist experts who work alongside the excavators. When digging the famous Late Bronze Age site of about 1100 B.C. at *Flag Fen* in eastern England, archaeologist Francis Pryor worked with a timber expert, a palynologist, soil scientists, experts on ancient metallurgy, and mammal bones, even a specialist in prehistoric beetles. The
only way to study this complex site was to develop a team approach that looked at the site in a broad environmental setting. A really large excavation in Mesopotamia or Mesoamerica can involve dozens of people—specialist archaeologists, a team of resident experts in other fields including an architect, graduate student trainees, and volunteer or paid workers who do much of the actual excavation. CRM projects involve closely knit teams of professional excavators and specialists who ensure compliance and proper recovery and interpretation of data.

In Chapter 14, we describe some of the ways in which you can obtain digging experience.

The traditional symbols of the archaeologist at work are the shovel and the triangular-bladed bricklayer’s trowel. In fact, archaeologists use many digging tools in their work. Earthmoving machinery, once despised, has become a necessity in these days of high costs and rapid-moving CRM excavation driven by contractor’s deadlines. In the hands of an expert operator, a front loader or bulldozer or backhoe with toothless bucket are remarkably delicate implements for removing sterile soil and surprisingly thin slivers of overburden. On occasion, earthmoving equipment has been used to excavate sites doomed in the face of road construction. The right piece of equipment is capable of removing even thin arbitrary levels of a site with soft deposits, which are then passed through screens to recover the artifacts in them. Meanwhile, the archaeologists focus on hand excavation of important features. The difference in scale is impressive, for a hand excavator only removes about 2.5 square meters (27 square feet) of deposit a day, whereas a mechanical device in skilled hands can excavate as much as 15 cubic meters (550 cubic feet) in the same time.

Despite widespread use of mechanical earthmovers, most excavation still proceeds by hand. Picks, shovels, and long-handled spades carry the brunt of the heavy work. But the most common archaeological tool used in North America is the diamond-shaped trowel with straight edges and a sharp tip. With it, soil can be eased from a delicate specimen or an unusual discoloration in the soil can be scraped clean. Trowels are used for tracing delicate layers in walls, clearing small pits, and other exacting jobs. They are rarely out of the digger’s hand.

Household and paint brushes often come in handy, the former for soft, dry sediments and for cleaning trenches, the latter for freeing fragile objects from the soil. Even fine artists’ brushes have their uses—cleaning beads, decaying ironwork, or fine bones. Enterprising archaeologists visit their dentists regularly, if only to obtain regular supplies of worn-out dental instruments, which make first-rate fine-digging tools! And so do 15-centimeter (6-inch) nails ground to different shapes. A set of fine screens for sifting soil for small finds, several notebooks and graph paper, tapes, plumb bobs, surveyors’ levels, and a compass are just a few of the items that archaeologists need to record their excavations and process their finds. Increasingly, laptop computers, portable GPS units, and electronic recording equipment are part of the archaeologist’s field kit because they provide fast, accurate ways of recording features, finds, and stratigraphy.

**RECORDING**

No dig is worth more than its records. The excavation notebooks provide a day-to-day record of each trench, of new layers and significant finds. Before any trench is measured out, the entire site is laid out on a grid of squares (Figure 6.7a). Important finds, or details of a house or a storage pit, are measured on
the site plan by simple three-dimensional measuring techniques or with an electronic recording instrument (Figure 6.7b). It is information from your records, as well as the artifacts from the dig, that form the priceless archive of your excavation. If the records are incomplete, the dig is little better than a treasure hunt.

**STRATIGRAPHIC OBSERVATION**

The laws of superposition and association lie at the very core of archaeology, for they provide the context of archaeological finds in time and space. The layers of archaeological sites, be they natural or humanly formed, form much quicker than geological levels, but they are still subject to the same law of superposition. Thus the excavated stratigraphic profiles through an archaeological site represent a sequence of layers that have formed through time. Stratigraphic observation is the process of recording, studying, and evaluating stratified layers in archaeological sites, layers that were deposited horizontally, but are studied in the vertical (time) dimension.

Stratigraphic observation involves not only recording the layers, but confirming that they do, in fact, represent a sequence in time. Many factors can disturb stratified layers. For instance, rabbits can burrow through soft earth, or later occupants of a house dig into underlying layers to construct storage pits, build foundations, or even bury the dead. This is where the law of association comes in, for the artifacts associated with stratified, undisturbed archaeological layers can then be placed in a relative chronology, and, if radiocarbon samples are dated from one or more layers, perhaps in an absolute one as well (Figure 6.8). Thus accurate stratigraphic observation is the cornerstone of all excavation, for it provides the context for the studies of artifacts and human behavior that are the central goals of all excavation.

Reading a stratigraphic profile is an art, for you have not only to record the layers, but to interpret them as well, taking account both of the natural formation processes as well as of human activities. This means watching for the subtle color changes resulting from the decay of adobe brick on pueblo sites, the thin lines of hearths used for a short time, whose edges have spilled down a slight slope, and the loosely packed outline of a rabbit burrow used and abandoned many centuries ago. Often the changes are so subtle that they appear only as a slight color change or a minute difference in the texture of the soil. Only patience results in an accurate interpretation of a stratigraphic profile—looking at the trench wall in different lights, at dawn or in the oblique light of evening, wetting down dry strata with a fine water spray, even looking at the wall from below. All these tricks and many others help you interpret complex stratigraphic jigsaw puzzles, even on small sites.

Let us now turn from general principles to some specific excavation problems that will give you an insight into the multitude of challenges awaiting fieldworkers. As we indicated in Chapter 3, archaeological sites, in all shapes and sizes, are the basis for all field investigations. All contain traces of human activity in the form of artifacts, structures, and food remains. Archaeologists most commonly classify sites by their functions, that is to say, by the activities that took place within them. It is no coincidence that these various site categories present different excavation problems.

**EXCAVATION PROBLEMS**

**Open Campsites and Villages**

Small sites, often little more than scatters of artifacts that were once places where specific tasks were performed, are probably the most common archaeological sites. However, the most obvious and most interesting locations are habitation sites, places where people have lived and carried out many activities. Hunter-gatherers have occupied temporary camps for short periods since the earliest millennia of prehistory. Where preservation conditions are good,
archaeologists can sometimes identify such settlements, represented by concentrations of stone artifacts and broken animal bones, as well as the stone foundations of long-abandoned brush shelters. Such concentrations have been found in the Great Basin of the American West, in the arctic North, and also in sub-Saharan Africa.

Many hunter-gatherer camps are hard to identify from the surviving archaeological record (Figure 6.9). The same is not true of later farming villages, which were usually occupied longer, resulting in the accumulation of considerable quantities of occupation debris as well as substantial house foundations. In about 9500 B.C., the inhabitants of the Abu Hureyra village in Syria's Euphrates Valley dwelt in a tiny settlement of square, mudbrick houses with courtyards, separated by narrow alleys. The house foundations and numerous animal bones, as well as other artifacts, enabled excavator Andrew Moore to trace the extent and nature of the settlement. Iroquois farmers in the northeastern United States built substantial wood and bark longhouses, which were occupied over several generations and constantly modified (see Figure 6.5). The decayed postholes from the walls provide an excellent record of Iroquois dwellings, often clustered in close juxtaposition in palisaded settlements.

Caves and Rockshelters

Cave people, complete with clubs, long hair, and brutish manners, are one of the popular stereotypes of newspaper cartoons. Caves and convenient rocky overhangs did indeed serve as human dwellings from very early times, but were by no means the only home bases used by hunter-gatherers. The Stone Age Cro-Magnon people of southwestern France, famous for their rock art, occupied great rockshelters and caves in the deep river valleys of the Dordogne during the late Ice Age, between about 40,000 and 12,000 years ago. The Danger and Hogup caves in Utah reflect thousands of years of hunter-gatherer occupation. The dry environment of the desert preserved wood objects and basketry as well as minute details of economic life. And the dry caves of Tehuacán Valley in south-central Mexico provide part of the history of how maize cultivation developed in the New World.

Cave and rockshelter excavations are some of the hardest digs to carry out successfully. The ground below cliff overhangs usually consists of ash and other debris piled up through successive human occupations. Sterile soils may interrupt this sequence of habitation, representing periods when the site was abandoned. Excavating such complicated sequences is slow and meticulous work. The trenches are usually restricted by the size of the shelter. Each hearth and small occupation layer has to be isolated from the others during excavation.

Many cave and rockshelter excavations deal purely with dating and stratigraphy, but others are more ambitious. When Hallam Movius dug the Abri Pataud rockshelter in southwestern France, he had to record at least six layers of human occupation dated to between 40,000 and 19,000 years ago, extending through more than 6 meters (20 feet) of stratified deposit. The site was excavated following a coordinated master plan that involved not only archaeologists but botanists, geologists, and other specialists as well. Movius was able to record minute changes in tool types as well as many details of the changing hunting and gathering practices of Abri Pataud's inhabitants.

Mound Sites

Occupation mounds (often called tells in southwestern Asia) are common in many parts of the world. Mound sites result when the same site is occupied for centuries, even thousands of years. Successive generations lived atop their predecessors' settlements. The result is a gradual accumulation of occupation debris, which, when excavated, provides a complicated picture of occupation levels. Even a small mound can cost a fortune to excavate, simply because the lowest levels are so deeply buried below the surface. A huge mound such as that of Ur in Mesopotamia, or even a relatively small mound like Tepe Yahya in Iran, can be sampled only by large trenches that cut into the sides of the mound in a series of great steps, or by very large-scale excavation indeed, using a combination of vertical and area trenches (Figure 6.10).

There is far more to excavating an occupation mound than merely stripping off successive layers. So many natural and artificial processes, ranging
Earthworks and Forts

Many peoples—Iron Age peasants in western Europe, Maori warriors in New Zealand, Hopewell Indians in Ohio—built extensive earth fortifications to protect their settlements and sacred places. The Ohio earthworks enclose large areas of ground, but no one knows exactly why such earthworks were undertaken. To excavate them would require both vertical excavation to record cross sections across the earthworks, and area investigation to uncover the layout of the structures built inside the earthworks. Such excavations were carried out on the great prehistoric fortress at Maiden Castle, England, many years ago. The massive earthworks of Maiden Castle were stormed by a Roman legion in A.D. 43. By careful excavation and use of historical data, the excavator Mortimer Wheeler was able to provide a blow-by-blow description of the battle for the fortress (Figure 6.11):

"For a space, confusion and massacre dominated the scene. Men and women, young and old, were savagely cut down, before the legions were called to heel and the work of systematic destruction began... That night when the fires of the legion shone out (we may imagine, in orderly lines across the valley), the survivors crept forth from their broken stronghold, and in the darkness buried their dead. (1943: 310)

Shell Middens

Shell middens—vast accumulations of abandoned shells, fish bones, and other food remains—are common in many coastal areas of the world. Remarkable results can be attained by studying these dense heaps, especially in reconstructing prehistoric diets (see Chapter 10). The excavation problem is twofold: first,
to identify the stratified levels in the middens, and second, to obtain statistically reliable samples of food remains and artifacts from the deposits. Most shell midden digs use random sampling, described very briefly earlier, which employs vertical trenches or test pits. Some midden excavations unfold on a larger scale. We illustrate an example of an area excavation on a shell midden at Galatea Bay in New Zealand (Figure 6.12), where much information on ancient diet was found by using a carefully laid-out grid of trenches. The excavation of a shell midden is mostly rather unspectacular, for the detailed statistical results come from laboratory analysis of artifacts rather than from actual digging. The Galatea Bay excavation provided detailed information on the ways the inhabitants utilized different communities of shellfish, such as oysters of various sizes, through time.

Ceremonial and Other Specialist Sites

Some of the world’s most famous archaeological sites are ceremonial centers, such as the pyramids of Giza in Egypt or the Maya ceremonial center at Copán, Honduras. Many ceremonial sites are enormous, and, like occupation mounds, present great difficulties for the excavator. Teotihuacán in the Valley of Mexico is, of course, far more than a ceremonial center (see chapter opener, Chapter 5). It was also a great city, which flourished from 200 B.C. to as late as A.D. 750. Discovering the true significance of the site has involved not only extensive area excavation designed to help reconstruct pyramids and major buildings, but sophisticated mapping and surface survey combined with small-scale excavation. René Millon and other archaeologists have mapped more than 32 square kilometers (12.5 square miles) of Teotihuacán in a survey program combined with excavation. Years of fieldwork have shown the founders of the great city laid it out on a grid pattern that was followed for centuries. The Pyramids of the Sun and Moon were the original focus of the city, until an unknown but charismatic leader built a palace complex, marketplace, and temple to the Feathered Serpent god Quetzalcoatl in the so-called Guidadela complex some distance away.

The Acropolis complex at Copán provided an extraordinary challenge to a team of American and Honduran excavators (see Figure 3.6). Fortunately for science, the Copán River had exposed the layers of the temple complex. The diggers were able to tunnel into the center of the sacred buildings in an attempt to decipher the history of successive temples built at the same sacred location. No less than 3.2 kilometers (2 miles) of tunnels now burrow under the Acropolis. Tunneling offers a unique three-dimensional view of a building’s history, aided in the case of Copán by deciphered Maya glyphs that record the history of the city’s ruling dynasty. The excavators have managed to link individual temples buried in the heart of the Acropolis to different rulers between about A.D. 400 and 800.

Artifact patternings play a vital role in interpreting ceremonial centers, trading sites, quarries, and other specialized sites. Do these patterns reflect long-distance trading activity in, say, copper ornaments or seashells? Were marine stingray spines, which are present in ruins appearing to be shrines built hundreds of miles inland from the Gulf of Mexico, used for ritual bloodletting? Questions like these can be answered only by careful studies of spatial associations.

Burials and Cemeteries

The golden mask of the pharaoh Tutankhamun, the refrigerated bodies of Siberian horsemen and women from the Russian permafrost, desiccated mummies of humble folk from northern Chile: Human burials are the stereotypic finds of archaeology, reflecting humanity’s abiding concern with the afterlife. The earliest human burials were left by Neanderthal peoples more than 70,000 years ago. Most human societies have paid careful attention to funerals and burials ever since. Burials were deposited with simple or elaborate grave furniture designed to accompany its owner to the afterlife. People have buried their dead in isolated, shallow graves within their settlement, under hut floors, in special cemeteries, in caves, as cremated remains in jars, and in vast burial mounds. Some burials consist of the body alone; others lie with a few beads or a handful of clay pots. Royal personages were often buried in all their glory: Shang dynasty kings in China with their chariots; the rulers of early Ur; Mesopotamia, with their entire court; Maya nobles with their prize treasures; the Moche lords of Sipán in Peru in their full golden regalia (Figure 6.13).

By studying a group of burial from one cemetery, it may be possible to distinguish different social classes by the grave furniture buried with the
istics of the skeletons themselves can provide valuable data on age, nutrition, sex, disease, and medicine.

French archaeologists led by Françoise Dunand have excavated more than 700 skeletons from a cemetery at Dsch, a remote Egyptian village in the Libyan Desert west of the Nile River, occupied between 100 b.c. and a.d. 400. At least 5,000 people lived in the village during its heyday. The inhabitants of this obscure settlement are better known medically today than they were in their lifetimes. The excavators cleaned the skeletons in place, then x-rayed them with a portable machine hooked up to an on-site generator. They developed a clinical description of each body and took samples of hair, nails, and skin before placing them in well-protected tombs. This field research gave an extraordinary portrait of the Dsch people. They were of Mediterranean physical type, slender and between 1.62 to 1.54 meters (5 feet 4 inches and 5 foot 1 inch) tall. They had pale skin and dark hair like many ancient Egyptians and an average life span of about 38 years if they survived infancy. Many of them suffered from osteoarthritis and scoliosis as a result of hard agricultural labor and carrying heavy loads. More than two thirds of the skeletons showed clear signs of malnutrition at some point in their lives. Human skeletons and mummies are the dispassionate medical records of the past that reveal the consequences of years of inadequate diet and backbreaking work.

How do you excavate a burial? Whether digging a large cemetery or a lone burial, each skeleton and its associated grave, ornaments, and grave goods are considered a single excavation problem. Each burial is exposed as a unit that has both internal associations with its accompanying goods and external associations with other burials in the same and other levels. The first step is to identify the grave, either by locating a gravestone or a pile of stones, or from the grave outlines, which may appear as a discoloration in the surrounding soil. Once the grave outlines have been found, individual bones are exposed. The main outline of the burial is traced first. Then you uncover the fingers, toes, and other small bones. You leave the bones in place and take care not to displace any ornaments or grave furniture associated with them. Once the skeleton is exposed and fully cleaned where it lies, the layout of the burial and grave furniture is recorded by drawings and photographs before the skeleton is lifted bone by bone or encased in a cocoon of plaster of paris and metal strips (see Figure 6.13).

REBURIAL AND REPATRIATION

Burial excavation may seem very romantic. In reality it is not only technically demanding, but it raises important ethical questions as well. For years, archaeologists casually dug up Indian burials and other prehistoric graves all over the world, some of them even of people of known tribal or historical identity. Now both Australian Aborigines and Native Americans, among others, are objecting strenuously to excavation and destruction of ancient burial grounds—and with
good reason. Why should their ancestors be dug up and displayed in museums, they argue? Many surviving communities retain strong emotional and religious ties with their ancestors, and excavation of their remains flies in the face of their religious beliefs. There are now demands for reburying of human remains stored in museums, especially of those that can be documented to have direct historical links with modern Native American groups.

The Native American Grave Protection and Repatriation Act (NAGPRA) of 1990 establishes two main requirements. First, all federal agencies and museums receiving federal funds are required to inventory their holdings of Native American human remains and associated funerary objects. They must also develop written summaries for religious objects not found in graves, sacred artifacts, and what are called "objects of cultural patrimony" that are in the collections they control. This inventory process, which will take years to complete, also requires that agencies and museums establish, as best they can, whether individual holdings have cultural affiliation, or, in the case of skeletons, lineal descendants with living Native American groups. If they do establish such relationships, they are required to notify the relevant Native American organization about the existence of the materials and to offer to repatriate them.

The second requirement protects all Native American graves and other cultural objects found within archaeological sites on federal and tribal land. This requirement encourages the in situ preservation of archaeological sites, or at least those parts of them that contain graves. It also requires anyone carrying out archaeological investigations on federal and tribal lands to consult with affiliated or potentially affiliated Native Americans concerning the treatment and disposition of any finds, whether made during formal investigations or by accident.

NAGPRA is having a profound effect on the way in which American archaeologists go about their business, for it mandates a level of consultation and concern for Native American rights that is far greater than has been the norm in the United States. This is quite apart from the scientific impact on the study of ancient Native American populations. The Native American Rights Fund estimates that as many as 600,000 Native American human skeletons may be in museums, historical societies, universities, and private collections. The signing of the 1990 act came after years of controversy that pitted, and still pits, Native Americans against scientists. The archaeologists and anthropologists point out that revolutionary new research techniques are beginning to yield a mine of new information about prehistoric North Americans. To rebury the database for such research would deprive science, and future generations of Americans, of a vital resource, they argue. Others, including some archaeologists, respond that this is an ethical and moral issue, and such considerations should outweigh any potential scientific gains. Native Americans feel deeply about repatriation for many complex reasons, if nothing else because they are concerned about preserving old traditions and values as a way of addressing current social ills.

Furious controversy sometimes surrounds newly discovered burials, like the recent case of a 9,000-year-old skeleton unearthed at Kennewick, Washington, where local Native American groups claimed ownership. This claim pitted them against the Bureau of Land Management, and the case is still in the courts, with no easy resolution in sight.

There will be no quick resolution of the repatriation issue, however promptly and sensitively archaeologists and their institutions respond to Native American concerns and comply with the provisions of the 1990 act. Only one thing is certain—no archaeologist in North America, and probably elsewhere, will be able to excavate a prehistoric or historic burial without the most careful and sensitive preparation. This involves working closely with native peoples in ways that archaeologists have not imagined until recently. Nothing but good can come of this.

**SUMMARY**

The process of archaeological research, including excavation, begins with the formulation of a comprehensive research design. The design is then implemented; data are acquired in the field through excavation and then processed and analyzed in the laboratory. Interpretation using anthropological and historical models is followed by final publication. The research design is developed to answer specific questions and to acquire the maximum information with minimal disturbance of the finite archaeological record. Excavation itself is a meticulous process of recording both finds and their context in time and space. Vertical and test excavations are used to test and study stratigraphic sequences. Horizontal excavations uncover large areas of a site, for example, an entire Iroquois longhouse. Stratigraphic recording is based on the principle of superposition, with care being taken to distinguish natural and humanly caused disturbances, such as animal burrows or garbage pits. The chapter reviews the distinctive excavation problems associated with various types of archaeological sites, among them habitations, caves and rockshelters, burials, and shell middens. Special problems surround human burials, which, in North America, are subject to stringent regulations surrounding their rebury and repatriation.
A Manual Of Field Excavation
HANDBOOK FOR FIELD ARCHAEOLOGISTS

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Chapter I

PRINCIPLES OF EXCAVATION

Anita Walker
"No-one goes anywhere without a porpoise." Lewis Carroll.

The aim of an archaeological project is the reconstruction of the life-ways of the people who lived at the site, the study of the processes of culture change and the testing of hypotheses set up by the project designer. It is impossible, or should be, to excavate unless the excavator has clearly in mind the kind of goals he wants to reach. Before setting trowel to ground, therefore, the archaeologist must first define his objectives and then derive a set of procedures to fulfill them, because the goals he sets will themselves condition the methods he uses to achieve them. Put bluntly, he tends to find what he knows to look for. If this remark sounds unduly harsh, its truth can be demonstrated by looking at almost any of the site reports in great Near Eastern excavations of the 1930's. Since the excavators of these sites were interested primarily in architecture, chronology, and political events, that is the kind of data they sought. On the other hand, since most of them were not much interested in (for instance) the economic history of their site, they did not collect data which would have allowed them (or later archaeologists) to reconstruct economic processes from their records.

It must never be forgotten that when excavation is completed, all that remains is a neat square hole with bedrock at the bottom. All subsequent interpretation about the site and its people will be based on the data collected in the course of excavation, whether those data are faunal remains, soil samples, artifacts, section-drawings, notebooks, plans or photographs. The limits of interpretation are set, then, in turn by methods used and the completeness of the records kept. Means and ends thus interact upon each other, and the means you use must be appropriate to the ends you choose. Since this is a how-to rather than a why-to book, a discussion of project design will not be treated here, but it should be understood that the theoretical design of why you are digging must precede any devising of specific procedures in the field. For discussion of the theory of archaeology and the formulation of explanatory models, consult:


I

ORGANIZATION OF PERSONNEL

Modern excavations are usually quite complex in their organization, since the multifarious tasks and skills required cannot be carried out except by a team.

The Director is responsible for the design of the project and ultimately responsible for overseeing all work in the field, interpreting data, and integrating all publication. In the field he will orchestrate the work, advise, consult, and challenge his supervisors with hard questions.

The field-work will be carried out by archaeologists and their teams aided by various specialists. Each work force is organized into teams of five or six people, each team in the charge of an "Area" Supervisor. Groups of three or four "Area" Supervisors will be responsible to a "Field" Supervisor, and the "Field" Supervisor will be responsible to the Director. At Gezer the work-force consisted almost entirely of student volunteers (mostly American), who made up in enthusiasm what they lacked in experience.

"Area" Supervisors are responsible for the supervision and bookkeeping of all work done in their Areas. They work closely with their Field Supervisor, who in turn consults the Director on sticky points. The degree to which a Field Supervisor regulates and directs his Area Supervisors will depend on their experience. A nervous novice will find his Field Supervisor hovering over his shoulder and breathing hotly in his ear; a highly experienced Area Supervisor will plan strategy tactics for the day with his Field Supervisor who will check on and consult with him regularly to make sure everything is proceeding smoothly but will let the Area Supervisor work more independently in order to spend more time with less experienced personnel.

The excavating personnel will be helped by various roving consultants, such as the geologist, physical anthropologist, and paleobotanist. Some of these people may also be making their own data collections from the site and its environs to compare with excavated material.

At the dig-house there will be a back-up team of other personnel—the Registrar, Conservationist, Photographer, Draftsman—some of whom will be called to the field when necessary.

The regulation of relationships between all personnel from Director to digger must depend on certain shared premises—that the excavated data is the primary data, that it is irreplaceable.
It is, therefore, incumbent upon all members of the team to give of their best and never wittingly to make mistakes which destroy or disturb the data or permit others to do so. These are tough standards to uphold and upholding them may lead to friction and hurt feelings if handled badly at any level, but acceptance of these principles for working is essential.

II

PRINCIPLES OF EXCAVATION METHOD: STRATIGRAPHY

Ideally, the records of an excavation should enable any observer to construct a three-dimensional model of all soil layers, features, artifacts, etc. in their precise topographic relationship. The closest way of achieving such a methodological ideal seems to be the procedures of stratigraphic excavation devised by Mortimer Wheeler,\(^1\) introduced into Palestine by Kathleen Kenyon. Stratigraphic excavation involves the excavation of soil layers, etc., in the reverse order of their decomposition by close attention to the relationships of soils and features. To do this, it is necessary to work in small areas, to triangulate measurements, and most important to use vertical balks or sections to dig by. Balks tell you where you are going and record where you have been. In order to retain accuracy in reconstruction it will usually be necessary to survey the site first and mark it off in a grid of units small enough for controlled excavation. The grid size can vary; at Gezer the typical grid unit was six meters square, providing a five-meter square for digging with one meter balks between adjacent squares.

In excavating at Gezer, the basic recording unit was the locus. A locus can be defined as any material whose composition or stratigraphic position seems to mark it as discrete. Thus, soil layers and features are subsumed under the term locus and each locus is given a number in sequence as it is encountered. This proved to be a useful and practical device both in defining layers etc., in digging and in recording. For instance, you come upon a line of rocks orientated north-south; since it may be something different from the soil layer you are digging, it should be given a separate locus number and treated separately. A second line of rocks appears on the other side of the square—it too receives its own locus number. Further excavation may show that these two lines of rocks are walls and join to form a corner, and are not actually separate but formed part of a single installation. The two separate wall loci can be later collapsed together in reconstructing the installation. It is better to overseparate than to underseparate. A distinctive soil which turns out to be a lens or pocket within another soil layer and not stratigraphically significant can be collapsed with its enclosing soil layer locus. But it is often not possible to separate within a layer if it turns out later to be composed of two different
things. The history of feature construction and soil deposition must be built up from the building blocks of different loci and their relationships. Thus a room may be excavated as a large number of loci: each wall and each soil will have its own number. [See Chapter IV, Part I below for a more detailed statement on the concept of locus as used at Gezer.—Eds.]

III

PRINCIPLES OF EXCAVATION METHOD: CERAMIC TYPOLOGY

The second fundamental characteristic of the Gezer method, first introduced in the excavations of G. Ernest Wright at Shechem, is the daily analysis of the pottery from each locus under excavation. All the pottery is looked at and dated immediately as soon as it is washed and dried. This serves as a check upon the clear identification and clean separation of loci in the process of excavation. Although there is usually a greater or lesser amount of earlier pottery in any locus, the locus is always dated by the latest pottery in it. If, for example, the latest pottery of a locus is consistently of one chronological period, then stratigraphic separation of loci in the digging has proceeded correctly. But if sherds of a later chronological period appear unaccountably (one expects earlier material the deeper one goes), then something is awry in the stratigraphic separation. Two separate loci are being mixed, and the cause of the intrusive late pottery must be found and explained. Repeatedly at Gezer when this or a similar situation occurred, the Field and Area Supervisors would re-evaluate their fieldwork, re-examine their balks and excavation areas, and find the source of the unexpected pottery—an undiscovered pit, a terrace situation, etc. Once the source of contamination was identified, the stratigraphical analysis was corrected, loci redefined, and the work continued.

The use of pottery as a check upon stratigraphy is possible only if the provenance of the pottery excavated can be determined with exactitude. Therefore great care must be exercised in the gathering and processing of pottery. The pottery from each digging operation is placed in a bucket which is tagged and designated for that particular operation. Only pottery from that individual operation is placed in that bucket. Stray sherds are never allowed to collect in random piles to be bucketed later. The earth from each digging operation is kept confined within the designated limits of excavation so that pottery from the loosened earth is not mixed with that from another locus. Any sherd that falls from a balk or from the edge of the trench into the area being excavated is discarded.

* If a sherd even looks suspicious, e.g. if it is lying dry in the
moist soil, it should be discarded rather than risk contamination. If a pottery bucket is knocked over and spilled, only those sherds should be replaced in the bucket which of certainty came from it. Workmen must be impressed with the importance of preventing contamination so that they will take care not to throw sherds carelessly into the wrong bucket. Or if they do, so that they will confess the mistake so that precautionary measures can be taken, e.g. writing "Possible contamination" on the basket tag. Buckets should not be filled too full lest they spill easily, and once the bucket is no longer in use it should be promptly taken from the square and away from the excavated area. [See Part IA of Chapter V for another statement on the gathering of pottery in the field.—Eds.]

IV

PROCEDURES OF FIELD EXCAVATION

Work in the field consists of the repetition of a small number of procedures in various permutations. No one can teach you which procedure to apply in every situation; that is something which comes only from experience and handling of the actual soil. This section does not attempt to be exhaustive. It merely tries to set out the general pattern of procedure and to give some things to consider while digging.

Let us assume that your area (5 x 5 m. with a one-meter balk or 4 x 4 m. with a one-meter balk or whatever) is neatly squared off with marked pegs and strings and that you have been given a datum set by transit, on the top of one of the nails set in the middle of the pegs. (All elevations in your square will be calculated from that datum, unless a transit is sited permanently near your area.) Paint the datum numbers on the side of the peg, write them on a pottery tag and attach it to the nail, and also write them in your notebook with a note on which peg it is. This will save you rechecking the datum every time. But if the peg is knocked or the nail bent at any time, have the datum reset or you will end up with a distorted reconstruction. Before you begin to dig, clean your area thoroughly with broom, dustpan, and brush. Sweep the balks clear of any small stones or sherds which could be kicked into the square.

A. Probe trenches.

The heart of the digging system is the probe trench (or test pit as it is sometimes called). So when you have cleaned your square of loose soil, tree roots, weeds, etc., lay out a probe against one of the main balks with nails and string. The size of the probe and its depth are matters of individual preference. There is one school of thought which
favors a one-by-five-meter slice along a main balk dug to a depth of one meter (the maxi-probe). At the opposite end of the spectrum some favor a one-meter square taken down only so far as the first soil change (the mini-probe). There are points to be said in favor of both extremes.

The Small Shallow Probe

Pro: By going down only to the first soil change and then peeling back throughout the square, you end up with a square completely in phase, which can more easily be drawn and photographed.
Con: It is extremely difficult to interpret the balk of a very shallow trench, so that you are more dependent in this kind of probe on the appearance of your soil from the top.

The Deeper (and/or Larger) Probe

Pro: The deeper probe trench which usually involves several different soil layers provides balks which are much easier to "read", and therefore it is easier to trace out each separate layer from the probe trench throughout the square.
Con: The bigger and deeper the probe, the more cut-up the square will look, so that often photographs which are intended to show a square at one phase are complicated by the presence of the probe trench in one corner.

On balance, however, the writer recommends a moderate position, a one-meter-square probe trench taken down to a depth of as much as 50 cm. Such a probe gives enough exposure of layers in the balks to separate them clearly when moving into the rest of the square, yet does minimum aesthetic damage to the appearance of any one phase. Probes should be dug with small tools (but with all deliberate speed) since there is always danger, when digging blind from the top, of mixing up material. The different soils within a probe can be separated out and each given a designation as a layer within the locus number of the probe trench. When you begin to move out from the probe trench, each layer, as you trace it, in turn will receive a new locus number, and later the material from each layer of the artificial locus of the probe trench can be assimilated to its proper natural locus in the rest of the square so that all data is conserved.

Some proponents of the maxi-probe (one-meter-deep along the length of the main balk) eschew this method of following out each layer throughout the square and instead favor a kind of "running balk." In this strategy, once the initial probe is dug and layers separated within the probe and tagged in the balks of the probe, you simply lay off another one-by-five-meter probe parallel to your first and remove the layers, using balks of your original probe as your guide. You continue to do this until you reach the other side of the square, then come back and start again. A disadvantage of this technique is that you never
see any one phase exposed all at one time, and photographing and plan-
ing a coherent phase would be difficult except as a kind of mosaic.

In working out from the probe trench you will encounter three main
types of deposit: (1) soil layers, (2) installations originally built
up, (3) installations originally dug down. [See also Chapter III,
Section III below for a catalogue of the kinds of features and soil
layers typical of the Palestinian tell.—Eds.]

B. Sedimentary deposits.

In tackling soil layers several things should be kept in mind.
From the probe trench you know the thickness of your layer in the probe
balk: be prepared for the fact that it may be thicker or thinner in
the rest of the square or may peter out completely. The chances of the
soil layer filling the entire square exactly, dead flat and an even 10
cm. thick, are remote. The actual contours of each soil layer must be
followed, sloping upward or downward or sagging into depressions. How-
ever, within those natural contours, try to remove the soil evenly,
preferably by scraping with a trowel or hand-picking. Do not get stuck
in one spot and find that in your enthusiasm you have created an arti-
cficial depression in the soil layer. Some soil layers (fills, for
example) can be quite thick (50 cm. or even more), but it is still ad-
visable to remove your layer in small spits of not more than 5-10 cm.,
even if you use a pick. This is NOT advocating the pernicious practice
of digging by completely artificial 10 cm. spits, but is a method of
achieving a higher control within the natural soil layer. For example,
a thick fill may suddenly become shallower over some other underlying
layer. If you are digging in huge bites with large tools, you may
easily dig through an underlying layer without perceiving it.

As you begin to dig a soil layer you will need to answer certain
questions about it. First, its physical composition. What is it com-
posed of? What particle-sizes make it up? (Use the Wentworth scale.)
To what degree is it compacted? How are the various particles disposed
—chaotically, suggesting a fill—in graded bedding, suggesting water-
sorting—or in laminae, suggesting a surface build-up. A knife and
pocket lens are a great help here. Pry up a chunk of soil and look at
its cut section (a micro-balk). If the dig has a geologist, consult
him frequently. Soil samples of each layer sent to a lab are useful,
but they are no substitute for the presence of a geologist in the field.
Packing and shipping a soil sample will usually destroy its fabric and
disposition of particles as well as changing compaction as it dries out.
The geologist who analyzes your sample in the lab will be able to tell
you its raw composition, but much data valuable for the interpretation
of the soil layer will have been lost.

Color can also be a useful clue in interpretation, but avoid mean-
ingless terms like "greenish-grey" and "sandy-buff," and use a Munsell
soil-color chart.²
The second group of questions about a soil layer concerns physical dimensions. What is the horizontal extent of this layer? Does it dip if so, to what degree, and in what direction? Remember that each soil-layer is three-dimensional and record it that way.

The third set of questions is the most vital for articulating loci—the stratigraphic relationship of this layer to other loci. How does this layer relate to other layers and features? It is not enough to note simple juxtaposition of loci—the intelligent digger must always perceive the nature of the juncture. Does this soil layer run up against a wall, over a foundation trench, under another layer? Is it cut by later intrusions from above (pits, cisterns, burials, foundation trenches, etc.)?

The excavator should try to work out as he goes what loci were in use with the locus he is digging, keeping in mind that use. Surfaces may vary in their composition sufficiently to warrant being distinguished as separate loci, while both loci are part of the same use-phase and represent the same facility. Thus, for instance, a "floor" or walk-surface may be tamped earth in one part, heavily gravelled in another, plastered in a third. And yet all three loci, compositionally so different, may be part of the same courtyard.

C. Structures.

This category includes features intended to stand for the most part above ground (such as buildings, fortifications, standing stones, etc.). Usually any one square will contain only parts of large built features—half a room, a segment of a fortification—so that the excavator is concerned with the digging of short segments of walls, perhaps forming one or two corners or intersections, and their associated soil layers.

While many of the same kinds of questions which one must consider in dealing with soil layers apply to walls and other originally above-ground features, there are also different considerations. The excavator must try to discern as he digs the construction material and techniques (for instance, dressed or undressed stones, baked or unbaked mudbrick, or a combination of these). How many courses high is it (and remember that its extant height is probably not its original height)? On the other hand, it may still preserve its original width. Did it undergo several rebuildings, or was it in use with several phases of soil layers and surfaces? Examine most carefully the juncture of surface layers with walls and also the juncture of wall with wall. Do the walls bond together or merely abut? Bonded walls are almost certainly contemporary; abutting walls may or may not be, depending on other factors. Look very carefully for signs of a foundation trench. Most walls have foundation trenches, although sometimes the trenches may be
cut into bedrock to receive the lowest courses; and occasionally small walls are merely set down onto existing surfaces without a prepared trench.

**Stone Walls**

When in the course of digging a soil layer, you begin to uncover the tops of rocks, particularly a line of rocks, you are clearly encountering something new! However, at this point, there is no way of knowing whether this line of rocks represents a curbing one row wide and one course high or the top-most extant remains of a fortification five meters high and fifteen meters wide. Never dig along the face of a possible wall, or you will sever all its stratigraphic connections. Before tackling a wall, you must first provide yourself with a preview of its history, preferably down to its foundation level. Unless the wall runs at right angles to two of the four main balks, (which is unlikely) you must devise a subsidiary balk, relating the wall to one of the main balks of the square. This can be done in several ways. First, measure off a narrow strip on either side of the wall at right angles to the wall (for the best angle in viewing the juncture of balk and wall) and extending to the main balks. Site your strip at a point along your wall where the subsidiary balk will form the least acute angle with a main balk. You can offset your strips on either side of the wall if they do not necessarily have to be in a straight line, so long as they relate each side of the wall to a main balk (Fig. 1).

![Figure 1](image)

You can then excavate your strips as probe trenches and trim down the sides of the probes to form the subsidiary balks (Fig. 2a). The reverse procedure can also be useful: excavate on either side of the strips, reserving the strips as mini-balks (Fig. 2b). Instead of a double-edged strip, you can lay out a single line at 90° from the wall to a main balk and excavate up to the line, which will then form a subsidiary balk (Fig. 2c).
Figure 2

In excavating curvilinear walls it may be necessary to cut a wedge-shaped slice in order to get the best angle at the junction of wall and balk.

Mudbrick Walls

So far we have been considering only easy walls constructed of stone. But in the Near East often only the foundation courses of walls are stone-built and the upper courses are mudbrick, while sometimes, particularly in southern Palestine, all the walls are of mudbrick construction only. If the mudbricks are baked, there is little problem; they are as clearly discernible from soil as stones. Unfortunately, much mudbrick construction is unbaked and the excavation of unbaked mudbrick features then poses special problems.
The basic problem is, of course, to know when one has found an unbaked mudbrick wall, as distinct from mudbrick debris, which is treated as a soil layer. Mudbricks were usually made in a mould from field clay with a binder of some sort (often straw), then sun dried. They may have been laid with mud mortar; or sometimes, if mortar was not used, sand may have been used between courses, perhaps as a levelling agent rather than an adhesive. An unbaked mudbrick structure has usually disintegrated in the area open to erosion (which will be the surface you will contact first, the top of the bricks). It is quite possible, therefore, that you will not be able to see the articulation of molded bricks at first in exposed outer surfaces; if the background soils are compositionally similar to the unbaked brick wall (and near the wall there will tend to be disaggregated brick debris sloughed off the wall), you may not be able to see a color differentiation between the bricks and the brick debris. A hand lens is helpful in checking suspected brick for straw binder. If the bricks used a straw binder and are still fairly well consolidated then composition will be very revealing. For detecting the presence of still articulated unbaked mudbrick wall, look for the original mortar lines. If you are doing a small probe against suspected mudbrick, you may see in the balks of your probe a network of parallel lines which represent the ghosts of past brick courses. These lines may be a slender clue. Do not be surprised if some of the horizontal mortar lines are closer together, or do not extend laterally very far; erosion at the exposed surfaces of a mudbrick wall may have been uneven and bricks may have partly slumped. One caveat: do not be fooled by the tunnels of ant-colonies, which may leave tracks suspiciously like ghost mortar lines!

If you are sure that you are coming down on the eroded top of an unbaked brick wall, it is obviously important to know its extent. The best way to establish the line of the wall is to scrape the area down flat, arbitrarily; then clean it thoroughly and look for variation in color and texture, along a straight edge marking a junction between brick debris and brick in situ. If you wait long enough, differentiation in drying between brick and brick debris usually causes a crack to form along the faces of the mudbrick feature. A little water sprinkled on the area will often accelerate cracking (but be extremely cautious; too much water and you get a puddle!). In assessing a crack that has formed a straight edge, keep in mind, however, that many mudbrick walls underwent rebuilding and addition of extra "skins," and the crack may represent separation of one phase of wall from another.

When you have thus determined the approximate dimensions and orientation of an unbaked mudbrick wall, from some combination of techniques of compositional analysis and structural analysis, you may drop a probe at right angles on either side to determine the extent height, associated dirt layers, etc. As you move down the face of the wall, however, keep in mind that, unlike most stone walls, it may have been deliberately battered out towards the base, or else erosion near the top may have given a false impression of the original dimensions of the wall.
Most mudbrick walls were originally faced with a mud plaster. The chances are that this will have disappeared, but be on the alert for it anyway. Do not be surprised if in many cases, different types of clay seem to be present in one wall; this may reflect several sources of field clay used for brick making. As you approach the face of the wall with a deliberate hand-picking action, the brick and soil debris is generally less compact than the brick itself and will flake away from the wall-face. The best tactic for dealing with a large mudbrick structure might be a kind of rolling probe. Cautiously dig your soils, layer by layer, up to the face of the wall and down to its associated use-surface, then move one side of your probe over a meter and start again.

Unbaked mudbrick structures are probably the most difficult features to dig in the Near East. One of the most helpful things to do is familiarize yourself thoroughly with the appearance and composition of mudbricks at your particular site.

D. Intrusive elements.

This category includes installations dug down. Such installations are perforce intrusive into earlier layers; and, following the principle of removing all deposits in the reverse order of their deposition, must be dug out before the earlier layers. If these installations are not perceived at the phase from which they were dug, they may introduce later material into earlier phases. This kind of feature includes such things as pits, sunken bins and silos, burials, cisterns, wells and foundation trenches. All of these installations are essentially holes in the ground level of the time they were built and were either closed over or filled up near the time of their construction (for instance, foundation trenches and burials) or filled up with debris when they went out of use (pits, cisterns, etc.). Soils in holes are seldom compressed as much as layers which have been walked upon, so these features may first be perceived as areas of loose soil or gravelsifted soils and rubble, or a regularly contoured depression in a compact layer, where pressure has caused the compacted layer to sink into the less compacted hole beneath. If you suspect an installation of this kind, first try to delimit it. Scraping the soil flat with a trowel will often show up the contours of a pit or other area of disturbed soil nicely. Then section the contents of the feature to its bottom. This will give the stratigraphic history of its filling up, while emptying it out all at once like a dish of jello would not. Bisecting it is a very good idea for all but the largest soil installations (Fig. 3a). Very large holes should be quartered like an orange and excavated so that you get two complete sections bisecting the installation (Fig. 3b). After you have removed the contents of the hole, then section the installation itself.
Figure 3

Large tombs filled with debris pose special problems. The best approach might be a combination of a running balk and a quartering balk. The correct tactic would be one which left the skeletons, etc. in situ while relating the remains to the soil layers filling the tomb.

These procedures for probes, soil layers, features-built-up and features-dug-down, while they do not cover all situations, should give one enough guidelines to work out approaches for oneself.
APPENDIX ONE: GLOSSARY

This glossary of archaeological terms includes both ordinary terms used with a specific meaning in the manual, and technical terms not in common usage in English for which a definition is useful.

**Administrative Director** - The administrative director is an assistant to the director of the expedition whose field duties are coordination and control over the expenditure of funds (see Appendix Three).

**Area** - An area is a subdivision of a field. Its size depends on the function which it is designed to serve. In clearance operations area sizes can vary widely, in order that areas may be kept in a meaningful relationship to the structures being cleared. Areas are laid out as rectangles, because this simplifies the topographic relationships among areas, and, unless there are compelling reasons to the contrary, as six-meter squares. Areas are designated by Arabic numbers; thus Area 1 or just 1 (see fig. 3).

**Area Supervisor** - An area supervisor is responsible for one area. This person is responsible for the planning and execution of the day-to-day operations in the area and the recording of all evidence gathered there.

**Balk** - A balk is a strip of unexcavated earth, usually one meter wide, that separates areas within a field. A balk is made up of the outer 0.50 meter strip of each edge of each area (see fig. 4).

**Bracketing** - Bracketing is a photographic hedge against deceptive lighting. Instead of taking just one photograph of each subject, a series of photographs should be taken, at the f-stop indicated by the light meter, and at settings above and below the indicated f-stop that are appropriate for the type of film in the camera.

**Burial Code Form** - The burial code form is a recording device that stores skeletal and burial information in numeric form.

**Camp Manager** - The camp manager is responsible for all of the physical attributes of the camp. This includes its construction and demolition, food, supplies, equipment, sanitary devices, hired help, transportation, and the general welfare of the camp as a whole (see Appendix Three).

**Ceramic Expert** - The ceramic expert is the person, usually a member of the archaeological staff, who conducts the first analysis of the pottery as it comes from the field.

**Ceramist** - The ceramist is a professional potter who studies the ancient pottery and attempts to reproduce its fabric and form in his or her own workshop.
Datun - A datum is a point of known absolute elevation from which measurements are taken.

Datum Line - A datum line is a line strung between two datum points of equal elevation. If kept taut, it is absolutely horizontal.

Dendrochronology - Dendrochronology is an absolute dating technique based on the study of growth rings in trees.

Director of the Expedition - The director of the expedition is the highest administrative officer of an archaeological expedition. This person initiates and implements policy decisions, and promotes the smooth and efficient running of the expedition.

Epigrapher - The epigrapher is an expert in ancient language and writing who studies the inscriptive material uncovered during the excavation. For the purposes of this manual the functions of Linguist, Palaeographer, and Epigrapher have been combined under the last term.

Feature - A feature is a major coherent element of the ancient site, such as a room, a courtyard, a pit, or an industrial installation. A feature may be confined to one area, may extend to several areas, or may encompass an entire field. Features are by their nature field concerns, and their identification and numbering are the responsibility of the field supervisors. Features are identified on plans by an area and locus number enclosed in a circle and accompanied by a descriptive word, e.g., room 61.093, and in prose by the descriptive word followed by the area and locus numbers, e.g., Room 61.093. The area and locus numbers chosen as feature numbers should indicate either where the feature was first seen or where the feature is best seen.

Field - A field is the largest unit of excavation and consists of a group of closely related, usually contiguous, areas. Fields are numbered with Roman numerals in the order in which they are opened, e.g., Field I, or simply I.

Field Laboratory - The field laboratory houses the first stages of the analytical process of artifactual data. Here two steps are performed, cataloging and preliminary analysis.

Field Supervisor - A field supervisor is responsible for the overall operation of a field. This person determines the strategy to be followed in the field as a whole, and then counsels the area supervisors on methods to be employed to implement that strategy. A field supervisor will typically supervise a field containing four to seven active areas.

Final Report - Final reports are required of area supervisors, field supervisors, and specialists. These reports are comprehensive syntheses of all activities that were supervised by the individual.
First Analysis - First analysis, or pottery reading, is the first stage in pottery analysis. Here a tentative date for the sherds is assigned, and sherds are selected for further study.

Flotation - Flotation is a method of wet sieving. Here earth is placed in a container and immersed in water. Pure soil passes through the sieve and is discarded. All artifacts are caught on a screen, and all botanical elements float to the top and are saved.

Foundation Trench - A foundation trench is the excavation made in antiquity for laying in the foundation of a wall or other installation. The latest pottery in the foundation trench should represent the founding date of the structure.

Goufa - A goufa (gufa, goufah, or gufah) is a basket for carrying earth made of old tire casings.

Khirbet - Khirbet is the Arabic word for the ruin of an ancient settlement.

Layer - This term does not enter into the recording procedure, but is so frequently used that a definition is desirable. It is reserved for expanses of soil distinguishable from one another by color, texture, or content. In the normal process of recording, a layer will receive a locus number.

Level - 1) A level is an absolute elevation above or below sea level that is determined by the surveyor/architect.

2) The term level is often used to designate an occupational phase. If the word is used in this sense it must be clearly understood that it does not imply that the occupational phase in question is physically level.

Locus - Locus is the term employed for any layer or feature which appears in an area. Examples of loci are soil layers, walls, surfaces, or pits. Locus numbers are given to three decimal places (starting with .001) and are attached to field and area numbers. Thus, I.61.093 means Field I, Area 61, locus 093. The recording of observations by locus numbers is the basic device by which an area supervisor keeps an orderly area notebook. It must be added that most loci are real structural or architectural features, but that artificial loci also exist. A common type of artificial locus is a probe. Probes are dug to try to solve problems of stratigraphic relationships and hence do not correspond to any single physical or structural feature of the area.

Locus Sheet - Locus sheets record all observations required for any locus. Each locus in each area has a locus sheet on which all physical evidence and relationships with other loci are recorded. Locus sheets are filed in the area supervisor's notebook.
Locus Summary Sheet - Locus summary sheets are brief summaries of the data for each locus. They assist quick retrieval of information during the reporting and publication phases of the expedition.

Malacologist - A malacologist is a biologist whose specialty is the study of molluscs and mollusc remains.

Make-up Layer - A make-up layer is a layer of soil, sand, cobbles, or clay that is placed directly under a flooring layer by the builders of a structure. The purpose of a make-up layer may be for leveling or drainage.

Material Culture - Material culture (MC) is the collective term for the material other than pottery collected by the archaeological excavation, on the basis of which the culture of the site at various periods may be reconstructed.

Material Culture Registry - The Material Culture Registry (MCR) is the central collecting point of all non-pottery and non-stratigraphic information. It serves as a catalogue for the evidence and lists preliminary analytical results.

MC Tag - An MC tag, filled out in the area, identifies each MC sample and accompanies it through the MC registration process. A record of the information contained on the MC tag is retained in the area both on the locus sheet and on the MC Serial List.

Munsell Color - A Munsell Color is an objective color designation by which soil colors can be described. These standard colors and designations come from the Munsell Soil Color Charts, published by the Munsell Soil Company (1954).

Numismatist - The numismatist is an expert in ancient coinage who examines, cleans, identifies, and reports on coins recovered in the excavation.

Object Registry - The object registry is a sub-registry under the MCR. It is used for all artifacts which were created or shaped by human activity.

Patisch - A patish (pattish) is a small hand-pick that is used for the loosening of soil layers. This instrument has two heads, a pointed one and one shaped as a blade.

Period - Period designations employed in Palestinian archaeology have been worked out on the basis of pottery chronology as the composite result of many excavations, and all excavators should be familiar with the main outlines of the system (see Appendix 2). These period divisions may correspond to the strata and phases at any particular site, but such correspondence is neither inevitable nor automatic. The coordination between the stratigraphy of the site and the
cultural chronology of the region is a major subject of post-dig study.

Phase - 1) The term phase is used to designate constructional or occupational levels during excavation and subsequent study, up to the point where stratum numbers can be assigned. Thus EB, phase 1, EB, phase 2, etc. may be employed until the EB stratification and its relationship to the earlier and later strata are determined.

2) Phase is also used for a subdivision of a stratum distinguished by a minor or local disturbance in the structural or cultural continuity significant enough to require designation, but not significant enough to justify assignment of a new stratum. The term sub-stratum is also used as a synonym. Phases are designated by lower case alphabetic characters beginning with "a" for each stratum. Thus Vb would mean Stratum V, Phase b, or the second phase of Stratum V.

Phase Plan - Phase plans, which may be produced for an area, a field, or for the site as a whole, refer to a specific point in ancient time and show all contemporary walls, surfaces, and other architectural features of a given occupational phase. A phase plan is thus a map of all or part of the excavation at a point in historical time.

Pottery Container Tag - A pottery container tag is the tag, prepared in the area, that accompanies and identifies a pottery container through the pottery registration process. The original tag remains with the sherd during the storage and study phases. A record of the pottery container tag is retained on the locus sheet.

Pottery Reading - See First Analysis.

Pottery Registry - The pottery registry is the depository of all ceramic information. It serves as a catalogue, as a record of the preliminary analytical results, and as a guide for future processing of the material.

Preliminary Report - This report, which is prepared by the senior archaeologist and the director of the expedition, is a summary report of the results of a single season of excavation. It gives a general presentation of field results, suitably illustrated, but with a minimum of interpretation.

Probe - See Trial Trench.

Route Sheet - A route sheet is prepared during the first analysis for the registered sherd from each pottery container. It lists the analytical process to be carried out on each registered sherd, as well as the field identification of the date and functional class for each registered sherd.
Sealed Locus - A sealed locus is a locus for which there is demonstrable stratigraphic evidence that all later material is excluded and that the locus represents a deposit which resulted from one activity during a single occupation phase.

Section - A section is a scale drawing (usually 1:25) of a balk. A section shows every occupational phase and every soil layer visible in the balk face. Since the section cuts every plan at right angles, it provides a visible record of the vertical relationship of the plans to each other.

Senior Archaeologist - The senior archaeologist is the member of the archaeological staff who, in consultation with other staff members, is responsible for the overall strategy, methods, tactics, and final synthesis of archaeological results for the expedition.

Serial Lists - The area supervisor keeps sequential lists of all pottery containers and material culture samples gathered in the area. These lists begin with "1" for the first container or sample of the season, and give a summary of the source and content of each container or sample.

Specialists - A specialist is a member of the archaeological team who is highly trained in another discipline or skill. This person brings expertise to the expedition that can be applied in a special way to aid archaeological analysis. Examples of specialists are botanists, biologists, numismatists, artists, photographers, geologists, ceramists, and epigraphers (see Chapter Eight).

Stratigraphy - Stratigraphy is the arrangement of rock or soil layers and the resultant study of their origin, the order of their deposition, and their functional and chronological relationships to one another.

Stratum - Stratum is an inclusive term for a series of layers which, taken together, represent a continuous period of occupation during which there were no major structural or cultural discontinuities. A stratum is usually marked at its beginning and end by radical changes in stratigraphy such as, for example, destruction layers which involve the whole site. Strata are designated by Roman numerals assigned in order from the most recent stratum encountered, e.g., Stratum I, Strata IV-V.

Structure - A structure is a group of features which, taken together, form a major architectural unit of the field in one of its phases, such as a house, a cemetery, a road, or a water system. Structures are identified on plans by a structure number enclosed in a circle and accompanied by a descriptive word, e.g., 4-house, and in prose by the descriptive word followed by the structure number, e.g., House 4. Structure numbers are assigned by the field supervisor in sequential order for that field. Loci are grouped as features and features are grouped as structures.
Structure Sheet - A structure sheet organizes the field supervisor's observations and interpretations of a structure and its component parts.

Subsidiary Balk - A subsidiary balk is a temporary balk produced in order to connect an isolated feature in the interior of an area to one of the main balks. Subsidiary balks are necessary for reporting and must be drawn.

Surveyor/Architect - The surveyor/architect is a specialist whose duty is to lay out fields and areas, provide datum points, and prepare plans for final publication.

Technical Man - A technical man is a professional excavator. He is usually hired from the local population and has acquired superior excavation skills through numerous seasons spent excavating archaeological sites.

Tell - A tell is a mound composed of the remains of human occupation. It was created by the successive building and destruction of occupational levels.

Top Plan - Top plans show the progress of the excavation. They are maps of what is exposed in the excavated area at a point in modern time during the excavation (e.g., on a particular day of the excavation season).

Trial Trench - A trial trench or probe is a small portion of an area that is excavated when uncertainty exists as to sequencing. The purpose is to dig from the exposed surface to the next clearly defined layer in order to gain control of the stratigraphy.

Triangulation - Triangulation is a surveying technique designed to locate unknown points in relation to two or more known points. The distance to an unknown point is measured from two known points. This describes two arcs around the known points. Their point of intersection within the area is the location of the unknown point.

Volunteers - Volunteers form the workforce of the expedition. All are students or people interested in archaeology. They are more than dirt carriers, they are archaeologists in training; they learn archaeological method and theory, and often receive academic credit for their work.
APPENDIX TWO: NEAR EASTERN PERIOD TERMINOLOGY

Lower Paleolithic .................. ca. 300,000 BC to ca. 70,000 BC
Middle Paleolithic .................. ca. 70,000 BC to ca. 35,000 BC
Upper Paleolithic .................. ca. 35,000 BC to ca. 12,000 BC
Mesolithic .......................... ca. 12,000 BC to ca. 10,000 BC
Neolithic ............................ ca. 10,000 BC to ca. 4000 BC
Chalcolithic .......................... ca. 4000 BC to ca. 3200 BC

Early Bronze Age (see below) ....... ca. 3200 BC to ca. 2100 BC
  Early Bronze I ........ ca. 3200 BC to ca. 2900 BC
  Early Bronze II ....... ca. 2900 BC to ca. 2650 BC
  Early Bronze III ...... ca. 2650 BC to ca. 2350 BC
  Early Bronze IV ...... ca. 2350 BC to ca. 2100 BC

Middle Bronze Age .................. ca. 2100 BC to ca. 1550 BC
  Middle Bronze I ...... ca. 2100 BC to ca. 1950 BC
  Middle Bronze II ..... ca. 1950 BC to ca. 1550 BC

Late Bronze Age .................... ca. 1550 BC to ca. 1200 BC
  Late Bronze I ........ ca. 1550 BC to ca. 1400 BC
  Late Bronze II ....... ca. 1400 BC to ca. 1200 BC

Iron Age ............................ ca. 1200 BC to 586 BC
  Iron I ....................... ca. 1200 BC to ca. 900 BC
  Iron II ...................... ca. 900 BC to 586 BC

(Brief period of Babylonian domination .. 586 BC to 537 BC)

Persian Period ..................... 537 BC to 332 BC
Hellenistic Period .................. 332 BC to 63 BC
Roman Period ........................ 63 BC to AD 324
Byzantine Period ................... AD 324 to AD 640
Early Islamic Period ............... AD 630 to AD 1174
Crusader Period .................... AD 1099 to AD 1291
Late Islamic Period .............. AD 1174 to AD 1890
Modern .............................. AD 1890 to present

NOTE: There is a debate over the date for the end of the Early Bronze Age and the start of the Middle Bronze Age. The major issue is whether Early Bronze IV and Middle Bronze I should be merged, and if so, to what period does this combined period belong.
Near Eastern Archaeology

A Reader

Edited by
Suzanne Richard

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Eisenbrauns
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Paleoethnobotany in the Near East has come a long way since its inception. Although early paleoethnobotany was dominated by European botanists interested in taxonomy and morphology, the application of anthropological questions and theories brought in by American and British scholars led to more interest in experimental and interpretive paleoethnobotany. Despite limited interaction initially, cooperation and idea exchange between the three traditions has increased in recent years, and there is great promise for the future.

Since the main focus has been on the period of agricultural origins, other topics and periods have received limited attention. The Chalcolithic and later periods, including the historical periods, have not been studied as systematically as the earlier periods.

Other areas for improvement are sampling and quantification strategies. More consistent and unified sampling and quantification strategies are needed. Because of inconsistent sampling and quantification, direct comparison between sites is often difficult. Uniform sampling and quantification strategies become more critical when one is doing statistical and comparative studies or interpretation.

Finally, as in many other aspects of archaeology, publication is a problem. Often studies do not see final publication until 10 or 15 years after excavation. Part of the reason for this is the limited number of paleoethnobotanists working in the Near East, and the training of more people is dependent on complex factors, such as jobs and funding. Convincing dig directors to include money for paleoethnobotanical research in grant proposals, a standard practice in North America, could alleviate some of the problem. Finally, peer pressure and more forums for information dissemination are also needed.

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Method and Theory in Syro-Palestinian Archaeology

Introduction

Modern archaeology is characterized by a multidisciplinary approach. Although the field archaeologist is of necessity a jack-of-all-trades, the depth of available specialization in any number of fields makes a team approach imperative, not just to the analysis, but to the fieldwork itself. In what follows I will investigate first the broader "archaeological" method and then typical contributions of a few collaborating specialists.

Syro-Palestinian archaeology is a specialized, regionally oriented subdiscipline of archaeology in general (see Renfrew and Bahn 1991). Seen in its working modes of excavation techniques and publication, Syro-Palestinian archaeology derives from at least four interrelated sources: (1) at its most basic, it derives from the sorts of questions being asked of the materials, coupled with the necessity of coping with particular sets of archaeological conditions; (2) it derives from the excavator's training, modified over time by experience, reflection, and input from colleagues; (3) it derives from deliberate theoretical reflection and research design seeking to improve accuracy of results, speed of excavation, more responsible reporting, or some other objective (usually a mixture of these); (4) it derives from the political, social, and intellectual climate(s) in which the excavator participates. Every significant excavation has its own particular emphases, generally evident from the structure and emphases of the preliminary reports and the final report volumes.

It is an inescapable truism that, except for anecdotal information, only published reports are of use to other archaeologists or the interested community at large. Results lacking the evidence necessary to sustain new interpretations cannot usefully be employed in ongoing archaeological synthesis and analysis, and they often prove, given more data, to have been misguided or inaccurate. Publication of the results of years of fieldwork at a particular site is a major sustained effort, and it involves immense prior care in recording materials while the excavations are in progress and in analyzing these materials either at the conclusion of the work or, more often, years later. As a rule of thumb, workup for serious publication characteristically takes upwards of two years for each season in the field, and quite apart from publication expenses probably costs as much as or more than the excavations themselves. This constitutes a severe problem for excavators, since funding can usually be found for excavation but may be hard to maintain for laboratory work. Regardless, excavations that do not publish must be regarded as failures, no matter how famous their excavators or sensational their finds. It is a dismal fact of Syro-Palestinian archaeology that by far the greatest
Stratification and the Nature of Archaeological Sites in Syria-Palestine

Throughout the ancient Near East, successive occupations of favored settlement locations (often defined by lines of communication, defensive capability, and access to desirable natural resources including good water supplies) produced multilayered mounds locally termed tells or tepes/dupes. The height of buildup is largely determined by the building materials employed, as well as the length and intensity of occupation. Typically, ancient Near Eastern buildings were made of mudbrick on stone foundations. Chaff and mud plaster protected the walls from erosion and had to be renewed annually. These materials, wasted from every wall by rain, wind, and casual impact together with windblown dust and garbage, coupled with broken pottery and small stones laid down in the streets for passability during the rains, resulted in a slow, steady rise in surface levels, with major buildup occurring when structures were knocked down and rebuilt. Street levels typically rose more quickly than house floors and domestic courtyards. Fifty years seem to have been the average life-span for an individual building, with perhaps twice that for public buildings. Thus, on average, buildings seem to have averaged from one-half to one meter over the course of a century; although, as with all averages, the range of individual variability is great. In some regions, particularly in Transjordan, more (or even all) of the vertical aspect of the structure is due to the construction with stone. In most periods and in most areas (vaulted structures in Mesopotamia and Egypt being the major exceptions), roofs and upper floors were made of mud plaster over brush or reeds supported by transverse timbers. Long spans were constructed using imported conifer, typically Cedar of Lebanon, usually only in palaces or prestigious temples. Destruction of entire sites occurred at shorter or longer intervals due to enemy forces or earthquake. Desertion of sites produced much the same effect, with buildings collapsing over time. Most goods from these abandoned sites, however, including valuable roofing timbers, doors, and doorposts, and so on, were transported elsewhere. Subsequent casual pillaging and scavenging of what remained often left little to discover. From the archaeological perspective, destructions are typically characterized by masses of smashed pottery and small objects lying on floors and, for upper stories and materials stored on roofs, sealed in the structural collapse. Strong evidence of fire is common but, given the essentially fireproof nature of the buildings, not invariable. Where severe burning occurred, the resulting burned brickly detritus could not be recycled into new mudbricks.

Reoccupation generally involved leveling of the local area (many hill-country cities and towns probably were terraced), with rebuilding on the newly leveled surface, scaling in what remained of the destruction. Characteristically, few bod-

ies are encountered, although there are exceptions. Ethnographic analogy, the most powerful source of models for interpreting ancient remains, suggests that, when possible, groups dug to bury their dead, seeking also to recover any treasure that had previously been buried in anticipation of disaster. Remains of rich palaces often were dug into again and again by later treasure seekers. Foundation stones and worked stones regularly were mined out for reuse, and new mudbricks and mud plaster characteristically were made of tell soil tempered with chaff. Various pits (typically for storage or rubbish) and, starting in the Hellenistic Period, deep foundations, regularly penetrated earlier layers. For these and other reasons, the widely held view of "intact destruction levels" seldom applies in any wholesale fashion, and one of the "treasure-hunting" aspects of current archaeology is the search for intact or largely intact deposits, often to the point of neglecting less spectacular materials.

Stratigraphy

Following a geological model, destruction or desertion episodes have been called strata, with reports and analyses typically concentrating on the architecture and deposits of the terminal moment. Stratigraphy is the technique of distinguishing and separating these materials and assigning their contents to appropriate "stratified assemblages." Until recently (and still in many investigators' views), the terms city, stratum, and phase/subphase were considered either equivalent to or constituted of a graded series evidencing both the formative processes and the archaeological analyses of Middle Eastern tells, more analytically classified as "multicomponent stratified occupation sites." Even then, the typical Palestinian archaeologist would read component to mean "stratum" in normal conversation. These archaeologically recovered strata form the chronological framework of Palestinian archaeology. Admittedly, confusion sometimes arose when changes in elevation or excavation mistakes caused excavators to attribute wrong materials to a particular stratum on the basis of work in other areas or in different parts of the excavation site. These sorts of mistakes are sorted out in the professional and popular literature but often have lives of their own, to the detriment of the discipline. Within this overall scheme, phases and subphases typically are established on the basis of multiple floor levels, blocked doorways, stratigraphically succeeding installations or features, and the like. Typically, however, little is done in the way of historical reconstruction or seriation of associated materials. Similarly, artifacts in successive streets or living surfaces or in major earth layers produced by random peaceful replacement or renewal of buildings (for example, repaired or replaced roofing timbers or weakened wall sections) seldom see publication.

This understanding of the archaeological record, sometimes characterized as the "architecture to stratum" approach, is still the dominant one in Syro-Palestinian Archaeology. The weakness of the approach is its inability adequately to identify and control the smaller stratigraphic units. The strengths of the approach arise from the nature of artifactual remains from destruction layers: sealed contemporaneous groups of reconstructible pottery and other small
objects and increasingly including osteological and botanical remains, together with well-preserved building remains capable of being accurately planned and exhibited as a series of succeeding cultural units. Thus monographic final publication generally consists of many volumes, containing architectural groundplans, object drawings, and photographs, explicated by an analytic text detailing the terminal phase of each of these "strata," together with exceptional materials uncovered from other layers than the final destruction.

Preliminary reports vary widely, from short sketches to substantial monographs, but all share in being considered less than adequate presentations of the evidence at hand. Ideally, simultaneously destroyed remains constitute a "snapshot in time" of the durable material complements of the local manifestation of a particular culture. The patient piecing together of a whole series of these "snapshots" from sites throughout a particular cultural region (for example, Philistia, Judah, the Golan) allows for a fair degree of historical interpretation along the lines pioneered by the French annales school.

Starting with Kathleen Kenyon's excavations in Jericho in the 1950s, increasing attention has been paid to the actual stratification of sites (that is, to the individual laminated earth layers and archaeological features observable in balks. These are standing banks of earth, often the gridded banks of undug material separating individual five- or ten-meter excavation areas. Specialized control balks and the sides of probe trenches also contribute detailed stratigraphic information. In "Wheeler-Kenyon" or "balk-debris layer" excavations, the vertical faces of these balks are carefully dressed to enable the tracing and meticulous drawing of the layers, pits, wall and floor sections, and so forth. The resulting section drawings are to the vertical/time dimension what plans are to the horizontal/spatial dimension, and the degree of commitment to "debris-layer" techniques on the part of a particular excavator may be gauged by the relative emphasis placed on plans and sections in the final report volumes or preliminary reports. Since each of these stratigraphic elements may, with care, be separately excavated and their contents separately recorded, the potential emerges for developing exponentially improved stratigraphic successions.

Interpreters familiar with these field techniques are increasingly striving to develop ways of dealing with each individual layer or feature, generally isolated as an individual locus, in relation to all of the other layers. It has been pointed out that, under conventional analysis, the nominal "strata," of which these loci are only minor components, merely present "snapshots" of brief episodes often hundreds of years apart (hence the label "horizons"), whereas each of the minor layers and features should be capable of being dated to much shorter chronological periods spanning the huge gaps extant in the conventional stratographies. That is to say that each of these layers, pits, and so forth should be capable of being dated relative to the absolutely dated destruction layers and discontinuities, with more certain individual dates being established eventually, as the network of cross-dating information becomes more developed. Among other considerations, the necessity of dealing with sherd materials rather than reconstructible vessels, the general lack of interesting small finds, and the difficulty in phasing (or even keeping track of) a multitude of small loci pose substantial obstacles to comprehensive analysis.

In part, the introduction of the "Harris matrix" (Harris 1989; Paice 1991) and the personal computer have combined to take some of the difficulty out of this challenge, and new experimental ways of analyzing and reporting ceramic assemblages in terms other than just the explicit representation of the vessels' shapes may go much of the distance toward enabling the necessary phasing of nondestruction materials. For example, it has recently been demonstrated that the potsherds recovered from successive stratigraphic groups of loci have quite different relative proportions of (intentionally produced) surface colors. Since potsherds, as opposed to reconstructible pottery vessels, typically occur in the dozens and hundreds in these loci, differing statistical profiles may be developed for each of the successive stratified groups, enabling the definition of a much finer-grained pottery chronology than could ever be developed on the basis of shapes alone (Holladay 1990; 1995). Clearly, useful results attained using the most frequently encountered artifacts are superior to results calling for special conditions of preservation and accidents of discovery. Similar results may be obtained by the statistical analysis of the changing proportions of various "wares," as these are employed in pottery studies in Egypt (Holladay and Paice 1992) and on Cyprus. At present, we do not know the geographic spread of this kind of dating series, but it seems probable that it will tend to be regional and markedly different on the opposing sides of political boundaries. If so, this would be a decided plus, since one of the more obvious goals of archaeology is the mapping of ancient culture areas. Other traits, such as specialized slipping and burnishing techniques, seem to be spread over a much wider area.

Balks (although not used enough) also serve to connect major architectural features (fortifications, buildings, store facilities, and so on) and thus to demonstrate their contemporaneity or noncontemporaneity, often over quite long distances. A present problem with this method—how to analyze the strata when the balks are interrupted by large pits, walls, or major foundation trenches—can easily be dealt with by improved techniques of pottery analysis. A subset of the above is the use of a cut section running up against a wall to date that wall, whether it is the wall of a building or of a fortification. In most cases, the construction of the wall is preceded by the cutting of a foundation trench, which will show up clearly in the section. If there is no foundation trench, then the wall must be assumed to have been built upon the surface on which it rests, which may be slightly depressed by the weight of the wall. The construction may then be dated by the date of the pottery lying on the surface on which the wall was built, or from which the foundation trench was cut, with earlier layers cut by the trench providing termini post quem and succeeding layers running up against the wall providing further control as termini ante quem. Yet another use of these sections is their ability to exhibit materials for analysis, in much the same fashion as a biological section, for example, the separate building operations and materials involved in
the creation of an embankment, rampart, or glacis. Finally, note that, although each of these more specific applications of debris-layer analysis has been emphasized as a useful technique by at least one archaeologist in recent years, none of them is really any different from the generic purpose of an analyzed balk discussed above.

**Dating**

Dating generally proceeds, in the first instance and in periods in which a region's history is known by reference to more literate neighbors, with the attribution of destruction levels to various known armed incursions: for example, the Asiatic campaign of Thutmose III, the onslaught of the "Sea Peoples," the 701 B.C.E. campaign of Sennacherib, or rebellions and revolutions: for example, the destructions marking the end of the Amarna period. This method of dating has been criticized by armchair specialists and others, but a study of the ancient texts and inscriptions supports the practice, since the wholesale destruction of rebellious or enemy cities was a normal practice of ancient Near Eastern reälpolítik. If nothing else, destruction ensured that the enemy had to restore its own ruined dwellings and local economy before it could engage in more aggression or rebellion, and it impressed the seriousness of resistance upon other would-be rebels or resisters. From this it follows that most of the remains sealed in the destruction layers are characteristic of their respective periods. Of course, not all attributions have been (or will be) accurate, and one of the ongoing demands upon the discipline is the continual testing of these dating hypotheses against either the known body of data or the newer discoveries. Science knows few "assured results." For earlier sites, one generally has recourse to cross-dating with better-understood remains of historically documented cultures, with better studied cultural sequences (for example, Egypt, Babylonia, Assyria, or the Aegean regions), or with materials dated by various physical methods, especially Carbon 14. Dating by means of scarabs is an excellent example of cross-dating, as long as one is sufficiently warned regarding its dangers when there is a lack of corroborating data (scarabs have been reused and/or copied right up to the present day).

Given sufficient publication of materials from excavated sites, and increasing sophistication in the analysis, it becomes possible to correlate stratification levels throughout one culture area (comparative stratigraphy) and even between culture areas (for example, between Philistia and Judah or Israel) through cross-dating of material remains. Correlation tables given in various handbooks and other publications, however, are seldom documented in any detail and inevitably reflect an author's personal ways of viewing and organizing the data. As such, they should be regarded as useful summations and/or points for discussion and not as "assured results." In the ancient Mediterranean, cross-dating between such widely separated culture areas as the Aegean and the Levant is routinely accomplished through examining the stratigraphic distributions of vessels and objects, the dates of which are well established in their homeland or elsewhere (for example,

Virginia Grace's work on the Rhodian stamped jar handles, which are now as useful as coins). As already noted, an archaeologist generally has recourse to Carbon 14 dating for earlier periods. For later periods, cross-dating sequences are generally believed to be more accurate than the use of Carbon 14, which in any case encounters severe problems of multiple possible calendar dates in various periods, including the last half of the Iron II period.

Since the most common durable remains are pottery, the term "pottery chronology" has been coined to cover the relatively and absolutely dated pottery series, and pottery is used to cross-date archaeological sites throughout all of inscription-poor Western Asia as routinely as coins are used in the dating of sites from Hellenistic and later periods. Hence, in this region pottery drawings are accurate but tend to be heavily schematized and are published in quantity, to encourage easy comparison. On the other hand, in inscription-rich areas (for example, Greater Mesopotamia, Ugarit, and Egypt, with their clay tablets, building inscriptions, papyri, and ostraca) pottery typology typically has languished, pottery often being treated as one of the minor arts, with loving attention often being lavished on each drawn shape.

**Sourcing**

Interconnections in the ancient Near East are generally established by the presence of foreign materials of known origin (obsidian, lapis, turquoise, various metals, and so on) and date—for example, goods exhibiting culturally specific and datable modes of form, decoration, or inscription (pottery, glass, weapons or tool types, metal or stone vessels, figurines, stamped jar handles). Increasingly researchers are turning to analysis of the chemical or geological composition (neutron-activation analysis and petrography) of trade pottery, clay tablets, and so forth and to isotopic analysis of metals, especially lead. Most materials are considered contemporaneous with analogues from their places of origin, although increasing attention has recently been paid to ancient trade in reusable materials and old—often ancient—bric-a-brac (for example, greenstone clubs, scarabs, and lapidary materials). For recent studies attempting to document the presence of "foreign" long-distance trading colonies, see Holladay (2001).

**Intrasite Settlement Patterns**

Given the great depth of occupation of many tells (excavations often go below 10 meters), broad horizontal exposure is hard to achieve for all but the topmost strata. In addition, it is increasingly considered essential to preserve walls and features of buildings on important sites as public monuments, so that archaeological sites may be visited and understood by tourists and the public in general. In these cases, earlier strata can only be reached by increasingly narrow probes, in which exposure is minimal and control is problematic. In other cases (for example, Jericho), deep narrow trenches have reached extremely early levels of occupation but at the expense of generally failing to expose even whole structures, let alone neighborhoods or quarters. In still other cases, large fields have been taken down
several strata, with (where employed) regular removal and reestablishing of balks. For reasons of time and money, however, these excavations have generally been possible in only one or two sectors of a site. Early excavations (Megiddo, Tell en-Nasbeh, Tell Beit Mirsim) achieved wide exposure (and Megiddo attained considerable depth in some sectors). But this gain was at the expense of control and close recording. Increasingly, serious attention is being paid to sites with termination at early levels of occupation or with discontinuous occupation. Thus one- or two-period Chalcolithic, Early Bronze Age, Middle Bronze Age, Late Bronze Age, Iron Age, Persian, Hellenistic, and Roman Period sites of various types have been or are being excavated, some with quite broad exposure, yielding potential spatial templates or frameworks against which more limited exposures can be evaluated. Given proper publication, each of these excavation strategies can yield important information on the architecture and typical spatial patterning of the settlements from the various periods.

**Regional Settlement Patterns and the Role of Archaeological Survey**

Since the earliest days of modern interest in the antiquities of the Middle East, surveys have been conducted to locate place-names known from the Bible and ancient literature (for example, the Onomastics of Eusebius). With the further development of pottery chronology, it has been possible to date most occupation periods at a particular site on the basis of pottery picked up on the surface of the mound and its slopes and from available cuttings. In the past half-century, numerous regional surveys have been conducted in the entire region of the West Bank and in a good portion of Transjordan. Increasingly, these surveys have concentrated on detailed coverage of particular areas of the territory—for example, the recent surveys of Ephraim (Finkelstein), Manasseh (Zertal), Judah (Kochavi, Ofen), and Moab (MacDonald, Miller, Harrison)—paying as much attention to small sites as to large. Although not all of these archaeologists have issued final reports, extremely useful interpretations of ancient settlement patterns have emerged, demonstrating the power of the approach. In the final analysis, however, it is almost impossible to document all settlements and activity sites in such large regions with such limited forces. A variety of sampling strategies have been developed elsewhere to enable application of statistical probabilities extrapolated from detailed foot-surveys of selected randomly chosen sectors (generally quadrats or transects) to the region as a whole. At present, these strategies have only been applied in the southern Levant in the Transjordan (Banning, MacDonald), and their strengths and weaknesses are still being assessed.

As a technique for developing comprehensive socioeconomic data over whole regions, surveys have the advantage of being both rapid and relatively inexpensive. In addition, they provide data for whole regions and subregions that can be gathered in no other way, although their future effectiveness is increasingly being compromised by deep plowing and the wholesale remaking of landforms by bulldozing and massive landfills, to say nothing of the denuding of tell surfaces by generations of casual visitors.

**Geology and Geomorphology**

Many "site-formation processes" are geological or geomorphological in nature and are best understood through the involvement of a geologist in the project. Many odd features ultimately prove to have arisen through quite simple natural processes, having nothing to do with human activity. In addition, some geologists were already doing what is now termed "microstratigraphy" long before the term was coined. Unquestionably, microstratigraphy—the forensics of archaeological sediments—will increasingly become one of the key data-collection and interpretive aspects of future archaeological projects, with a resulting quantum leap in our abilities to infer patterns of activities (work, eating, recreational activities, and so on, regularly performed in the same location, time after time) right across the full range of surfaces within an excavation area. As with paleobotany, however, the work is time consuming, the learning curve is long, and ultimately this new approach will prove to be expensive on anything but an exploratory scale. It can be argued, however, that this is probably the only way that we will ever learn much about what people actually did in most of the activity areas we excavate, which may make it cheaper at any price. On a more basic note, strong geological capabilities are essential for the identification and sourcing of exotic materials, some of which (for example, obsidian, lapis lazuli) were traded over long distances. At the local scale, knowledge of the sources of building stones or of basalt or quartzite grinders and chert/flint for tools (chert sickle blades being in active use in Palestine at least through the Iron I period) often proves invaluable for historical and socioeconomic reconstruction. Knowledge of the soil types, sources, and stratigraphy within the "site catchment" (the area reasonably inferred as being of immediate economic usefulness to the site's occupants) often can be determinative for inferring cropping and/or herding potentials, sources of clay for potters, or even for inferring environmental degradation.

**Paleobotany**

Carbonized remains of plants, especially seeds, withstand most of the destructive processes that affect the long-term preservation of materials. They are, however, easily crushed, and in areas with high salt concentrations are subject to disintegration as a result of crystallization of infiltrated salt solutions. Carbonization occurs principally in the ashes of cooking fires, with occasional charring in mass-destruction situations of quantities of stored seeds, principally grains and legumes, but also fruits and nuts. Paleobotanical sampling is generally done by taking a standardized sample of ashy material from each likely location and putting it through one form or another of flotation or wet sieving. A valuable by-product of the sieving operation is the recovery of tiny bones (fish, rodents, birds), snail shells, beads, and so on in the heavy fraction. Charcoal samples may be collected along with the pottery and bones as a normal part of the excavation process, although the taking of samples for Carbon 14 determinations requires special knowledge and handling.
Aside from the usual sorts of "laundry list" publication, in-depth statistical study of domesticated plants against their accompanying weed cohort generally yields information—for example, about soil conditions and cropping practices—obtainable in no other way. Many kinds of plants and weeds prefer specific growing conditions; consequently, it is often possible for the paleobotanist to be equally specific about the various components of the local food production system and its impact on the local ecology. Sometimes quite surprising conclusions emerge solely from paleobotanical analysis. For example, during the Hyksos occupation of Tell el-Maskhu, the complete absence of summer fruiting species from the cooking-fire ashes was the determining factor leading to the inference that the site operated on a seasonal basis. Even the presence or absence of irrigation can often be inferred from the evidence. In the alternately wet and dry alkaline soils of the Levant, pollen preservation is generally minimal but should be checked. The collection of modern weeds and other specimens from the local surroundings adds an important dimension to the study of the site in its natural setting, and remnant species often can give significant clues to the site's ancestral ecology.

**Paleozoology**

Long neglected, the study of the tens of thousands of animal bones typically associated with a major excavation has opened new doors to understanding the site's setting in its natural surroundings through time, as well as an understanding of the inhabitants' changing subsistence strategies, food preferences, herd management practices, use of draft animals, and participation in overland trading enterprises. From the gender and age of the individuals, it can be determined (both theoretically and on the basis of ethnographic parallels) whether domestic animals were primarily kept for traction or secondary products (milk, wool, hair, etc.) or for meat, and in what proportions. Hunted species typify local environments, and even small commensal species help to describe local activities and environmental conditions. For example, a localized abundance of rat bones may signal grain storage, and the presence or absence of fallow deer may say a great deal about the woodland succession, density of settlement, and agricultural intensification in succeeding periods. Snail shells constitute a specialized sub-area of research and can often yield surprisingly specific insights. Cultic areas, perhaps priests' houses, have been identified on the basis of an overwhelming preponderance of right forelimbs of young sheep and goats in a restricted location. Linked to the identification of species and portions of the animal characteristically present in the archaeological sample are the study of discard patterns and the study of taphonomy (the study of agents and processes operating on bones between the time they were first dismembered and the time of their discovery). How can one tell, for example, if a bone was splintered by a person extracting marrow or by another process? What are the marks left by dogs chewing on bones? Since dogs and cats, if present, regularly dispose of bird bones, one cannot easily determine the relative importance of birds in the ancient economy based on their rarity in the archaeological record.
of these patterns, formulation of these hypotheses, and interpretation of the social and economic patterns implied by the evidence characteristically must be based on viable models witnessed in actual living situations, then tested by the broader implication of those models for other aspects of the material culture complement. Here we find ourselves in the territory of anthropology and on the level of socioeconomic reconstruction in the territory jointly occupied by anthropologists (who characteristically, but far from exclusively, study simple societies) and social historians, various types of economists, and sociologists (who characteristically study complex societies). As one prehistorian put it: "archaeology is incurably 'materialist' with respect to its data base"; yet important cultural struggles have often prevented archaeologists from evaluating the work of their "materialist" colleagues, too often characterized as "Marxist." Illustrations of the greater utility of this general approach would have to take us into the archaeology of other areas (for Jordan, however, see now LaBlanca 1990, reviewed by Dever 1993). A partial illustration, however, lies near at hand: the recent explosion of insight into long-distance trade brought about through the involvement of anthropologists, economists, and social historians in a common pursuit (e.g., Rowlands et al. 1987). New studies are only now emerging (Levy, ed., 1995), and much can be expected in the near future.

Interpretive Strategies

Interpretive strategies have been sketched above. Here it is only important to note that, for the results of Palestinian archaeology to be accepted in the international market-place of ideas, much more will have to be done on the basis of quantified data obtained from finer-grained archaeological techniques and through the use of appropriate models, including not only the above, but also the historical analogy long championed by W. F. Albright, the comparative religions approach of G. E. Wright, and the area-studies approach pioneered by Yohanan Aharoni.

Prospects

Some of the most important prospects have been outlined above. From another perspective, it is obvious that future developments will be driven by technology. Global Positioning Systems now allow for more exact map locations of even very small sites, making surveys more efficient and insuring ease of relocating small sites. The increased use of magnetometers, instruments measuring the effect of electro-magnetically induced currents such as the Geonics EM-31; side-scanning radar; and improved seismic techniques are materially enhancing our abilities to study subsurface structures without excavation, as well as allowing "ground-truthing" excavations to be precisely located. Satellite imaging, particularly multiband imaging, should eventually play a major role in developing ever-more-sophisticated models for geographic information systems modeling. A wide variety of digital calipers, scales, colorimeters, and so forth should make field recording procedures more exact and less time consuming, allowing for direct input into database structures, although many of these instruments are prohibitively expensive at present. More pervasively, the current and future evolution of personal computer technology will quickly become the major force enabling increasingly sophisticated—and, hopefully, speedy—archaeological research and publication. For example, computer databases can "run rings" around any file-card system, although the two tend to be used in tandem. The main effects of the computer revolution on fieldwork are: (a) the increasing use of the computer-based recording laser theodolite, which, coupled with computer assisted drawing (CAD) programs significantly increases the speed, accuracy, and utility of site-mapping and architectural reconstruction; (b) the increasing use of computers for in-field data entry and ongoing preliminary analysis (example: where, in our beginning-of-excavation site survey, did we find bits of copper slag?). The latter should have the desirable effect of markedly increasing the number of items recorded, thereby enhancing the prospects for meaningful statistical analysis and bringing about greater consistency in the recording process.

It is already clear that much of the factual content of future publication will consist of edited databases, probably on CD or DVD-ROMs, of the excavation itself, permitting anyone to work with virtually the same range of data (actual handling and testing of materials aside) as the publication team. Images are more expediently delivered and referenced in print form, and final report series can now consist of a set of plate volumes accompanying a slim monograph (with a couple of CD-ROMs in the back) outlining the research objectives and strategies, together with the main results and principle inferences of the project. Other formats undoubtedly will emerge, some of more questionable utility than others. High-quality video disks, with built-in indexing to allow instantaneous searches, could eventually complement or even replace the publication of voluminous plate volumes. A system of specialized "place markers," already widely used, could substitute for the more instinctive three or four fingers in the volume. Whether or not researchers can easily use these materials for serious work is worthy of consideration. On the other hand, well-produced CD-ROMs present the opportunity for including many color slides in a publication at relatively low cost. For the near term, field photography will best be done on film, with conversion to digital images that could be easily imported into documents and stored on DVDs.

Geographic Information Systems (GIS), complex interrelated database programs dealing with locational, temporal, and environmental data have already proved useful for making sense out of ancient settlement patterns (and for predicting where other sites of the same period should be). In Jordan these already have become the primary tools for ongoing research into ancient environments at all levels of analysis, from intrasite to regional to interregional (Harrison, Savage, and Graham forthcoming). In all probability, developing and improving data sets like these—or developing materials to complement and flesh out existing databases—will become a major form of publication, allowing other researchers and the interested public to explore new topics and expand the
boundaries into directions not envisaged by the original and subsequent creators of the database.

What this means for analysis and reconstruction (for the doing of archaeology) is that the entire database of many projects presently underway, or still in publication phase, should soon be available for continuing analysis and comparison with other database materials. Older publications will undoubtedly be databased, with usefulness dependent on the adequacy and accuracy of the database format. Ultimately, this should have a major and salutary impact upon field recording, presently one of the weak links in the investigative chain, as new and improved methods of field recording produce ever-more-useful databases, driving up research standards. All too often conclusions are or have been based upon a small subset of the original archaeological record, simply because it was all that the excavator could economically access (or remember). Given full access to a large, standardized sample—preferably all—of the entire excavated population of sherds and other material culture items, entirely new aspects of the material culture record can be explored: for example, the identification of activity areas or more secure, detailed methods of pottery chronology.

All of this having been said, books and journals should continue to be a key element in the interpreting and delivery of information, for intellectual and social reasons if none other. Printed on the right paper, books and journals have better archival lives than any other medium, and libraries are wonderful repositories for knowledge and places to conduct research. Browsing the library shelves is still one of the quickest ways to enter an unfamiliar area of study. While materials stored in electronic form can instantaneously be transmitted to readers in any part of the free world, can be “searched” more expeditiously, and are much cheaper to “publish,” they are curiously cold and not very “user-friendly” in their present incarnation. The sorts of interaction between reader and author capable of yielding humanistic insights (as opposed to various sorts of statistical insights or nearly instantaneous communication) seem curiously lacking in the all-electronic medium; and well-illustrated, carefully written and rewritten books and articles are still a world apart from anything this writer has yet seen on-line. Thus, if production and distribution costs can be kept down, books, magazines, and journals should hold their own for at least another generation and perhaps longer, with the more thoughtful, complex, and accessible popular materials (two or three distinct categories) probably hanging on the longest. As a result, it may well be that archaeologists will still find themselves writing books and serious articles for publication, popular summaries of their excavations and technical studies for the more popular press, while increasingly working with ever-evolving electronic resources. Specialized interactive instructional programs increasingly will be on CD-ROMs. If they are not to become unworkable, Internet discussion groups must be limited in membership, size, and scope.

C. P. Snow’s “two worlds” will probably spread into multiple professional networks (quite literally, in the computer sense), all quite “data”-driven, with many other people, including popular pundits and working reporters, “watching” but not “participating.” For a very large group, competitive journals and magazines

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Bible and Archaeology

Recent discussions about the relation between the Bible and Palestinian archaeology have focused on differences in methodology between these two fields. The debates have led to a consensus on one point, that biblical texts and archaeology are discrete areas of investigation, and that scholars in one or the other need to respect the methodological lines. But, while the emerging consensus may be said to be a gain, it may also prove to be unrealistic, since biblical scholars and Palestinian archaeologists share natural overlaps. Not only do the historical problems with which each is engaged put the one in relation to the other, but the two fields are as often as not represented in the scholarly life of a single person. Even if an academic department is large enough to divide responsibilities, in most cases the scholarship of biblical studies and archaeology is carried on in tandem in the research and courses offered by that department. This seems also to be true in some cases where Palestinian archaeology has found a home in anthropology or history departments. A radical effort to isolate the disciplines thus not only brings confusion but raises the danger that one or the other or both disciplines will lose ground as curriculums are constricted in hard-pressed educational institutions.

Courses in Palestinian archaeology currently are located in a university department of religious studies or theology, still the largest home for the subject, or in Near Eastern studies—although there are fewer possibilities for the latter—and occasionally and perhaps in a slightly increasing way in anthropology departments. Palestinian archaeology also continues to maintain a tenuous link with one of its traditional home bases, the seminary; but in the case of the latter, the recent debates, often recriminating, have had a dampening effect on introducing the subject into seminary curricula.

Meanwhile, biblical scholarship has advanced its programs in contexts of general religious and literary studies in public and private universities, in religion and theology in church-related institutions, and in programs of pastoral training in seminaries. A continuing challenge for archaeology is whether and how it can establish its relevance to these programs and developments.

One fallout of the movement toward disengagement of these two fields is that the issue of how they intersect has scarcely been taken up with the kind of enthusiasm that characterized the discussions a few decades ago. Archaeologists now have differing opinions about the relationship. They may occasionally express themselves on the subject, but difference often dominates. The chief spokesman for separation in the earlier debates, William G. Dever, has recently advocated a new type of relationship that he contends is indispensable for progress in biblical studies, especially the branch dealing with the history of ancient Israel. Such work indicates that a new sense of need to revitalize the integration of archaeology with biblical studies is emerging. And if past experience is any indicator, the theological discussion of implications in cross-disciplinary study from textual and archaeological perspectives will no doubt arise again in the future. If this renewed interest occurs, religious studies, theology departments, and seminars will all have a stake.

On the technical side of archaeology, scholars involved in pure research proceed according to objectives set by the discipline itself. Practically speaking, little difference exists between the way Palestinian archaeologists conduct their projects and the way their colleagues in archaeological research elsewhere proceed in their work. The ideal that they strive for is to be professionally effective. If the Bible is consulted in the course of a project, it is usually seen as offering supplementary information but playing little or no role in the overall research design of an expedition.

Biblical scholarship, on the other hand, has in recent years grown more insulated from the contributions of archaeology. The paradigm dominating contemporary biblical study is “story” rather than history. In its more extreme form, story has the effect of eradicating the linkages traditionally assumed between the Bible and archaeology. The state of literary study and biblical historiography at present stands in sharp contrast to the situation a few decades ago when history was the preeminent paradigm. For Palestinian archaeologists, the current approaches in biblical study have had a suppressive effect on efforts to explore biblical linkages. On the other hand, biblical scholars have found that extremely specialized work in archaeology has made its results seem arcane for text interpretation.

Given the advances in both disciplines in recent years, and recognizing the distancing that has taken place, I find it helpful to look at ways in which previous scholarship sought to build bridges of cooperative understanding. Earlier scholars had their debates over the relation between Bible and archaeology, and these could often reach high levels of intensity. The difference is that the scholarship of this period had not yet yielded to a sharp separation between the fields, and the dialogue between them continued, if at times with disagreement.

Several approaches in bringing archaeological results to bear on the understanding of the Bible were employed by earlier scholars, who usually had one foot in biblical study and the other in archaeology. An obvious approach was to use the wealth of data from archaeology to provide visual details that would fill out what the biblical texts had put only in words. In this sense archaeological evidence was considered primarily illustrative. The most popular work in the United States that used archaeology for this kind of potential was George A. Barton's book, published in 1933. Barton's publication had considerable impact on educational programs in churches. It was written in a style accessible to nonprofessionals, and it contained a wealth of photographic reproductions that could easily excite the interest of lay students of the Bible. Scholars like Barton who employed the illustrative approach described their aim as "throwing light on the Bible" or "illuminating the biblical texts," and they shared the view that the primary value of archaeology in the lands of the Bible was that it helped Bible students to "see" the text.
The idea of an illustrative approach to archaeological results and the Bible was popularized in books that used photos and drawings to illustrate scenes from the Bible. In the late 19th and early 20th centuries Germany especially witnessed the appearance of a number of successful Bilderbücher of this type. Archaeologists from Germany were some of the earliest explorers of the lands of the Middle East, and their travels and expeditions produced a vast library in all aspects of study in this region. It was natural that some scholars would put these results at the disposal of the public by means of their publications, lavishly produced for the time. Included in their publications was a wealth of glyptic and representative art, as well as artifacts depicting the daily life of people in biblical times. The major collection of archaeological artifacts and art relevant to the Old Testament published by James Pritchard in the United States (1954) continues to be a primary source book, based on the same model of accumulated illustrative material.

This type of cultural material from the world of ancient Palestine made the Bible more understandable, since it facilitated contact between the modern Bible student and the “real world” in which the biblical people lived. Although those who worked with this approach rarely made the effort to explain how the information would assist in the comprehension of the ancient texts, the illustrative model was effective and reached large audiences. It still retains its popularity, and it has taken on a new dimension with modern advances in photography.

For another group of scholars, the relationship between the Bible and archaeology had a more profound relevance than simply illustrating the world of the Bible, despite the fact that visualizing the world of the Bible had significance for this group as well. George Ernest Wright’s Biblical Archaeology (1962) is the classic expression of an approach that would relate archaeology directly to exegetical and theological questions. For scholars like Wright, the main contribution of archaeology was undergirding the Bible’s historical perspective. This way of viewing the relation of the Bible and archaeology functioned as a corroborative paradigm, although the idea of corroboration was not employed simplistically. The basic thrust of this approach was that archaeology with its ever-increasing data from the biblical lands could make an essential contribution to supporting and even at times substantiating the Bible’s historical picture.

Operating often with an apologetic intent, which its best practitioners made no attempts to disguise, this approach was the most theological of all efforts to relate the Bible and archaeology. Those who employed it found it an ally in the discussions about history that dominated theology after World War II. Whether in its European or American form, the debates about history, with roots in 19th-century historiography, drew theology and biblical study, along with philosophy, into provocative discourse. By relating to this intellectual ferment, Palestinian archaeologists dealing with issues of factuality were able to fix Palestinian archaeology into the current biblical and theological task, and their contributions experienced an unusually successful reception at the time.

If the representatives of the corroboration model were concerned with seeking verification for the Bible’s basic historical view, their efforts were not religiously fundamentalist. The majority of those who followed the “God who acts in history” approach to the archaeology of ancient Palestine made clear that they accepted the demonstrable reality that many parts of the Bible were not historical, that different literary forms in addition to history as we know it today were present in the biblical writings. At the same time, the assumption was made that the events recorded in the Bible had more or less occurred, temporally and geographically, in the way they were recorded and that archaeology served the purpose of showing how this was so. For theology this provided significant input for the discussions about the relation between fact and faith that were a dominant theme in theological discussions of the time.

As far as the corroboration paradigm is concerned, therefore, it was clearly scholars with links to the theological developments following the war that held the field on the issue of the relation between the Bible and archaeology. For scholars such as Wright, who pursued work simultaneously in both archaeology and biblical study, this model was effective as long as the biblical theology on which it was grounded was able to hold up. When this version of biblical theology no longer commanded broad support, the ability of the corroboration model also lost its power (Childs 1970). And as this occurred a further impetus was set loose for dividing Palestinian archaeology from its contacts with biblical study.

Yet a third approach to the issue of the Bible and archaeology made use of comparative data to determine congruences, borrowing, and similarities between the cultures of the ancient Near East. Not tied at all to biblical theological issues, this approach was closely identified with the newly popular field of the history of religions that had emerged in Europe. In the broadest way, as archaeology in the various countries of the Near East began to turn up comparative data, the results were set side by side with the religion of the people of Israel to determine what cross-fertilizations may have occurred.

The comparative approach had a very different result for biblical interpretation from either the illustrative or the corroboration paradigm. By means of the comparative approach, represented in the book by Graham and May published in 1936, biblical religion was seen as one among several other forms of religious experience attested by the new data from the ancient Near East. The cultic realm, whether artifactual or mythic, were exploited for the light they could shed on the development of Israel’s religion. Out of this field of the comparative investigation of ancient Near Eastern religion came an abundance of archaeologically based studies of temples, sacrifices, priestly orders, and myths, all of which have been related to texts of the Bible. In its most confrontational form, this model played an important role in what came to be known as the “Babel-Bible” controversy in Germany, a heated debate that took place over the question of whether anything in the Bible was unique and whether biblical belief had not as a whole been assimilated from earlier cultures in Mesopotamia.

None of the approaches of earlier scholars can easily be revived in the current situation, although one can argue that the problems of history in relation to biblical faith have not been exhausted, even if scholars seem to have given up
the discussion for the time being. It seems that archaeologists who are still interested in and trained in respect to biblical questions could reinitiate discussions around the questions of history, seeking ways to pursue what could be a new and fruitful dialogue between scholars involved in textual study and scholars recovering new data from fieldwork.

The recent redirection toward social histories of Israel also presents the possibility of a new phase of discussion, in which the focus on history in relation to biblical faith might arise in a new form. At the very least, many archaeologists working in the Middle East have taken on methodological approaches of social archaeology, which opens a door for social historians and social archaeologists to collaborate in the study of the social world of ancient Israel, as well as later Judaism, Christianity, and Islam.

Central to the problems and challenges, however, are the old questions of hermeneutics. The pursuit of these problems demands that a person be well schooled in the history of biblical interpretation, including the theological, philosophical, and philological issues that are implicit in this discussion. The matter might be stated as a fundamental question: What is it that shapes the perception of a scholar as she or he attempts to unfold meaning in biblical texts? Is it true, as some have argued, that the effort to incorporate "extraneous" material such as findings from archaeology into the study of texts (specifically biblical texts) presents the danger of subverting the meaning of texts? Or does the exclusion of this material from the investigation of texts that were produced in the milieu of a particular material culture not instead result in the danger of an anachronistic reading of the texts? For people who wish to concentrate on this problem, it seems that a world of new possibilities is available in modern cognitive psychology—focusing on how one's thought processes move from perceptions (to which the visual aspects of archaeology certainly contribute) to conceptualization, the point at which the highest level of interpretation occurs.

A hermeneutic addressing this issue might take into account what has become a new element in the discussion recently, namely, the recognition that the Bible does not stand by itself, disengaged from the material cultural world in which it was produced, but is itself a product of Iron Age Palestine. The Bible's history of survival is different from the history of the artifacts that have endured in the soils of ancient Near Eastern sites and that are being unearthed by fieldwork. But it is not less a remnant from those times and that culture. In this sense, any wall that might have been built between Palestinian archaeology and biblical studies would have to begin to tumble.

It is to questions such as these that the dialogue has begun to return, even if only in a provisional manner. Although the gains obtained through a sharper delineation of the unique contributions of each field mean that much study will continue to be compartmentalized, the common ground between archaeology and biblical studies seems ready for replowing, with a potential for harvesting new results.

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WALTER E. RAST
Levantine Archaeology

The Levant has perhaps the most intensely examined archaeological record in the world. The unique phenomenon of the "tell" site has led to a plethora of competing theoretical and methodological approaches. The archaeology of Syria and Palestine has simultaneously acted as both a laboratory for new methods and a museum for discarded ones.

Pre-World War I

Before World War I, all of the Levant was under the control of the Ottoman Empire. This decaying state attracted the covetous interest of the Western Powers. One of the expressions of this interest was archaeology. Inspired by the linguistic achievements of Champollion and Rawlinson, the mid-19th century witnessed an explosion in interest in Levantine archaeology among both scholars and the general public. Numerous national and religious societies such as the Palestine Exploration Fund (1865–) were dedicated to the recovery of the ancient Levant. The first excavations carried out in Syria and Palestine were focused on large known sites such as Byblos and Jerusalem. These were more in the nature of treasure hunts than scientific forays. By World War I, numerous foreign institutes interested in archaeological research had been established in the Levant.

It was recognized early that a thorough survey of the country was a necessary prelude to archaeological investigation. The pioneering archaeological survey in the Levant was by an American biblical scholar, Edward Robinson in 1838. Robinson's theoretical goal was to ground the Bible in science through the preparation of a scientific geography. His methodology was based on the belief that ancient place-names were preserved in local Arabic usage. He was extremely successful. He did make some errors, usually because he did not grasp the artificial nature of tell sites. The Palestine Exploration Fund built on his work with a monumental survey of Palestine in the late 19th century. This was carried out by British army officers with an obvious interest in strategic issues. Military interest in overtly archaeological surveys continues into the present day in the Levant.

In 1890, the Levant became a methodological laboratory for William Flinders Petrie, a British excavator experienced in Egypt. Petrie conceived of a major advancement in archaeology: the principle of ceramic sequence dating. At Tell el-Hesi in southern Palestine, Petrie combined the principle of sequence dating with an awareness of the stratigraphic context to establish the first ceramic calendar for the Levant. Trained as a surveyor, Petrie envisioned a tell as a series of datable architectural phases, the product of a succession of destructions and reconstructions. The recovery of town plans was the goal; pottery was only a tool for dating, so categorizing "types" was the goal of ceramic research.

Methodological experimentation continued in Palestine under R. A. S. Macalister at Gezer in 1902–09. Confronted by a 30-acre mound, Macalister excavated two-thirds of the tell by digging a 40-foot-wide trench to bedrock, then backfilling the trench with the spoil from a new trench. At the end, he was unable to link up the strata exposed in the various trenches. Although the field method was a vertical one, Macalister approached the tell as a horizontal question. He did not make use of the vertical exposure presented by the successive trenches but tried to use them to recover sequential architectural plans; his methodology did not match his goal.

German excavators working in the Levant employed methods developed at Olympia in Greece. Excavators in Syria–Palestine such as Sellin and Watzinger would excavate a series of trenches to expose monumental buildings and fortifications and to recover their associated art works and decorative motifs. If a monumental building was encountered, the trench was expanded laterally. Tell sites were chosen for excavation because the tell was understood as the product of activity of the upper class. Pottery held little importance unless it was an art object in its own right. It was an archaeology of the elite.

George Andrew Reisner, an American excavator at Samaria, used a stratigraphic approach. In his theoretical framework, a tell was the product of natural and human activity, and the archaeologist's role was to discern this activity. The key to decoding this activity lay in the thorough analysis of nonarchitectural debris. Reisner was astonishingly prescient in focusing on what we call today formation processes. Although Reisner's emphasis on stratigraphy was carried on by later archaeologists, the rest of his theory and method package were ignored. The questions Reisner asked regarding human activity and tell formation are just now being re-stated, some seventy years after his publications.

The "Golden Age"

The 1920s ushered in a golden age (so christened by G. E. Wright) for archaeology in the Near East. The Western-controlled territories of Palestine, Syria, Lebanon, Iraq, and Cyprus were wide open territory for archaeology. French, Danish, British, American, German, and Swedish excavators were in the field. It was the time of the "Big Dig." Levantine archaeology reflected the prevailing idealistic climate of the 1920s. For many expeditions, the announced goal was nothing less than total excavation of a particular site. Financial resources and methodology were deemed adequate to achieve these goals; for example, The Oriental Institute of the University of Chicago began excavation at Megiddo in the 1920s with a budget of one million dollars. The close nature of the archaeological community and the geographical proximity of the various excavations insured that new methods or interpretations were widely shared.

The British Mandate authorities after 1918 assembled a highly professional core of archaeologists in the Department of Antiquities, including Ernest Mackay, C. Leonard Woolley, and P. L. O. Guy. The British worked in the Shephelah, at Jerusalem, Lachish, Samaria, Ashkelon, and Jericho. The Ashkelon excavators
took advantage of an erosional cut and produced a section drawing illustrating the stratigraphy. The British began to comprehend the complexity of the tell sites, but they still lacked a functional methodology to untangle them.

In Syria and Lebanon, controlled by France, French archaeologists were very active. Large French excavations were undertaken at Byblos, Ras Shamra (Ugarit), and at smaller sites in Syria and in Palestine. French Dominicans from the École Biblique in Jerusalem also excavated in Palestine.

The complex nature of tell sites and the resulting necessity of careful attention to microstratigraphy clashed with the often avowed aim in the 1920s of total site excavation. The French at Byblos attempted to answer this problem by both a massive commitment and a methodology that dealt with the debris question by introducing an artificial stratigraphy. Pierre Montet and his successor Maurice Dunand employed a field methodology at Byblos that had been pioneered at the classical site of Delos and the Iranian site of Susa. Montet and Dunand hoped to excavate the entire site in 20-cm arbitrary levels; a total of some fifty were excavated. Dunand believed that the find-spot of an artifact could be closely indicated, and the publication would enable the reader to reconstruct the site without any "false linkage" made by the excavator. Excavation by arbitrary levels can be very valuable where no cultural stratigraphy is evident; however, its application to a major tell site reflects an incorrect picture of tell formation.

The methodology of American archaeology in Palestine in the 1920s was the product of Clarence Stanley Fisher, the architect at the American excavations at Samaria. He returned to Palestine in 1920 to work for the University Museum of the University of Pennsylvania in the excavation of Beth-shan. The Fisher method called for the excavation of areas rather than trenches and systematic recording. At Beth-shan, and later at Megiddo, Fisher concentrated on clearing complete building units. He saw a tell as a series of strata formed by the superimposition of architectural remains that could be dated by careful excavation.

W. F. Albright, the leading scholar of his generation, became director of the American School of Oriental Research in Jerusalem from 1921 until 1939. At Tell Beit Mirsim, Albright took the area orientation of Fisher and the recording system of Reisner and added the intensive study of the ceramic material from the tell to produce a highly successful field methodology. To his credit, Albright appreciated the disturbed nature of a tell and turned to ceramic typology to deal with the problem of tell debris. To understand the phases at Tell Beit Mirsim (1928–32) Albright considered the pottery context, not the stratigraphic one. The Tell Beit Mirsim collection gave Albright the dated material he needed to systematize the ceramics of Palestine. Through those publications he provided archaeologists with a ceramic corpus that could be used as an independent check for other sites. Unlike other published pottery collections, Albright presented the actual pots in question, not "types."

The Albright method prevented stratigraphic experimentation, leading to methodological stagnation in Palestine. There was no need to develop field techniques that could expose and clarify microstratigraphy, since pottery typology held the promise of pinpointing intrusive material. A locus was "clean" if its pottery assemblage contained only forms that on comparative grounds did not conflict chronologically. Such a "clean" locus could then be used to test other material. This could become a circular trap, simply reinforcing preconceived ideas about pottery groups. Pottery forms are assumed to be chronological markers, not cultural ones; hence, regional subdivisions and cultural "time-lag" must be rejected on a priors grounds. Despite the limitations of his method, Albright's success made ceramic study the hallmark of American excavations in Palestine to the present day.

The clarification of the ceramic sequence was not an end in itself. Albright needed the ability to date ceramics accurately so that he could ascertain the periods of habitation and date the destruction of Palestinian tells. With this ability, Albright could answer the questions of biblical history that became increasingly more important to him. Albright hoped to ground biblical studies in the realia of archaeology. The resultant construct came to be known as "Biblical Archaeology."

Post–World War II

The emergence of Israel as an independent state accelerated the separation between archaeology in Syria and Palestine begun during the divided Mandate. Direct archaeological cooperation was ended for local scholars and made very difficult for foreign archaeologists. French, British, and American scholars continued to excavate in the new states of Syria and Lebanon. Jordan and the West Bank were dominated by large-scale foreign excavations. In both areas, by 1960, local archaeologists had begun to direct excavations. Within Israel, archaeology enjoyed widespread public support, and soon large-scale, architecturally-oriented excavations directed by Israel's began at prominent biblical sites such as Hazor.

A new methodology revolutionized Levantine field archaeology in the 1950s. The new prophet in field archaeology was Kathleen Kenyon, a British archaeologist who had first worked in Palestine before the War, at Samaria. In 1957, she began a reexamination of Tell es-Sultan, the biblical site of Jericho. In the Jericho excavations she introduced a new field methodology. Kenyon had gained her initial archaeological experience with Sir Mortimer Wheeler in the late twenties at Verulamium. He had obtained excellent results through a stratigraphically-oriented method that made extensive use of vertical sections. Kenyon took the Wheeler methodology and applied it to a Near Eastern tell at Jericho. In this system the site is excavated in a series of squares, separated by "balks" that are left standing and thus provide keys to the stratification. The goal is to gain a "stratigraphic" understanding of the site, not just the recovery of floor plans.

G. Ernest Wright, a student of Albright, began working at Shechem in 1946. His excavation pioneered the combination of Kenyon's methodology with the traditional American interest in ceramic typology. Most American excavators working in Jordan quickly combined the new methodology with a strong ceramic
orientation. This basic methodology is still the foundation for much work undertaken today in Jordan and Israel.

The years following the 1967 war were characterized by a burgeoning of large-scale excavations, area surveys, and small-scale problem-oriented archaeology throughout the Levant. Sites dating from the Palaeolithic into the Ottoman period have been examined. With the West Bank under Israeli occupation, the war gave a strong impetus to archaeology on Cyprus, linking its archaeology more firmly with the cultural world of the Levant.

A theoretical and methodological revolution has occurred, bringing Levantine archaeology into a more coherent role in the overall discipline of archaeology. The historical/biblical orientation of most excavations before 1960 has been relegated to a more minor role, particularly among American archaeologists. Lead by William G. Dever, who was trained in a traditional biblical archaeology approach by G. E. Wright, American archaeologists in the late 1960s turned to American anthropology for a new paradigm to replace the limited historical/biblical model. Today, most American archaeologists in the Levant are anthropologically trained, with a processual or postprocessual theoretical background. Theoretical questions focus on the entire ancient cultural system, including social, economic, and environmental data. The stratigraphic/ceramic field methodology continues but with innovations such as botanical and faunal analysis, radiocarbon dating, ground-penetrating radar, and geographical information systems. Ceramic studies now include chemical provenience studies to determine the origin of suspected local and/or imported wares. A data revolution has occurred with widespread use of computers in the field.

Not surprisingly, the last thirty years have been a golden age for prehistory in the Levant. The roots of agriculture have been intensively examined, particularly in Syria at the sites of Mureybat and Abu Hureyra. Early villages and subsistence patterns have been studied in Israel and Jordan.

The funding of archaeology in the Levant has drastically changed. Much recent archaeology has been development driven, such as the Tabqa Dam project in Syria or water projects in the Jordan Valley. All of the nations in the Levant realize the value of archaeology in attracting the tourist trade. Jordan has sponsored multinational archaeology projects in Jerash, Pella, and Petra to make these sites more attractive to tourists. Israel has established numerous archaeological parks for both their own citizenry and foreign visitors. This has been one of the factors behind the continued Israeli orientation toward large-scale architectural archaeology. The problem-oriented archaeology on American excavations is due in no small measure to anthropologically oriented granting agencies, such as the National Endowment for the Humanities. Of course, private individuals or institutions still fund Levantine archaeology, particularly in Israel.

Two centuries of Levantine archaeology has produced an extensively published, intensively examined archaeological record. This record provides a generally agreed-upon framework that allows sophisticated research exceeding other regional archaeologies that still must grapple with fundamental questions of chronology and cultural sequence. Recent political changes promoting peace in the region may lead to new opportunities for archaeology, as well as new threats from development. The strong national archaeological establishments in the region will only benefit from increased contact if they can overcome the strong influence of nationalism on the interpretation of the archaeological record. Archaeology may help lead the way as the Levant becomes a more integrated region in the new century.

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Chronology of the Southern Levant

Introduction

This essay summarizes the chronology of ancient Syria–Palestine from the Neolithic through the Iron Ages. The study of chronology has two aspects. (1) Relative chronology is based largely on comparative stratigraphy of the major sites and on the dating of their assemblages of material culture (such as pottery). (2) Absolute chronology is then an attempt by an archaeologist to “anchor” floating synchronisms by reference to external fixed points (or calendrical dates). In the case of Syria–Palestine, two external fixed points are always Egypt and Mesopotamia, which have written records of major historical events that can be correlated with datable ancient astronomical observations. More recently, several scientifically-based systems of dating have been introduced, such as C14, potassium argon, and others. Some of these, however, are restricted to certain kinds of materials; some are relatively untested or have inherent limitations in sampling or analysis; and all have a considerable margin of error. Practically speaking, these methods are useful chiefly for the prehistoric period, before written records, or the Neolithic and earlier, where they are indeed our only available means of dating. To simplify the following discussion, I will present comparisons in the chart opposite.

The Neolithic Era

The long Levantine Neolithic ("New Stone Age"), a widespread and relatively homogeneous culture, is conventionally divided into four phases, broken in the middle by the major innovation, the introduction of pottery (that is, Kenyon's "Pre-Pottery Neolithic A–B" and "Pottery Neolithic A–B"). Hundreds of sites are known, and several dozen have long stratigraphic sequences that have been reasonably well dug and published. This long period evidences the domestication of plants and animals and the earliest farming villages.

All dates for the Neolithic are derived from scientific means, notably C14 analysis. For this reason, estimates are general and may vary by 500 years or so among various authorities. The only major disagreements are whether there is an occupational gap between pottery Neolithic A and B and how best to characterize the transitional period between Neolithic B and Early Chalcolithic ("Pottery Neolithic C").

The Chalcolithic Horizon

The subsequent phase, designated the "Copper-Stone" age, is much briefer and less formative than the Neolithic, but it saw the beginning of many permanently settled villages and the development of distinctly regional cultures. The Chalcolithic of Syria and Jordan is poorly known to date, but there are dozens of

cleaned sites in Israel, with clear regional traits. The Early Chalcolithic, however, is much less illuminated than the Late Chalcolithic, about 3800–3300 b.c.e. Again, all Levantine dates are determined by C14 calculations, although synchronisms with the Egyptian Early Pre-Dynastic (Amratian or Nagada I) provide a rough terminus ante quem.

The Early Bronze Age

The Early Bronze Age represents the first urban era, usually divided into a formative "proto-urban" phase in Early Bronze I (Kenyon and others); two impressive florescent phases, Early Bronze II–III; and Early Bronze IV, a post-urban period of collapse, characterized chiefly (in Palestine at least) by a reversion to ruralism and pastoral nomadism.

Early Bronze I is a brief period, roughly contemporary with the latest Egyptian Pre-Dynastic phases (that is, Gerzean or Nagada II–III), as shown by numerous trade-goods in both the Levant and Egypt. These synchronisms would place the
end of Early Bronze I just before the beginning of Dynasty I, formerly dated as low as 2850 B.C.E., but now raised by recalibrated C14 dates as high as 3100 B.C.E. or even 3200 B.C.E. Most of the sites best known in our present state of knowledge are in Israel.

Early Bronze II is relatively easy to date, because its beginning is contemporary with Dynasty I in Egypt. This is proved by Palestinian painted pottery well dated in Early Bronze II contexts, which was found in tombs of First Dynasty nobles at Abydos in Upper Egypt (thus "Abydos ware"). There are also other goods, which were traded between Palestine and Egypt, that corroborate the Dynasty I–Early Bronze II synchronism, such as signatures of Pharaoh Narmer found in southern Palestine and Dynasty I sealings found at En-Besor near Gaza.

The end of Early Bronze II and the transition to Early Bronze III is conventionally equated with the shift from Egyptian Dynasty II to III, about 2650 B.C.E. Palestinian Early Bronze III, the second urban phase, but already marking a decline, is then roughly coeval with Dynasties III–IV, the Pyramid Age, although direct connections are increasingly rare. However, Palestinian Early Bronze III oil jars of "combed ware" appear in Egyptian Dynasty V contexts, as expected. In Syria, at Byblos and elsewhere, some Dynasty V–VI objects appear in reasonably clear Early Bronze III contexts.

The Early Bronze IV phase in Syria would appear to postdate Dynasty VI in Egypt and to be contemporary with the 1st Dynasty of Akkad in Mesopotamia, to judge from finds at Ebla and elsewhere. In Palestine, there are very few imports and no exports. But a silver cup of Ur III style (about 2150–2050 B.C.E.), imported from Syria and found in a tomb near Jerusalem, fits generally with a date of about 2000 B.C.E., giving a maximum range for the period that seems satisfactory. It ends approximately with the end of the "Dark Age" in Egypt—that is to say, the beginning of Dynasty XII, about 1991 B.C.E.

The Middle Bronze Age

With the Middle Bronze Age in Syria–Palestine we reach, at last, the point where we have not only more direct synchronisms with Egypt and Mesopotamia but also the first really useful historical texts. Here we shall follow more recent divisions into Middle Bronze I, II, and III, rather than Albright's Middle Bronze IIIC. For the Middle Bronze Age generally "high," "middle," and "low" chronologies (as well as even more radical extremes) have been suggested, the alternatives based on different schemes relating Syria–Palestine to Egypt and Mesopotamia.

Middle Bronze I is variously dated to about 1950–1750 B.C.E.; 1850–1700 B.C.E.; and 2000–1800/1750 B.C.E., the latter, or "middle chronology" being preferred here. The general correlation both historically and chronologically with Egyptian Dynasty XIII (about 1991–1786 B.C.E.) is accepted by all, but greater precision is difficult. Only one Egyptian Dynasty XII Royal Name scarab has been found in Palestine (at Tell el-'Ajjul) and only a handful in Syria, all from mixed or uncertain deposits. Synchronisms based on the Royal Tombs at Byblos, the Tod deposit, or linkups of painted pottery styles in Palestine, Syria, Anatolia, and Mesopotamia are all disputed, and at best they would yield only a relative chronology. The connections of Palestinian Middle Bronze I with Tell ed-Dab'a in the Egyptian Delta are the most controversial, due to the differences of Palestinian specialists and the excavator of Dab'a, Manfred Bietak, who prefers an "ultralow" chronology.

Middle Bronze II, although roughly coeval with Egyptian Dynasty XIII (about 1758–1645 B.C.E.), is difficult to date largely because its beginning—the end of Middle Bronze I (above)—is hotly contested. Beginning dates thus range from about 1800 B.C.E. to 1700/1675 B.C.E. The end of the period, however, will coincide with the transition from Dynasty XIII to XIV and the beginning of the Second Intermediate period, about 1650 B.C.E. Mesopotamian links are provided by references in the Mari letters to Dan and Hazor in northern Palestine, but inner problems of Mesopotamian chronology preclude fixing absolute dates. The Egyptian connection is similarly lacking precision, due to controversy over Tell ed-Dab'a. There are clear ceramic comparisons with both Syria and Cyprus, but they do not yield fixed dates.

Middle Bronze III is regarded by all as contemporary with Dynasties XV–XVII in Egypt, the late Second Intermediate or "Hyksos" period (referring to the period of "Asiatic" introducers who ruled in the Delta). Dates of about 1650–1550/1500 are, therefore, readily established, confirmed, for example, by many scarabs. The only problem lies with the end of the period, which is brought about by Egyptian destructions at nearly all Middle Bronze III sites. These destructions, however, extend from about 1550 B.C.E. to at least the accession year of Thutmose III, about 1478 B.C.E. Thus, a transitional "Middle Bronze III/Late Bronze IA" period may be postulated, about 1550–1500 B.C.E.

The Late Bronze Age

Late Bronze IA is noted above. The immediate postdestruction horizon in Syria–Palestine would then be represented by a brief Late Bronze IB period, about 1450–1400 B.C.E. Late Bronze II is the major phase, mostly contemporary with Dynasty XIX, the period of Egyptian domination of Syria–Palestine during the New Kingdom.

Late Bronze II may be subdivided into IIA and IIB phases. Late Bronze IIA, about 1400–1350 B.C.E., is the well-known "Amarna Age," illuminated brilliantly by letters from princes of Syro-Palestinian city-states to the court of Akhenaten at el-Amarna and found there. There are also broader connections now with Cyprus and the Aegean, and even Crete, as witnessed by ceramic imports; but chronological sequences in these areas are not fixed and thus yield only relative confirmation of the Syro-Palestinian dates suggested here.

Late Bronze IIB, about 1350–1200 B.C.E., represents a period of gradual decline under the late XIXth Dynasty, ending the long Bronze Age in Syria–Palestine. This occurred about 1200 B.C.E., due partly to devastations brought by the arrival of various "Sea Peoples," among them the Philistines in Palestine. The earliest appearance of these "Sea Peoples" can be fixed shortly after about 1180 B.C.E., when
they were defeated by Ramesses III and turned back from the Egyptian Delta. The "Proto-Israelites," settling in the hill country of Palestine, were also a factor. Several Egyptian scarabs found in the known settlements fixed the earliest phase shortly before 1200 B.C.E., as does the well-known "Victory Stela" of Pharaoh Merneptah, about 1210 B.C.E., mentioning a group of people designated as "Israel."

The Iron Age

The Iron Age, beginning about 1200 B.C.E., is conventionally divided into Iron I and II. The break is placed by Israeli archaeologists about 1000 B.C.E. Some American scholars put Iron IA at about 1200–1150 B.C.E.; Iron IB about 1150–1000 B.C.E.; Iron IC about 1000–900 B.C.E. The first phase represents the initial buildup of Philistine and "Proto-Israelite" settlements; the second, the biblical "period of the Judges"; and the third, the Israelite United Monarchy, until the death of Solomon, about 922 B.C.E. As an example of synchronisms, the latter can be calculated approximately from a notice in 1 Kings 14:25 about a raid by Pharaoh "Shishak" (= Egyptian Sheshonq, Dynasty XXII, about 925 B.C.E.), which occurred in the fifth year after Solomon's death.

For the Iron IIA period, we have good Neo-Assyrian correlations. Thus we can correlate Ahab's reign with the Battle of Qarqar, 853 B.C.E.; and Jehu's paying tribute to Shalmaneser III, 841 B.C.E. For Iron IIB, there are additional synchronisms, such as the fall of Samaria in 722 B.C.E., at the time of the transition of rule in Assyria from Sargon II to Shalmaneser V. The best attested archaeological and historical correlation is the destruction of Lachish Stratum III by Sennacherib in 701 B.C.E.

Iron IIC is the period of the Neo-Babylonian Empire. Here, for instance, the fall of Jerusalem to Nebuchadnezzar can be dated precisely to 587 or 586 B.C.E.

The Persian, Hellenistic, Roman, and Byzantine periods are very well dated, thanks to numerous texts, inscriptions, coins, and the like.

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WILLIAM G. DEVER
Ethnicity and Material Culture

Ethnicity is a subject important to archaeologists working in the ancient Near East, in part due to texts mentioning the existence of peoples identified by different names. The Hebrew Bible, Assyrian, Egyptian, Babylonian, and other written sources refer to many groups living throughout the region. One goal of archaeologists has been to identify the location of specific groups of people known from the texts by assuming that each people will have artifacts or institutions that are distinctive or mutually exclusive. For example, painted Philistine pottery is considered a hallmark trait of the Philistine people because it is found in greatest concentration along the southern coast of the Levant, where according to the Hebrew Bible the Philistines lived. However, one cannot assume that wherever archaeologists find painted pottery of Philistine style the people who lived at the site were Philistines. One can consider the possibility that Philistine people were present at the site, but it is also possible that the pottery was brought to the site by other people who had minimal contact with the Philistine coastal region. The sites can be considered to belong to the Philistines only if there are elements other than painted pottery that differentiate it from sites inhabited by people of other ethnic groups. More than a single artifact, or even several aspects of the material culture, one needs behavioral evidence to distinguish among ethnic groups.

Links between specific peoples and material culture, or the artifacts they used, have been made from the 19th century onward. However, the appropriateness of associating a people with particular artifacts has come under increasing scrutiny. Furthermore, the concept *ethnicty* has received considerably more attention than formerly, both in regard to ancient societies and in regard to our own society. It is assumed that the names of people mentioned in the texts represent ethnic groups, rather than linguistic, national, or religious entities. This is a debatable issue, but for the present one may understand the names to be ethnic designations. This requires a definition of *ethnicty*, yet it defies a simple, single definition because ethnic affiliation is not necessarily permanent, nor is it a unilateral designation. An ethnic group may be defined as "a people with mutual interests, based on common understandings and values." Individuals might belong to one group and call themselves by a certain name, but other people might assign the same individuals to a different group with a different name, in part because ethnicity is neither permanent nor based on one factor alone; it is fluid and changes with time. People shift their allegiances and may belong to more than one ethnic group at any given moment. For example, although their lifestyles appear to vary considerably, pastoralists who herd sheep and goats may belong to the same ethnic group as villagers and urbanites in the Middle East. On the other hand, all urbanites who live in one city will not necessarily belong to the same ethnic group(s).

If we accept the above definition of ethnicity, and the hypothesis that the names of groups mentioned in the ancient documents may represent diverse ethnic groups, we then confront the problem of identifying these groups based on their material culture. Can one determine whether Philistines lived at a site where the so-called Philistine painted pottery is found or determine whether it was brought to the site by a middleman selling pottery or someone who visited the coastal region where the Philistine pottery was produced? If the pottery is found in significant quantity at sites along the southern coast of the Levant, in architecturally distinct houses, and if it was made using a technique differing from contemporaneous ceramic technologies, one might legitimately conclude that Philistines were in residence. In this instance, a specific artifact made in a manner unlike other wares has a spatial distribution that coincides with the region attributed to the Philistines in the ancient texts. It is the overlap of several different factors, including behavior, that allows one to associate the sites with the Philis-
tines. Conversely, in the case of painted Philistine pottery found outside the Levantine littoral, in tombs or homes not typical of the coast, there is little reason to assume a Philistine presence.

A highly debated topic in biblical archaeology since its inception has been identifying the earliest Israelite settlements in Canaan, as recorded in the Hebrew Bible. Archaeologists and biblical scholars assumed that the Canaanites and Israelites were two distinct ethnic groups, identifiable by a specific material culture. Different artifacts, including architecture, farming technology, pottery, religious artifacts, and settlement pattern were defined for each group; but more recently the differences have been explained by some scholars as two aspects of a single group with urban and rural components (fig. 25). One reason for the new interpretation was the occurrence of a specific jar, initially associated with the Israelites, in areas outside the region traditionally associated with them in the biblical accounts (fig. 26). Rather than revealing ethnicity, the jar reveals the economic need to store foodstuffs, regardless of the owners' ethnicity. Bearing this in mind, one would expect to find collared rim store jars in rural settlements rather than in cities, wherever the rural settlements existed and in areas inhabited by Israelites, Canaanites, or others. Food storage is a requirement in all villages, regardless of their location or residents.

Language is another cultural element that does not necessarily indicate ethnicity. People living in one region might have a single language in common, such as Turkish, but speak and use more than one language and be known as Arabs rather than Turks. Consequently, although archaeologists excavate artifacts bearing names of individuals, it is not necessarily possible to associate the names with specific ethnic groups.

Archaeologists compare and contrast material culture from different places to determine the ethnicity of the people who produced and used the artifacts, but the fallacy of this approach is becoming increasingly apparent. Ethnoarchaeological field studies could identify which factors are useful for discerning ethnicity. Ethnoarchaeologists might observe and use quantitative data to record the behavior of people of different ethnic groups who live in a single region to determine how each ethnic group behaves, identifies itself, and is identified by others.

Bibliography


GLORIA LONDON
Numismatics (Minting and Monetary Systems/Coinage) in the Levant

The Levant has a long and virtually unbroken tradition of coinage production and use stretching back to the 5th century B.C.E. The function and purpose of the very earliest coins is still disputed. Were they introduced to facilitate trade, or did coins emerge as handy units of account for recording and storing bullion and to enable states to pay bullion to its servants or mercenary troops? Certainly by the time that the concept of coin production reached the Levant, coins were being used for commercial transactions in other parts of the Mediterranean. Coinage helped states to pay armies and civil servants and to collect taxes, but it also provided a medium of exchange for individuals. In the Levant, the fact that coinage was first issued in the mercantile Phoenician cities of the coast is a strong argument for an initial economic purpose.

Until the 4th century B.C.E. most states issued the bulk of their coinage in silver, and the denominations ranged from large, thick units weighing tens of grams down to tiny subdivisions, often weighing a fraction of a gram. During the Hellenistic and Roman periods, the smaller silver fractions were replaced by cheaper (and larger) bronze units. Their weights conformed to recognized standards. Bronze coins were probably always a token currency, being worth more than their intrinsic value, and it is likely that gold and silver coins often had a premium over and above their metal content. Even so, what the state produced was not necessarily what the public wanted. The state might wish to discharge its large payments using coins of high denomination, but these might be less useful to the general public for use in the marketplace than low denominations.

Persian Period

The tradition of coinage production reached the Levant from Greece, Cyprus, and Asia Minor in about the middle of the 5th century B.C.E., a comparatively late date in the development of coinage in the Mediterranean. Previously precious metal ingots or weighed scraps were used in transactions. Coinage from other Mediterranean states, particularly Athens, reached the Levant, and local imitations of these coins were produced. A Persian coinage in gold, struck in the western provinces in Asia Minor, circulated all over the Persian Empire, but some coins that arrived from the west were treated simply as bullion or scrap, being cut into pieces or melted down.

The earliest coins to be produced in the Levant were of silver only. Two Phoenician cities Tyre and Sidon began to strike coins in ca. 450–425 B.C.E., and other cities soon followed (fig. 35). Many of the designs used were purely Persian in inspiration, and certain designs may be linked to designs used on seals. In Pales-

tine and surrounding regions, starting in about 400 B.C.E., small silver fractional denominations were issued bearing Persian and Greek designs; this coinage is generally known as "Philisto-Arabian" (fig. 36). At the religious center of Hierapolis in northern Syria, a silver coinage was issued at the very end of Persian control in the names of the High Priest Abd-Hadad and the Macedonian leaders Alexander the Great and Seleucus Nicator.

Hellenistic Period

When Alexander the Great (336–323 B.C.E.) conquered the Persian Empire, many mints adopted uniform types common throughout his empire, and some Levantine cities produced this "Macedonian" imperial coinage. It was struck on a uniform "Attic" weight standard different from the standard used under Persian rule, although certain mints continued to use old standards and different types. The weight of the principal Macedonian silver denomination, the Attic tetradrachm, was about 17.3 grams, although it declined until by the 1st century B.C.E. it weighed about 16 grams (figs. 37, 38).

The first bronze coinage in the Levant had been issued in the Persian period by Phoenician cities such as Aradus and Sidon, but it was only in the Hellenistic period that bronze coinage became plentiful. The Seleucids and the Ptolemies, who controlled most of the Levant after the end of the 4th century B.C.E., issued a coinage in three metals: gold, silver, and bronze. A wide variety of denominations, from very high to very low value, enabled coins to be used for both major state payments and everyday transactions.

The Ptolemies and Seleucids produced their silver and bronze coins at various mints, particularly at the administrative capitals of Antioch and Ptolemais. Since they were generally royal coinages, most do not give any explicit indication
Early Roman Period

The Roman annexation of Syria (64 B.C.E.) had little effect on the coinage of the Levant, but Antioch and its type of coinage continued being produced by all major mints. The city-states and kingdoms were absorbed into the Roman Empire, but their coinage production continued. The Levantines minted coins for the Roman Empire, and the type of coinage produced by the mints of Antioch, Seleucia, and Palmyra continued, with only minor changes. The Levantine mints were also minted coins for the Roman Empire, and the type of coinage produced by the mints of Antioch, Seleucia, and Palmyra continued, with only minor changes.

The first two centuries of the Roman Empire were marked by the introduction of new types of coinage, including the denarius, sestertius, and dupondius. These coins were minted in gold, silver, and bronze, and were used throughout the Roman Empire.

The Levantine provinces were part of the Roman Empire from the beginning, and their coinage closely resembled that of Rome. The Levantine provinces minted coins for the Roman Empire, and the type of coinage produced by the mints of Antioch, Seleucia, and Palmyra continued, with only minor changes. The Levantine provinces minted coins for the Roman Empire, and the type of coinage produced by the mints of Antioch, Seleucia, and Palmyra continued, with only minor changes.

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Fig. 46. Roman provincial bronze coin of Philip II, son of the emperor Philip the Arab (244–249 C.E.), issued at Zeugma on the Euphrates. Obverse: Head of Philip II. Reverse: Temple on a tall hill.

Fig. 47. Roman provincial bronze coin of Diadumenian, son of the emperor Macrinus (217–218 C.E.), struck at Tyre. Obverse: Head of Diadumenian. Reverse: Asarite, goddess of Tyre, with military trophy, palm tree and figure of victory on column.

Fig. 48. Silver shekel of the first Jewish revolt against Rome, dated 68–69 C.E. Obverse: Chalice. Reverse: Three pomegranates on single stem.

Fig. 49. Roman provincial silver drachm of the emperor Trajan (98–117 C.E.), struck for the province of Arabia in 111–112 C.E. Obverse: Head of Trajan. Reverse: Personification of Arabia.

Fig. 50. Base silver antoninianus of Claudius II Gothicus (268–270 C.E.), struck at Antioch. Obverse: Head of Claudius. Reverse: The goddess Isis standing.

Fig. 51. Silver-bronze alloy coin of Crispus, son of the emperor Constantine the Great, struck at Antioch 325–326 C.E. Obverse: Head of Crispus. Reverse: Camp gate.

Fig. 52. Gold solidus of Julian (361–363 C.E.), struck at Antioch. Obverse: Head of Julian. Reverse: Roman soldier leading barbarian captive.

Fig. 53. Bronze five nummi piece of Antioch, struck under Justin I (518–527 C.E.). Obverse: Head of Justinian. Reverse: City goddess of Antioch, and value-mark E (=5).

**Late Roman Period**

After the collapse of the old currency systems of the Levant in the mid-3rd century C.E., the development of coinage in the eastern Roman provinces follow that of Roman coinage over the whole empire. The same designs and denominations were issued concurrently by many mints. Although this meant that coins struck in London or Trier could circulate alongside coins struck in Alexandria or Antioch, strong regionalization is still apparent, and coins from the nearest mints tend to dominate in coins found at a specific site. The main mint of the Levant was Antioch, which now struck a coinage in gold, silver, and debased silver or bronze, usually bearing the mint-mark AN or ANT (figs. 51, 52).

By the 5th century C.E., the bronze coinage had become virtually restricted to a tiny unit, the nummus. Gold now formed the backbone of the state's currency system, and silver was issued only in small quantities. The main provider of coinage was Constantinople, although the mint at Antioch continued intermittently. The principal gold unit was the solidus (fig. 52), a coin of about 4.4 grams; its relationship to the base metal coinages of the later 4th and 5th centuries is uncertain, although there must have been thousands of nummi to a solidus.

**Byzantine Period**

The coinage reform of the emperor Anastasius (498 C.E.) introduced a new set of bronze denominations throughout the empire, and this reform is traditionally considered to mark the beginning of "Byzantine," as opposed to Roman, coinage. There was no change to the gold or silver coinage, however. The principal bronze unit was the folis, a coin equal to 40 nummi, with subdivisions of 20, 10, and 5 nummi. In the Levant, the principal mint was still Antioch, which after the disastrous earthquake under Justinian in the 6th century C.E. was renamed Theoupolis, marking its coins THEYYP (fig. 54). The type-
content of this Byzantine coinage varied little from mint to mint, but Antioch did issue one unique type, a 5 nummi piece with the seated city goddess of Antioch on the reverse (fig. 53).

**Early Islamic Period**

The first issues of coins after the Muslim conquest imitated contemporary Byzantine issues and consisted of a coinage in gold and bronze. The weights and designs were similar to those of contemporary Byzantine coins, although these "Arab-Byzantine" issues frequently bore both Greek and Arabic inscriptions (fig. 55). Many Levantine cities issued this coinage, although there was a notable shift of production centers away from the old Greek cities (Antioch, for example) to places like Damascus, Baalbek (Helipolis), and Homs (Emesa). This coinage continued after the Umayyads had consolidated their power, but in about 697–99 C.E. the Caliph Abd al-Malik (685–705 C.E.) introduced a new coinage in gold, silver, and bronze. The principal gold unit was the dinar (from the Roman denarius), valued at 20 silver dirhems (from the Greek drachma). The size, shape, and thickness (though not the weight) of the dirhems seems to derive from Persian Sassanian coinage rather than the Roman/Byzantine (fig. 56). Unlike in the Byzantine Empire, where silver coins were generally quite rare, the dirhems were struck in large quantities at many mints in the Umayyad Empire. The standard for the gold dinar seems to have been based on the Byzantine solidus. The normal bronze unit was a fals or fulus, a name derived from the Byzantine follis. The inscriptions were entirely in Arabic, and on the gold and silver and most bronze issues the design consists of inscriptions rather than images. This new coinage represented a complete iconographic break with the earlier coinages and provides an appropriate point at which to terminate this survey.

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Negev

The term Negev refers today to the southern administrative region of the state of Israel, which spans an area of about 7,200 square miles (fig. 73). In biblical sources, the term Negev refers to the general area of the Beersheva Valley, whereas the areas south of the valley that are part of the area currently referred to as the Negev were known as "the Desert of Zin" or the "Paran Desert." The Negev, together with the Sinai Peninsula of Egypt, constitutes a continuous desert area spanning some 42,000 square miles, surrounded by sedimentary lands or by oceans. Except for the outer periphery of the Beersheva Valley and the northern and southern Sinai, the region is an arid desert with few water sources. The average annual rainfall ranges from approximately one to four inches, and there are frequent droughts. The potential for agricultural activity is extremely limited, and only small herds of sheep and goats can be raised. The area is sparsely populated by Bedouins, whose primary source of subsistence comes from occasional employment in permanent settlements.

Despite the adverse environmental conditions in the Negev, there have been periods with relatively large settlement. Evidence for settlement has been found in various surveys conducted since the end of the 19th century. The most extensive information on the ancient use of this area was obtained in the Negev Emergency Project, conducted from 1979 to 1989. In this project, an area covering about 2,600 square miles was surveyed, 11,000 well-preserved ancient sites were recorded, and approximately 100 sites were excavated.

Periods of Settlement

The history of settlement in the Negev can be characterized as waves of settlement with gaps between each wave. Despite differences in the material culture and settlement pattern of each period of settlement, two recurring components are evident. The distinction between these components may explain the geopolitical background and the economic basis for the growth of settlement in a desert area with poor resources.

The first component consists of large, solidly constructed sites adjacent to a water source. Most of these sites contain cultural elements characteristic of the sedentary lands bordering the Negev. In general, these sites reflect permanent settlements established by external groups from the desert fringes who used them as stations along trade routes or in order to defend the frontier.

The second component consists of small temporary sites with simple round structures. These sites do not necessarily exist in relationship to any water source and reflect seminomadic activity such as seasonal movement of shepherds and farmers. More desert elements, such as cairn burials and "Negevite" desert pottery, are found in these sites than in permanent settlements. Some of the sites reflect a

Fig. 73. A map of the Negev. The lines are schematic depiction of the directions of trade routes and movement of the frontier during different settlement periods in the Negev: A—A = Early Bronze Age I; B—B = Early Bronze IV; C—C = Iron Age II; D—D = Nabatean Period; E—E = Byzantine Period; F—F = Early Islamic Period.
Fig. 73. A map of the Negev. The lines are a schematic depiction of the directions of trade routes and movement of the frontier during different settlement periods in the Negev: A–A = Early Bronze Age II; B–B = Early Bronze IV; C–C = Iron Age II; D–D = Nabatean Period; E–E = Byzantine Period; F–F = Early Islamic Period.
seminomadic desert population that was drawn to the periphery of the permanent settlement from outside areas. Other sites reflect seasonal movement of this population from the permanent settlements.

There is a close chronological and regional relationship between permanent and temporary sites. This relationship is evident in the distribution of temporary settlements, which are usually on the periphery of permanent ones. Moreover, no temporary settlements have been surveyed from periods when permanent settlements were not found in the near vicinity. Hence, seminomadic seem to have been highly dependent on permanent settlers for their livelihood in desert areas such as the Negev and Sinai. This phenomenon is evident during all periods of settlement.

**Early Bronze Age**

The settlement pattern in most of the Negev areas shows large settlements built close to a water source and small temporary sites located on the periphery, up to 18 miles away from the permanent settlements. Animal pens were found in most of the temporary sites, reflecting seasonal movement of herders from permanent settlements to the periphery. Based on the correlation between Arad and sites in the southern Sinai, most of the Negev sites have been dated to the Early Bronze Age II. This may indicate that the population of the southern Sinai, which had lived in a relatively favorable environment, dispersed northward to more arid areas. This movement may have been due to economic relations with the southern area of Palestine—for example, transport of copper to Palestine from the mines in the southern Sinai. Apparently, hundreds of sites could exist in arid areas as long as they maintained contact with sedentary areas. It can be reasonably assumed that when Arad declined during the beginning of the Early Bronze Age III, the inhabitants of the Negev were forced to leave the area.

**Early Bronze IV**

The settlement distribution in the Negev and Sinai consists of two groups. The first group consists of seven large permanent settlements in the northern Negev highlands, such as Har Yeruham, Ein Zieq, and Be'er Ressim. All of these settlements were built near a water source and have up to 300 structures. Copper bars used for commerce or utilitarian purposes were discovered in most of the sites, and numerous stone vessels and installations indicative of copper craftsmanship were found, all of which suggests that copper was a primary element of the economy. At the same time, finds indicating environmental exploitation, such as animal pens and sickle blades, are extremely rare. Since the pottery apparently originates from Jordan, it seems that the permanent settlements in the Negev linked sites in the Jordanian region of the Dead Sea with sites in the northern Sinai. These sites can be considered a southern variant of “Canaanite” culture, where the inhabitants specialized in transporting copper from the mines of Wadi Feinan to Egypt.

The second group consists of hundreds of small temporary settlements dispersed south of the permanent ones in the central Sinai and the Negev. Most of these settlements contained animal pens, and some contained sickle blades, which reflect agriculture. The correlation between permanent and temporary sites is clearly evident. The farther south one moves from the permanent settlements the fewer temporary settlements there are, regardless of environmental factors. Thus, for example, there are hundreds of temporary sites in the central Sinai, which lacks water sources but is near the coast of the northern Sinai, where permanent sites exist. In contrast, the southern Sinai, which has abundant water sources, was not populated at all during this period.

Apparently, the penetration of permanent settlements into the desert, where the livelihood of the inhabitants was based on transporting copper to Egypt, attracted the seminomadic population to their southern vicinity. It seems that their livelihood derived from the permanent settlements, whereas agriculture and sheep and goat husbandry constituted only secondary sources of income in the harsh environment. When the permanent settlements were abandoned due to the elimination of the geopolitical conditions that had enabled Canaanites to settle on the Egyptian borders, the nomads lost their main source of subsistence and were forced to leave the area.

**Iron Age**

The distribution of sites in the Iron Age is limited to the Negev highlands and seems to be an extension of the southern area of Palestine. To date, 600 fortresses and 500 settlements are known. These settlements include numerous installations, such as silos, threshing floors, and animal pens, which are indicative of agriculture and herding. Eighty of the settlements have “four-room” houses or a variant of them. These dwelling structures, which were prevalent in Palestine during the Iron Age, all contain cisterns and can thus be considered permanent settlements. The rest are temporary sites that are not related to a water source and have simple round structures. As one continues south of the Beersheva Valley, the number of structures per site decreases, and there is a gradual transition from “four-room” houses to round structures. This decrease in structures is related to distance from sedentary lands and not to environmental factors. Settlements located in the vicinity of Sde Boker, six miles away from a water source but closer to the Beersheva Valley, contained several “four-room” houses. Settlements located far to the south, including settlements close to water sources such as Ein el-Gudeira, contain very few structures, most of which are round. Even though the temporary sites reflect environmental exploitation for purposes of farming and herding, their distribution is limited to the area of fortresses that are built at the top of mountains with a broad strategic panorama. The type of settlement in the Negev is characterized by fortresses at the top of mountains and small settlements at the bottom, also typifies frontier areas to the north, on both sides of the Jordan River. In general, this type of settlement appeared at the end of the 12th century B.C.E. and lasted to the end of the Iron Age. The Negev sites have been dated to the 10th century B.C.E. Most of the evidence (for example, pottery and settlement type) reflects an Israelite orientation, but some reflects desert culture.
(for example, "Negbite" pottery and some cairn burials). It can be assumed that settlement in this arid region emerged out of the interests of the kingdom of Israel in the southern border, opposite Edom and Egypt. Such settlement existed as long as it was supported by the kingdom. After the division of the kingdom of Israel and Shishak's campaign to Palestine around 925 B.C.E., the settlements in the Negev highlands were abandoned, and the border of the sedentary land moved back to the Beersheva Valley.

Nabatean Period

The Nabatean activity in the Negev (3d-2d centuries B.C.E. to the 2d century C.E.) was related to commercial routes. Most of the Nabatean permanent settlements in the Negev are linked with the "Spice Road" leading from Petra to Gaza, whereas hundreds of other sites are temporary sites reflecting seasonal activity of seminomads. The distribution of temporary sites reflects relations with the "Spice Road." Areas close to the road—even those located over six miles away from a water source—contained numerous temporary sites, whereas only a few were found near water sources, such as 'Ein el-Gudeirat, far from the main road. The fact that the seminomads preferred to disperse in the vicinity of the "Spice Road," even though it was not close to a water source, indicates that their main source of livelihood was connected with the road and its stations. Examination of the sites indicates that the perimeter of the "Spice Road" indicates that there was a transition from simple campsites (dating from 1st century B.C.E. to 1st-2d centuries C.E.) to architecturally modified temporary settlements and a few permanent settlements dating from the 2d-3d centuries C.E. This may reflect spontaneous settlement, similar to the process undergone by Bedouins who have lived on the periphery of permanent settlements for an extended period. The settlement system on the margins of the "Spice Road" could only have existed there while the road was in use first by the Nabateans and later by the Roman army. When the road was abandoned in the middle of the 3d century C.E., settlements on its margins were abandoned as well.

Byzantine Period

During most of this period there were two distribution areas of settlement, with considerable differences. One area, located in the Negev lowlands and the northern Negev highlands on the Avdat-Shivta-Nizzana line, was inhabited by permanent settlers of cities and agricultural farms. This area was part of the Byzantine imperial frontier system and required considerable effort to develop. Even though most of the population was of Arab-Nabatean origin, their material culture was clearly Christian-Mediterranean. This indicates that the nomads of the Negev were totally assimilated into the dominant northern culture.

The other area, located to the south and characterized by adverse environmental conditions, was inhabited by seminomads. The seminomadic area is linked with the southern periphery of the permanent settlements, and the relations between them, which fluctuated from friendship to hostility, have been ad-
dressed in numerous scholarly studies. Of the simple temporary sites, hundreds contain round structures and animal pens, and some are linked with simple agricultural fields in wadi banks. Even though their ethnic background was similar to that of the permanent settlers in the Negev lowlands, the material culture of these peoples was completely different, as evidenced in cairn burials and ritual maṣṣāḥāt ("standing stones").

Early Islamic Period

This period was marked by the proliferation of permanent agricultural farms to the south, toward the area of the seminomads. Hundreds of surveyed farms are characterized by architectural uniformity; and massive investment was involved in terracing a huge network of wadis in order to produce agricultural land. Based on this evidence, it can be assumed that this large-scale enterprise was undertaken by the Umayyad government. The proliferation of settlements to the south also led to an increase in seminomadic settlements in the more adverse areas of the southern Negev.

The farms of the Negev highlands and most of the permanent settlements to the north existed until the end of the Umayyad period, as in other parts of the Levant, and are part of an attempt made by the Umayyad rulers to cultivate areas of the wilderness beyond the former Byzantine desert frontier. During the Abbasid regime, when the Islamic capital moved from Damascus to Baghdad and the policy of support for the peripheral areas discontinued, the network began to crumble. The farms, which had penetrated the depths of the desert, could only survive as long as they were part of a network whose centers were in the sedentary lands. When the farms discontinued, the seminomads living on their southern periphery had to abandon the region as well.

Archaeology of Recent Bedouins

Material remains have been collected from recently abandoned Bedouin encampments in the Sinai and the Negev. These include "Gaza" black pottery, tent contours, shallow walls, ovens, and iron and plastic tools. Most of the Bedouins living in the Negev migrated from the Arabian desert during the Ottoman period. Most of them lived north of the Beersheva Valley, close to the southern periphery of the settled area of Palestine at that time, along the Gaza-Ramle-Jerusalem road. Even though most of the Bedouins lived in a natural environment that allowed for permanent settlement, as long as the Ottomans neglected the periphery, they engaged exclusively in pastoralism and did not move to permanent settlements. This lifestyle did not change until the beginning of the 20th century, when the Ottomans began to develop the southern periphery of Palestine in order to counteract British interests in Egypt. At first, the Bedouins made a gradual transition to agriculture and spontaneous settlement, which has culminated in the past decade with the founding of several townlets. The Bedouin remains collected in the Negev highlands can be attributed to the Sarakhin, the most primitive of the southern Bedouin tribes. In the past, the tribe had 800 members.
scattered over an area of 1500 square miles in the harsh environment of the Negev highlands, which was equivalent to the living area of about 80 tribes in the vicinity of the Beer-sheva Valley. They relied on food supplies from the government, without which they would have been unable to survive. This shows how primitive the seminomadic population was, as they lived in the harsh desert and maintained minimal ties with permanent elements.

Gaps in Settlement

The evidence indicates that there were gaps between the periods of settlement in the Negev. There are scholars who claim that these gaps were not settlement gaps—that although the permanent settlements were abandoned, the people stayed in the area as nomads, leaving no remains. This argument is not viable for two reasons: (i) there are clear indications that nomads do leave remains; and (ii) it is unlikely that a nomadic population could have relied on herding and farming for their livelihood in a desert area such as the Negev, without maintaining economic relations with permanent settlers.

Intensification of settlement followed construction of permanent sites in the desert by an external element. The sites served to defend the frontier or were used as stations along trade routes. This led to an accumulation of seminomadic populations on the peripheries of the permanent settlements. The seminomads could survive in these areas only as long as permanent settlements existed there. Hence, there must have been a decline, or a "gap period," when the permanent settlers abandoned the desert as a consequence of geopolitical changes in the countries bordering the desert. The seminomadic population, which had maintained relations with the permanent settlements, thus abandoned the harsh area and followed the frontier of permanent settlement in order to survive. Wherever the new frontier was demarcated (even deep in the sedentary lands around the desert) temporary seminomadic settlements can be found. By the same token, most of the areas located far away from the new frontier, such as the Negev highlands, were abandoned.

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Trade and Exchange in the Levant

The Levant, in part because of its geographical location, served as a crossroads for trade and exchange throughout much of antiquity. International routes connecting Mesopotamia, Egypt, Asia Minor, and the Aegean ran directly through Canaan, Transjordan, and Syria–Lebanon, which together form the region known today as the Levant. Frequently under the control of hostile powers, this diverse territory played host to foreign merchants as well as giving birth to native traders who journeyed to far-flung destinations and returned with exotic goods. Perhaps the best-known period of trade and exchange is the period popularly attributed to the time of King Solomon, but international exchanges of both mundane and exotic materials had already been ongoing for millennia prior to Solomon’s reign, and they continued for more than a millennium after his reign as well.

As early as the ninth–sixth millennia B.C.E., foreign products were being carried long distances to Israel and Transjordan; for instance, obsidian from eastern and central Anatolia has been found at Jericho in Pre-Pottery Neolithic levels and at Tell Kabri in Pottery Neolithic levels. Foreign relations expanded during the following Chalcolithic period, so that raw materials from all over the Near East were imported into the Levant, including basalt, turquoise, copper, and ivory tusks. Some of the earliest Egyptian objects in Canaan date to this period, found at Gilat, Tel Arad, En-Gedi, and additional sites in the northern Sinai.

Beginning in the mid-fourth millennium B.C.E., during the Early Bronze I period, substantial links between the Levant and Egypt in particular are attested. A large number of Egyptian ceramic vessels, both imported and locally produced, have been uncovered at Tell Halif, Arad, Nahal Tillah, and elsewhere; a few fragments bear the name of Narmer, unifier of Egypt and first king of Dynasty 0. Perhaps in return, a somewhat smaller number of Syro-Palestinian imports have been found in Egypt, primarily ceramic vessels found at Naqada and other sites in Lower Egypt, as well as in the eastern Delta. The earlier depictions of Canaanite merchants (or possibly tribute bearers) date from this period as well, portrayed on small wood or ivory plaques discovered in First Dynasty tombs in Egypt.

These specific Levantine-Egyptian contacts continued during the early third millennium B.C.E.; it has been hypothesized that Syro-Palestinian exports by this time included wine, oil, honey, perfume, and textiles, exchanged for Egyptian stone vessels, jewelry, precious stones, and various perishable items. Use of the overland trade route to and from Egypt temporarily diminished with the close of the Early Bronze II period, however, and was supplanted, or at least enhanced, by a maritime route leading between Egypt and coastal Syria. In part as a response to the growing need for timber in the ancient world, the coastal cities of Syria–Lebanon such as Byblos and Ugarit gradually began their rise to prominence in this period. Particularly with the establishment of the kingdom of Ebla in Syria, the coastal and inland cities of Syria–Lebanon began to make substantial contributions to a newly-vigorous series of international contacts between the Levant and the external world.

Throughout the Early Bronze III–IV periods (ca. 2600–2000 B.C.E.), Canaan looked more to the north than to the south for its foreign relations, even as far as Anatolia once again. Specific examples of imported objects include a gold plaque found near Beth-yerah, which resembles contemporary objects discovered at Alaca Höyük in Anatolia; two axes of green stone in the temple at Ai, probably also brought from Anatolia; and a series of bone handles with incised decoration, which might be imports from Anatolia or the Aegean region. The coastal cities of Syria–Lebanon remained in contact with Egypt, however. Byblos in particular seems to have developed a flourishing relationship with Egypt around 2500 B.C.E.; numerous Egyptian objects, including alabaster vessels with the cartouches of various 6th Dynasty kings, have been found in late-third-millennium contexts at this site. Toward the end of the millennium, it appears that relations between Canaan and Egypt were also reinitiated, as indicated by finds of Egyptian pottery at sites in the northern Sinai.

The second millennium B.C.E. saw the beginning of truly substantial international relations between the Levant and the outside world, with epigraphic and textual documentation to supplement the evidence of the material goods themselves. The Execration Texts, written by the kings of Egypt during the 12th Dynasty (ca. 1990 B.C.E. onwards), are early examples of documents of this kind. The texts consist of bowls or statuettes inscribed or painted with the names of settlements and their rulers in Canaan, Syria, and elsewhere. The Egyptians apparently hoped that texts like these would magically help to give them control over the named cities, which include the Middle Bronze I settlements of Ashkelon, Jerusalem, Beth-shan, Shechem, Megiddo, Acre, Hazor, and Laish (Dan), and Byblos, among others. Evidence that the Egyptians were indeed in contact with, and perhaps in control of, the Levant at this time may be seen in various Egyptian artifacts dating to the 12th and 13th Dynasties, many inscribed with royal names, found at Megiddo, Jericho, Gezer, Tell el-Ajjul, Byblos, and Ugarit. The Story of Sinuhe, an Egyptian biographical tale describing life in “Retenu” (northern Canaan), is also frequently cited as a textual source for information regarding contact between these two regions during the 20th century B.C.E.
Further documentation of contacts between the Middle Bronze I Levant and Egypt, in pictorial form this time, is found in the well-known wall paintings at Beni Hasan in Upper Egypt, dating to the Egyptian Middle Kingdom Period (ca. 19th century B.C.E.). Here is depicted a caravan of Semitic-looking people, probably Canaanites from the northern Transjordan area, led by their chief, a “Ruler of a Foreign Land” whose name is recorded as Abishar.” The Semites are either merchants bringing products or emissaries bearing tribute to Egypt.

A large textual archive found at the ancient city of Mari on the Euphrates River in Syria shows that the Levant also had a relationship with the Amorite kingdoms of northern Syria and Mesopotamia during this period. Dating to the early 18th century B.C.E., the clay tablets in this archive mention northern Canaanite towns, including Hazor and Laish (Dan), and Syrian towns such as Ugarit and Aleppo. Babylonian cylinder seals found at Megiddo and Jericho further confirm the existence of contacts between the Levant and Mesopotamia at this time. It is clear that the region of Syria–Lebanon had particularly close ties with Mesopotamia during the Middle Bronze I period.

During the Middle Bronze II–III period (ca. 1750–1550 B.C.E.), ties between the Levant, Egypt, and Mesopotamia continued, as evidenced by various finds in Israel, Transjordan, and Syria–Lebanon. This is the time of the “Hyksos” (or Asiatic) domination of Egypt, beginning in the 15th Dynasty, a domination that apparently extended over southern and central Canaan as well. As a result, the number of worked objects and raw materials originating in Egypt increases dramatically in Canaan at this time; for instance, Ajul, Megiddo, and other sites report caches of imported and local gold objects found in Middle Bronze II–III contexts. In addition, a large number of scarabs bearing the names of Hyksos kings have been found at various sites in Canaan.

However, all of the above contacts pale in comparison to those of the Late Bronze Age, an era that is, without question, truly the age of internationalism. The international contacts of the Middle Bronze Age increased until, from about 1550 B.C.E. onward, the Late Bronze Age Levant was in full-fledged contact with Greece, Crete, and Cyprus, in addition to Egypt, Anatolia, and Mesopotamia. These contacts, which included diplomatic embassies and royal exchanges in addition to low-level commercial activity, are documented via a plethora of archaeological, textual, and pictorial evidence.

These extensive contacts were in part due to the fact that, for much of the Late Bronze Age, large portions of the Levant lay under the influence of one or another of the major powers in the ancient Near East: namely Egypt, Hatti, and Mitanni. The Egyptian Pharaoh Thutmose III campaigned extensively in the Levantine area around 1450 B.C.E. and brought much of the region under Egyptian control through a combination of military and diplomatic tactics; at one point Egyptian influence may even have extended as far north as the important coastal city of Ugarit.

Solid Egyptian control of the upper regions of the Levant was short-lived, however, for northern Syria fell to the advancing Hittites during the military expeditions of Suppiluliuma I in approximately 1370 B.C.E. Ugarit and its surrounding areas were destined to remain within the realm of the Hittite Empire for the rest of the Late Bronze Age, although imported objects from Mycenaean Greece, Cyprus, and Egypt found at Ugarit in levels dating to these centuries show that the Hittites allowed this important entrepôt to maintain its international ties.
However, the southern portion of the Levant, Canaan and parts of Transjordan, remained under Egyptian control and/or influence for virtually the entire 400-year-period of the Late Bronze Age. Evidence of the international contacts of Canaan and of Egyptian dominance during this time may be found in the archive of royal correspondence found at Tell el-Amarna in Egypt. In this cache of letters exchanged between Pharaohs Amenophis III and Akhenaten (ca. 1350 B.C.E.) and the Kings of Babylon, Cyprus, Hatti, Arzawa, and Mitanni are a number of dispatches written by Canaanite princes and other Egyptian vessels in the southern and central Levantine region, including Biridya of Megiddo, Abdi-Heba of Jerusalem, and Rib-Hadda of Byblos. Numerous towns in the Levant are mentioned in these letters, as are specific individuals; and a variety of contacts and exchanges between the two regions are discussed, ranging from the sending of gifts to the dispatching of troops. Direct land routes between these areas became more important than ever during this period; one such route, later called the Via Maris, led north from Egypt through the coastal plains of Canaan and thence into northern Syria.

It is from ruins of this 400-year period, from the beginning of the Late Bronze I period, about 1550 B.C.E., to the end of the Late Bronze II B (or III) period, about 1200/1150 B.C.E., that foreign artifacts are found in the greatest quantities in the Levant. Mycenaean pottery, rare in previous periods, has now been found at an astonishing number of Late Bronze Age sites in the Levantine region, ranging from Lachish and Megiddo to Ugarit and Kamid el-Lok; at least count, more than 2,100 vessels had been reported from Late Bronze Age contexts at more than 85 Levantine sites. Imports from Cyprus, primarily White Slip and Base Ring vessels, are also numerous from this period; their arrival in the Levant might, in fact, be linked to the arrival of the Mycenaean objects, for the importation of both ceased at approximately the same time during the Late Bronze II B period. Egyptian objects, too, were common in the Late Bronze Age Levant; they were particularly frequent towards the end of the period, during Late Bronze III, a time that saw the construction of a number of Egyptian fortresses and "governor's residences" in Canaan.

It is clear that the Late Bronze Age also saw the development of an extensive sea-borne commercial trade, in addition to the traditional overland mercantile enterprises. It is equally clear that the inhabitants of the Levant were quick to make use of this newly-popular form of international trade route, particularly from approximately 1400 B.C.E. onward. A variety of sources attest to seafaring activity by Canaanites and others from Syria-Lebanon. Textual documents indicate the existence of both royal and private ships based at the port city of Ugarit; some vessels, such as that of the merchant Sinarnu, are recorded as having ventured as far abroad as Crete. Egyptian wall paintings, such as those in the tomb of Kenamun, add depth to our knowledge by depicting Canaanite ships moored at the wharves of Thebes, where Canaanite and Egyptian crewmen unload their cargo. Perhaps most important are the recent discoveries of the remains of wrecked ships possibly of Canaanite origin discovered off the coast of Turkey, at Cape Gelidonya and Uluburun (Kas). The latter ship in particular, dated to around 1300 B.C.E., sank with its cargo intact, resulting in a veritable treasure trove, which has been painstakingly recovered by skilled underwater archaeologists. On board were goods from at least seven different areas of the ancient Mediterranean and the Near East, including objects of gold jewelry that bear a striking resemblance to others found at Tel el-Ajjul in the southern Levant and more than 140 of the transport amphorae known as "Canaanite jars," which were used to transport a variety of goods ranging from wine and oils to opium, resins, glass beads, and perhaps grain as well. That some of the ships were rather more successful in braving the elements is indicated by only 250 Syro-Palestinian imports found in Late Bronze Age contexts on mainland Greece and Crete; goods exported from the Levant at this date apparently included objects of ceramic, stone, ivory, faience, and precious metals.

The Iron Age I period, approximately 1200/1150-1000 B.C.E., saw the emergence of the Israelites in the land of Canaan, as well as the rise of the Philistines and other peoples within the Levantine region. This age also saw, however, a possible disruption of the maritime trade routes by the Sea Peoples and a temporary decline in international trade. That such trade did not cease altogether is shown by the "Report of Wen-Amun," an Egyptian official sent to Byblos to purchase cedar around 1075 B.C.E.; the text breaks off with the unfortunate official having just been shipwrecked on Cyprus while on his way back to Egypt.

The following Iron Age II A period, approximately 1000-900 B.C.E., saw the reestablishment of the international trade routes, and it is the mercantile contacts of this period that are perhaps most familiar to nonspecialists interested in the history of the Levant. This is the time of David and Solomon, when the First Temple in Jerusalem was built and great trading ventures were conducted with Hiram of Tyre and the Queen of Sheba. Levantine exports in this era are said to have included oil, spices, wine, honey, grain, ivory, and the famous cedars of Lebanon, exchanged between areas as distant as Arabia, Nubia, and Mesopotamia.

This is also the time of the Phoenicians, those daring sea-faring merchants from the Levantine coastal regions, famous for their carved ivories and purple dye, who brought the alphabet to Greece and Italy and who established a host of colonies in areas as far away as North Africa, Sicily, Sardinia, and Spain. The Phoenician cultural influence and international contacts continued to keep Levantine cities such as Byblos, Sidon, and Tyre commercially important throughout much of the Iron Age II period and resulted in a steady stream of foreign imports from the Aegean and western Mediterranean to the Levant until Assyria took control of the region in the late 8th and early 7th centuries B.C.E.

Assyrian rule over the Levant during the Iron Age II C period inevitably led to increased contact with Mesopotamia, evidenced by a considerable number of Assyrian artifacts such as cylinder seals and bullae found in the Levantine area. Egyptian artifacts at various sites in Israel, Judah, and Transjordan also suggest that there were direct contacts between the Levant and Egypt at this time, a finding that should not be surprising considering the complicated political interactions between the Levant, Assyria, and Egypt during this period.
Following the destruction of Judah in 586 B.C.E., Babylonian imports also began to appear once again in the Levant, most recognizably in the form of stamp seals incised with cult scenes. It is from approximately this same time that the first archaic Greek coins make their appearance at sites in Israel and coastal Syria-Lebanon.

During the Persian period, and on through the Hellenistic and Roman periods, the Levant continued to play a vital role as a link between East and West. Important overland trade routes for camel and mule caravans of prosperous merchants such as the Nabateans passed directly through various parts of the Levant and connected with the maritime routes leading further west and south. Thus the Levant served as a nexus linking the Far East with the western Mediterranean and ultimately Europe, allowing and facilitating the flow of luxuries such as spices, silks, and precious gems that were in such high demand during the latter years of the first millennium B.C.E. and the early centuries of the first millennium C.E. The international trade and contacts of the Levant began to decline, however, after the Roman period and did not rise again until some centuries later, with the coming of the Crusaders and renewed European interest in the Near East.

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ERIC H. CLINE

The Iron Age in the Southern Levant

Iron Age IA

Differentiating between archaeological periods tends to be done on two bases: one, a clear demarcation in the archaeological remains or, two, a major historical event that led to a significant sociopolitical change. Ideally the demarcation is the result of the convergence of both a historical event and a change that is clearly reflected in the archaeological record. In the case of Palestine, the transition from the LB to the Iron I period is marked by an apparent widespread destruction of the Canaanite city-states around 1200 B.C.E. and the emergence of a number of new sociopolitical entities known to history as the Philistines, Israelites, Ammonites, Moabites, and Edomites.

The precise mechanism by which these new polities emerged has recently been the subject of intense debate, but there are a few events that certainly form some of the contours of the historical context. These include the collapse of both the great Hittite Empire in Anatolia and the Mycenaean Empire in mainland Greece, which led to a series of mass sea migrations to the coastlands of the Levant and Cyprus. Some of these immigrants, known as the “Sea Peoples,” included the Philistines, whose settlement along the coast of Canaan affected both the Egyptian control of this area and the local inhabitants themselves.

Another factor that appears to have contributed to the changing sociopolitical landscape at this time was the presence of a number of parasocial elements that resided just beyond the reaches of the Egyptian-controlled Canaanite society. These elements were known to the Egyptians and Canaanites variously as “Shasu” and “Iap/biru.” Again, the precise role they played in the transition into Iron Age society is uncertain. The possibility that they might be associated with the soon-to-emerge political entities of Israel, Ammon, Moab, and Edom certainly adds fuel to the debate.

Regardless of the precise sequence of events that occurred in the Late Bronze/Iron I transition, the net result was that, by about 1180 B.C.E. (about the time that Rameses III comes on the scene), Canaan was divided into three major sociopolitical components: the Philistines along the southern coast; Egyptian-dominated Canaanites in central and northern coastal areas and inland valleys; and Israelites and other “highlanders,” including the Ammonites, Moabites, and Edomites in the hillcountry in Cis- and Transjordan.

As with the earlier archaeological periods of Palestine, there is no consensus among scholars on the nomenclature for the subdivisions of Iron Age I. Israeli scholars have tended to date Iron I from 1200 to 1000 B.C.E., while American
scholars have generally preferred to extend Iron I from 1200 to 920/900 B.C.E. The former scheme excludes the period of Israel's United Monarchy from Iron I, while the latter scheme includes it. Since the formation of the United Monarchy represents a major new phase of the region's sociopolitical development that is reflected in the region's material culture, we will follow the Israeli dating (by now predominant).

Internally the period is best divided by recognizing the period from 1200 to 1150 B.C.E. as Iron IA and 1150 to 1000 B.C.E. as Iron IB. This division is convenient in that it corresponds with a convergence of historical events and a corresponding observable change in the archaeological record—specifically, the emergence and expansion of the Philistines along the southern coast of Canaan and the corresponding decline of Egyptian/Canaanite control. Moreover, at this same time there appears in the hillcountry of both Cis- and Transjordan a large number of settlements that are generally associated with the emerging tribal kingdoms of Israel, Ammon, Moab, and Edom. Since distinctive changes in material culture correspond with the geography of this historic, sociopolitical reconfiguration, we will review the archaeology of Iron Age I by regions.

Philistia. One of the most significant effects of the collapse of the Hittite and Mycenaean empires in terms of the impact on Canaan was the setting in motion of a number of migrations of different peoples, including the Sea Peoples. The coast of Canaan was settled by at least three of these groups: the Sherden, the Tjekker, and the Peleset. Of these three groups, the Peleset, identified with the Philistines of the Bible, became the most powerful and best known by carving out a significant kingdom for themselves along the southern coast of Canaan (the approximate area of the present "Gaza Strip").

Their arrival along Canaan's coast is marked archaeologically by the appearance of what archaeologists have designated Mycenaean IIIICb pottery. The interesting thing about this new pottery is that, while its decorative motifs are clearly related to Mycenaean IIIIB imports of the preceding LB IIIB period, the IIIIC style is locally made. Moreover, it occurs in precisely those areas where the Philistines are known to have settled according to literary sources. For these reasons, the rather sudden and dramatic appearance of this distinctive pottery is generally associated with the invasion and conquest of southern Canaan by the Philistines. Lawrence Stager dates this event to just a few years prior to the well-known Sea Peoples' invasion of Egypt during the 9th year of Rameses III, about 1180 B.C.E. He suggests that the Sea Peoples originally left their homelands around 1285 B.C.E.

It was previously thought that the Sea Peoples did not arrive in Palestine until after their battle with Rameses III in 1175 B.C.E. (recorded in Egyptian texts and on wall reliefs at Medinet Habu). The general belief, based on Papyrus Harris I, Ixxxvi 6-10, has been that Rameses III settled the Sea Peoples in Canaan after he defeated them in the Delta. However, Stager has recently challenged this interpretation, arguing that the Sea Peoples had already settled in Canaan prior to this battle, approximately 1280 B.C.E., and actually were using Canaan as the base from which they launched their campaign against Egypt.

This initial Philistine settlement was, according to Stager, the first of three stages of the Philistine settlement process that can be inferred from the archaeological evidence. This first stage, which occurred between approximately 1180 and 1150 B.C.E., corresponds to the Iron Age IA. During this initial incursion into the southern coast of Palestine (along the Gaza Strip), the Philistines were able to conquer a strip of territory measuring about 13 x 18 miles or about 600 sq. miles. They established five major urban centers at key positions near the borders of this area.

The Egyptian response to the successful Philistine beachhead was the adoption of a strategy of containment by rebuilding and or fortifying key Canaanite sites that were located along the Philistine's border. This essentially established what Stager describes as a cordon sanitaire. At the northwest corner the Egyptians rebuilt the fortress at Tell el-Mer in opposition to the Philistine city of Ashdod. Opposite Philistine Ekron (Tell Mäqna) Rameses III rebuilt Gezer (Str. XIV). To counter Philistine Ashkelon, Rameses III established an Egyptian center at Lachish (16 miles to the east). The Philistine center at Tell el-Hajur (Tell Abu-Fureikah) in the southeast corner of Philistia was opposed by an Egyptian center at Tel Sera' (Tell esh-Shariah). In this manner the Egyptians hoped to retard any further Philistine incursions into the territory of the Canaanite vassals. The policy appears to have succeeded—at least until the death of Rameses III in 1151 B.C.E.

During this early stage of development, the Philistines' material culture was virtually indistinguishable from that of other Sea Peoples who settled along the eastern Mediterranean coast. They all had a common pottery tradition that is believed to have been derived from the Late Bronze Age Aegean culture. This Mycenaean-style pottery (classified as Mycenaean IIIICb, or Myc. IIIIC) was locally made and utilized a distinctive monochrome design. Other unique aspects of the Sea People's material culture include large circular hearths in the middle of the main rooms of domestic and public buildings; the use of unperforated loom weights; a preference for wine mixed with water; and religious rituals featuring distinctive mother-goddess-type figurines.

Canaan. The invasion of the Sea Peoples along the coast of Canaan was only one of the events that adversely affected the Canaanites during the LB/Iron I transition. Other sites appear to have been destroyed by Canaan's nominal overlords, the Egyptians, suggesting that some Canaanite cities may have attempted to take advantage of the confused situation by breaking out from under Egyptian control. Various tribal highlanders, including the newly emerging Israelite polity (mentioned in 1207 B.C.E. by Pharaoh Merneptah), may have also seen new possibilities for consolidation and expansion, and they probably attacked yet other Canaanite settlements.

The net result was that many if not most of the major cities and towns of Canaan were destroyed around or just prior to 1200 B.C.E. These destroyed Canaanite settlements include Hazor (Str. XIII); Beth-shan (Str. VII); Megiddo (Str. VII); Aphek (the Egyptian residency); Beth-shemesh (Str. IV); Gezer (Str. XV); Tell Beit Mirsim (Str. C); Lachish (Str. VII and Pasase Temple III); Ashdod.
In spite of the fairly widespread destruction, many of these Canaanite sites were rebuilt by about the time that Rameses III assumed the throne in Egypt (ca. 1185 B.C.E.). The rebuilding of these Canaanite cities was conducted along the same lines as and reflects a continuation of the local Late Bronze Age II Canaanite culture. However, there are two notable differences. First, the distinctive pottery imports from Greece and Cyprus that are the hallmark of LB II Canaan are no longer present in these rebuilt Canaanite cities of Iron IA. This absence is probably the result of the crisis that led to the collapse of the Hittite and Mycenaean empires and that undoubtedly disrupted Mediterranean trade with Canaan. Mycenaean and Cypriot imports were no longer reaching Canaan. Rebuilt Canaanite cities that are missing the Mycenaean and Cypriot imports include Lachish (Str. VI) and Tell Deir 'Alla (Jordan).

Second, a number of these Canaanite cities include distinctive evidence of an increased Egyptian presence in the city. We have already noted the cities rebuilt under Egyptian supervision along the border with Philistia: Tel Mor; Gezer (Str. XIV); Lachish (Str. VI); and Tel Sera (Tell esh-Shariah, Str. IX). Other cities with a significant Egyptian presence include Tell el-Far'ah South, and in the north, Megiddo (Str. VIIA) and Beth-shan (lower Str. V).

Apart from the absence of Mycenaean and Cypriot imports and the increased Egyptian presence, it is virtually impossible to distinguish the LB Canaanite material culture from that of Iron IA. This situation is exemplified at Megiddo (Str. VIIA), where red and black decorated pottery (bichrome), bronzes, jewelry, and other typical elements of the LB II Canaanite material culture were recovered from the Iron IA levels. The Canaanite Iron IA period continued until the end of the reign of Rameses III, approximately 1150 B.C.E. At this time a number of sites were again destroyed, and the Canaanite enclaves in Cisjordan were reduced even further (see below).

Highlanders: Israel, Ammon, Moab, and Edom. The third significant event that marks the onset of Iron IA in Canaan is the relatively sudden appearance of highland settlements in both Trans- and Cisjordan, with their own distinctive material culture. These highland tribal peoples included the emerging sociopolitical entities known from the Bible as Israel, Ammon, Moab, and Edom.

Because of its central position in the Hebrew Bible, it is natural that Israel has received the most attention from scholars. That Israelites were present in the highlands of Cisjordan at the beginning of Iron IA appears to be confirmed not only by the biblical tradition, but also by an explicit reference to them in a stele commissioned by Pharaoh Merneptah approximately 1207 B.C.E. However, there has been considerable debate about the precise nature of Israel's actual "emergence." At least three major models have been proposed. The first is the Conquest Model, which argues that Israel invaded and conquered Canaan in a series of military campaigns; this model follows the biblical account fairly closely. The second model is the Peaceful Infiltration Model, in which the tribes of Israel are said to have infiltrated Canaan and settled peacefully among the Canaanites over a fairly long period of time. Eventually the Israelites came to dominate the land. The third model is the so-called Peasants' Revolt Model, which argues that Israelites emerged from the lower levels of Canaanite society and eventually were able to take over. Recently, Stager has also offered a variation that he calls the Ruralization Model, wherein peasant farmers moved beyond the areas of state control as the LB city-state system collapsed. It is possible that in various locales each of the processes described in these models played a role in Israel's emergence as a social-political entity during Iron Age I.

It needs to be kept in mind that there are actually two issues involved here. One is the emergence of Israel (and the other highland tribal entities) as an ethnic entity. The second involves the development of the sociopolitical entity. The processes of "ethnogenesis" and political coalescence can be related but are not necessarily identical. At this stage of research it is easier to trace the evolution of the sociopolitical entities than to explain adequately the so-called process of ethnogenesis. In this regard, Iron IA clearly reflects the sedentarization of a number of tribal entities that were outside the control of Egyptian and Canaanite polities. By Iron IIA these tribal entities displaced both the Egyptian and Canaanite entities and the dominate powers in the land, and coalesced into tribal kingdoms or "states."

There are a number of distinctive features of the settlements of the Iron IA highlanders in western Palestine, whom some regard as "Proto-Israelites." Several of their early Iron Age I villages were laid out in an oval-shaped pattern, with a large open space in the center and the buildings located along the perimeter. The outward-facing wall of the buildings thus formed a de facto wall for the settlement, providing a modicum of protection for the settlers. The central open area may have been used to pen up the flocks at night. Some scholars have speculated that this plan was derived from the tent camps of seminomads. Eventually the central open areas were filled in with additional buildings, and the settlements were enclosed with proper walls.

One of the hallmarks of the Iron Age I highlanders consists of what archaeologists describe as the "pillared house." Typically the plan of these houses is rectangular with three parallel long rooms at the front of the house and a single broad room at the back. The entrance to the house is usually through the central long room. This room appears to have served as an open-air courtyard in most cases, and is usually set off from the outer long rooms by rows of pillars. Because so many of these pillared houses have four rooms, they are often called "four-room" houses, although this plan was regularly modified so that three-room and five-room variations also exist.

There is some question about the origin and ethnic affiliation of these houses. Regarding ethnic associations with this house form, it has often been assumed that the house plan was invented and used by Israelites. This idea has recently been questioned, however, since this style of house has now been found at sites thought to be outside the traditional boundaries of the Israelites, that is, in lowland areas
of Canaan and in Transjordan. In light of various traditions of Israelites living outside their homeland (e.g., Ruth's family in Moab), the question should perhaps remain open for the present. The ultimate origin of this house plan is also a debatable issue. Some argue that it is derived from the layout of LB nomadic tents (although this position has not gained wide acceptance); others have found possible Canaanite or even Egyptian (Tell ed-Dab'a) prototypes.

The ceramic repertoire of the highlanders is distinctive, albeit limited. It appears that the basic forms were derived from Canaanite prototypes. However, the highland repertoire distinguishes itself in that only a few utilitarian forms were selected from the much broader Canaanite repertoire. Moreover, the selected forms were then simplified in terms of external decoration and ware. Painted decoration, very common in the Canaanite corpus, is almost nonexistent in the highland repertoire.

Large store jars (pithoi) are prevalent, especially the well-known "collared-rim" jar. While it appears that this form had limited use among the lowland Canaanites—indeed its earliest appearance seems to be at Canaanite Aphet (LB II)—it is clear that the highlanders embraced it as their own. Other forms include cooking pots, jugs, kraters, and bowls. Everyday vessels do not generally have painted decoration, in contrast to vessels from valley sites.

Not much is known about the early Israelite cult. Fragments of ceramic vessels decorated with animal heads are thought to have something to do with the Israelite cult at Shiloh. A bronze bull figurine found at the "Bull Site" near Samaria is generally understood as reflecting an Israelite cultic site, in this case rural. It has also been argued that an enigmatic structure on top of Mt. Ebal is an altar of an early Israelite cult center, but this interpretation has been subject to considerable debate.

**Writing and Literacy.** There are not many examples of writing from this period. The incised ostracon from 'Izbet Sartah, apparently a student's practice text, demonstrates the alphabetic nature of the forerunners of the Hebrew alphabet. Ten 11th-century arrowheads were found at el-Khad near Bethlehem, of which four were inscribed, providing an additional example of early alphabetic or "Old Canaanite" writing.

**Iron IB: 1150-1000 B.C.E.**

The Iron IB period corresponds to the heart of the biblical "period of the Judges." In general, the material culture of Iron IA continues in the highlands, Canaan, and Philistia, with a few notable changes that enable archaeologists to mark the period, as noted below.

**Philistia.** For Philistia, Iron IB (ca. 1150-1050 B.C.E.) marks the second stage of Sea Peoples settlement. This phase was initiated by the decline of Egyptian hegemony in Canaan that set in after the death of Rameses III (1186 B.C.E.). The Philistines began to expand beyond their original territory in all directions—north, east, and south. The extent of this expansion is marked by the presence of the successor of Myc. IIIIC pottery, known as "Philistine bichrome ware," in which distinctive painted red and black painted designs were superimposed upon a cream-colored background.

Little is known at this point concerning Philistine writing. At Kabur el-Walaya, in southern Philistia, there was found a bowl fragment incised with an alphabetic inscription dating to the 12th century, but it is probably "Proto-Canaanite." It is thought to be a dedication inscription for a temple offering. Two Canaanite names are mentioned, raising the question whether it was Canaanite inhabitants within Philistia who were responsible for the inscription, rather than Philistines. An Iron I carved seal was found near Ekron in Philistia with the name "IP" in an alphabetic inscription. A seal inscription from Ashkelon and several clay tablets from Deir 'Alla remained undeciphered.

**Canaanite in Iron IB.** As a result of continuing pressure from the Philistines to the south and the highlanders, especially Israel, to the east, the territory of the Canaanites became more and more contracted during Iron IB (1150-1000 B.C.E.). By the 11th century, the center of Canaanite culture had gravitated to the Jezreel Valley (including its eastern extension to Beth-shan) and the Acre Valley (from the Carmel ridge northward). Under Rameses III it experienced a brief revival in this region. Ultimately, however, it would be restricted to the Phoenician coast and would give rise to a new permutation known as Phoenician culture.

Archaeologically, the best representations of the Iron IB (11th century) Canaanite culture are found at Megiddo (Str. VIA) and Beth-shan (Lower Str. V). Megiddo VIA was built on a large scale with palaces, public buildings, and a city gate, although no city wall was found. Pottery painted in the Canaanite tradition was found in abundance. The presence of Cypro-Biblical pottery points to the reopening of trade relationships. More intriguing is the presence of Philistine pottery, raising questions of the nature of the relationship of the Canaanites and the Philistines at this time.

At Beth-shan, Lower Stratum V, another large, well-planned town was built. Its cultic center included two adjacent temples known as the "Northern Temple" and the "Southern Temple." Objects found in these temples include round and square ceramic stands, some of which were decorated with human figures and snakes or painted in red and black geometric patterns. Egyptian statues and stela indicate the continuing influence of that country in Canaanite culture during this period.

Ultimately, both of the sites were destroyed in the 10th century, probably by Israel's King David.
still lack monumental structures, public buildings, or fortifications, suggesting a lower level of social complexity.

The absence of fortifications at 11th-century settlements probably explains why some sites appear to have been founded specifically as fortresses. Har Adir (Upper Galilee) is a square fortress protected by a casemate wall. Its location near a number of small, unvaulted villages suggests that it was intended to provide protection for the settlers in the immediate area. A similar purpose is assumed for a fortified tower at Giloh that also dates to this period.

The 11th century also witnessed settlement expansion of the highlanders into new areas. The Galilee was one of the regions that saw considerable settlement during the 11th century. In Transjordan a similar growth in sites can be seen. Surveys and excavations in Ammon show that there was a jump from 20 sites in the LB/Iron IA transition to at least 68 sites during Iron IA/B. Of this latter number, there were at least 3 towns, 24 small villages, and 42 fortified farms. The material culture and settlement layout was similar to that of the Cisjordan highlands. Pottery forms, cisterns, and agricultural terraces are common. The picture is similar for Moab and Edom, although as one goes south, sedentarization occurs more slowly, probably because of the decreasing rainfall. Indeed, there are few settlements in Edom until Iron II (below). Nevertheless, people were there, and the elements were in place so that, by Iron II, all of the tribal highlanders in both Trans- and Cisjordan coalesced into distinctive tribal kingdoms, and a new level of social complexity was reached that effectively displaced the Canaanite city-state system that had prevailed at one level or another since the Early Bronze Age.

Iron Age IIA—C. 10th through Early 6th Centuries B.C.E.

As noted in the previous section, the periodization of Iron Age I and II has failed to reach a consensus among scholars. American scholars such as G. Ernest Wright initially limited the Iron II period to the time of the divided monarchy. Israeli scholars, on the other hand, have tended to include the period of the United Israelite Monarchy (under Kings Saul, David, and Solomon—10th century B.C.E.) in Iron Age II. Recently Hier has noted that this latter period appears to be the growing consensus. The ceramics of the 10th century can certainly be set apart from the earlier Iron Age (12th and 11th centuries B.C.E.) by the emergence of red-slipped wares and distinctive burnishing techniques that characterize the entire Iron II period.

From a sociopolitical point of view, the 10th century also marks the coalescence of local tribal groups into territorial monarchies such as Israel, Ammon, Moab, and Edom. The 10th century has thus been designated as corresponding to Iron Age IIA. The transition from Iron Age IIA to Iron Age IIB runs from about 925 B.C.E. (marked by Pharaoh Shishak's invasion of Palestine) down to the end of the 10th century. Iron Age IIB covers the 9th to the late 8th centuries B.C.E. (900–721 B.C.E.). Again, the Assyrian conquest of the Northern Kingdom of Israel (Samaria) marks the commencement of the transition into Iron IIC.

Iron Age IIA

Of the various sociopolitical entities that emerged during the Iron I, Israel came to be the most dominant. This dominance reached its apex during the time of David in the middle of the 10th century B.C.E., when the House of David subjugated virtually all of Israel's immediate neighbors, including southern Aram, Ammon, Moab, Edom, southern Phoenicia, and even Philistia.

House Plans. The continuation of the extended or tribal family can be seen in the continued use of the pillared house (the "four-room plan" and its variants) in Israel and Judah. Ethnographic and archaeological data indicate that in many cases the back room and one or both long rooms may have had a second story.

City Walls. Iron IIA cities were protected by one of two major types of city walls: casemate and solid walls. Casemate walls were constructed by building two parallel walls around the city; the space between the two parallel walls would then be subdivided into chambers, or casemates, by the construction of partition walls at regular intervals. One could enter into the casemate through a door constructed into the inner parallel wall. Casemate walls have been found at Hazor X, Gezer VIII, Jokneam XV-XIV, Beth-shemesh IIA, Tell Beit Mirsim, and 'En-Gev 5-4. Solid walls from the mid-10th century B.C.E. have been recovered at Megiddo IVB; Kinneret V-IV; and possibly at Jerusalem.

City Gates. The major cities of Iron IIA were typically entered through a six-chambered (or "four-entry way") gate, examples of which are found at Hazor, Megiddo, and Gezer. Although similar in overall layout, there are some significant differences in constructional details. These differences have led to a modification of Yadin's idea that a single architect simultaneously constructed all three gates according to a single uniform plan. Nevertheless, the arguments that date the construction of these gates during the reign of Solomon and under the direction of his administration are still sound.

Monumental Architecture. Monumental or public construction is more evident in the 10th century, reflecting the consolidation of political rule under central authorities. The preferred palace layout in Israel is the "northern Syrian palace," adapted from the bit hilani plan of northern Mesopotamia and Syria. The bit hilani comprised a pillared entryway; a central court surrounded by rectangular rooms, and a stairwell leading up to a second floor. Two palaces designed according to this plan have been found at Megiddo, Building 1723 (separated by its own wall and gate system on the north side of the site), and Building 6000 (located at the northern edge of the site). The bit hilani has also been found at Beth-saida, and it is thought by some that another exists at Hazor under the Iron IIB palace and near the gate. It is thought that Solomon's palace in Jerusalem was patterned after this same design.

Another important type of public building is the "trippite" or "pillared" building. Although these buildings are widespread in Israel and adjacent countries from the 9th to 6th centuries B.C.E., the earliest occurrences date to the 10th century. The function of these buildings has been widely discussed. Some scholars hold
that they served as army barracks or royal storehouses. Others have maintained that they served as stables (especially at Megiddo). Still others believe that they served as marketplaces. While the precise function continues to be debated, the size and centrality of these pillared buildings within urban centers suggest an important investment on the part of the society who constructed them and a level of cooperation typical of a more complex social organization. Examples dating to the 10th century have been reported at Beth-shemesh and Tell el-Hesi (although the latter goes into the 9th century b.c.e.).

While monumental architecture within the urban centers in the heart of the country is found in the form of palaces and tripartite buildings, fortresses were built in the frontier regions, especially in the south. More than 45 fortresses have been found in the Beer-sheba and Arad basins and the Negev highlands. The fortresses can be divided into two categories: oval or round, and rectangular or square. A typical characteristic of monumental buildings during the 10th century b.c.e. is the use of ashlars masonry. Ashlars are stones (usually nār) that were dressed into elongated rectangular blocks. All six sides of the block were smoothed—especially the outer faces that would be seen. It is generally thought that this type of masonry originated in Phoenicia, which is not surprising, given the biblical tradition of strong relationships between Israel and Phoenicia at this time. The fact that ashlars construction seems to be restricted to large public buildings or palaces in major centers leads most scholars to assume that it was the product of state or royal initiative.

Another important architectural element that is associated with ashlars construction in Israel around the 10th century b.c.e. is the "Proto-Aeolic" capital. It is referred to as Proto-Aeolic because it was originally thought that it anticipated the Aeolic capitals of later Greek architecture stylistically, although the existence of a direct connection is debatable. The capital typically displays a central triangle flanked by palmette volutes. It is thought to have been employed as the ornamental crown for either engaged columns or door jambs of entrances of important buildings. Over 35 of these capitals have been found within the boundaries of ancient Israel, Moab, and Ammon, including Hazor, Dan, Megiddo, Samaria, Ramah, Jerusalem, Amman (Ammon), and Medeba (Moab). Unfortunately, none of them has been found in situ.

Another important aspect of public works is the city water system. Part of the Jerusalem system (the Siloam Tunnel) may date to this period, as does a four-branched underground reservoir at Beth-shemesh. The large stone spiral staircase leading to a water source at Gibeon (2 Sam 2:3) has also been dated to this period.

Textual Evidence. Few written materials have been found from the 10th century. The best known is the Gezer calendar. Some have suggested that it was a schoolboy's practice tablet and reflects literacy among the lower classes. However, since it was found at a "royal" city it may be a training tablet for a scribe. At any rate, it is written in the Old Canaanite script. The existence of "national" scripts is not yet evident.

Religion and Cult. Little is known of religion during the Iron II. According to the Bible, the official cult was sanctioned only in Jerusalem, although there is evidence of local religious practices. Small cult rooms or shrines have been identified at Lachish V, Michal XIV, and Tell el-Far'ah. Objects possibly associated with cultic activity include a number of fertility figurines, a figurine of a bull's head at Shahaf (Fulah Valley), and various animal figurines.

There are a few burials known from the Iron II. The tombs tend to be multichambered, rock-hewn tombs cut into hillsides. The ability to hold multiple bodies suggests that they were intended as family tombs. This is in line with the tribal social structure the Israelites had according to their literary sources. Ten-century tombs have been found in Cemetery 200 at Far'ah south.

Pottery. Imports begin to appear in significant quantities, especially Cyprian and Phoenician ware, fine ware vessels typically with a red slip and decorated with black concentric circles. The local pottery frequently exhibits hand burnishing.

Metallurgy. While Iron is known, most metal objects continue to be made of bronze.

Ivory. While it is generally thought that ivory-working occurred during the 10th century b.c.e., there is present little archaeological evidence for it (Barkay 1992: 31).

Iron IIB

Iron Age IIB corresponds to the 9th and 8th centuries b.c.e. Politically it is marked by the breakup of Israel's United Monarchy into two kingdoms, Israel in the north and Judah in the south. While Israel was able to retain its holdings in Transjordan (especially Moab) for awhile, the ultimate effect of this breakup was the emergence of several small kingdoms that alternately formed alliances and fought with each other. These local kingdoms included (besides Israel and Judah), Ammon, Moab, and Edom in Transjordan, Aram (in Damascus), Philistia along the southern coastal plain, and the Phoenicians along the northern coast. Throughout most of the 9th and the first part of the 8th centuries b.c.e., these local kingdoms were able to pursue their own agendas unfettered by interference from outside powers such as Egypt and Mesopotamia. The power of the Philistines, who still occupied the southern coastal plain, had by this time been eclipsed by the Northern and Southern Israelite Kingdoms, but they still retained their independence. The intermittent independence acquired by the Transjordanian kingdoms also led to the development of certain distinctive elements in their material cultures, although politically they tended to be overshadowed by their neighbors to the west. The Phoenicians, on the other hand, were able to expand their influence considerably during this period. Ultimately they would provide the major cultural influence during this period, not only in Israel, but also throughout the entire Mediterranean. The Arameans, with their capital at Damascus, controlled most of the Golan down to the Sea of Galilee, although they had a running feud with Israel (and occasionally Judah) during this period.
Settlement Patterns.  As Barkay notes, Iron IIB towns existed within a discernible settlement hierarchy. At the top of the hierarchy were the capitals of the two kingdoms, Samaria and Jerusalem. They were the largest and most important sites. The next level consisted of what the biblical accounts refer to as "royal" cities, such as Megiddo (IV) and Lachish (IV–III). These were of secondary size and importance. Below this were tertiary provincial centers. The population of Judah during the 8th century has been estimated to be about 100,000.

Houses. The four-room house continued to serve as the fundamental house plan of Iron IIB. They have been found in Iron IIB levels at Hazor, Tell el-Far'ah North, Shechem, Tell en-Nasbeh (Mizpah), the City of David (Jerusalem), Beth-shemesh, Lachish, Tell Beit Mirsim, Tell Beerseba, and elsewhere. Three- and two-room variations are also found. House plans in Ammon are different. At Jawa a house from this period was laid out in a large square plan with many interconnected rooms and a possible small central court, but the four-room plan has not been found so far.

City Wall Systems. According to Barkay, a unique feature of the Iron Age IIB is the stone-covered glacis. These have been found at Lachish, Beerseba, Tel 'Ira, and Tel Halif. City wall construction varied in Israel and Judah and included solid, casemate, in-set-offset, or even zigzag walls. In Transjordan, casemate walls have been found at Jawa in Ammon.

City Gates. Gate construction also varied in Iron IIB. At some sites, six-chambered gates continue into Iron IIB. Nineteenth-century examples include Lachish Level IV. Four-chambered and even two-chambered gates have been found at other sites, however. In Ammon, a four-chambered gate was found at Tell Jawa South.

Monumental/Public Construction. At Hazor, a tripartite building and two storehouses existed just south of an open space just inside the gate. In Samaria, Ahab completed a large palace compound measuring 500 x 250 feet. An ashlar fortification wall (partially casemate and solid) surrounded it. Within the compound were open spaces, storehouses (one of which contained 102 ostraca from the 8th century), a large residential building, smaller residential quarters, and a building that contained about 500 ivory fragments. Seven Proto-Ionic capitals were found at Samaria. The tripartite buildings that first appear in Iron IA at Beth-shemesh and Tell el-Hesi become widespread in Iron IIB. Ashlar masonry and Proto-Ionic capitals continued to be used during Iron IIIB. With reference to monumental works, it is important to note that the best source of statuary in Syria–Palestine during this period, and probably throughout the Iron II period in general, is Ammon, where a significant number of stone statues of kings and/or divinities have been discovered.

Cult. The division of the Monarchy led to the establishment of a separate cult center in the North. At Dan the platform of a temple or shrine dating to this period has been found. A possible shrine used for human sacrifice (a tophet) has also been found outside Samaria.

Water Systems. Monumental water systems seem to be primarily found at royal cities such as Megiddo, Hazor, and Gezer. In Ammon Transjordan, a large reservoir has been cleared at Hesban that was certainly in use during Iron IIB (although it may have been initially constructed during Iron II).

Writing. As noted by Herr, evidence for scribal activity begins to proliferate significantly during Iron IIB. One of the most important inscriptions from this period is the "House of David" inscription found at Dan. This Aramaic victory stele was erected in the mid-9th century B.C.E. to commemorate the triumph of Damascus over Israel during the reign of Hazael. Toward the end of the 9th century, personal stamp seals inscribed with the owner's name became quite popular. One of the better known from the 9th century is the seal of Shema, a servant of Jeroboam II.

From the 8th century B.C.E. come the Samaria ostraca. Written in Hebrew, these inscribed potsherds are important in what they reveal about the economy and social structure of Israel during this period. An important seal from this century is that of Hoshea, the last Israelite king. A comparison of seals from Israel and Judah has revealed differences in spelling and names.

In Ammon a considerable amount of inscriptional material from this period has turned up. Perhaps the most significant of these is the "Baalam Inscription" found in a shrine at Deir 'Alla, east of the Jordan River. This inscription recounts the vision and prophecy of Baalim, son of Beor, known also from the Bible (Numbers 22:24). There is debate about the language and script—whether it is Ammonite or Aramaic.

The best-known inscription from Moab is the Mesha Inscription (Moabite Stele), found at King Mesha's capital, Dibon. This important inscription recounts Mesha's successful rebellion against Israel during the 9th century B.C.E.

Iron IIC: Late 8th to Early 6th Centuries B.C.E.

Iron IIC is marked by the Assyrian conquest of the region, Israel falling in 721 B.C.E., and the other local kingdoms coming under different degrees of vassalage. Ironically, while the Assyrian conquest essentially led to the destruction of those who resisted (i.e., Israel), others who accepted vassalage actually prospered under the assyrians. Indeed, this led to a greater amount of independence for each country in terms of a lack of local interference, and for the first time quite distinctive local developments emerge in various aspects of the material culture. City walls continued to be constructed in various styles, including casemate, solid, and inset-offset.

The fall of Israel appears to have led to an influx of refugees to Judah. It appears that many towns and cities, including Jerusalem, experienced substantial growth. In Moab, the important towns that have been excavated include Balata, Dibon, Lebon, and Mudayna. In Edom, Iron IIC towns include Ar'oba (Ngev) III-11, Bozrah (Buseirah), Hazeva 5-4, Khelifeh, Malhata C Late, Qitmit, Ta'wilin, 'Umm el-Biyara, and 'Uza.
Monumental Architecture. Fortresses were built throughout Judah, especially in the south. In Ammon the landscape is dotted by a large number of circular and rectangular towers. At Rabba Ammon, part of the palace of the Ammonite kings may have been found. The remains suggest an international influence. A large administrative building with basements has been found at 'Umayri. At Jalul, farther south, a large tripartite building from this period was excavated. In Moab, “Proto-Ionic” capitals have been found at Mada'iyba and Kerak. In Edom, a possible palace has been identified that exhibits some Assyrian influence. Edomite fortresses were constructed at Khele'eh (near Araba), 'Ar'ee, and Hazeva. In Philistia, at Ekron (Milqon), many houses included special rooms where olives were processed, suggesting a large industry. In Ammon, a rare four-room house was found at 'Umayri, a form that is rare in Transjordan during this period.

Ceramics. The basic pottery corpus of Iron II is similar in all of the local kingdoms, although each kingdom does have some unique forms. Surface decorations tend to set the various types off from each other. Judahite pottery is often wheel-burnished. Lamps have a high stump base. Decanters with a squarish body are common in this period. Ammonite pottery has a great deal of distinctive black, red, and white painted decoration. Black-burnished bowls are also very common in Ammon. Edomite pottery typically displays multicolored bands and geometric patterns. In the Negev, there is found a handmade pottery known as “Negev ware” although the makers of this simple pottery remain elusive.

Written Materials. Based on the considerable amount of written materials that have been found from this period, it can be said that each of the local kingdoms had developed rather distinctive dialects. While inscriptions still utilize the Northwest Semitic alphabet, it appears that the peoples modified the script in their own way, so that scholars now speak of “national scripts.” Some of the more important Hebraic inscriptions include the Keret Rinnon stone amulets, which contain the earliest biblical passage (Num 6:24–26). At Arad, over 100 ostraca have been found. At 'Uza, over 20 ostraca have been recovered. The Meged Hashayahu ostraca contains contemporary evidence of biblical law. The Siloam Tunnel Inscription, found in Hezekiah’s Tunnel in Jerusalem, provides an account of the digging of the water tunnel to assist Jerusalem’s resistance to Sennacherib’s attack in 701 B.C.E. The Royal Steward Inscription appears to have belonged to the steward Shebna, mentioned in Isa 22:15–18. Numerous inscriptions have been recovered from Transjordan as well, especially from Ammon. The more important include the Siran bottle, which mentions at least three Ammonite kings; and the Heshbon ostraca. The first major Philistine inscription was found at Ekron; it mentions the name of the city (Ekron), as well as two Philistine kings, Padi and Achish, the former mentioned in Assyrian inscriptions. This inscription indicates that by Iron IIIC the Philistines spoke a Northwest Semitic dialect. In Edom, writing is limited to a number of seals and a few ostraca, the latter being found at Khele'eh, Bozrah, and at ‘Uza—a Judahite site possibly captured by the Edomites. Many of the Edomite names on the inscriptions include the theophoric element Qo‘, an Edomite deity.

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Kempinski, A., and Reich, R. (eds.)

LeBlancs, O. S., and Younker, R. W.

Mazar, A.

Religion and Cult in the Levant:
The Archaeological Data

This essay reviews the archaeological evidence, both artifactual and textual, for religion and cult in Syria-Palestine from the Neolithic period through the Iron Age.

Neolithic

Religion is presumed to have been significant in the Neolithic period, about 8500-4500 B.C.E., but there are few tangible remains. There are increasing numbers of anthropomorphic and zoomorphic figurines, including steatopygous "mother goddesses" from Ha'ar ha-Golan. There is also evidence for the specialized treatment of the dead in a series of detached, plastered skulls at sites in Syria, Jordan, and Israel. Related to these are the remarkable Pre-pottery Neolithic plastered statuettes from 'Ain Ghazel in Jordan, found in a cache, presumably deities. At Jericho a small rectangular mudbrick building was regarded by Kenyon as a sanctuary.

Chalcolithic

The Chalcolithic period, about 4500-3300 B.C.E., is well known only in Jordan and Israel. At Tel el-Ful in the Dead Sea, a small sanctuary produced a fresco of a cult-scene featuring masked priests, goblets and chalices, and objects that may be votives. At several sites in the Beersheba basin, there are carved ivory statuettes of both male and female deities. Near Gaza, at Gilath, much of the site seems devoted to cultic activities, to judge from the large number of anthropomorphic and zoomorphic figurines, violin-shaped figurines, offering stands, chalices, and other ceramic votive vessels. Along the coast around Tel Aviv, caves have produced terra-cotta ossuaries for secondary burials representing house-forms as well as human and animal motifs, surely evidence of the cult. The only full-fledged temple is at Nahal Hever, on a high cliff along the western shores of the Dead Sea. Here a broadroom temple with low benches and several fawrisse is surrounded by an enclosure wall with a gate. In caves nearby at En-Gedi, almost certainly associated with the temple, a hoard of much more than 400 spectacular copper implemenes was found, including mace-heads, scepters, and crowns. Other objects include ivory tusks and carvings, as well as votives.

Early Bronze Age

From the Early Bronze Age, about 3000-2000 B.C.E., the first urban era, we have several temples from Palestine, including smaller sanctuaries at Bab edh-Dhra' and Jericho in the Jordan Valley. At Megiddo, a large stone altar for animal
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ARCHAEOLOGY OF THE LAND OF THE BIBLE 10,000–586 B.C.E.

by Amihai Mazar

CENTER FOR JUDAIC-CHRISTIAN STUDIES

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CHAPTER NINE

THE UNITED MONARCHY:
Iron Age IIA
(ca. 1000–925 B.C.E.)

INTRODUCTION

The period of the Monarchy (ca. 1000 B.C.E. until 586 B.C.E.) is illuminated by vast written sources. Biblical and extrabiblical documents provide insight into the history of the country, the relations of the Israelites with their neighbors, the historical geography of Palestine, and the social structure, spiritual life, moral values, and religious beliefs of the population. In a period so well known from written sources, archaeology has a somewhat different role than it has for earlier periods. In addition to its major goal—the reconstruction of material culture and cultural changes—it is instrumental in the verification, illumination, and supplementation of the written sources. Thus, while biblical narratives refer in the main to the Israelites, archaeology adds information on Israel’s neighbors and can evaluate the Israelite material culture against the broader background of the time. A large number of Iron Age inscriptions, mostly from the eighth and seventh centuries B.C.E., are a major addition to the corpus of written documents from this period.

The vast material regarding the Israelite Monarchy is discussed in the next four chapters according to the following main subjects: the Israelite culture during the United Monarchy (in the present chapter); outline of the main discoveries relating to the separated kingdoms of Israel and Judah, in-
The United Monarchy

comprising most of Palestine and Transjordan (except the Philistine coastal plain), parts of Syria, and some of the Phoenician coast. This kingdom was governed by means of an innovative apparatus based on older, traditional bureaucracies.

The biblical tradition recalls David as a warrior and the creator of a great state, but not as the initiator of elaborate building projects. This task was left to his son Solomon, who also maintained most of David's political and territorial achievements. Solomon's reign was a time of economic wealth and administrative reorganization. According to the biblical sources, Solomon's widespread commercial network included Cylicia and Egypt. A breakthrough in trade was achieved with southern Arabia (the kingdom of Sheba) by way of the newly developed port of Ezion-Geber on the Gulf of Elath. Close relations between Solomon and Tyre, the most important Phoenician city, greatly facilitated the former's trade activity and extensive building projects. Solomon's reign, however, involved the imposition of a taxation system [including a corvée] under which the northern tribes were treated unfairly. After the death of Solomon, a division between the northern and southern parts of the kingdom was inevitable.

ARCHAEOLOGY OF THE TIME OF SAUL AND DAVID

Several basic questions face the archaeologist studying the United Monarchy: Can archaeology throw light on the transition from tribal life in the period of the Judges to the centralized rule of a monarchy? Do the discoveries reflect the existence of a mighty kingdom as that described in the biblical sources? To what extent are the elaborate international commercial and political relations evidenced in the remains? Do the material finds reflect the internal development of the kingdom from Saul until the time of Solomon? Unfortunately, the archaeological evidence for the period of the United Monarchy is sparse, often controversial, and it does not provide unequivocal answers to these questions.

The time of Saul hardly finds any expression in the archaeological record. Saul's capital is said to have been Gibeah of Saul, also known as "Gibeah of Benjamin." W. F. Albright identified this place with Tell el-Ful, a strategically located
## Table 7. Comparative Stratigraphy of Iron Age II Sites

<table>
<thead>
<tr>
<th>SITE</th>
<th>SUBPERIOD</th>
<th>ca. 1000 B.C.E.</th>
<th>ca. 925 B.C.E.</th>
<th>722/712-701 B.C.E.</th>
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<td>Beth-Shemesh</td>
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<td>Timnath (Tel Batash)</td>
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### The United Monarchy

#### 9.2 Tell el-Ful:
P. Lapp’s suggested reconstruction of the Period II fortress, perhaps the stronghold of Saul.
hill about 7 km north of Jerusalem, along the main route leading from the latter. A corner of an extensive fortress which was discovered there may have been part of Saul’s headquarters. The fortress was a large public structure (ca. 57 x 62 m), but its full plan is unknown.

The archaeological evidence concerning David’s reign is also poor and ambiguous. Jebusite Jerusalem, which he conquered, was located on a narrow spur demarcated on the east by the deep brook of Kidron, and on the west by the Tyropoeon Valley. Excavations on the steep eastern slope of this hill, above the spring of Gihon, have revealed an imposing edifice, known as the “stepped structure,” which may tentatively be attributed to the tenth century B.C.E. It is a huge retaining wall, preserved to a height of 16.5 m, which apparently supported a monumental building of which no remains were found. The identification of this construction with David’s “fortress of Zion” (Metsudat Zion) (1 Chr 11:5) is tempting. The wall’s location, on the summit of the hill above the Gihon Spring, would be more appropriate for David than for Solomon, whose acropolis was constructed farther north. Later during the period of the Monarchy, when the city expanded to the eastern slopes of the hill, this enormous structure became obsolete (see map on p. 418).

Violent destructions by fire of flourishing Canaanite and Philistine towns such as Megiddo Stratum VIA and Tell Qasile Stratum X can perhaps be attributed to David. At both these sites, the succeeding modest habitation can be dated to his reign. At Megiddo (Stratum VB), houses were constructed along the perimeter of the mound, their outer walls creating a defensive line. No fortifications or public buildings should be attributed to this phase. At Tell Qasile (Stratum IX), the ruined town was reconstructed to some degree, but within a more limited area.

Several small village sites may be attributed to the time of David’s reign—such as Khirbet Dawara near biblical Michmash in the land of Benjamin, where a circular-shaped settlement was defended by a casemate wall, or Tel Beer-sheba Stratum VII, where dwellings were built around a central open area. New types of pottery appear in these levels, characterized by distinct shapes and hand-burnished red slip.

It would appear that the first half of the tenth century B.C.E. was a transitional period in which the Israelites began to develop an urban culture. The modest archaeological data from the time of David, although not conforming with the image of an empire founder, is consistent with the biblical accounts, which do not attribute to him any building operations.

THE TIME OF SOLOMON

The intensive building activity of Solomon and his encouragement of the arts, both intricately portrayed in the Bible, find expression in discoveries in the outlying cities, but in Jerusalem are illuminated only by indirect sources.

Solomonic Buildings in Jerusalem In spite of the lack of any remains, the detailed biblical descriptions enable us to recon-
struct in outline the plan and ornamentation of Solomon’s temple and palace complex located on the Temple Mount, the peak of the ridge of the City of David. Several basic points, however, do remain debatable.

Detailed descriptions of the Solomonic temple appear in 1 Kings 5:16–6:38 and 2 Chronicles 4. To those may be added the firsthand evidence of Ezekiel (Chapters 40–44). The measurements of the building are given in cubits. Two standard cubits were employed during the biblical period: the long, or royal, one of 52.5 cm, and the short cubit of 44.5 cm. The former was most probably utilized in the construction of the temple. The temple was a rectangular structure, measuring 50 × 100 cubits, or approximately 25 × 50 m—larger than any Canaanite or Phoenician temple known to us. Its height was also exceptional, 30 cubits (ca. 15 m). The walls are said to have been 12 cubits thick—a width recalling that of the Middle Bronze Age temple at Shechem. The interior is described as having had a tripartite division into a porch (ulam), a sanctuary (hechal), and the Holy of Holies (debir), the entrance to each lay on the central axis. No wall dividing the sanctuary from the Holy of Holies is described, perhaps the separation was achieved by means of a curtain or a wooden partition. On either side of the temple, there were three stories

of auxiliary chambers which probably served as the kingdom’s treasury.

The plan of the temple is rooted in the religious architecture of the second millennium B.C.E. in Canaan and northern Syria: the Middle Bronze Age temples at Ebla, Megiddo, and Shechem are clear prototypes. A later example is the eighth century B.C.E. edifice at Tell Tainat in northern Syria. The extensive use of cedarwood in the temple of Solomon recalls its use in Canaanite and Philistine temples (Lachish and Tell Qasile). The cedars are said to have been brought to Jerusalem by way of the “Sea of Jaffa,” perhaps via the Yarkon River near Tell Qasile. Cult appurtenances described in connection with Solomon’s temple, such as the sacrificial altar and the “molten sea” (a huge bronze basin supported by twelve bull figures), can be reconstructed on the basis of actual finds and artistic depictions from Phoenicia, Cyprus, and Palestine. The two ornamental columns Jachin and Boaz stood at the temple’s facade, probably without having any constructional role. They recall two column bases in the Late Bronze Age temple at Hazor (Area H), which also lacked constructional function. Similar columns appear on the facade of a pottery model-shrine from Tell el-Far‘ah (north).

The ark of the covenant stood in the Holy of Holies beneath


9.5 Temples resembling the temple of Solomon: (A) a Middle Bronze Age temple at Ebla, north Syria; (B) a Late Bronze temple at Tel Mimbakat, north Syria; (C) plan of the Bit Hilani palace (I) and attached tripartite temple (II) at Tell Tainat (north Syria, eighth century B.C.E.).
the outstretched wings of the olive-wood cherubim. The latter were probably sphinxlike, with the body of a lion or bull, the wings of an eagle, and the head of a man—a well-known motif in Canaanite, Phoenician, and Syrian art of the Bronze and Iron ages. The various ornaments in the temple—the networks, palmettes, fringes, and chains—are also paralleled in Phoenician depictions, especially on carved ivories of the ninth and eighth centuries B.C.E. The tenth century B.C.E. was considered by some art historians as a “dark age” in the history of art in the ancient Near East. The only example of monumental art from this century is the Phoenician sculptured sarcophagus of Ahiram, king of Byblos. The descriptions of Solomon’s temple are thus important evidence for the existence of monumental, elaborate art during the tenth century B.C.E.

Solomon’s palace is described in 1 Kings 7:1–11. It included the following units: the “house of the Forest of Lebanon”, the “hall of pillars”; the “hall of the throne where he [Solomon] was to pronounce judgment”; “his own house where he was to dwell”; and the “other court.” Contemporary or slightly later palaces have been discovered at Megiddo and at several cities in Syria; they are known as bit-hilani, an Akkadian term apparently based on the Hittite reference to palaces having a colonnaded entrance porch (see pp. 377, 382–83). D. Ussishkin has proposed that the different elements of Solomon’s mansion in Jerusalem followed the plan of such a bit-hilani: the “hall of pillars” was the entrance porch with its ornamented columns. In palaces of this type, the porch gave access to the throne room; the latter was a broad hall in which the throne stood at one of the narrow ends. Behind the throne room there were dwelling rooms, sometimes arranged around an inner courtyard like the “other court” of Solomon’s palace.

The palace which Solomon built for Pharaoh’s daughter, his most prestigious wife, may have been a separate bit-hilani. Such clusters of palaces are known at other royal cities of the Iron Age, such as Sinijiri, capital of the kingdom of Sama’il. The “house of the forest of Lebanon” is described as a separate building with four rows of cedarwood columns. This feature is paralleled in the pillared halls of the kingdom of Urartu in eastern Anatolia, as well as in a ninth century B.C.E. Phoenician temple at Kition on Cyprus, where there were four rows of pillars.

The Bible describes the palace as having been built of stones “sawed with saws, back and front,” “stones of eight and ten cubits.” The courtyard is said to have been constructed of “three courses of hewn stone round about, and a course of cedar beams.” These details conform to the character of monumental Israelite ashlar masonry known from Solomonic times at Megiddo (see p. 472).

The archaeological parallels to the biblical descriptions of Solomon’s buildings in Jerusalem validate the accuracy of these descriptions and further illuminate the Israelite royal architecture of the time. Solomon was aided by Phoenician architects and craftsmen sent from Tyre who probably brought with them the traditions of Canaanite art and architecture. But as no contemporary buildings are known from Phoenicia proper, the description of the Jerusalem buildings is almost the only link presently known between the public architecture of the Late Bronze Age and that of the Iron Age throughout the Levant.

In addition to the temple and the palace, the Bible relates that Solomon built the wall of Jerusalem and the “Millo” (1 Kings 9:15). The latter term must have been connected with some artificial fill required to overcome a topographic

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9.6 A pottery model shrine from Tell el-Far’ah [north], with two pillars at the front recalling Jachin and Boaz.
University of Chicago rank among the largest archaeological projects at an Iron Age site in Israel, yet the interpretation of the finds is the subject of a continuous debate.

Remains of four Iron Age II levels, Strata V–II, were identified by the excavators. The earliest, Stratum V, was noted as having subphases in certain areas of the site, termed "Stratum VA" and "Stratum VB." W. F. Albright, followed by G. E. Wright, suggested that the excavators missed an entire occupation level to which several buildings of Phase VA and some of Stratum IV should be attributed. He called the new level "Stratum IVB–VA." Y. Yadin's probes at Megiddo during the sixties succeeded in defining this stratum more precisely and resulted in a comprehensive view of Megiddo's architectural history during the period. Yadin concluded that after the massive conflagration which destroyed the Stratum VIA city ca. 1000 B.C.E., Megiddo was rebuilt as an unwalled town with dwellings along the perimeter of the mound [Stratum VB]. He dated this phase to the first half of

9.8 Plan of Megiddo Stratum IVB–VA (according to Y. Yadin) (1) City gate; (2) Palace 6000; (3) Palace 1725; (4) Dwellings.

Solomonic Buildings Outside Jerusalem In 1 Kings 9:17–19 Solomon is credited with the building of Hazor, Megiddo, Gezer, Lower Beth-Horon, Baalath, and Tadmor (Palmyra, in the Syrian Desert). It is also noted that he built "store cities," "chariot cities," and "cavalry cities." The excavations at Hazor, Megiddo, and Gezer have substantially uncovered Solomonic urban architecture.

Megiddo was an administration center; it served as the seat of Ba‘anah son of Ahilud, who was the governor of the Jezreel and Beth-Shean valleys—the "grain barns" of the kingdom. The excavations at Megiddo by the Oriental Institute of the
the tenth century B.C.E., the time of David. The following
Stratum IVB–VA, identified as the Solomonic city, included
two palaces (6000 and 1723) and other buildings of a public
nature. In Yadin's view, this city was surrounded by a casemate
wall which he suggested to be identified in his excavations
along the northern edge of the mound. He conjectured that
this casemate wall abutted a monumental, ashlar-built six-
chamber gate, 17.8 × 20.0 m in size, which was attributed by
the original excavators to Stratum IV. This interpretation was
based on the fact that at Hazor and Gezer casemate walls
were found in relation to similar six-chamber gates at Sol-
omonic levels; but it should be taken into consideration that
the excavators of Megiddo did not discover any such casemate
wall near the gate structure. In the following Stratum IVA,
attributed by Yadin to the ninth century B.C.E. [the time of
Ahab], a solid "offsets and insets" city wall and a large
complex of "stable buildings" were constructed; the six-
chamber gate was retained for a while, but eventually it was
replaced by a four-chamber type. This new city survived until
the conquest of Megiddo by the Assyrians in 732 B.C.E.

Yadin's conclusions were criticized by Aharoni and Herzog,
especially on two grounds: the identification of the casemate
wall and the stratigraphic attribution of the six-chamber gate. 11
They accepted the view of the first excavators that the "offsets
and insets" wall was the first and only wall related to the
six-chamber gate and that both this wall and the gate were
constructed as one unit in "Stratum IV," which they dated
to the time of Solomon. Since palaces 6000 and 1723 were
admitted to be earlier than this stratum, they were allocated
by Aharoni to Stratum V, which he dated to the time of
David. According to this theory, the Solomonic city included
the six-chamber gate, the "offsets and insets" wall, and the
"stable buildings" (identified by Aharoni and Herzog as store-
houses). In our discussion we retain Yadin's suggestion in
spite of ambiguities concerning the gate area (see p. 399, note 15).

The two palaces of Stratum IVB–VA clearly demonstrate
the emergence of Israelite royal, monumental architecture
characterized by ashlar masonry, stone molding and spe-
cific plans. 12 The northern palace (Palace 6000) is similar in
plan to the *bit hilani* of northern Syria, and particularly to
those at Sinjirli in southern Turkey. The southern palace
(Palace 1723) has a more complicated plan, though it too may

be interpreted as a variation of the *bit hilani*. 13 The latter
palace stood at the back of a large square courtyard which
was surrounded by a wall constructed of ashlar piers separating
segments built of fieldstones. This building technique is well
known in later Israelite and Phoenician architecture. A four-
chamber gate leading to the courtyard was decorated with
stone capitals carved in the Proto-Aeolic style, which was to
characterize Israelite royal architecture throughout the Iron
Age. It is feasible to assume that similar elaborate architectural
components were also employed in the Solomonic royal buildings in Jerusalem.

The city gates of Megiddo, Hazor, and Gezer were noted by Y. Yadin as the bold illustration of a centralized, royal building operation attributable to Solomon on archaeological grounds as well as on the basis of the biblical reference in 2 Kings 9:15–17. These three monumental gates, as well as two additional examples found at Lachish and Ashdod, were rectangular structures comprising six guard chambers and four gateways. The facades of the gates at Megiddo, Hazor, and Gezer included projecting towers, and their central passage was 4.20 m in width, almost equal to 8 royal Egyptian cubits of 52.3 cm each. Other measurements, details of layout, and building technique in these gates varied. The six-chamber inner gate of Megiddo was built of high-quality aslar masonry. It is the only one of these gates which was completely built of aslar stones, like the Megiddo palaces. We have mentioned earlier the complex stratigraphic difficulties relating this gate.


9.11 Gezer: view of the six-chamber gate, from inside the city.
structure. An outer gate constructed on the slope of the mound can most probably be attributed to a second phase in the history of this gate, probably in the ninth century B.C.E.

Solomonic Hazor (Stratum X) only occupied the western half of the upper mound, an area of 8 acres. The city was surrounded by a casemate wall, and entrance to it was gained through a six-chamber gate similar to that of Megiddo, though built of uncut fieldstones. Almost no details concerning other parts of the city are known.

At Gezer, the six-chamber gate was constructed of large fieldstones, ashlar being used only for parts of its facade. A casemate wall, similar to the one at Hazor, flanked the gate but probably did not surround the entire city. The city was approached through an outer gate constructed of fine ashlars and related to the solid “Outer Wall” with its aslar towers (on this wall see earlier, p. 243). This latter wall was thought by Dever to be founded in the Late Bronze Age and rebuilt by Solomon. But in our opinion it is possible that this wall was added to the Solomonic fortifications of Gezer during the time of the Divided Monarchy. This formidable fortification system was in use until the Assyrian conquest of Israel.

A large public building, perhaps an administrative center, stood during the Solomonic era west of the gate, abutting the casemate wall.

SETTLEMENT AND ARCHITECTURE

The rise of the Monarchy brought about changes in the socioeconomic structure of Israelite society, and in consequence a new pattern of settlement was formed. Many of the small sedentary villages typical of the period of the Judges were abandoned, and others developed into towns, but our knowledge of this process is still limited.

In addition to the royal cities of Megiddo, Hazor, and Gezer, Israelite occupation levels from the tenth century B.C.E. were identified at Dan (Stratum IV), Tel Kirot (Tell el-‘Oreme, Stratum IV), Taanach (Period II), Yiqneam (Stratum II), Tel Amal, Tell Abu Hawam (Stratum III), Shiqmuna, Tel Mevorakh (Stratum VIII), Tell el-Far‘ah (north; Tirzah, Stratum VIIb), Tell Hamath (Tell el-Hama in the Jordan Valley south of Beth-Shan), Tell el-Mazar (in the valley of Succoth, near the junction of the Jabbok and the Jordan), Tell Qasile (Strata IX–
VIII), Beth-Shemesh [Stratum IIa], Timnah [Tel Batash, Stratum IV], Tell Beit Mirsim [Stratum B3], Lachish [Stratum V], Arad [Stratum XII and perhaps Stratum XI], and Tel Beer-sheba [Strata VII–VI].18 The evidence from most of these sites indicates the initial renewal of urbanization, though it seems that towns were still not densely populated or built up. This was the beginning of the gradual process of urbanization which reached its zenith in the succeeding centuries.

**Fortifications** The sparse fortifications found at these sites are mostly casemate walls. In addition to those at Hazor, Gezer, and possibly Megiddo, casemate walls fortified the tenth-century city of Yoqneam, and perhaps also Tell Beit Mirsim, Tell en-Nasbeh, and Beth-Shemesh. This type of defense was also common at the Negev "fortresses" of this period (see pp. 390–97). The versatility of its structure made it advantageous: the space between the outer and inner faces of the walls could serve as storage space or as the inner rooms of adjacent houses. Casemate walls occasionally appeared in the Middle and Late Bronze ages (at Hazor and Ashdod), but it is doubtful whether these early examples inspired those of the Iron Age. The latter may have developed from Iron Age I Israelite settlements in which the rear rooms of pillared houses created the outer defense ring of the settlement.19

It has been suggested that some solid walls—at Tel Kinrot, Tel Beer-sheba Stratum V, and Gezer (the last according to Dever)—belonged to the tenth century B.C.E., but the dating of the last two is debatable. At other sites there was no city wall at all during this period, and the outer walls of houses built along the perimeter of the town seem to have been the only defense. This was definitely the case during the time of David (at Megiddo Stratum VB, Tell Qasile Stratum IX, Beer-sheba Stratum VII), and at some sites dated to Solomon (Tell Qasile Stratum VIII, Tel Batash Stratum IV, Lachish Stratum V, and perhaps Megiddo Stratum IVB–VA).

**Town Planning** Our data concerning the inner planning of the tenth-century towns and cities is meager. It appears that in this initial phase of Israelite urbanization, large areas of the cities remained unsettled. Lachish is a good example, since it was to become one of the major cities of Judah in the following centuries. After a gap in occupation which began in the mid–twelfth century B.C.E., Lachish was re-inhabited in the tenth century B.C.E. on a limited scale: no fortifications were erected, and extensive parts of the mound remained uninhabited. The excavators attributed to this stratum the first phase of a large palace-fort. In this phase, denoted Palace A, the building stood on a square stone platform, 32 × 32 m in size. However, in my view the attribution of this palace to Stratum V is not sufficiently proved, and it may be suggested that it was founded in the following Stratum IV, of the Divided Monarchy.30

The emergence of Israelite urbanization is demonstrated also at Tell Beit Mirsim and at Timnah [Tel Batash]. At the latter, the ruined Philistine town was replaced in the tenth century B.C.E. by a town with houses built around the circumference of the mound. Entrance to the city was perhaps gained through a gate composed of two square towers.

Tirzah [Tell el-Far`ah (north)] is an exceptional example of a developed town—well planned and densely occupied—in this period. It is characterized by orthogonal planning (almost nonexistent in later Israelite towns) and the repeated appearance of typical "four-room houses" (both elements recall Tell Qasile Stratum X of the late eleventh century B.C.E. see p. 466).

**Other Settlement Features Related to the United Monarchy**

The expansion of settlement along the Palestine littoral may have been the outcome of the special ties between the kingdom of David and Solomon and the Phoenician cities of Tyre and Sidon. At Tell Qasile, the ruined eleventh century B.C.E. Philistine town was rehabilitated in a diminished area, large open spaces being left in the town. A partial reconstruction of the ruined Stratum X temple (in Strata IX and VIII which should probably be dated to the times of David and Solomon respectively) suggests that some of the local population may have remained as navigators for the Israelites, who lacked the seagoing knowledge necessary for the development of the maritime ties with Phoenicia. The contemporary settlements along the Mediterranean coast at Tel Michal, Tel Mevorakh, Shiqmona, and Tell Abu Hawam tell a similar story.

A large public building of the tenth century, discovered near Tell el-Mazar in the Jordan Valley (near the junction of the Jabbok and the Jordan rivers), was in use during the time of Solomon until it was destroyed by a heavy conflagration.
The floor plan can be recovered only in part, but it included casemate rooms along one side of a large courtyard, recalling the plan of the compound around Palace 6000 at Megiddo. There is no reason to accept the identification of this building as a temple, as suggested by its excavator. It may have been a royal Solomonic building related to the official metal-processing activity in the Jordan Valley between Succoth [probably Tell Deir Alla] and Zarethan (1 Kings 7:46).21

SETTLEMENTS IN THE NEGEV

The Central Negev Highlands The region defined as the “Negev highlands” is demarcated on the east by the cliffs of Nahal Zin, on the south by the precipices of Machtesh Ramon, and on the west by the oasis of Kadesh-Barnea and the eastern Sinai Desert. This mountainous arid region, where the annual rainfall does not surpass 100–200 mm, was always more suited for pastoral nomadism than for permanent settlement. In order to foster agriculture in the riverbeds, settlers had to devise sophisticated techniques to divert runoff water and to store water for both man and animal.

Thorough surveys and excavations in this region have shown that following the wave of settlement in the third millennium B.C.E. [see pp. 114–17], the area was unoccupied throughout the second millennium. Surprisingly, however, rapid and wide-scale settlement occurred in this area, most probably during the time of the United Monarchy.22 About fifty fortified enclosures [commonly referred to as “fortresses”], and many additional small settlements and isolated farmsteads, were part of this phenomenon. They are found close to water sources [such as the Kadesh-Barnea oasis] or wadi beds, where some agriculture could be practiced and water could be collected in open, large reservoirs. Most of the “fortresses” are located on hills within sight of each other between the present-day towns of Yeruham and Mitspe Ramon, and as far as Kadesh-Barnea in the west. However, they were not constructed along any particular route; on the contrary, their widespread distribution seems to have been planned to achieve settlement all over the region.

Most of the “fortresses” were 25–70 m in diameter; they were circular, oval, rectangular, or amorphic in shape and followed the contours of the hill on which they were estab-

9.13 Distribution map of tenth-century “fortresses” in the central Negev highlands.
lished. Usually they included a row of casemate rooms surrounding a large central courtyard; the latter was entered through a narrow entrance. In some cases actual buildings adjoined the casemates, while in others the “fortresses” were rather smaller structures or towers. Groups of dwellings are located either adjacent to the “fortresses” or independent of them; these dwelling groups can be found scattered at a considerable distance in the plains and along riverbeds, particularly in the region just north of Machtess Ramon. These unfortified settlements lacked any central planning, and often the houses were isolated, at a considerable distance from one another. Some of the buildings were simple in plan, comprising between one and three rooms arranged in a row, sometimes with a fenced courtyard at their front. There were also structures, particularly in the northern part of the region, which were similar in plan to the pillared houses found since Iron Age I in other parts of the country. Several were fully developed “four-room houses” and others were variants of this form, both utilizing the principle of a courtyard divided by pillars.

The sites were inhabited for a short period of time. There are two groups of pottery vessels found in them. One of these groups includes wheelmade shapes, identical in form and decoration to the pottery found throughout the southern part of the country in the tenth century B.C.E. The second group is denoted “Negebite Ware”; it comprises rough handmade

9.15 View of the site at Metsudat ‘Akrab, central Negev highlands. The settlement is seen at the front; the “fortress” is located on the hill in the background.
vessels similar to those found in the Timna mines from the end of the thirteenth and beginning of the twelfth centuries B.C.E. This latter group can safely be attributed to local Negev nomads.

The significance and precise date of these central Negev settlements and forts are debated issues. One group of scholars (B. Rothenberg, D. Eitam, I. Finkelstein) ascribe them to the desert nomads, the Amalekites, or even to Israelites of the tribe of Simeon. Finkelstein points out a resemblance between the casemate “fortresses” and tent enclosures of pastoral Bedouins. He dates these settlements to the second half of the eleventh century B.C.E., and he believes that they were terminated with the wars of Saul against the Amalekites. This theory, however, does not explain what motivated the local pastoralists to move to permanent settlements, why they suddenly adopted northern pottery and architectural forms, and finally what brought about the end of this settlement wave. Furthermore, Finkelstein’s dating of this process seems to be too early.

9.16 Casemate rooms in the “fortress” of Metsudat ‘Akrab.

Other scholars view these settlements as evidence of Israelite penetration, but there are various opinions regarding their date and development. Y. Aharoni suggested a gradual Israelite penetration to the Negev highlands by a surplus Israelite population in the northern Negev. He dated these settlements to the eleventh century B.C.E., contemporary with Tel Masos and Tel Esdar. N. Glueck, Z. Meshel, and R. Cohen (and initially Y. Aharoni) view these sites as a result of royal initiatives. Accordingly, settlers arriving from Judah established a network of agricultural settlements in the Negev highlands. The “fortresses” were the headquarters of officials and landowners. Major aspects of the material culture of the Negev sites (such as house plans and wheel-made pottery) are correlated to Judah in the time of the United Monarchy.

Z. Meshel dates this process to the time of Saul, explaining it as a strategy against the desert nomads, particularly the Amalekites. R. Cohen, who carried out the most intensive study of the subject, accepts the earlier views of Aharoni and Glueck dating the settlements to the time of David and Solomon. In Cohen’s view, which we tend to accept, these sites reflect an overall Israelite policy to control the Negev and its inhabitants in order to secure the routes crossing the Negev through Kadesh Barnea toward the Red Sea, where commercial ties with Arabia had been established.

The Negev highland region served as a link between the heartland of Judah and the arid regions of the southern Negev. The southern limit of these settlements corresponds to the description of the southern border of Judah: “… south of Scorpion pass (maale ‘Akrabim), continued on to Zin, and went over to the south of Kadesh Barnea. Then it ran past Hezron…” (Joshua 15:2–3). This demarcation, therefore, may have originated in the period of the United Monarchy. The new settlements would of course have been a source of livelihood for the local desert nomads who subsequently concentrated around them. This demographic symbiosis is reflected in the handmade Negebite pottery and the poor scattered dwellings; it recalls similar earlier and later phenomena, such as those in the EB II Negev and southern Sinai.

These Negev highland settlements were probably destroyed and deserted as a result of Pharaoh Shishak’s military campaign in the region five years after the death of Solomon (see p. 397 and note 29). Shishak’s topographical list, preserved on
the walls of the temple of Amun at Karnak, includes almost seventy place-names in the Negev. Some of them can be identified in the area of Arad and Beer-sheba, but others were perhaps located farther south, in the Negev highlands. The prefix hgr appears and is possibly an Egyptian transcription of the Hebrew term ḥagar, “belt” or “enclosure,” which could have denoted the casemate “fortresses” of the Negev. Shishak’s goal may have been to disrupt the Israelite and Phoenician trade with southern Arabia and restore Egyptian hegemony over this trade as it had been during the New Kingdom. This supposed Egyptian invasion of the Negev can be taken as indirect evidence of the significance of the Negev settlements in the Solomonic kingdom.

The Northern Negev Toward the end of the eleventh century B.C.E., a crisis occurred in the northern Negev (the Arad–Beer-sheba region), witnessed in the destruction and abandonment of the large settlement at Tel Masos. This crisis may have been related to the wars against the Amalekites during the time of Saul and in the early days of David, and to the disruption of the specific economic arrangements and ties with the coastal plain which ensured the prosperity of Tel Masos during the eleventh century B.C.E. Later in the period of the United Monarchy, new sites were founded in the region, though on a smaller scale. At Tel Beer-sheba, the village of Stratum VII (see p. 374) should probably be dated to the time of David. The destruction of this village was followed by a short, impoverished intermediate phase (Stratum VI), which in turn was succeeded—in Stratum V, apparently during the time of Solomon—by a well-planned 3-acre town defended by a solid wall buttressed by a solid earth rampart. At Arad, a village developed during the period of the United Monarchy (Stratum XII), perhaps around a sacred shrine which served Kenite families who joined Judah (Judges 1:16). A square fortress surrounded by casemate walls (Stratum XI) replaced this village. It was dated by Aharoni to the time of Solomon, and it was identified by him as p-Hgr Arad Rbt, “the fortress of great Arad,” noted in Shishak’s list of conquered sites in the Negev. Yet it may be proposed that this fortress was founded later—in the ninth century B.C.E.—and that the Arad mentioned in Shishak’s list was a settlement surrounded by a belt of casemates or buildings.

Ezion-Geber The Bible relates that Solomon carried out an active trade with Sheba and Ophir, apparently to be identified with southern Arabia and Somaliland respectively (1 Kings 9:26–28, 10:1–13). Ezion-Geber, the port of call for this trade, was identified by N. Glueck in 1937 with Tell el-Kheleifeh, at the head of the Red Sea (between Elath and Aqaba). He described a large building at this site as a smelting center for copper ores brought from the Timna’ mines. Glueck’s proposals, however, became questionable when it was clarified that what he identified as copper crucibles are handmade “Negebite” vessels and that the copper mines at Timna’ are earlier than Solomon by some three hundred years. The architectural complex of the earliest level at Tell el-Kheleifeh (Period IV) includes a square compound surrounded by casemate wall and a central building of the “Four-Room” plan. New study of the finds from the excavation (by G. Pratico) did not reveal any clear evidence for the date of this level. The combination of casemate wall, Four-Room building, and handmade Negebite pottery recall the central Negev sites of the tenth century B.C.E., though the compound at Tell el-Kheleifeh is much better planned than any of these sites. The identification of Tell el-Kheleifeh with Ezion Geber was questioned in light of the criticism on Glueck’s interpretation. But since the pottery from this level was not preserved and never published, I don’t see in the present state of our knowledge any clear negative evidence for a tenth-century B.C.E. date for this compound. Thus the identification of the site with Ezion-Geber should at least be regarded as a legitimate possibility. Ezion-Geber could thus be in fact no more than a royal fortress with a central administration building, from which the Red Sea trade could have been managed (see also p. 450).

THE OUTCOME OF SHISHAK’S CAMPAIGN

The Egyptian campaign to Israel led by Pharaoh Shishak ca. 923 B.C.E. resulted in the destruction of numerous settlements and even entire regions. The campaign is known from the Bible (1 Kings 14:25–29) as well as from the Karnak
inscription mentioned earlier.29 We have already noted the southern thrust of the campaign into the Negev; the northern and central operations took place in the hill country, the heart of Israelite territory. Shishak crossed the Shephelah via the Ajalon Valley and ascended to Kiriath-Jearim and Gibeon, thus threatening Jerusalem from the northwest. Rehoboam, king of Judah, forestalled an Egyptian siege of the capital by paying a heavy indemnity: "... he carried off the treasures of the temple of the Lord and the treasures of the royal palace; he took everything, including all the gold shields Solomon had made" [1 Kings 14:26]. The newly born northern kingdom of Israel suffered considerably; Shishak's incursion spread in an arc from Gibeon and Bethel through the Jordan Valley as far as the valley of Jezreel. He then swept along the historical coastal route ("The Way of the Sea") from Megiddo to Gaza. Some of the numerous destructions of this period can be ascribed to Shishak's campaign: Timnah [Tel Batash, Stratum IV], Gezer [Stratum VIII], Tell el-Mazar, Tell el-Hama, Tell el Sa'diyeh (these last three sites in the Jordan Valley), Megiddo [Stratum IVB-VA], Tell Abu Hawam [Stratum III], Tel Mevorakh [Stratum VII], Tel Michal, and Tell Qasile [Stratum VIII]. Megiddo was apparently only partially destroyed—as the six-chamber gate seems to have continued in use in the following period, and Shishak erected a victory stele there, a fragment of which was found in the excavations.

NOTES

4. Y. Aharoni ascribed to the time of David a series of public buildings and occupation levels, including Palaces 6000 and 1723 at Megiddo, the city gate at Dan, and Stratum V at Beer-sheba with its four-chamber gate and massive wall [Aharoni [1982], pp. 192–211]. This view was based on assumptions rather than on actual facts. The finds from Beer-sheba Stratum V were not yet published. For the publication of the preceding Levels VII–VI see: Z. Herzog, Beer Sheba II: The Early Iron Age Settlements, Tel Aviv 1984. The pottery from levels VII–VI appears to me to have been contemporary with Tell Qasile IX–VIII of the tenth century B.C.E. I suggest the late eleventh century B.C.E. for the Beer-sheba Stratum VIII pottery; the first half of the tenth century B.C.E. for Stratum VII; and the second half of the latter century for Stratum VI. Stratum V can thus be related to the time of Solomon or even later (see note 26). The gate at Dan was ascribed by its excavator, A. Biran, to the time of the Divided Monarchy, and there is no reason to dispute this dating. The pottery found on the floors of Palace 6000 in Yadin's excavations at Megiddo [unpublished] appears to fit the time of Solomon (for further discussion see p. 382 and note 15).
14. In addition to the literature in notes 10 and 13, see D. Milson, ZDPV 102 [1986], pp. 87–92. Milson claims that the builders of all three gates utilized the Egyptian cubit of 52.3 cm, but that the plans of each of the three were designed separately, according to different geometric patterns.
15. Yadin [1972], pp. 147–64 suggested that the lower part of the gate, considered by the excavators to be a foundation, was in fact the original superstructure of the Solomonic gate. The floor level in this phase was, according to his view, a white lime floor found at the gate's foundation level and attributed by the excavators to the earlier Stratum V. The advantage of Yadin's view is that it explains the fine ashlar masonry in the lower courses of the gate's structure, as it is hard to believe that such beautiful stonework would have been intentionally buried in foundation courses where it could not be seen. The problem with Yadin's proposal, however, is that it leaves the massive gate without any subterranean foundation. In support of Yadin's view, see Y. Shiloh, Levant 12 [1980], pp. 69–76. For Y. Aharoni and Z. Herzog views see p. 382 and note 11. D. Ussishkin accepts Aharoni and Herzog's view concerning the separation of the gate from palaces 1723 and 6000, yet he also accepts Yadin's dating of the palace to the time of Solomon and thus proposes dating the six-chamber gate to the following level.
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A weak point in Yadin's argumentation concerns the casemate wall. The fact that such a wall was not observed by the first excavators raises strong doubts regarding its existence; the rooms found by Yadin east of Palace 600 can hardly be taken as evidence of such a casemate wall, and those west of this palace appear to have been part of an enclosure surrounding it. Even if a casemate wall never existed at Megiddo, the six-chamber gate still could have had a phase antedating the erection of the "offsets and insets" wall. The gate could have formed the entrance to a city which lacked a city wall and in which the outer walls of the outer belt of buildings created a defense line. Similar town planning in the time of the United Monarchy can be observed at Tell Qasile, Tel Batash, and perhaps also at Gezer, where only a small segment of a casemate wall was discovered. In a later period (Stratum IVA), when Palaces 6000 and 1723 went out of use, the massive city wall was constructed at Megiddo and attached to the existing six-chamber gate. See also p. 526, note 4.

16. The Solomonic gate at Gezer was first identified by Yadin from a plan in R. A. S. Macalister's report on his excavations there. Later, the gate was excavated by the Hebrew Union College expedition, the outer gate, discovered by Macalister, was explored by Dever in 1983. See Y. Yadin, IEJ 8 [1958], pp. 80-86; W. G. Dever, BA 34 [1971], pp. 94-132; idem, Journal of Jewish Studies 33:1-2 [1982], pp. 19-34; idem, BASOR 262 [1986], pp. 9-33.

17. Dever's dating of the Gezer outer gate and "Outer Wall," published in his preliminary report in BASOR (see note 16) on the 1983 excavations, should be taken with caution. The evidence for the original Late Bronze Age dating of the "Outer Wall" is too meager (see Chapter Seven, note 12), and the association of the "rebuild" phase of this wall with the tenth century B.C.E. is based on sherds from fills outside the wall itself. Evidence of this type can give at best a terminus post quem for the erection of the wall. In addition, our ability to distinguish sherds of the late tenth century from those of the ninth century B.C.E. can be questioned. More general considerations, therefore, should be taken into account. I doubt the existence of two major walls at Solomonic Gezer (a casemate wall on top of the mound and a solid one on the slope); the latter would have become necessary only when the Assyrian threat developed. I, therefore, tend to date the erection of the "Outer Wall" and perhaps the adjoining outer gate at Gezer to the time of the Divided Monarchy, perhaps in the ninth century B.C.E.

18. On Taanach, see W. E. Rast, Taanach I: Studies in the Iron Age Pottery. American Schools of Oriental Research Excavation Reports [1978], on Tel Amal, see S. Levy and G. Edelstein, Revue Biblique 79 [1972], pp. 325-67; on Tel Kinrot, see F. Fritz, ZDPV 102 [1986], pp. 1-39; on Yoqneam, see A. Ben-Tor et al., IEJ 33 [1983], pp. 30-54; on Tell Abu Hawam, see J. Balensi, BASOR 257 [1985], pp. 65-74; on Tel Mevorakh, see E. Stern, Excavations at Tel Mevorakh. Qedem 9, Jerusalem 1978, pp. 46-65, 77; on Tell el-Far'ah [north] see A. Chambon, Tell el-Far'ah,

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L'Age du Fer, Paris 1984; on Tell el-Mazar, see K. Yassine, ZDPV 100 [1984], pp. 108-18; on Tel Batash, see G. L. Kelm and A. Mazar, BASOR Supplement 23 [1985], pp. 101-3. On Beer-sheba see Herzog in note 4 above and note 26 below.

19. Y. Aharoni, BASOR 154 [1959], pp. 35-39; N. Lapp, BASOR 223 [1976], pp. 25-42; A. Kempinski, Expedition 20 [1978], pp. 35-36; Y. Shiloah, IEJ 28 [1978], pp. 44-46. "Enclosed settlements" arranged around a central courtyard (such as the one at 'Itqat Sarrati) were proposed by I. Finkelstein as a possible origin of the casemate walls in Israel. But 'Itqat Sarrati Stratum III is the only example of such a site, and the reconstruction of its plan is largely speculative. The Negev sites cited by Finkelstein are probably from the tenth century B.C.E. and thus should not be seen as a prototype of the casemate walls, see I. Finkelstein, The Archaeology of the Israelite Settlement, Jerusalem 1988, pp. 263.

20. D. Ussishkin, TA 5 [1978], pp. 26-31; ibid. 10 [1983], pp. 171-73. Ussishkin follows Starkey and Tufnell in attributing Palace A—the earliest phase of the citadel—palace—to Stratum V, which he dates to the time of Rehoboam. Y. Yadin has suggested associating Stratum V with the time of the United Monarchy and Stratum IV with Rehoboam [BASOR 239 [1980], pp. 19-33]. W. G. Dever believes that both the erection of Palace A and the six-chamber gate belong to Stratum V, which he dates to the time of Rehoboam or even Solomon [BASOR 262 [1986], pp. 26-28]. I accept Dever's view that both Palace A and the six-chamber gate belong to the same building phase, but I believe that they should be attributed to Stratum IV. According to this interpretation, Stratum V would remain an uninhabited town from the time of the United Monarchy, lacking a palace or a fortress. The foundation of Stratum IV should be dated to the time between the reigns of Rehoboam and Jehoshaphat, a more precise dating being impossible.

21. On Tell el-Mazar see Yassine [note 18], the new excavations at Tell el-Sa'idiyeh revealed a sequence of Iron Age strata. See J. Tubb, Levant 20 [1988], pp. 1-88. Stratum XII was dated by Tubb to the twelfth century B.C.E., but the pottery published appear to me to belong to the tenth century B.C.E., and thus this densely built level may perhaps be identified with Solomonic Zarethan. The level was destroyed by heavy fire, perhaps during the conquest of the region by Shishak.


23. Z. Herzog, BASOR 250 [1983], pp. 41-49; I. Finkelstein [see note 19], pp. 242 and passim; idem TA 11 [1984], pp. 82-84; idem, BAR 12:4
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(1986), pp. 46–53; similar opinions were expressed previously in Hebrew publications by B. Rothenberg and D. Eitam.


25. See p. 353 for the different opinions concerning the identity of the settlers at Tel Masos. For a discussion of the history of the entire region, see Herzog [note 4], pp. 70–85, 88–104.

26. The dates suggested in the preceding section for Strata VII–VI at Beersheba are lower by several decades than those recorded by the excavators (see also note 4). The acceptance of the former set of dates naturally involves changes in Herzog’s and Rainey’s historical interpretations. See Herzog [earlier, note 4], pp. 70–84; Rainey, ibid., pp. 96–104. The dating of Stratum V to Solomon [rather than to the time of David as suggested by the excavators] is tentative, since the pottery from Strata V–III has not yet been published. We suspect that the city of Stratum V could have been founded even after the division of the Monarchy.


CHAPTER TEN

THE DIVIDED MONARCHY:
Iron Age IIB–C
(925–586 B.C.E.)

HISTORICAL OUTLINE

The United Monarchy created by Saul and David was not to endure for long. The conflicting interests of the southern and northern Israelite tribes were stronger than the political drive of the Davidic dynasty to maintain a unified nation. After the death of Solomon, his son Rehoboam was unable to preserve the unification, and Jeroboam son of Nebat split the Monarchy, establishing the northern kingdom of Israel. To accomplish the separation from the united capital in Jerusalem and the temple erected there just several decades earlier, Jeroboam founded cultic centers at both ends of his realm—at Dan in the north and at Bethel in the south.

During the reigns of Asa in Judah and Baasha in Israel, the two kingdoms fought over the demarcation of their common frontier. The Arameans of Damascus, however, became a danger for Israel, and in the time of Omri and Ahab (882–851 B.C.E.) Israel was preoccupied with struggles against this new enemy, balanced by friendship with Judah under Jehoshaphat and Jehoram, as well as with the Phoenicians to the north. Together with Jehoshaphat, Ahab campaigned in Transjordan, where he gained control of significant parts of Moab. The ties with the Phoenicians found political expression in his marriage to Jezebel, daughter of the king of Sidon, which in turn led to the infiltration into Israel of Phoenician
religious and artistic concepts. Israel’s capital during its early years was moved from Shechem to Penuel (in Transjordan), from there to Tirzah (Tell el-Far‘ah [north]), and finally to Samaria by Omri.

The Assyrian threat to Israel and its neighbors was first felt during the rule of Ahab. The Assyrians had amassed a formidable military machine and, as of the early ninth century B.C.E., had begun the systematic conquest of much of the ancient Near East. They carved out an empire which eventually—some two centuries later—was to encompass even Egypt. The danger of Assyrian conquest was so acute already in the mid-ninth century B.C.E. that the kings of southern Syria and Palestine, including Ahab, were motivated to overlook their own conflicts and form an anti-Assyrian league. In the battle of Qarqar (853 B.C.E.) they succeeded in stemming Shalmaneser III, king of Assyria, at least for some time. Shortly after, however, conflicts again erupted among the allies, and in a battle with the Arameans, Ahab was killed.

The succeeding Israelite dynasty founded by Jehu persisted for almost a century. During this period, there was a withdrawal from Phoenician influence, a turning inward of the northern kingdom, and even submission to Assyria in time of peril. Shalmaneser III’s Black Obelisk depicts, graphically and literally, the submission of “Jehu son of Omri.” At Judah, during the same time, Athaliah, Ahab’s daughter, married Jehoram son of Jehoshaphat. After the murder of her son, Ahaziah, Athaliah seized power in Jerusalem, seeking to eliminate the Davidic line. During her rule (842–836 B.C.E.) the cult of the Tyrian Baal was introduced into the capital of Judah. Eventually, however, the Yahwist priests in the temple, as well as other elements in Judah, instigated a counter-revolution and enthroned Joash, the young crown prince, thus securing the continuity of the Davidic dynasty.

After a military struggle between Amaziah of Judah and Joash of Israel (early eighth century B.C.E.), the two kingdoms entered a period of stability and prosperity under Uzziah, king of Judah, and Jeroboam II, king of Israel (785–745[?]) B.C.E. The Assyrian military campaigns during the second half of the eighth century B.C.E. brought an end to this period. The subsequent numerous changes of kings and dynasties in the kingdom of Israel are indicative of its weakness. In 732 B.C.E., Tiglath-Pileser III of Assyria conquered the Galilee and exiled its inhabitants. Samaria proper remained independent for only another decade, then it too was conquered and its population exiled [720 B.C.E.]. The kingdom was annexed to the Assyrian empire and divided into several provinces. Foreign peoples were brought from afar and resettled in the Israelites’ stead. Eventually, these foreign people came to be known as “Samaritans,” centered at Shechem and Samaria.

In Judah, this was the time of Hezekiah [727–698 B.C.E.] and of the prophet Isaiah. The Assyrian threat, and the lesson of Samaria’s destruction, led Hezekiah to organize a rebellion against Assyria with Egyptian support. He forced Ekron, his independent western neighbor, to enter into an alliance with him. After prolonged preparations which included the fortification of Jerusalem and the reorganization of the kingdom, the revolt broke out, and the Assyrian retaliation was prompt and forceful. King Sennacherib’s campaign, in 701 B.C.E., began with the conquest of the Phoenician coastal cities, victory over an Egyptian expedition (at Eltekeh in Philistia), and the conquest of Timnah and Ekron. The Assyrian Army then turned toward Judah, probably conquering Gath and Azekah. The main battle was at Lachish, second in importance only to Jerusalem. Numerous other towns in Judah were subsequently razed, but the Assyrian siege of Jerusalem was terminated abruptly (probably due to internal problems in Assyria), an event which was seen by the Judeans as a miraculous deliverance.

The seventh century B.C.E. was marked by the long reigns of two kings in Jerusalem: Manasseh (698–642 B.C.E.) and his grandson Josiah (639–609 B.C.E.). Judah was still in a state of devastation following Sennacherib’s campaign when Manasseh came to the throne. He submitted to Assyrian hegemony, but Judah remained autonomous and Manasseh set about rebuilding his kingdom. Josiah took advantage of Assyria’s weakness and the subsequent disintegration of this empire to expand his realm northward into the territories formerly belonging to Israel, and westward toward the coastal plain. He also initiated a significant religious reform involving the elimination of all foreign practices and the centralization of the cult in Jerusalem. The rising might of Babylon, however, indirectly led to Josiah’s fall. In 609 B.C.E. he was killed while attempting to block an Egyptian military campaign to north Syria directed against Babylon.
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Between 609 and 586 B.C.E., Judah had a roller-coaster existence consisting of complex relations with Egypt on the one hand and the ever advancing threat from Babylon on the other. The rebellion of Jehoiakim, the son and second successor of Josiah, against Babylon led to the latter's punitive campaign, which culminated in the death of the king and the exile of his son Jehoiachin and much of the aristocracy (in 597 B.C.E.). The final destruction of Judah came a decade later, in 586 B.C.E., following the failure of the last king of Judah—Zedekiah, the youngest son of Josiah—to stave off the Babylonian onslaught.

THE NORTHERN KINGDOM OF ISRAEL

SAMARIA

The new capital of the northern kingdom was named Shomron by its founder, Omri, after the name Shemer, the family who originally owned the hill (1 Kings 16:23—24). Ahab, Omri's son, completed the construction of the city, which thrived as the capital for about 150 years till the Assyrian conquest in 720 B.C.E. Its location was perhaps related to Omrid foreign policy: it was situated northwest of Shechem, near an important road running toward the Sharon Plain on the coast, and on another leading northward through the Jezreel Valley to Phoenicia, where the Omrids had close ties. The city was strategically positioned on a steep hill offering a good view of the surrounding countryside. The excavations at Samaria concentrated on the royal acropolis, and very little is known of the city itself, which probably covered an area of several dozen acres.²

The extent of the planning and building operations on the acropolis of Samaria was unprecedented in the architectural history of the country, except perhaps in Solomon's buildings in Jerusalem. Samaria demonstrates the power and great wealth of the Israelite royalty at the time of Ahab, probably the result of successful economic enterprises carried out in cooperation with the Phoenicians of Tyre. The royal acropolis was a huge leveled rectangular enclosure, measuring 89 × 178 m—covering an area of 4 acres, the average size of a town in the countryside. The plan perhaps derived from

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some foreign (Phoenician?) model, as it was suited more to flat terrain than to the hilly topography of Samaria. In order to build on this rounded hilltop, the architects had to erect an artificial rectangular platform supported by massive retaining walls. We may assume that the construction of the retaining walls and platform was inspired by similar solutions employed on the hilly site of Jerusalem during the time of Solomon.

The palace complex displays two main phases of planning and construction. In the first—represented by Building Period I, probably from the reign of Omri—the main part of the acropolis was paved with a thick lime floor and was surrounded by a fine ashlar masonry wall, 1.6 m thick, built in the "headers and stretchers" technique. As we have seen, such stonework is known from Israel since the time of Solomon, but the smooth cutting and precision of the dry masonry are finer than the Solomonic prototypes. Nothing is known of the buildings inside the enclosure in this initial phase. In the second stage—"Building Period II," which apparently should be ascribed to Ahab—the outer wall on the northern and western sides was replaced by a casemate wall. In the north, the long axis of fifty-four elongated casemates was perpendicular to the line of the wall, and fifty-two smaller rooms were on the south and west. The casemate rooms comprised an extensive storage space for the royal treasures, arsenal, and food stocks.

The area surrounded by the casemate wall was an open, paved surface, on which the palace was erected. The main building was badly preserved and its complete plan is unknown. At its center was a large, rectangular courtyard, flanked by several wings. Of these, only the southern one was preserved to any extent; it comprised rectangular rooms surrounding a square inner courtyard. This plan, with its large central courtyard, is reminiscent of Late Bronze Age Canaanite palaces such as those of Ugarit and Megiddo, but it differs from the bit-hilani, which was the main palace type during the Solomonic era at Megiddo, and perhaps also at Jerusalem. While the bit-hilani is related to the Syrian interior, Ahab’s royal residence may have been inspired by Canaanite-Phoenician architectural traditions.

A smaller structure on the acropolis contained a hoard of carved ivories—the most important collection of such artwork from Iron Age Israel. This find might shed light on the biblical term “houses of ivory,” applied by the prophet Amos to describe the houses of the rich (Amos 3:15; and see p. 503). Furthermore, only in this structure at Samaria was it possible to discern various building phases and to determine the internal development of pottery.

The eastern facade of the Samaria acropolis has not been preserved, but six Proto-Aeolic capitals found in its vicinity apparently topped pilasters at an elaborate gate structure. Long ashlar walls found farther to the east (near the Roman basilica) seem to have belonged to an entryway with a “bent axis” leading into the acropolis from the city proper. This entrance was protected by a huge tower.

The Samaria Ostraca In the western part of the acropolis of Samaria, between the early inner wall and the later casemate wall, there was an administrative complex comprising on its
eastern side elongated storerooms, and on its west three units each with square chambers flanking a passage. Identical contemporaneous units are known from Hazor, adjacent to the governor's citadel there, and it would seem that this was a standard design for royal administrative headquarters in Israel.

A group of sixty-three ostraca (brief inscriptions written in ink on pottery sherds) was found in this building. They are records of oil and wine deliveries received at Samaria from the outer townships probably as taxes. The listings note the year (apparently the regnal year of one of the kings of Israel), the place of origin, the name of a person [possibly the royal official] who received the merchandise, and the type of goods [such as "old wine," or "bathing oil"][3].

These ostraca are the only large group of inscriptions known from the kingdom of Israel, and they reveal some of the administrative and fiscal procedures current at the time, as well as being instructive on linguistic and onomastic matters pertaining to the northern kingdom. The common suffix of personal names was -yw, or -baal, in contrast to -yahu dominant in Judah. Many of the toponyms mentioned can be identified with sites surveyed in the Samarian Hills. As to the date of the ostraca, there have been various suggestions ranging from the reign of Ahab till the days of Menahem.

A subsidiary capital was erected by Ahab at Jezreel, overlooking the valley of the same name. Chance discoveries at this site revealed a huge quarried moat which separated the hill from its surroundings; evidence of ashlar masonry and thus of large-scale building activities was also uncovered.

MAJOR CITIES IN THE KINGDOM OF ISRAEL

Excavations at four of the major cities in the kingdom of Israel—Dan, Hazor, Megiddo, and Tirzah—have provided information regarding their planning, fortification, public and domestic architecture, and occupation history.4 This section will survey several aspects of the archaeology of these cities, but a general survey of Israelite architecture can be found in conjunction with the finds from Judah in the following chapter.

In all of the aforementioned cities, extensive changes were made during the ninth century B.C.E. Massive fortifications which were erected at that time, most probably intended to withstand the Assyrian threat, continued to serve in much the same form until the Assyrian conquests. Inside the cities, on the other hand, several alterations and occupation phases can be detected.

10.4 Dan: topographic map of the site showing main remains of the Iron Age city.
At Dan, two main occupation levels from the time of the Divided Monarchy [Strata III and II] were defined. Dan appears to have been a densely built, well-planned city with massive fortifications and public buildings, and streets paved with cobblestones. The main structures uncovered were the city gates and the cultic center, both of which will be discussed in Chapter 11.

At Hazor, five occupation phases belong to the period between the division of the kingdom and the Assyrian conquest [Strata IX—V]. During this span of two hundred years, far-reaching changes were made as a result of destructions. Stratum IX succeeded the Solomonic city almost without any deviation. It was perhaps destroyed during the wars with the Arameans. During the time of Ahab [Stratum VIII], the city was doubled in area and was surrounded by a solid wall. A governmental citadel was located on the narrow western spur of the mound, separated from the rest of the city and entered by way of an elaborate gate decorated with ashlar pilasters carrying Proto-Aeolic capitals. The citadel was rectangular and divided into elongated spaces; it recalls the “four-room houses” in the principles of its planning. Two buildings adjacent to the citadel, inside its compound, were probably offices or residences of royal officials, as they were identical in plan to the administrative buildings at Samaria.

A public storage complex and a large granary erected on an eastern lower terrace of the mound establish the role of Hazor as a regional center for royal food administration. A magnificent underground water system supplied water to the city. The residential houses were densely built along the streets and alleys, sometimes with forecourt areas believed to have served as shops. Several of the residences are large and well-planned “four-room houses”; others are less elaborate and vary in plan. Evidence of extensive alteration in the city during the eighth century B.C.E. was found in Area A, where the public storehouse went out of use and its area was utilized for private dwellings.

The continuous changes in Hazor can be associated with various historical events. Stratum VI was destroyed in an earthquake, probably that mentioned by Amos (1:1) and Zechariah (14:5). Many of the buildings collapsed but were later rebuilt on the same lines. On the eve of the Assyrian invasion of the Galilee by Tiglath-Pileser III [732 B.C.E.], the for-
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At Tirzah, following the destruction of the planned city of


the United Monarchy (Stratum VIIb), the city was rebuilt (Stratum VIIc) but not completed, perhaps due to the shift of the capital to Samaria during the time of Omri. In the following phase (Stratum VIIId, the ninth and eighth centuries B.C.E.), the city was rebuilt, developed, and fortified. Adjacent to a gatehouse with a “bent axis” approach there was a public piazza containing a cult place. A residential quarter south of this piazza continued the basic planning of the previous levels in that the houses were arranged in blocks along parallel streets. The dwellings, however, which in the tenth century were of almost identical plan and size, were now diverse: the larger and more elaborate houses were located close to the city gate, the poorer ones being more to the south. This feature implies rigid social ranking during this time. The city’s annihilation was part of the general destruction of the kingdom in 720 B.C.E.; it was later rebuilt during the Assyrian rule (Stratum VIIe).

OTHER TOWNS AND FORTS IN THE NORTHERN KINGDOM

Our knowledge of the settlement history of the kingdom of Israel is still deficient; surveys in different parts of that realm have been carried out, but their results are still to be published and processed. It appears that fortified towns and villages were abundant. In addition to the major excavations mentioned earlier, smaller excavations have helped to illuminate various aspects of the material culture of this period. Fortified cities were discovered at strategic locations. Thus Tel Kinrot, overlooking the route running along the western side of the Lake of Galilee, was a fortified town with a solid wall, square towers, and a single-chambered gate. Yoqneam, the strategically located mound northwest of Megiddo, was defended by a unique double wall encircling the 10-acre Iron Age city. In both cases, the new fortifications replaced tenth century B.C.E. city walls. At Khirbet Marjamah, near the fountain of Ain Samiya northeast of Ramallah, a 10-acre town on a steep slope above the fountain was fortified by a solid wall and by the natural defenses of the surrounding cliffs. The town was densely built up with stone houses erected along winding narrow streets. At the southwestern border of
the kingdom, Gezer was an important stronghold, protected by the massive "Outer Wall" with its square ashlar towers. Small towns and villages from this period were revealed at Tel Zeror in the Sharon Plain, Tel Qedesh and Tell Qiri near the valley of Jezreel, Shimmona [a port town near modern Haifa], Dothan, and Shechem. The remains in these sites are fragmentary or insufficiently published, but it appears that all were densely built up and successively rebuilt until the Assyrian conquests.

Forts and isolated defensive towers protected important strategic points and roads in the kingdom. About a dozen fortresses, discovered in a survey of the vicinity of Samaria, created a defensive belt around the capital and protected all its access roads. A round and a square tower defended the promontory el-Mahrouq, overlooking the important road connecting the Jordan crossing at Damia with Wadi Far'ah.

THE SOUTHERN KINGDOM OF JUDAH

The kingdom of Judah enjoyed a much longer period of independence than did its northern counterpart. Many cities of Judah developed from an Iron Age I settlement site to a fortified town or city. This was a gradual, peaceful process, lasting from the tenth century until the eighth century B.C.E., usually without the abrupt destructions evident in the northern kingdom. The Assyrian invasion of Judah in 701 B.C.E. resulted in the destruction of many of these sites. The seventh century B.C.E. was a period of great revival. The Babylonian invasions in the early sixth century B.C.E. were fatal to large parts of Judah. Due to intensive archaeological research, Iron Age Judah is one of the best-known segments of the archaeology of Palestine. The bulk of the data, however, relates to the latter part of the period (the late eighth and seventh centuries B.C.E.), while the ninth and early eighth centuries are less known, perhaps due to the continuity and lack of destruction levels from that time.

SETTLEMENT PATTERN

A predominant demographic factor in Judah was the concentration of its population in the capital. As we shall see later, Jerusalem greatly expanded until it became a huge city in the eighth and seventh centuries B.C.E., spreading over some 150 acres. Jerusalem's domain now equaled the size of dozens of towns in the countryside combined. Lachish, the second largest city of Judah, had an area of only 20 acres, while other Judean towns averaged only 5–8 acres. The population of Jerusalem, estimated at between ten thousand and twenty thousand, must have constituted a large portion of the entire population of the kingdom.

In the rural periphery of Judah there were dozens of small fortified towns, unfortified villages, and isolated farms and hamlets. Towns were concentrated along the backbone of the hill country, in the Shephelah, and in the southern Hebron Hills. They sometimes are found only 3–4 km apart. It appears that Judah was settled to the maximum of its carrying capacity. Furthermore, during the last two centuries of Judah's existence, the northern Negev and the Judean Desert were also densely inhabited.

Joshua 15:20–63 lists the Judean cities and their satellites according to four major geographic regions: the mountains (Har), the Shephelah, the Negev, and "the desert" (midbar, namely the Judean Desert). These four units comprise twelve administrative districts. The list would appear to reflect the zenith of settlement in Judah, in the seventh century B.C.E., as several of the places mentioned were not founded until that time, such as En Gedi and 'Aroer in the Negev.

JERUSALEM

Jerusalem, the capital of Judah during the latter's 350 years of existence, underwent extensive growth during this period. For many years, scholars argued over the size and limits of the city during the Divided Monarchy; however, extensive archaeological investigation since 1967 has now enlightened us on this subject.

The excavations at the City of David have demonstrated that during the eighth and seventh centuries B.C.E. a solid, thick city wall was built well down the eastern slope of the hill, thus expanding the built-up area of the city. Above the wall, terraces were densely covered with dwellings, the roofs of one row of houses being level with the floors of those above. The "stepped structure" of the early period of the
In the area denoted “the Ophel,” between the spur of the City of David and the Temple Mount, most of the Iron Age remains disappeared due to later building operations. Part of a large public building, however, was preserved in the lower part of this area, close to the edge of the capital’s acropolis. The building is located beside a huge tower—discovered by Ch. Warren in the nineteenth century—which overlooks the Kidron Brook. The building was erected on steep bedrock and leveled with fills of stone and earth, and its thick walls were solidly constructed. Features of the building’s plan indicate that it was of administrative and official nature. Parts of it may have served as a city gate with four chambers, defended on the outside by Warren’s tower. Other parts were employed for storage—as evidenced by large pottery pithoi, one inscribed with the title of an official.8 (See plan on p. 423.)

The spur of the City of David and the Temple Mount were probably entirely built early during the Divided Monarchy. On the east, this area was demarcated by the steep slope descending to the Kidron Brook; on the north, the Temple Mount was set off from an extended plain farther to the north by a shallow saddle, where particularly strong fortifications would have been required. The area of the Temple Mount, however, remains unexplored.

The eastern ridge of Jerusalem, comprising the Temple Mount and the City of David, was bordered on the west by the Central Valley (later called the Tyropoeon Valley), which descends from the area of the present-day Damascus Gate and joins the Kidron Brook at the southern tip of the City of David. The ridge to the west of this valley, known as the “Western Hill,” is a large, broad spur comprising today’s Jewish and Armenian quarters in the Old City, as well as “Mount Zion,” now outside the Turkish city walls. This hill is bordered on the west and south by the Hinnom Valley and on the north by a minor valley called the “Cross Valley.”

The role of the Western Hill in the history of the Iron Age city has been a debated question. Several scholars (such as K. M. Kenyon) held that the city never spread westward beyond the Central Valley during this period. However, research at various spots since 1967 has clearly demonstrated that Jerusalem of the late Monarchy encompassed the entire Western Hill.

On the eastern slopes of the Western Hill, close to the bed
Another fortification system, discovered north of the mas-
a section of a city wall, both preserved to a height of 8 m. The tower’s walls were 4 m thick, built of large, crudely hewn stones and ashlar corners. This fortification was apparently intended to enclose the area of the gully descending to the “Cross Valley.” The tower was interpreted by Avigad as part of a huge city gate, perhaps the Middle Gate of Jerusalem (Jer. 39:3). The construction of this fortification would probably have made the section of the massive wall found to the south of it obsolete, indicating that major changes were made to the fortifications in this area during the period between Hezekiah and the destruction of the city in 586 B.C.E. Dramatic evidence of the conquest of Jerusalem by Nebuchadnezzar was discovered next to the tower in the form of an ash layer containing arrowheads of Babylonian type.

The expansion of Jerusalem to the west is indicated also by finds of Iron Age remains on Mount Zion and in the

Armenian Quarter. Impressive quantities of earth containing numerous amounts of broken pottery of the eighth and seventh centuries B.C.E. were found at several locations on the Western Hill, and even farther north in the Muristan area (close to the Holy Sepulchre). This is apparent evidence of large-scale shifting of fills in later periods involving the destruction of Iron Age houses which seem to have been spread over the entire Western Hill. An additional illustration of the growth of the city is numerous burial caves from the late Monarchy located in a broad arc around the city—in the north (near the Damascus Gate), and in the west and south (along the Hinnom Valley). Some are exceptionally large and fine and undoubtedly belonged to the nobler families of the city [see pp. 520–25].

The newer quarters of Jerusalem are mentioned several times in the Bible, particularly in the Book of Zephaniah.
[1:10–11]: ‘On that day,’ declares the Lord, ‘a cry will go up from the Fish Gate, wailing from the Mishneh, and a loud crash from the hills. Wail, you who live in the Machtesh!’" In the Mishneh ("New Quarter," or "Secondary Quarter"), the prophetess Huldah is known to have lived [2 Kings 22:14]. The term most probably refers to the Western Hill, the newer residential area of the city, where the upper class lived. The Machtesh, literally "Mortar," would appear to refer to the lower reaches of the Central Valley. In Avigad's opinion, the expression in Psalms 122:2–3—"Our feet are standing in your gates, O Jerusalem. Jerusalem is built like a city that is closely compacted together."—may refer to the city of the later Monarchy when its two major parts, the Eastern Hill and the Western Hill, were surrounded by the same single city wall. Numerous places within the city are mentioned in the biblical sources, but we are still unable to identify most of them with any certainty. Such is the case with the various city gates, towers, and pools, often specifically denoted, as well as certain other locations such as the "Millo." 10

Although the data concerning the planning of Jerusalem under the Monarchy is sparse, the remains just described, as well as the elaborate water supply projects and cemeteries [see later], are indicative of the city's splendor, also expressed in the Bible in glowing terms. Jerusalem of the eighth and seventh centuries B.C.E. was a metropolis, one of the largest at this time. It signifies the peak of urban development in Israel during the Old Testament period.

The Palace at Ramat Rahel The splendor of Jerusalem is illustrated by a Judean royal palace discovered at Ramat Rahel, a prominent ridge between the city and Bethlehem. 11 Two main periods of use were distinguished at this site. In the first [Stratum VB], several large structures were erected on the summit, and dwellings stood on the slopes. This small town may have served as a military outpost of Jerusalem. Its use during the reign of Hezekiah is evidenced by seal impressions on jar handles characteristic of his time [see pp. 455–58]. This military base was destroyed during Sennacherib's campaign, when the Assyrian Army besieged Jerusalem.

In the second phase, during the seventh century B.C.E. [Stratum VA], a splendid palace was erected at Ramat Rahel under one of the later kings of Judah. The hill was encompassed by a solid wall enclosing an area of some 4 acres, and the space within was leveled off with fills. Both this artificial fill and the plan of the palace recall, though on a smaller scale, the royal enclosure at Samaria. The palace was rectangular in shape, measuring 50 x 75 m. It was surrounded by an ashlar casemate wall of an overall thickness of 5.2 m. The masonry, particularly the finely dressed ashlars in the walls facing the central courtyard, resembles that of Samaria. The casemates
served as storerooms. A broad gateway gave access from the east to a spacious lime-paved courtyard. Although little remained of the residential buildings, one of them can be reconstructed as having an inner courtyard surrounded by rooms.

As at Samaria, here too the palace was decorated with Proto-Aeolic capitals. A special architectural detail was a stone window balustrade carved in the form of four colonnettes with petals and voluted capitals. Identical balustrades appear on Phoenician ivory plaques featuring a “woman in the window.”

The palace at Ramat Rahel, therefore, incorporated the finest architectural forms current in Phoenicia and Palestine in Iron Age II, and it must give us some idea of the style and plan of the palaces in the capital itself, such as the palace constructed by Jehoiakim (Jeremiah 22:14). Indeed, one Proto-Aeolic capital, similar in though larger than the ones from Ramat Rahel, was found in Jerusalem. It seems, therefore, that both the plan of the royal enclosure known from Samaria and the ashlar masonry, including Proto-Aeolic capitals, remained in fashion from the tenth and ninth centuries B.C.E. until the end of the Iron Age.

LACHISH

Lachish Before 701 B.C.E. Lachish, the second most important city in Judah, is identified with Tell el-Duweir, a mound 20 acres in area located in the lower Shephelah near the main road leading from the southern coastal plain. During the United Monarchy (Stratum V) Lachish was only partly built up and remained unfortified. The following levels at Lachish (Strata IV–III) are of particular interest due to their association with the unique combination of archaeological, biblical, and Assyrian textual and pictorial data relating to the conquest of Lachish by Sennacherib in 701 B.C.E.

The fortifications of Lachish in these two levels consisted of an outer wall at the middle of the mound’s slope and an

10.15 Lachish: air view, looking east. The city gate is seen on the front of the mound, and the Assyrian siege-ramp on the lower right corner.
inner wall at the summit. The latter, 6 m thick in several sections, was built of mud bricks laid on a stone foundation. The city gate complex included an access ramp along the slope of the mound and an outer and inner gate (related to the outer and inner walls respectively), recalling similar arrangements at cities such as Dan, Megiddo, and Timnath (see p. 468). The outer gate was protected by a huge bastion erected on the slope of the mound. A piazza inside the outer gate led to a six-chamber inner gate recalling in plan those of Megiddo, Hazor, and Gezer, though somewhat larger. Large drainage canals drained the city's streets.

10.16 Lachish: plan of the site showing main structures of Stratum III (eighth century B.C.E.): (1) bastion, (2) six-chamber inner gate, (3) outer wall, (4) inner wall; (5) palace-fort; (6) inner defense wall of administration center; (7) shaft (quarry?); (8) well; (9) Assyrian siege-ramp.

It is tempting to attribute this tremendous defense system to Rehoboam, since Lachish is mentioned as one of the cities fortified by him (2 Chronicles 11:9). Yet the date of the list of Rehoboam's fortresses is a debated issue, and several scholars claim that it reflects a later period. On this basis, D. Ussishkin tends to believe that the fortifications were erected by either Asa or Jehoshaphat. They were in use for almost two hundred years, until the Assyrian conquest of 701 B.C.E.

From inside the gate, a street flanked by shops and houses led to a residential quarter. The northern part of the city was allocated to a royal governmental area and was separated from the rest of the city by a thick wall. Its main structure was the great palace-fort erected on a high podium. Palace A, the first phase of this building, was a square structure of 32 × 32 m standing on a high stone podium. Its date is unclear; it was built either in Stratum V of the United Monarchy or in the following Stratum IV of the early Divided Monarchy (see p. 401, note 20). In the next phase of this building (Palace B), it was enlarged to the south by 44 m while in the third phase (Palace C) it was enlarged to the east, resulting in final dimensions of 36 × 76 m—the largest Iron Age building ex-

10.17 Lachish: reconstruction of the city during the late eighth century B.C.E.
10.18 The siege on Lachish: detail from the Lachish reliefs found at the palace of Sennacherib at Nineveh. This section shows the city of Lachish with its inner and outer walls and projecting gate tower; Assyrian battering rams are approaching the city on built-up ramps and are attacked by torches thrown from the city walls. Exiles are shown leaving the gate, and on the lower right side, captives are being executed.
posed as yet in Israel. The podium elevated the palace's ground floor some 6 m above the surroundings so that the building looked over the entire city. Nothing remained of the superstructure of this palace, but its plan can be guessed on the basis of constructional walls inside the podium.

East of the palace there was a spacious, paved, square courtyard surrounded by a defense wall and entered through a six-chamber gate structure. Elongated rectangular buildings on the sides of the courtyard were storerooms, and perhaps stables, similar to those of Megido. This large royal enclosure was, most probably, the administrative and military headquarters of the Judean government in the southern Shephelah.

The Conquest of Lachish by Sennacherib The siege of Lachish and its conquest by Sennacherib in 701 B.C.E. are perhaps the best documented events from the period of the Monarchy. The large wall relief from Sennacherib's palace at Nineveh details the city of Lachish, the siege, and the results of the conquest: surrender, execution, and deportation. The relief was most probably made in Assyria from sketches prepared during the actual war by an artist viewing the onslaught from Sennacherib's camp; the camp was perhaps located [according to D. Ussishkin] southwest of the city. The relief probably depicts the two defense walls of the city and the protruding gate on the western slope. The towers along the wall are shown with balconies which provided a convenient position for the defenders. The Assyrian siege operations are also illustrated in detail: battering rams were hauled to the city walls on built-up siege ramps. The wooden and leather rams were intensively attacked by the Judeans with torches, while the Assyrians defended them by pouring water on them and by returning fire with slingstones and arrows.

The siege ramp built by Sennacherib's troops at Lachish was discovered and is the only known example of such an Assyrian ramp. It was constructed at the southwestern corner of the city, which was connected by a shallow saddle to a hill on which the Assyrian camp was probably located. The ramp was constructed of huge quantities of stones piled perpendicular to the city walls until it reached the bottom of the wall. Evidence of the actual battle was found at the point of junction between the ramp and the city wall, in the form of hundreds of iron arrowheads, sling stones, heavy weight stones which

10.19 Detail from the Lachish reliefs showing the gate area of Lachish.

were thrown from the city onto the enemy, and charred wood. A fragmentary chain found in this place could have been part of the battering ram machine, or used by the defenders to catch and stop the ram's horns [suggestion of Y. Yadin]. The most surprising discovery in this area was a massive counter-ramp built by the defenders inside the city opposite the Assyrian siege ramp. It was intended to protect the wall against the ram, and to provide the city an alternative defense if the wall was ruptured by the Assyrians.

These tremendous efforts to protect the city failed; the biblical and Assyrian documentation of its conquest have been completed by archaeological discoveries, the most dramatic of which was the mass burial of thousands of massacred people discovered in a cave outside the city. The buildings of the Stratum III city were found burnt. Among the finds were
many storage jars of the lamelekh type, which can be placed within the framework of Hezekiah’s revolt against the Assyrians [see p. 458].

The date of the destruction of Stratum III at Lachish was a debated issue. Tufnell placed it in 701 B.C.E., but W. F. Albright and G. E. Wright (following the original view of the first excavator, J. L. Starkey) suggested that the stratum was destroyed in the first invasion of Judah by Nebuchadnezzar in 597 B.C.E. This view had considerable impact on Iron Age comparative chronology. However, the recent excavations at Lachish by D. Ussishkin verified Tufnell’s chronology, and the dating of the destruction of Stratum III at Lachish to 701 B.C.E. can now be taken as axiomatic.

known as the “Lachish letters,” one of the two largest groups of written documents from the period of the Monarchy [see p. 458], were found in the destruction level of a guardroom in the piazza between the outer and inner gates. Inside the city, storage rooms and dwellings were exposed. The excavators claim that the palace-fortress was not in use during this period, but it is hard to believe that such a huge structure stood in ruins throughout the seventh century B.C.E., particularly when the same podium served as the foundation for a large palace during the Persian period.

JUDEAN COUNTRY TOWNS

Many of the towns in the lists of cities of Judah and Benjamin [Joshua 15:20–63, 18:21–28] can be identified with mounds in the Judean Hills, in the Shephelah, and in the northern Negev. Excavations carried out at a comparatively large number of these sites have enlightened us on various aspects of the Judean material culture. The most important excavations in the hill country are Tell en-Nasbeh [Mizpah], Tell el-Full [Gibeath], Gibeon, Hebron, and Debir [Khirbet Rabud]; in the Shephelah: Beth-Shemesh, Timnah [Tel Batash], Azekah, Tell Beit Mirsim, and Tel Halif [Rimon or Hormah?]; in the northern Negev: Beer-sheba, Tel ʿIra, ʿAroer, in the Judean Desert: En Gedi. In the following passages we will deal only with main features of town planning and the occupational history of these towns.

A look at the general outline of those sites excavated on a large scale, such as Tell en-Nasbeh, Beth-Shemesh, Tell Beit Mirsim, and Beer-sheba, pinpoint several features common to all of their town plans. In general they were rounded or oval in accordance with the natural contours of the hills. At Timnah the square plan was dictated by the shape of the mound formed in the Middle Bronze Age. The average area of these towns was 5–8 acres, and thus the population can be estimated to have included approximately five hundred to one thousand persons per settlement.

The towns were strongly fortified and had a single gate; the latter was constructed according to the principles common throughout the region [see p. 467]. A piazza behind the gate facilitated public activities such as commerce. At several of these towns, a street followed the circular line of the city.
trative center in the northern Negev. Most of the dwellings were average in size [see pp. 485–88], yet sometimes exceptionally large and elaborate houses are found. These latter houses probably belonged to the higher social classes—landlords and royal officials; examples are three “four-room houses” at Tell en-Nasbeh, and an elaborate building at Beer-sheba. The towns usually had a drainage system in which the sewage passed in open or roofed canals through the streets and the city gate.

It appears that most of the country-town population was composed of farmers who cultivated the surrounding land. Industrial installations found in the houses, such as oil presses and wineries, are always related to the working of agricultural products. An Israelite countryside town was thus a combination of an agricultural village and a fortified town with governmental, military, commercial, and industrial functions; there was no clear differentiation between “town” and “village,” and agriculture dictated the character of life in the towns. In the vicinity of the towns, there were isolated farms and groups of buildings known in the Bible as the “daughters” of the towns or Hazzerim (farmsteads). These also served as homes for farmers but their number was limited, and it appears that the majority of the farmers were town dwellers.

Occupation History of Judean Towns  It appears that many towns in Judah (such as Tell en-Nasbeh and Tell Beit Mirsim) underwent a process of gradual development from the tenth century until the eighth and seventh centuries B.C.E. The details of the towns’ growth can be ascertained only in a few cases, either because some of the sites were excavated a long time ago utilizing old methods, or due to objective difficulties involved in observing stratigraphy in places where stone buildings were in use for a long period, sometimes for hundreds of years. At several Judean towns, no more than one or two building phases could be defined between the tenth and the eighth centuries B.C.E. It appears that the density of construction gradually increased during this period. An exception is Tell en-Nasbeh (Mizpah), where a small tenth-century (or perhaps even earlier) town was surrounded by a casemate wall. This town was enlarged and enclosed by a massive wall perhaps during the time of Asa, who is said to have built Mizpah (1 Kings 15:22).
The wide-scale annihilation of Judean towns by Sennacherib in 701 B.C.E. can be observed at several sites. At Lachish, Timniah, Ramat Rahel, and perhaps also Gezer (which was for a while under Judean domination) destruction levels can be related to this event. All of these towns were rebuilt later, during the seventh century B.C.E. According to the view of Y. Aharoni, both Beer-sheba (Stratum II) and Tell Beit Mirsim (Stratum A) were also destroyed at that time and remained practically uninhabited throughout the seventh century B.C.E.\textsuperscript{16}

The seventh century was a period of great prosperity in Judah. Jerusalem reached the peak of its development, many other towns flourished, and sites in the Judean Desert and in the northern Negev were established. This floruit came to an end with the Babylonian conquest of 586 B.C.E., when most Judean cities were destroyed and abandoned.

**THE NORTHERN NEGEV**

The painstaking study conducted by Y. Aharoni and his colleagues in the area of Arad–Beer-sheba has made the latter one of the best-known regions in Iron Age Judah. This is probably the region to which the Bible refers as “the Negev,” more so than the arid deserts bordering it on the south and east. Here the Judean kingdom defended itself not only from the desert nomads, but also from the rising power of the kingdom of Edom in southern Transjordan. It was also through this area that commercial transactions were made with the southern Negev and the Red Sea region. In Chapter Nine, we mentioned the development of settlement in the northern Negev during the tenth century B.C.E. (p. 396). The importance of this region during the period of the Divided Kingdom is demonstrated by a wealth of discoveries in royal fortresses and fortified towns.

*Arad* At Arad, the small village of the tenth century B.C.E. (Stratum XII) was replaced by a royal fortress which must have served as an important administrative and military stronghold of the kingdom of Judah in this region, guarding the road from the Judean Hills to the Arabah and to Moab and Edom.\textsuperscript{16} The fortress was a square structure, approximately $50 \times 50$ m in size, located on a high hill dominating the whole region. The initial fortress (Stratum XI) was sur-

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troops from a place called Qinah to Ramot Negev (perhaps the fortress at Hurvat Uza) as an emergency measure to withstand the Edomite danger.

Several other Arad letters include instructions to send supplies to the Kittim, probably mercenaries in the Judean Army whose name may derive from the city of Kition in Cyprus. Their presence in the northern Negev is also suggested by the discovery of Cypriot and Eastern Greek pottery at several sites in the region. Arad appears in the ostraca as a receiver and distributor of food supplies: flour, oil, and wine are sent here from towns in the southern Hebron Hills (perhaps as royal taxes) and in turn are allocated by Arad to other Negebite forts and troops. Several ostraca are letters of introduction to the commander of Arad from officials elsewhere in Judah requesting that food supplies be assigned to a certain messenger. There are also lists of names, perhaps related to the military administration. In general, the Arad inscriptions comprise a wealth of varied data that reveals much about the historical geography of the region, the role of the fortress, the Judean military hierarchy, linguistic usages, the structure of private names in Judah, quantities of food consumed by troops, and aspects of daily life such as the system of numbers, measures, and distances.

Other Sites in the Northern Negev  Another Judean fortress from the eighth and seventh centuries B.C.E. was discovered at Hurvat Uza, south of Arad. It guarded the road descending toward the Dead Sea and Transjordan. The fortress was surrounded by casemates and was entered through an elaborate gate; near it a small village existed. Almost twenty ostraca were found here, including an Edomite letter of considerable historical importance.18

During the ninth and eighth centuries B.C.E., the small town at Tel Beer-sheba was the main Judean site in the entire region.19 It was well planned, and it underwent several stages of development. Initially, perhaps at the end of the tenth or early in the ninth century B.C.E. it was a fortified town surrounded by a solid wall and a massive earth rampart and entered through a four-chamber gate. Later (Strata III–II), the solid wall was replaced by a casemate wall, and the gate was reconstructed. A circular street was separated from the casemate wall by a line of houses integrated into the wall itself.

destruction of the fortress at the end of Stratum VIII was perhaps perpetrated by Edomites following Sennacherib's conquest of Judah. The rebuilding of the fortress, almost according to the same layout, in Strata VII–VI occurred during the seventh century B.C.E.

The ostraca uncovered in various levels at Arad constitute the largest and most varied group of Iron Age inscriptions found in Israel.17 One letter, dating most probably to the time of Hezekiah (Stratum VIII), was sent to a commander of the fortress named Malkiyahu, and mentions conflicts with Edom. Most of the ostraca belong to the archive of Elyashib son of Ashiyahu, the commander of the fortress in its last phase (Strata VII–VI). They demonstrate Arad's importance as a military stronghold in the Negev during the last days of Judah. Some consist of orders to Elyashib from a higher commander; several were sent from Jerusalem—including a most fragmentary letter from one of the last kings of Judah (whom Aharoni believes to have been Jehoshaz), who announces his enthronement and discusses matters of international policy, mentioning the king of Egypt. One ostracon orders the dispatching of

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10.23 Ostracón 1 from Arad.
Translation: "To Elyashib: And now, give the Kittim three baths of wine, and write the name of the day. And from the rest of the first flour, send one homer of flour in order to make bread for them. Give them the wine from the aganoth vessels."
a feature present at several other Judean towns. A large altar found dismantled, its stones used for construction in Stratum II, confirms the existence of a cult place or a temple in an earlier phase of Beer-sheba (see p. 495). Adjacent to the gate were three storage buildings—probably intended, like those at Hazor, for the storage and distribution of food supplies. These storage buildings establish the function of the town as the main administrative center in the northern Negev. Tel Beer-sheba was destroyed toward the end of the eighth century or in the early seventh century B.C.E. (during or after Hezekiah's time).

During the seventh century B.C.E. the northern Negev prospered: new towns were established and flourished, such as Tel 'Ira, 'Aroer, Tel Masos, Tel Malhata, and a large site in the modern city of Beer-sheba which can be identified as the biblical city of Beer-sheba at this time. Tel 'Ira and 'Aroer are located on top of steep ridges, while Tel Malhata, Tel Masos, and the site in modern Beer-sheba are situated on lowland along the Beer-sheba Brook. It appears that occupation at most of these sites started in the eighth century B.C.E., and they prospered in the seventh century B.C.E. Tel 'Ira and 'Aroer were defended by solid walls, and at Tel 'Ira a large gate (probably with six chambers) led into the city.

Various finds throw light on the role of the northern Negev in international economic activity during the seventh century B.C.E. The prosperity of the region can be related in part to Assyrian economic and political interests which developed trade connections between Edom, Judah, and the coast through the Negev. This commercial activity, however, appears to have continued even after the Assyrians left. The finds include imported pottery originating from Edom and Philistia as well as valuable Assyrian artifacts. Some Cypriot and Eastern Greek pottery may be related to the Cypriot mercenaries, the
Kittim of the Arad inscriptions mentioned earlier. The Edomites appear to have played an important role in the northern Negev toward the end of the seventh century B.C.E. This is shown by the Edomite letter found at Hurvat Uza, the mention of Edom as a threat in one of the Arad letters, and the Edomite pottery found in the region. An exceptional discovery in this connection is the cult place at Hurvat Qitmit which probably dates to the very last days, or right after the destruction, of Judah by the Babylonians (see p. 498). In the following Persian period, the Edomite occupation reached such proportions that southern Judah became known as “Idumea.”

THE CENTRAL AND SOUTHERN NEGEV

Kadesh-Barnea Following the destruction of the tenth century B.C.E. settlements (see pp. 390–97), the central Negev region remained unsettled for the rest of the Iron Age. Only three Iron Age II sites are known south of Beer-sheba: Kadesh-Barnea, Kuntillet ‘Airud, and Tell el-Kheleifeh.

Ain el-Qudeirat, the site of biblical Kadesh-Barnea, is the most important oasis on the border between Sinai and the Negev. During the tenth century B.C.E., an elliptical casematte enclosure was constructed at Tell el-Qudeirat, the mound at this oasis. It was the westernmost in the cluster of some fifty “fortresses” of the tenth century in the central Negev highlands. Like the others in this group, the “fortress” at Kadesh-Barnea was destroyed toward the end of the tenth century, probably during Shishak’s campaign. Kadesh-Barnea, however, as opposed to the other sites of the Negev highlands which were abandoned after this destruction, continued to be an important Judean stronghold in the following centuries, though perhaps after a gap of some one hundred years. The new fortress erected there became the main Judean base along the “Gaza Road,” which led from Gaza to the Red Sea and was essential to the trade relations with Arabia. This stronghold was also critical in controlling the nomadic population of the Negev and eastern Sinai.

The fortress at Kadesh-Barnea was a rectangular structure of 40 × 60 m, enclosed by a 4-m-wide solid wall with eight rectangular towers. The wall was surrounded by an earth rampart supported by a retaining wall. In spite of the good preservation of the walls, a gate was not found, perhaps entry

10.26 Kadesh-Barnea: plans of the fortress, one from the eighth century B.C.E. (above) and one from the seventh century B.C.E. (below).
was gained by way of a ramp on top of the earth rampart. A built-up water reservoir inside the citadel was filled from a canal bringing water from the spring Ain el-Qudeirat. This fortress was probably erected sometime in the early eighth century B.C.E. (perhaps by Uzziah? compare 2 Chronicles 26:10), like Tel Beer-sheba Stratum II, it was destroyed during the early seventh century B.C.E.—possibly by Edomites or nomads during the years following Sennacherib’s invasion of Judah or during the time of Manasseh. Later in the seventh century B.C.E. the fortress was rebuilt, this time with outer casemate walls. It was finally destroyed with the rest of Judah in 586 B.C.E.

As was the case for the tenth century B.C.E., handmade Negebite pottery found in the various levels at Kadesh-Barnea indicates the presence of a seminomadic local population who lived alongside the Judean garrison and benefited from the royal resources. The handmade pottery often imitates typical Judean forms brought from Judah to this place.

Kuntillet ‘Ajrud  A unique site along the “Gaza Road,” about 50 km south of Kadesh-Barnea, is Kuntillet ‘Ajrud (“the solitary hill of the water wells”). An isolated building was constructed in this desolate place on top of a steep hill, near a crossroad leading into the Sinai Desert and close to water wells. The building was rectangular in shape (15 x 25 m) and consisted of a large central courtyard surrounded on three sides by long casemate rooms with projecting corner towers. The entrance was through a gate chamber which created a “bent axis” approach into a broad room. In both rooms benches were constructed along the walls, and white plaster covered the walls, floors, and benches. Among the varied finds in this site were unique objects made of organic materials, such as basketry, ropes, and textiles, whose preservation is due to the dry desert conditions.

Fascinating finds at Kuntillet ‘Ajrud were inscriptions and drawings found on wall plaster, on two large jars, and on a stone vat. Some of the inscriptions were written on the plaster of doorjambs (compare Deuteronomy 6:9). The texts are
blessings and dedications, such as that on the rim of a large stone trough which reads, “Obadya, son of ‘Adnah, may he be blessed by God.” The title Sār ‘ir, “the governor of the city,” which appears in several of the inscriptions, perhaps designates the official in charge of the place. The ink script on large jars is accompanied by drawings. The jar inscriptions are blessing formulae which include the astounding combination lywhw šmrn wpšt th, “Yahweh of Samaria and his Asherah.” These important texts throw light on aspects of Israelite theology in the Old Testament period, of which there are few traces in the Bible.

Some of the paintings on the jars are imitations of artistic motifs well known from Phoenician ivory carvings, such as a cow nursing its calf, and two animals on both sides of a stylized tree. Other subjects are a sitting woman playing the lyre; two figures shown with interlocked hands [one of them is most probably the Egyptian god Bes], and a procession of five male figures with arms raised in prayer. The drawings were done in a simple, unprofessional style, perhaps by an amateur artist who copied some of his themes from more elaborate artworks.

The building appears to have been established and used for a short time by people who came from outside the region. The lack of Negebite handmade pottery of the type found at Kadesh-Barnea shows that here there was no cooperation with the local nomads. The pottery assemblage indicates a date between the mid-ninth and mid-eighth centuries B.C.E. It consists of forms known from both Judah and Israel. Connections with the northern kingdom are also seen in the theophoric suffix -yw of personal names appearing in the inscriptions [as opposed to the Judean -yahu], and in the mention of Yahweh of Samaria. The imitation of Phoenician motifs in the drawings on the jars also reflects ties with the kingdom of Israel, where Phoenician influence was strong. The large jars themselves, however, are typically Judean, and neutron activation studies have proven that they were produced in the Jerusalem region.

Kuntillet ‘Ajrud thus shows a unique combination of Judean and Israelite traditions and connections. Its excavator, Z. Meshel, has suggested that the site served as a religious center located near the road to the Red Sea in a time when there was Israelite trade activity related to the Red Sea and Ezion-Geber—such as the Judean-Phoenician attempt to re-establish this trade during the time of Jehoshaphat [1 Kings 22:49]. The combination of Israelite and Judean elements may reflect a time when the northern kingdom’s sphere of influence extended to Judah, such as during the reign of Athaliah.

The religious activity at the site may have been related to some peculiar sect in Israel such as the Rechabites, mentioned in connection with Kenites and scribes in 1 Chronicles 2:55. The location of the site may be related to traditions concerning Mount Sinai, as almost during the same period Elijah is said to have gone to “Horeb, the mountain of God” a synonym for Mount Sinai [1 Kings 19:8].

The discoveries at Kuntillet ‘Ajrud open a window onto the world of contemporary Israelite religion in a period prior to the Deuteronomistic theology of Jerusalem which inspired our Masoretic Old Testament. They also illustrate the special role of the desert, and perhaps of Mount Sinai, in Israelite
religion and spiritual life, as known also from biblical literature.

Tell el-Kheleifeh We have mentioned earlier (p. 397) the difficulties involved in N. Glueck's identification of Tell el-Kheleifeh with biblical Ezion-Geber. Glueck's excavation at this southernmost Iron Age site in Palestine revealed two successive square fortified enclosures. The first (Period I) was an open courtyard measuring $45 \times 45$ m, surrounded by a casemate wall. Inside the courtyard stood a single building planned as a "four-room house" with exceptionally thick walls strengthened by sloping revetments. In the next phase (Period II), the enclosure was enlarged to ca. $60 \times 60$ m, entered through a four-chamber gate and defended by a solid "offsets and insets" wall, a sloping glacis, and an outer defense wall. The layout of the enclosure resembles the fortress of Arad, though the latter is somewhat smaller. In the following Period III, various structures were built inside the fortified enclosure, which was still used.

The well-planned, fortified enclosures at Tell el-Kheleifeh appear to be of a military or administrative nature, constructed by a central authority. Glueck attributed the first phase to the time of Solomon (tenth century B.C.E.), the rebuilding in Period II to the activity of Jehoshaphat, and Period III to the reign of Uzziah (mid-eighth century B.C.E.). A seal with the name "Jotham" was thought to be related to King Jotham, the son of Uzziah. Glueck related the history of the site to the naval and mercantile activity of the Israelites in the Red Sea. In Period IV many small structures were constructed inside the area of the older enclosures; Glueck identified this phase as an Edomite town which survived from the end of the eighth century B.C.E. until the beginning of the sixth century B.C.E. His interpretation was based on the Edomite pottery as well as on a seal impression of an Edomite official: "Qaws'anal, servant of the king." Assyrian pottery pointed to some Assyrian presence in this level, perhaps related to that known from Transjordan (see p. 544).

A renewed analysis of the material from Tell el-Kheleifeh (by G. D. Pratico) suggests a revision of Glueck's chronology and historical interpretation. While no new evidence on the date of period IV came to light, the pottery from Periods II–IV appears to belong to the eighth and seventh centuries B.C.E.

One possibility is that Tell el-Kheleifeh was initially a Judean stronghold, located at the end of the routes leading to the Red Sea, and that during the seventh century B.C.E. it passed into Edomite hands. An alternative supposition could be that the site was founded as an Edomite fortress and was never related to Judah. This last interpretation is less plausible, due to the finds of Judean pottery at the site. Handmade Negebite pottery demonstrates cooperation between the outsiders who founded the fortress and the local nomadic population, such as at contemporary Kadesh-Barnea.

The early phases of Tell el-Kheleifeh and the fortress at Kadesh-Barnea probably represent a major Judean effort to control the approach to the Red Sea along the "Gaza Road" during the eighth and seventh centuries B.C.E. It appears that trade relations with Arabia through the Red Sea continued during this period, perhaps as part of the international cooperation between Edom, Judah, and the Phoenicians under Assyrian guidance. Later in the seventh century B.C.E., Edom took possession of the approach to the Gulf of Elath and the Red Sea.

**THE JUDEAN DESERT**

The Judean Desert, separating the Judean Hills from the Jordan Valley and the Dead Sea, was almost totally unsettled since the Chalcolithic period. Only toward the end of the Iron Age, mainly in the seventh century B.C.E., was settlement activity reinitiated here. The most prominent site was the small town at the oasis of En Gedi (Tel Goren). This town was constructed on hilly terrain and built on terraces. Industrial installations found in the houses were interpreted by B. Mazar as workshops for preparing an exclusive product—perhaps balsam perfume, which is known to have been the most important product of this region during the period of the second temple.

Smaller villages were found at other oases north of En Gedi along the Dead Sea. Farther inland in the desert, in the Buq'ah Valley west of Qumran, three small Iron Age sites may have been centers of royal or private estates founded during the seventh century B.C.E.; in two of them a large rectangular fortified building was the major and perhaps the only structure. In the fields related to these sites, L. E. Stager identified...
sophisticated irrigation systems based on diversion of winter floodwaters to the fields by dams and canals.25

At Jericho, the most important oasis in the Jordan Valley, Iron Age II settlements existed both at Tell es-Sultan—the ancient mound of Jericho—and near Wadi Qelt. Farther south, at the site of Vered Jericho, an exceptional seventh century B.C.E. isolated structure was discovered at a place remote from the water sources and fertile lands of the Jericho oasis.26 The building was rectangular in shape, its entrance defended by two flanking towers. Inside, a rectangular courtyard led to two attached "four-room house" units. The regular planning of the structure and its defensive character indicate that its function was official; it may be interpreted as a unique type of Judean fortress or administration center guarding the road from Jericho to the Dead Sea.

An isolated Iron Age building at Hurvat Shillah—west of Jericho, on the road connecting the latter with the land of Benjamin—is an example of another type of desert settlement. The building was a 30 × 30 m square, comprising a large courtyard with rooms on two of its sides and a pillared structure at its corner. It could have served either as a caravanserai or as a farmstead based on livestock and some farming.27

10.30 Vered Jericho: plan of seventh century B.C.E. fortified building.

The dynamic settlement activity in the Judean Desert during the seventh century B.C.E. seems to be reflected in the list of desert cities in Joshua 15:61–62, supporting the view that this list was compiled sometime in that century, perhaps during the reign of Josiah.

OTHER FORTS AND TOWERS IN JUDAH

Several fortresses and towers discovered in the Judean Hills and the Shephelah show that such military and administrative structures were not limited to the Negev and the Judean Desert. The fortresses were square or rectangular in shape and had a large central courtyard surrounded by casemate rooms. The only building of this type excavated is that at Khirbet Abu et-Twein on the western slopes of the Hebron Hills (west of Kefar Ezion).28 It was located on a high hill, with an excellent view of the Shephelah and the Valley of Elah. The building was 30 × 30 m in size; it had a gate chamber

10.31 Khirbet Abu et-Twein: plan of the fortress.
and a central courtyard surrounded by a double row of rooms; these two rows were separated by rows of monolithic pillars to which division walls were attached. Khirbet Abu et-Twein, and two similar fortresses located on ridges to the north, created a network of strongholds in this hilly (and probably forested) region which separated the Hebron mountain ridge from the inner Shephelah.

Additional fortresses are known from Judah—such as that at Hurvat Eres, located on a high ridge west of Jerusalem offering a view of the coastal plain as well as of the Jerusalem area. The location of the Judean strongholds suggests that one of their main functions was to facilitate communication by fire signals between different parts of the kingdom of Judah. The use of such a communication and warning system is known both from biblical references (Jeremiah 6:1) and from one of the Lachish letters (see p. 459).

In addition to the fortresses with a central courtyard, there were freestanding, isolated, solid towers, usually built on a podium elevating their ground level above the surrounding countryside. Two are known from the Jerusalem area: one on a high ridge north of the city (in the suburb called the French Hill), and the other on a ridge south of the city (in the quarter of Giloh). Since Jerusalem is surrounded by mountains which cut off the view from the city, it was essential to establish such towers on the surrounding ridges in order to guard the roads leading to the capital from north and south, and to permit communication by fire signals.

Thus, settlement in Judah was at its peak in the eighth and seventh centuries B.C.E. New areas such as the Judean Desert were now inhabited, and the number of towns and forts in the Judean Hills and the Shephelah was unprecedented.

THE LAMELECH AND ROSETTE SEAL IMPRESSIONS

One of the most significant finds in Judah is seal impressions found on jar handles—impressions known as lamelech due to the word Imik on the upper part of the sealing, meaning “belonging to the king.” Almost a thousand such sealings are known; they were impressed on the handles of jars of a very typical ware and form, made of the same clay, possibly even in the same workshop (as indicated by neutron activation analysis). The jars had a narrow neck, wide shoulders, a narrow base, and four handles; their capacity varied from 12 to 14 gallons (45 to 53 liters). Almost thirty such jars in one storage space were found at both Lachish (Stratum III) and Tel Batash (Stratum III), but only some of the jars had seal impressions on their handles. Lamelech sealings can appear on all four or on fewer than four handles. The sealings were often carelessly made, as if in haste. Studies have shown that the number of actual seals used was in fact small, approximately twenty.

There are two types of lamelech sealings: one featuring a four-winged beetle (a motif originating in Egypt), and the other decorated with a two-winged elongated object resembling the winged sun disc. These were perhaps royal Judean insignia. For many years it was believed that one replaced the other, but at both Lachish and Tel Batash the two forms appear together in the same storage room, and there is no satisfactory explanation for their simultaneous use. The word
*Imlk* is placed above the symbol; below the latter, one of the four place-names Hebron, Ziph, Sochoh, and *mmšt* is inscribed. The first two cities are well known and located in the Hebron Hills. Sochoh is probably that in the Shephelah, and not the town of identical name south of Hebron. *Mmšt* is unknown from any other source. It may have been a title of Jerusalem (shortening of *mmšt*, "government," as suggested by H. L. Ginsberg), but it may have been the name of an otherwise unknown city or administrative center in Judah.

In addition to the *lamelech* sealings, sealings with personal names appear on the same jars, but they are much less common; thirty-four different names have been noted. Their owners could have been officials who were involved in the manufacture of the jars, the preparation of their contents, or their distribution. Identical "private" sealings of this type have been found at different sites, indicating that the jars were produced and stamped in the same workshop, under the supervision of one official who was responsible for their distribution to various cities.

The date and function of the *lamelech* jars have been the subject of a volatile debate. Lachish and Tel Batash provided the firm stratigraphic grounds for determining their date, as at both of these sites they were found in a destruction level which can be safely associated with the conquest by Sennacherib in 701 B.C.E. The jars, therefore, were most probably produced in the years preceding the revolt of Hezekiah against Sennacherib. As to their function, some scholars have suggested that they were intended to contain the products of royal estates, particularly wine. According to this view, the place-names denote centers of royal estates. A more probable explanation is that the jars were associated with some kind of administrative and military organization. Aharoni suggested that the four names reflect the fourfold administrative division of Judah mentioned in Joshua 15: the "mountain," the Negev, the "desert" (probably the Judean Desert), and the Shephelah. "Hebron" signified the mountains, "Ziph" the Judean Desert, "Sochoh" the Shephelah, and "mmšt" the Negev. Yadin emphasized a military association. We suggest that the jars were related to a short-term military system of food provision organized according to the administrative divisions of the kingdom.

The *lamelech* jars and sealings are mainly found in the
regions invaded by Sennacherib: Jerusalem and its environment (at sites such as Tell en-Nasbeh, Gibeon, Ramat Rahel) and the Shephelah of Judah (Gezer, Tel Batash, and Lachish). More than four hundred sealings were uncovered at Lachish, the main fortress of Judah in the war of 701 B.C.E., while only few were found in other parts of Judah. It is thus probable that the jars contained the food supply of Hezekiah's army. The jars were probably produced during the time of Hezekiah, in the few years during which the revolt against Assyria was prepared. They appear to have been distributed to garrisons in cities where an Assyrian attack was considered inevitable, and there they were found in the destruction layers associated with this war.

Since Jerusalem was not captured by Sennacherib, we may surmise that many jars of this kind, stored in the royal store buildings of the capital, were available during the following seventh century B.C.E. Such jars can stand in storage for decades, and they may have been employed for a long time after their production. This would explain the fact that stamped lamelech jars are found occasionally in late seventh century B.C.E. contexts. During the seventh century B.C.E., however, a new type of jar appeared with different details of shape and ware, although in general form it recalls the lamelech jars. The handles of the new jar were stamped with a petaled rosette, which may have been a royal insignia during the days of the last kings of Judah.

**JUDAH'S DOWNFALL**

The archaeological record of the destruction of Judah by the Babylonians is extensive. Jerusalem was heavily destroyed and burnt, as shown by the finds near the tower in the Jewish Quarter, and by the burnt houses on the eastern slope of the City of David. Outside Jerusalem, the palace at Ramat Rahel fell into ruins.

Lachish (Stratum II) was destroyed in a heavy fire. The Lachish letters, found in the burnt debris at the city gate, were written by a certain Hoshayahu to his commander Yauš probably during the last days of Judah. They contain important information on this period, but their contents are fragmentary and the interpretation is not easy. Hoshayahu was considered by N. H. Tur-Sinai and other scholars to have been the commander of a small fortress outside Lachish, and Yauš was explained by them as the commander of Lachish. Y. Yadin, on the other hand, believed that the ostraca were drafts of one and the same letter sent from Lachish to Jerusalem, Hoshayahu being the commander of Lachish and Yauš a high official in the capital. One of these letters ends with the sentence “And may my lord know that we are watching for the beacons of Lachish, according to all the signs which my lord has given, for we cannot see [the signals] of Azekah.” These words must refer to the importance of fire signals in the last war against the Babylonians.

Most of the Judean towns and fortresses excavated in the Shephelah, the Negev, and the Judean Desert were destroyed during the Babylonian invasion. In the Shephelah, evidence of a fatal destruction by fire was uncovered at the large independent city of Ekron and its “daughter” Timnah. Their annihilation may have been perpetrated when Nebuchadnezzar fought along the coastal plain between 605 and 600 B.C.E.
somewhat before the destruction of Judah. Farther east and north, Gezer and Beth-Shemesh were overthrown, and their refugees probably fled to caves in the Shephelah [compare Ezekiel 33:27]. Prayers found incised on the walls of a burial cave east of Lachish may have been written by such refugees. [See p. 515.]

All the fortresses and towns of the northern Negev, and the fortress at Kadesh-Barnea, were devastated, perhaps by Edomites who invaded the region following the Babylonian conquests in the heart of Judah. The Edomite threat in this region is reflected in the Arad letters. A similar fate befell the sites in the Judean Desert.

Only in the land of Benjamin, north of Jerusalem (at Tell el-Ful, Mizpah, Gibeah) was the Babylonian conquest not obliteratorive. In this region, it appears, there was no severe destruction, and life continued under Babylonian rule [see p. 548].

**NOTES**


5. On Tel Kinrot and Yoqneam see Chapter 9, note 18; on Khirbet Marjameh see A. Mazur, *BA* (1982), pp. 171–74; on Gezer see Chapter 9, note 16 and J. D. Seger, *Rose Festschrift*, pp. 113–27.


12. Y. Yadin in: *Kenyon Festchrift*, pp. 127–35 suggested identifying the building at Ramat Rahel with the “temple of Baal” which Aratlath erected in Jerusalem (2 Kings 11:18). His argumentation is based on the similarity of Ramat Rahel to the palace at Samaria. However, the pottery and seal impressions of *lamelech* type found in the fill below the floor of the courtyard date the Ramat Rahel construction to the seventh century BCE. Aharoni associated the palace at Ramat Rahel with the one erected by Jehoahazim in Jerusalem, but the latter was probably located in the city itself.


15. Y. and M. Aharoni, *BASOR* 224 (1976), pp. 73–90. The rich pottery assemblage found in the destruction level of Beer-sheba Stratum II was dated by Aharoni to c. 700 BCE, while others date it somewhat later. See K. M. Kenyon, *PEQ* 108 (1976), pp. 63–64 and Y. Yadin, *BASOR* 222 (1976), pp. 5–17 (the latter dated it to the time of Josiah). The assemblage appears indeed to contain forms which are later than Lachish III (701 BCE) and earlier than Lachish II (586 BCE), but it is difficult to give a more precise date at this stage of research.


CHAPTER ELEVEN

GENERAL ASPECTS OF THE ISRAELITE MATERIAL CULTURE

ASPECTS OF ISRAELITE TOWN PLANNING AND ARCHITECTURE

The main components of the Iron Age Israelite towns are the fortification system, the city gate, a piazza near the gate, the street network, public structures of various types (palaces, store buildings, cult places, royal stables), drainage and water supply systems, dwellings, and various industrial installations. In the following sections, we will briefly discuss the appearance of these components in the Israelite cities; we will also include a brief discussion of the appearance of some of these features in non-Israelite regions of the country, if they are known in such regions.

Classification of Cities  Israelite cities can be divided into several categories: capitals of the kingdoms, district administration centers, and country towns. The capitals of Judah and Israel (Jerusalem and Samaria respectively) as well as those of neighboring city-states in Philistia (Ekron, Ashdod) were very large, comprising several dozen or even hundreds of acres in area, and their population must have surpassed ten thousand. They included massive fortifications, a royal acropolis, public buildings, markets, and residential quarters. Unfortunately, however, only small portions of these cities are known archaeologically.

The second category includes cities which served as regional administrative and military centers. Such were Hazor, Meg-
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CHAPTER 5

Daily Life in Israel in the Time
of the Divided Monarchy

According to the historical framework of those who compiled the Hebrew Bible, Israel's history was divided into two eras by the death of Solomon and what amounted to civil war over the question of dynastic succession, since the issue was considered still unsettled. We have already looked at some of the "convergences" suggesting that the biblical notion of a United Monarchy — or at least an early "state" — ca. 1020-925 B.C.E. is not a figment of the biblical writers' imaginations, but is based on a fundamental reality.

We turn now to the "Divided Monarchy," ca. 925-586. This era sees a long line of kings of the "house of David" on the throne in Jerusalem, which remained the capital in Judah, while the northern kingdom was ruled by a succession of unstable "royal houses" from capitals at Shechem and Tirzah, then principally at Samaria under Omri and his successors. The secessionist northern kingdom of Israel, supposedly incorporating 10 of the old "tribes," fell to the Neo-Assyrian advance in 735-721. The southern kingdom of Judah, however, whose history is strongly favored by the biblical writers and editors, persisted until the fall of Jerusalem in 587/586 to Nebuchadnezzar II and the Neo-Babylonians. ¹

We have noted the skepticism of the "revisionists" and others about the existence of a pan-Israelite "state" at all in the 10th century, and about a "state"

¹ Any standard history of ancient Israel will cover this period in some detail — e.g., J. Maxwell Miller and John H. Hayes, A History of Ancient Israel and Judah (Philadelphia: Westminster, 1991), 218-436. Cf. no. 2, 5 below. For the correlations of the biblical kinglists with Neo-Assyrian and Neo-Babylonian texts, see references in Chapter 2, n. 57.
in Judah before the mid-7th century. But just as I have rejected their view on the first issue for lack of any real evidence, I shall now dispose of the latter—again by pointing to a series of remarkable convergences between some of the biblical texts and recent archaeological discoveries.

To be sure, the revisionists do accept the reality of a northern state of Israel with its capital at Samaria after the mid-9th century; but that is only because the extrabiblical Neo-Assyrian annals now mention such an entity for the first time. Again, however, the biblical texts are regarded with suspicion, while the Neo-Assyrian texts are accepted at face value as a properly "historical" witness. In any case, the revisionists admit to little more than a skeletal outline of the history of a northern Israelite state, in practice only a bare king-list where there are Neo-Assyrian and Neo-Babylonian synchronisms. But there is much more evidence, which the revisionists routinely ignore. Why is that? The archaeological data are summarized in standard handbooks such as those as by Helga Weippert, Amihai Mazar, and Amnon Ben-Tor, in hundreds of pages of detailed information.²

Rather than repeating the rich data presented in the above reference works, here I shall select only a few convergences to show that they establish a firm Iron Age context for the core of the biblical narratives in Kings and the Prophetic literature, while at the same time they unequivocally rule out a Hellenistic-Roman context.

King-lists and International Synchronisms

A working outline of the supposedly historical narratives of 1-2 Kings (and of 1-2 Chronicles, largely dependent upon Kings) can be developed initially by compiling a list of the Judean and Israelite kings mentioned in the book of Kings. The biblical writers mention all the kings of these two principalities from beginning to end, in successive order, giving the length of their respective reigns, usually cross-indexing them, for instance with such formulae as “King A of Judah began his reign in the —th year of King B of Israel.” These complete and elaborate king-lists can hardly be a late invention but must have come down to the final editors from much older, often contemporary court records, annals, and the like.


Daily Life in Israel in the Time of the Divided Monarchy

In this regard, the biblical king-lists are not unusual, certainly not unique. Elsewhere in the ancient Near East we have, for instance, the well-known Sumerian king-list, a chronicle that purports to go all the way back to antediluvian times (like the biblical genealogies). There is also an Egyptian king-list that covers 30 dynasties and some 3000 years. Both these king-lists in their present form have been in a sense created by scholars, i.e., pieced together from many surviving fragments, some quite late. Nevertheless, it is still possible thereby to produce a more or less coherent and correct ordering, or what we call a “relative chronology.” The “absolute” or calendrical dates for such king-lists in the 3rd millennium, however, are still lacking in precision, despite modern corrective tools like carbon 14 dating. Thus dates for the beginning of the 1st Dynasty in Egypt vary according to different authorities from ca. 3200 to ca. 3000 ³

By the time we reach the 2nd millennium, however, the reigns of kings, particularly those in Egypt, can be fixed often within a margin of error of 10-20 years or so. Such precision is made possible by the fortunate practice of the ancients in observing the heavens for “signs,” and particularly their frequent coordination of important political events such as the accession of a king with an astronomical event like a solar eclipse. Modern astronomy can fix the occurrence of an eclipse to the very day. Thus we can often obtain a fixed date upon the basis of which an entire portion of a king-list, like a particular dynasty, can be worked out in detail — a sort of “chronological peg” upon which to hang the whole sequence. The absolute dates for Egyptian chronology in the first half of the 2nd millennium can still vary by as much as some 20 years, due to uncertainty as to exactly how and from where the ancient astronomers made their observations. Thus in both Egypt and Mesopotamia early to mid-2nd millennium dates are given in various sources using so-called “high,” “middle,” or “low” systems. By the 1st millennium, however, both Egyptian and Mesopotamian chronologies have now been fixed within a margin of error of no more than a very few years, and often are precise to the very year. Thus we know for certain the names and exact dates of a long series of Neo-Assyrian and Neo-Babylonian kings, from before 900 to the founding of the Persian Empire in 539 by Cyrus the Great.⁴

Piecing together this story has taken a century and a half of archaeological discovery, plus painstaking detective work by scholars in many disciplines, including astronomy and the natural sciences. But thanks to those efforts we

the remains of Ahab's royal constructions include massive structures on the fortified citadel, both a large administrative complex and a series of magazines or storehouses, as well as a water shaft and tunnel that surely rank as ancient Israel's most spectacular engineering feat. And at Samaria, the capital, most of the impressive royal buildings on the acropolis, including double defense walls and a multi-roomed palace, are probably to be attributed to Ahab, since his father Omri, the founder of the dynasty, ruled only seven years. It is likely that some of the beautiful ivory inlays, imports from Phoenicia, found in the final destruction layers, originated in the 9th century.

It is worth noting at this point that Ahab was one of Israel's most capable rulers, to judge from both the impressive remains that he has left us, as well as the respect accorded to him and his dynasty by his Assyrian enemies. Yet the

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writers of the Hebrew Bible, faithful to their southern loyalties and to the Deuteronomistic theological reform movement, treat Ahab and his Phoenician wife with a contempt and loathing reserved for no other king, and attribute his downfall to his apostasy. While these stories may well be legendary as they have been utilized by the compilers of Kings in writing their history, the salient facts of Ahab's long rule are not thereby necessarily obscured — especially if the archaeological data and extrabiblical texts tend to corroborate them, as they do. In particular, the biblical writers' condemnation of such aspects of Ahab's reign as his construction of a temple of Ba'al at Samaria is, ironically, our best proof that just such a temple really did exist. In short, even the heavy overplay of propaganda does not exclude some real history. On the method of "reading between the lines" in the biblical texts we shall see more below, when we come to discuss "popular religion."

Jehu, although the biblical writers approve of the religious fervor that brought him to power, was by contrast a hapless king. He has the dubious honor of being the only king of Israel or Judah whose actual portrait has survived to come down to us. Having just acceded to the throne, he capitulated to the Assyrian Shalmaneser III in 841 and was forced to pay heavy tribute. Thus he is portrayed on the famous Black Obelisk of Shalmaneser, now in the British Museum, bowing in humiliation before the Assyrian king and kissing his feet.10 The biblical writers do not mention Jehu's paying tribute, either because they did not know about it or possibly because they were hesitant to reject a one-time revolutionary of whom they had originally approved. 2 Kgs. 10:28-32 reports only that "in those days the Lord began to trim off parts of Israel," blaming the attrition on Jehu's abandonment of the "Yahweh only" policies that in their view had brought him to power.

Jehoram, Jehu's short-lived predecessor, is not mentioned in Assyrian records, at least those that are extant. His name, however, can now be restored with certainty from additional fragments of the Aramaic victory stelae from Tel Dan, discussed above. The revisionists, as we have seen, deny the reading "the king of Israel," and especially the phrase "the house of David," even suggesting that the inscription is a forgery (Chapter 4, p. 134). Their motives, however, are suspect; and virtually all other scholars would place the Tel Dan inscription alongside the Neo-Assyrian texts, as a historical datum.11 It is particularly important because this datum appears to confirm the correlation of Jehoram of Israel with the king of Damascus (Hazael, as 2 Kgs. 9:14-16; but possibly Ben Hadad I, since the year 842, Jehoram's last year, marked the succession of the two Aramaean kings). It must be cautioned, however, that the Tel Dan inscription cannot be taken simply as confirmation of the biblical accounts of Aramaean contacts, since it supplies new information that seems to differ with the biblical accounts. Yet it does confirm significant Aramaean victories over northern Israel in the mid-9th century, of which the southern writers and editors seem to have been aware, however sketchy the accounts finally produced for their own purposes in 2 Kings.

The last Israelite kings that we can correlate with the available Neo-Assyrian texts are listed in Fig. 1 above, all of whom encountered first Tiglath-pileser III in his western campaigns, and then in the fatal final siege of Samaria, which lasted perhaps a year and a half or more, Shalmaneser V and Sargon II.

The brief biblical accounts of the destruction of Samaria and the Assyrian annals may seem to contradict each other, since 2 Kgs. 18:9 attributes the victory to Shalmaneser, whereas in the Assyrian accounts it is Sargon who claims to have captured Samaria. But it is clear from the Assyrian king-lists that Sargon succeeded Shalmaneser in 722, no doubt while the siege was in progress. Thus the difficulty is easily resolved. That the biblical account provides so few specifics for such a momentous event as the fall of the northern kingdom, while Sargon supplies much more detail, also poses no problem for the historian. Each party is interpreting events to glorify its own exploits; and from the point of view of the Judean editors of Kings, apostate Israel got just what it deserved and needed no further mention.

Again, the bias of the biblical writers and editors is obvious; but because of its obviousness the bias can be easily eliminated so as to clarify underlying events that really did happen. It is worth noting here that on their own methodological postulates the revisionists would be required, in the name of consistency, to deny the fall of the northern kingdom, were it not for the extra-biblical accounts. Their principle is: "One witness is no witness." Yet on that ground one could deny the existence of most great individuals and events of antiquity. For instance, outside the New Testament there are almost no extant references to the earliest Christian movements, not even to the person of Jesus himself. We shall return to this methodological issue somewhat later.

Sennacherib and Hezekiah

The most widely discussed convergence between our several sources of history-writing is the well-documented campaign of a later Neo-Assyrian king, Sennacherib, against Judah in 701. Here the divergences may be as instructive as

10. For the text and an illustration of the obelisk itself, see Iller and Hayes, 286, 287.
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the convergences, remarkable as the latter are. The pertinent sources for Sennacherib's campaign of 701 are: the long passage in 2 Kgs. 18:13–19:37 (paralleled in Isa. 36–37 and supplemented by 2 Chr. 32:1-31); the Assyrian annals of Sennacherib describing the capture of 46 towns in Judah and the siege of Jerusalem; the series of monumental stone reliefs depicting the siege and capture of Lachish, found in Sennacherib's palace at Nineveh and now in the British Museum; and the extensive excavations of Lachish carried out by British archaeologists in 1935-38 and by Israeli archaeologists under David Ussishkin and others in 1973-1987.12

It is noteworthy, but not surprising, that the biblical editors barely mention Lachish, Kings noting in a single verse only that Sennacherib had "been" at Lachish at one time, and Chronicles adding only a single reference to a "siege" there. No destruction of the site whatsoever is alluded to in the Bible. The Assyrian annals, however, boast of the fall of Lachish as a great victory — indeed, one important enough to be commemorated by having an entire hall of Sennacherib's palace at Nineveh dedicated to it, featuring some of the finest Assyrian art ever discovered, and portraying the battle of Lachish in graphic and often horrifying detail.

What is even more remarkable is that the archaeological excavations at Lachish have corroborated the Assyrian reliefs to an astonishing degree. The evidence of it is all there: the enormous sloping siege ramp thrown up against the city walls south of the gate; the double line of defense walls, upslope and downslope; the iron-shod Assyrian battering rams that breached the city wall at its highest point; the massive destruction within the fallen city; the refugees streaming out of the destroyed gate and the burning city, headed for exile; the brutal slaughter of resisters, some depicted as having been beheaded and others staked out on the ground and flayed alive; and the abandonment of the city to Assyrian garrisons.

Virtually all the details of the Assyrian reliefs have been confirmed by archaeology, even the hilltop vantage-point from which Sennacherib must have watched the battle and from which artists made their original sketches. Also brought to light by the excavators were the double city walls; the complex siege ramp, embedded with hundreds of iron arrowheads and stone ballista; the counter-ramp inside the city; the destroyed gate, covered by up to 6 ft. of destruction debris; huge boulders from the city wall, burned almost to lime and fallen far down the slope; some 1500 skeletons from the cleanup of the city, thrown into a deep water-shaft; well-preserved Assyrian-style helmets; and even layers of pig bones indicating the Assyrians' love of pork, forbidden to Jews. One can only suppose that the Assyrian kings took along on their foreign campaigns an ancient version of "war correspondents," scribes who took notes and artists who made accompanying sketches. This strategy must have been designed to enhance stories back home later of the mighty king's prowess in battle — and of the fact of his being favored by the national god, now proven more powerful than the gods of all the other nations. The Assyrian texts and battle-reliefs are thus without doubt "propaganda," and of the most blatant sort. Yet they nonetheless convey an account of events that actually did happen, and moreover are now known to have happened in very much the way that the story implies.

If we turn to the unusually long and detailed accounts of the same events in the Hebrew Bible, we are struck by how obviously they are propaganda as well. The entire account in both Kings and Chronicles is obviously shaped by the Deuteronomistic historians' overriding "Jerusalem temple theology." The story

what did the biblical writers know?

Main siege ramp and assault on the town of Lachish under Sennacherib, 701
(David Ussishkin, The Conquest of Lachish by Sennacherib)

Destruction debris fallen down from western gateway of Lachish into the valley below
(Photo by William G. Dever)

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celebrates the miraculous delivery of Jerusalem from Sennacherib's siege when Yahweh sends a plague on the Assyrian camp, and the decimated army (2 Kgs. 19:35 specifies 185 thousand dead) retreats in defeat. According to both the Kings and Chronicles versions, blasphemous Sennacherib is not only humiliated, but upon his return to Assyria he is assassinated by his own sons while worshipping in the temple of his god Nisroch. Hezekiah does not even have to pay tribute to get the Assyrians to withdraw; the temple is saved, and its treasures are intact. All that matters is that Yahweh has triumphed over the mighty Assyrian armies and their impotent gods. Of the other sites in Judah that were threatened, only Lachish and Libnah are even mentioned, and that only in passing.¹³

I can think of no more telling demonstration of the biblical writers' and editors' single-minded preoccupation with theocratic history than their rendering of the campaign of Sennacherib. This campaign was undoubtedly the most significant event in the life of Judah in the last quarter of the 8th century, as well as the beginning of the series of disasters that finally overtook Judah and brought it to an end a century later. Yet the biblical "history" is oblivious to all but the deliverance of Jerusalem. Nevertheless, once again there is some real history that one can glean from the narrative, especially when the biases of the biblical texts can be corrected by extrabiblical evidence, as we shall see. This much is clear, even from the biblical text alone, when read with some sophistication: (1) Lachish, presumed to be the most strategic fortress in all Judah, was besieged. (2) Jerusalem was also besieged and severely threatened by Sennacherib, but for some reason it was not conquered. (3) The Assyrians did retreat, and somewhat later Sennacherib died and was succeeded by his son Esarhaddon (681-669).¹⁴

It is interesting to see that these "bare facts" gleaned from the biblical accounts do not necessarily contradict the version of Sennacherib's campaign of 701 in Assyrian records. There are, as would be expected, a number of differing interpretations of the events in the Assyrian version. For one thing, we learn that as many as 46 Judean towns and cities were threatened in one way or another, not just Jerusalem, Lachish, and Libnah. In addition, the Assyrian records do narrate a determined siege of Jerusalem — Sennacherib boasts "Hezekiah, the Jew (i.e., Judean), I shut up like a bird in a cage"; but the texts pointedly do not claim an actual destruction of the city. Finally, Assyrian records note that Sennacherib did die subsequently at the hands of assassins, his own sons, although 20 years later (ca. 681) rather than almost immediately as

¹³ On Lachish, see n. 12 above. The location of Libnah is not certain, but it is often identified with nearby Tell Bornät, which remains unexcavated. ¹⁴ See further Miller and Hayes, 353-65 and references there.
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the biblical story implies (i.e., as prompt, divine retribution). Yet none of these interpretations of events in the Assyrian sources contradicts the essential facts of the biblical account, only their interpretation by the Deuteronomists — whose biases are so well known that they can rather easily be stripped away from the story. When we add the unequivocal evidence of the reliefs and the archaeological discoveries at Lachish (and Jerusalem), a reasonably accurate and believable history of Sennacherib's invasion emerges. Again, the best possibility for history lies in the convergences, divergences, and the "balance of probability."

The Last Days of Judah

Between a century and a century-and-a-half later, we meet the last Judean kings who are mentioned in Mesopotamian texts, especially the ill-fated reformer Josiah, and the last independent king of Judah, Jehoiachin. Josiah's fatal involvement in the Battle of Carchemish, and his death at Megiddo while attempting to block the advance of an Egyptian relief column in 609, can be correlated with both the rise of the Neo-Babylonian Empire under Nebuchadnezzar II, beginning in 605, and the reign of the Egyptian 26th-Dynasty pharaoh Necho II (609-593). The accounts of Josiah's last days in 2 Kgs. 23:29, 30 and 2 Chr. 35:20-24 make perfect sense in the light of what we know from other sources about the turbulent transfer of power from Neo-Assyria to Neo-Babylonia in the mid- to late 7th century, as well as Egypt's attempts to intervene and thus stave off an invasion of Egypt itself by either power. Josiah, caught hopelessly in the middle of the conflict, forfeited his life and his kingdom. Here the biblical narrators have got it right, despite the fact that the tragedy destroys their history, rather than validating it. They solemnly record all the portentous events at face value, even though they lionized Josiah and mourned the fall of Jerusalem a few years later, with little or no editorializing.

The last real king of Judah, Jehoiachin, is known to us in the Hebrew Bible only from brief accounts. He gained the throne at 18 after the Babylonians' first siege in 598/597, then three months later was deposed and sent to Babylon in exile, where he eventually died. Seal impressions of a certain Jehoiakim, no doubt this very king, have been found. Moreover, the Babylonian chronicles from the year of 562 refer to rations provided for an exiled king "Jehoiakin."15

Sic transit gloria mundi.

15. ANET, 308; on the last days of Judah, see Miller and Hayes, 377-436.

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Religion and Cult in the Divided Monarchy

I have argued thus far that at least an outline of what might be called a "political history" of Israel and Judah in the 300-year period of the Divided Monarchy emerges from the core material of Kings, despite its overarching, tendentious Deuteronomistic framework. Now we must begin to fill in that outline by expanding beyond Kings to the broader Deuteronomistic and prophetic literature and turning then to archaeological discoveries. The latter, and the latter alone, can "flesh out" a history of ancient Israel, precisely because of archaeology's unique ability, as we saw above, to supplement the elitist approach of the "great tradition" of the classic literature. Archaeology at its best provides a graphic illustration of the everyday masses, the vast majority of ordinary folk, their brief lives forgotten by the biblical writers in their obsession with eternity, their voices long muted until modern archaeology allows them to speak again to us.

It was these anonymous folk — not just kings and priests and prophets whom we know by name — who made Israel what it was. Their world, their situations, are different from those who wrote the Bible, but no less important for that. Indeed, the lack of convergences here may be the most revealing of all the data that we have now for writing a realistic history of Israel — not the "ideal Israel" of the imaginations of the biblical writers, but an "Israel, warts and all.

Let us begin to listen to the lost voices by focusing first on religion and cult in the Divided Monarchy. In doing so, we must recognize, as one of my theologian friends reminds me, that the Hebrew Bible is "a minority report." Largely written by priests, prophets, and scribes who were intellectuals, above all religious reformers, the Bible is highly idealistic. It presents us not so much with a picture of what Israelite religion really was, but of what it should have been — and would have been, had the biblical writers only been in charge. Furthermore, the Bible is an elitist document in another sense, because it was written and edited exclusively by men. It therefore represents their concerns — those of the Establishment of the time — to the virtual exclusion of all else. In particular, the focus is on "political history," the deeds of great men, "public events," affairs of state, and the great ideas and institutions. The Bible almost totally ignores private and family religion, women's cults and "folk religion," and indeed the religious practices of the majority in ancient Israel and Judah.

If the bibli cal texts alone are an inadequate witness to ancient Israelite religion, where else could we turn for information? Modern archaeology can be an excellent source, for many reasons. First, archaeology has brought to light a mass of new, factual, tangible information about the long-lost biblical world, and the history and religion of ancient Israel in particular. Second, this new information is incredibly varied, almost unlimited in quantity, and has the fur-
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other advantage of being more "objective" than texts in some ways, that is, less deliberately edited. Finally, archaeology possesses unique potential for illuminating "folk religion," in contrast to the "official religion" of the texts, because material remains reflect the masses rather than only the elites, and they illustrate concrete religious practices rather than abstract theological formulations. Thus, if "religion" is what the majority of people actually do in the name of the deity or deities, rather than what priests and clerics say they should do, then archaeology can give us a different and perhaps more realistic picture of Israelite religion (although not one that is necessarily "truer" in the theological sense).

In what follows I shall review some of the recent archaeological data, which I believe force us to rewrite all previous histories of ancient Israelite religion, and in particular to address the issue of whether Israel in the monarchical period was truly monotheistic.16

A Survey of Cult-Places Brought to Light by Archaeology

Let us look now at a number of recently excavated sites in Israel that have produced materials that are clearly cultic in nature, some of them no doubt what the Bible means by references to condemned bāmôt, or "high places." We shall move from north to south and from the period of the judges to the Monarchy, or the Iron I-II periods.


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The "high place at 'Tel Dan," ca. 9th century (Abraham Biran, EAEHL)

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installation, for liturgical purposes; large and small four-horned altars of the types alluded to in several biblical passages; a bronze-working installation and several implements such as a fine priestly scepter; seven-spouted lamps; a naos, or household temple model/shrine; several dice; both male and female figurines; and other items. This cult installation lasted from the 10th/9th century into the 8th/7th century. If we attempt to coordinate text and artifact, it is evident that most of the features of the Dan “high place” are misunderstood by the southern writers and editors of the Hebrew Bible—loyal to the temple in Jerusalem—or not mentioned at all. The installation in general, however, is condemned as a prime example of the worship of “foreign gods”—in this case, no doubt the Canaanite-Phoenician deities Ba’al and his consort Ashterah. Nevertheless, despite the disapproval of the biblical writers, the archaeological evidence from Dan illustrates dramatically that “non-Establishment” cults did exist, in the early Monarchy as well as throughout Israel’s and Judah’s history.18

(3) Tell el-Far‘ah (North), biblical Tirzah, the temporary capital of northern Israel in the early 9th century, was excavated by Père Roland de Vaux in 1946-1960. Just inside the city gate is a māṣēba and an olive-press, very similar to installations at Dan—no doubt a “gate-shrine” like those of which the Bible hints. In addition, there were found at Tell el-Far‘ah (North) numerous 10th/9th-century female figurines (some of the earliest known “Asherah” figurines; below); and in particular a rare terra-cotta naos, which to judge from comparative examples typically had a deity, or pair of deities, standing in the doorway, one of them certainly Asherah, the old Canaanite Mother Goddess (above, p. 152). This Stratum VII-B Canaanite temple model is roughly contemporary with the Solomonic temple in Jerusalem, which according to the biblical writers centralized all worship in Jerusalem.19

(4) Another example of supposedly prohibited local worship is a household shrine found in 10th-century levels at Megiddo, a Solomonic regional capital in the north. The shrine consists of several cult vessels and small four-horned limestone altars, of the type found at many Israelite sites. They were probably used for incense-offerings, which are integral to official worship in the biblical texts, although the horned altars are not specifically referred to (only much larger examples are mentioned, as in 1 Kgs. 1:50, 51).20


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Bronze priestly scepter-head found near the altar at Tel Dan, ca. 9th century
(Abraham Biran, Biblical Dan)

Plan of Tell el-Far‘ah, biblical Tirzah,
ca. 10th century (Stratum VIII)
(Helga Weippert, Palästina in vorhellenistischer Zeit)

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(5) A few miles east of Megiddo lies its sister city Ta'anach, where even more substantial 10th-century cultic remains have come to light.21 A shrine there consists again of a large olive press; a mold for making terra-cotta female figurines like those at Tell el-Far‘ah (North), probably as votives; and a hoard of astragali, or knuckle-bones, for use in divination rites. More remarkable were two large, multi-tiered terra-cotta offering stands. One, found long ago in the German excavations, depicts ranks of lions. The other, from the American excavations of Paul W. Lapp, has four tiers. This stand is probably best understood as a temple model. The top row or story shows a quadruped carrying a winged sun-disk on its back. The next row down depicts the doorway of the “temple,” which however stands empty, perhaps to signify that the male deity presupposed here in the door of his “house” (in Hebrew, bēt, “house,” means “temple” when used of a deity) is invisible. The third row down has a pair of sphinxes, or winged lions, one on each side, examples of the biblical “cherubim” that are located in the Solomonic temple. The bottom row is startling, for it has two similar flanking lions, with a smiling nude female figure standing between them, holding them by the ears. Who is this enigmatic figure? I have suggested elsewhere that she can be no other than the Canaanite Asherah.22 She is known throughout the Levant in this period as “the Lion Lady,” often depicted nude, riding on the back of a lion. A 12th–11th century inscribed arrowhead from the Jerusalem area reads on one side in the Canaanite or Old Hebrew script “Servant of the Lion Lady,” probably the title of a professional archer, naming his patroness. On the other side we read his own name, “Ben-Anat” or “son of Anat,” “Anat being the old Canaanite war goddess.23 We can only wonder what a model temple depicting possibly an invisible Yahweh and a very visible Asherah is doing at Israelite Ta’anach in the days of Solomon and the Jerusalem temple. This is a remarkable piece of ancient Israelite iconography. As we shall see, however, there is much more evidence today for the cult of Asherah in Israel in the biblical period.

(6) Among the many pieces of archaeological evidence of religion from Jerusalem, I single out only a few here. A monumental rock-cut tomb on the grounds of the Dominican École Biblique, long known but only recently dated correctly to the 8th–7th century, has benches for the bodies that feature

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headrests carved in the shape of the well-known Hathor wig. This distinctive bouffant wig is worn in New Kingdom Egypt by Qudshu, "the Holy One," who is the Egyptian cow-goddess now identified with the popular Canaanite goddess Asherah. The point is that even in Jerusalem, the spiritual center, a pious Judean woman could be buried with her head resting in the representation of a wig that was everywhere associated with the Canaanite goddess Asherah.  

Another tomb, of the late 7th century, found near St. Andrew’s Scots Church, produced similar benches with headrests, as well as two silver amulets. One amulet is particularly interesting, since it is inscribed with the Priestly Blessing of Num. 6:24-27. Its date ca. 600 makes it by far our oldest surviving fragment of a biblical text — at least four centuries older, for instance, than any manuscripts from the Dead Sea caves. Furthermore, this bit of Scripture is not being used for edification, as the priests would no doubt have prescribed, but as "magic," which was strictly forbidden in orthodox Israelite religion. What we have here is a biblical text engraved on silver, rolled up and worn around the neck on a string as an amulet, a good-luck charm. And there are many more archaeological examples of such magical or superstitious rituals, from Israelite and Judean contexts, some of them invoking foreign deities like the Egyptian gods Bes and Osiris. Biblical scholars have paid little attention to archaeological finds of this sort, but they should, because they illustrate the prevalent "folk religion" that the biblical writers condemn so vigorously — apparently without really understanding themselves what they were dealing with. A prime example of such elite misunderstanding of "folk religion" is 1 Kgs. 15:13 (2 Chr. 15:16), which condemns a mīpleset, "an abominable thing" of some sort, made for Asherah. That word occurs only here in the Hebrew Bible, and we are not sure of its meaning. The later biblical writers probably weren't sure either; they only knew that one shouldn't have the "abominable thing," whatever it was.

(7) Beersheba, marking the southern limits of the settled zone in monarchical times (the borders "from Dan to Beer-sheba"), was excavated by Yohanan Aharoni in 1969-75. Among the most spectacular finds were several large, dressed blocks of stone that make up a monumental four-horned altar like those that perhaps stood in the Levitical "cities of refuge" (especially in Jerusalem; 1 Kgs. 15:50-53), where one could seek asylum by clinging symbolically to the horns of the altar. This is one of only two examples of such large altars that archaeologists have brought to light (the other being at Dan). Its stones, however, were not recovered in situ, but were found built into the rubble walls of the later "storehouses" near the city gate — stones from a dismantled horned altar, thrown out and picked up later for building material. Where had that altar originally stood, and why had it been dismantled? Aharoni argued that his "basement building" — a large structure set into an unusually deep foundation trench that obliterated lower levels — was the site of what had once been a large temple. There the altar had originally stood. In that case, the temple had perhaps been destroyed in the religious reforms of Hezekiah in the 8th century, among whose measures was pulling down the "high places" and their altars. As though to confirm Aharoni's theory, a large krater or two-handled pot found nearby is inscribed in Hebrew qōdeš, "sacred/set apart" (for cultic use). Here at Beersheba we have perhaps the first actual archaeological evidence confirming the reforms of various Judean kings — and the need for such, just as the biblical prophets complained in denouncing what they call the worship of "foreign gods."

(8) Not far east from Beersheba is Arad, a small Judean hilltop fortress and sanctuary also excavated by Aharoni. The dating and interpretation of the various 10th-6th-century phases remain controversial because of faulty excavation methods and the lack of final reports. Yet the main points for our purpose are clear. One corner of the walled citadel of the 9th-8th centuries is occupied by a tripartite (or three-room) temple, very similar to the plan of the partly contemporary temple in Jerusalem. The outer area (the biblical 'ālām, "vestibule") is actually an open-air courtyard with a large stone altar, at the base of which there were found burned animal bones; a terra-cotta offering stand; a fine crouching bronze lion; and two shallow platters inscribed with the Hebrew letters qōp kāp, probably an abbreviation for qōdeš hā-kōhānim, "sacred/set apart for the priests." And several priestly families at Arad, with names identical to such families in the Bible, are in fact known from the ostraca, or inscribed potsherds, one of which (no. 18) also mentions the "house/temple of Yahweh." The middle chamber (the biblical hēkāl, or main room) is a smaller room, its main feature being low benches, undoubtedly for the presentation of offerings. The inner chamber (the biblical debhr, or "Holy of Holies") is a still smaller niche. It features two stylized horned altars at the approach steps, found with an oily organic substance on top that suggests incense; and against the back wall, two stone stelae (the biblical māqālāti, "sacred standing stones") with traces of red paint, one of them conspicuously smaller than the other. Since


These altars and standing stones had been carefully laid down and floored over in a later stage of this building. Aharoni argued that here again we have archaeological evidence of the reforms of Hezekiah (others said Josiah), who abolished local sanctuaries in order to favor the Jerusalem temple. I would go further to suggest that both the bronze lion and the pair of standing stones show that Asherah, the "Lion Lady," was worshipped alongside Yahweh at Arad, and for perhaps a century or more before this became a problem for religious reformers. Do we confront here the sort of "syncretism" that the prophets decried; or was Asherah so thoroughly assimilated into the Israelite cult from early times that she was thought by most Israelites to be "native" to their belief and practice, i.e., associated with Yahweh, perhaps even his consort?  

(9) As though to answer this question, dramatic textual evidence of Asherah has recently come to light at two sites. Kuntillet Ajrud is a hilltop caravanserai, or stop-over station, in the remote eastern Sinai desert, discovered by the British explorer Edward Palmer in 1878 and excavated in 1978 by the Israeli archaeologist Ze'ev Meshel. Again the finds are controversial and published only in preliminary reports. Yet the impact of the material known so far is


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Platter/bowl from Arad, with the Hebrew letters qdp-ldp, probably an abbreviation for "sanctified for the priests" (Yohanan Aharoni, *Arad Inscriptions*)

revolutionary for our understanding of ancient Israelite and Judean religion. The main structure, from the 8th century, is a large rectangular fort with double walls, towers at the corners, and an open courtyard in the center, similar to other known Iron Age fortresses in the Negev. The entrance area, however, is unique. It is approached through a white plaster esplanade that leads into a passageway flanked by two plastered siderooms with low benches, behind which are cupboard-like chambers. The latter are clearly *favissae*, or storage areas for discarded votives and cult offerings, such as are known at many Bronze-Iron Age sanctuaries; and the benches are not for sitting but for placing offerings, again with many parallels. If there were any doubt about the existence of a shrine here in the 'Ajrud gateway (and surprisingly enough, some scholars do doubt it), it is removed by even a cursory examination of the finds. These include a large stone votive bowl inscribed in Hebrew: "(Belonging) to Obadaiah, Son of Adnah; may he be blessed by Yahweh." On several large storejars there are painted motifs and scenes: a procession of strangely garbed individuals; the familiar "tree of life" with flanking ibexes; lions; and especially a striking scene with two representations of the Egyptian good-luck god Bes and a seated half-nude female figure playing a lyre, whose distinctive lion-throne suggests to me that she is a goddess (as we find seated on lion-thrones, along with kings, elsewhere in the ancient Near East). A Hebrew inscription on this storejar is a blessing-formula, ending with "May X be blessed by Yahweh of Samaria and by his Asherah." Other Hebrew inscriptions also mention Asherah, as well as El and Ba'al, alongside Yahweh. Some biblical scholars take a "minimalist" view of the appearance of the Hebrew word 'Asáh here, which occurs some 40 times in the Hebrew Bible and often appears to refer only to a wooden image of some kind, a pole or tree, commonly associated with the well-known goddess of the same name. Yet a growing number of scholars begin to recognize the point: whether "a/Asherah" at 'Ajrud means the goddess herself or merely her symbol as an "agent of blessing" that could be invoked alongside Yahweh, it was the widespread perception of the goddess's reality in ancient Israel that gave the

Map showing location of Kuntillet 'Ajrud in the eastern Sinai (F. Peck)

kind, a pole or tree, commonly associated with the well-known goddess of the same name. Yet a growing number of scholars begin to recognize the point: whether "a/Asherah" at 'Ajrud means the goddess herself or merely her symbol as an "agent of blessing" that could be invoked alongside Yahweh, it was the widespread perception of the goddess's reality in ancient Israel that gave the

29. For the textual evidence, see Saul M. Olyan, *Asherah and the Cult of Yahweh in Israel*. SBLMS 34 (Atlanta: Scholars, 1988); and also Ackerman. For the association of Asherah with trees, see the pioneering study of Ruth Hestrin, "The Lachish Ewer and the 'Asherah," *JE* 37 (1987): 212-21.
symbolism its efficacy. Either way, old Canaanite Asherah was not dead and
gone in many circles in Israel, but was alive and well — despite the abhorrence
of some prophets and priests by the 8th-7th centuries, when attempts to dis-
credit her began. The archaeological evidence at Kuntillet 'Ajrūd, even on
a minimalist interpretation, would in my opinion force us to rethink much of
what scholars have written about “normative” religion, about monotheism, in
ancient Israel. The ideal of the later formulations of the Hebrew Bible is one
thing; actual religious practice was another, reflecting a popular religion that
we would scarcely have known apart from the accidents of archaeological
preservation and discovery.30

(10) The 'Ajrūd texts do not stand alone, but actually corroborate the
meaning of an 8th-century Judean tomb inscription at Khirbet el-Qôm near
Hebron that I discovered in 1968. Although parts of the reading are difficult
and controversial, the best reading goes something like this:

'Uriyahu, the Prince; this is his inscription.
May 'Uriyahu be blessed by Yahweh,
For from his enemies he has saved him by his Asherah.

Virtually all scholars now agree that the reading “by his a/Asherah” in line 3 is
certain — and identical to that at 'Ajrūd, and with the same problems of inter-
pretation. Nevertheless, considering that we have literally only a handful of an-
cient Hebrew inscriptions from tombs or cultic contexts, the fact that two of

30. See works cited in nn. 16, 29.

them mention “a/Asherah” in a context of blessing is statistically striking. It
would appear that in non-biblical texts such an expression was common, an ac-
ceptable expression of Israelite-Judean Yahwism throughout much of the Mon-
archy. Thus Asherah was thought of as the consort of Yahweh, or at least as a
“hypostasis” of him, a personified aspect (as “Sophia,” Wisdom, became later;
or the “Shekinah,” God’s “effective presence” in the world of medieval
Kabbalistic Judaism). I would argue that the orthodox textual tradition has, in
effect, purged the Bible of many original references to the Goddess Asherah, as
well as downplaying the remaining references to the point where many are
scarcely intelligible.31

31. For the original publication, see William G. Dever, “Iron Age Epigraphic Mate-
rial from the Area of Khirbet el-Kôm,” HUCA 40-41 (1969-1970): 139-204. For more re-
cent bibliography and interpretation, see “Archaeology and the Ancient Israelite Cult:
How the Khirbet el-Qôm and Kuntillet 'Ajrūd Texts Have Changed the Picture,” ETSR 25
(1999): 9*-15*.
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Artifactual Data and Israelite Cult

In addition to the cult-places discussed above (and a number of other similar examples), we now have many individual artifacts that reflect the variety of religious beliefs and practices in ancient Israel and Judah.

1. We have dozens of terra-cotta offering-stands from ancient Israel, dating to the 12th-7th centuries. They continue a long Bronze Age tradition of offering-stands throughout the ancient Near East, which as we know from seal impressions and paintings were used to present gifts of food and drink to the gods, as well as perhaps to offer incense. Such rituals also became part of the standard cult in ancient Israel, as we know from many biblical texts, so there must have been at one time a fairly elaborate paraphernalia. Yet it is a curious fact that nowhere in the Hebrew Bible are offering-stands even hinted at, as though the writers were unaware of them — or perhaps disapproved? (The text is also silent concerning other cult artifacts that we now have.)

Some of the Israelite-Judean offering-stands are rather plain, with no obvious symbolic significance. But others, like the 10th-century Ta’anach stand discussed above, are full of “Canaanite” religious imagery. One of the most enigmatic is a 12th-century stand from ‘Ai, certainly an Israelite site of the period of the judges, that has numerous fenestrations or “windows,” probably for use in incense-burning, but also features a curious row of well-modeled, protruding human feet around the bottom. A foot-fetish cult? In any case, the omission of any reference whatsoever in the Hebrew Bible to these common offering-stands, when the texts are so preoccupied with sacrificial rituals, should give us pause. What are the biblical writers and editors describing: actual religious practices in ancient Israel, or their own idealistic, theologized reconstruction of what should have taken place?

2. We have noted above some of the four-horned limestone altars, including the one life-sized example we have from Beersheba. Most examples, however — and at least 40 are now known — are of the miniature variety, from about 1 to 3 ft. high. These small horned altars, ranging from the 10th to the 6th centuries, are found all over Israel and Judah, in many contexts, cultic, domestic, and even industrial. The significance of the four hornlike projections at the corner (sometimes stylized) is uncertain, but the symbolism may be connected with the older Bronze Age “bull cults” well known throughout the Eastern Mediterranean world. We


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have noted above the title “Bull” used of El in the Canaanite pantheon. It is also significant that when the biblical writers want to speak of apostasy among the Israelites, they tell stories of the setting up of a bronze calf at Mt. Sinai, or the golden calf that Jeroboam erected in his newly established royal sanctuary at Dan (1 Kgs. 12:28, 29) after the death of Solomon and the secession of the northern tribes.

In any case, once again the biblical writers and editors are completely silent. There is not even a hint in the texts of these small horned altars, despite the fact that they were probably used for burning incense, and incense offerings are often described in some detail in the biblical text. Again, we must ask, What is going on? When the Bible describes local altars being “torn down” in religious reforms, it surely does not refer to these small, portable monoliths. But in that case, what is being referred to, and why do the texts not give us any details? If they had, we might have identified more monumental altars, of which we have so few certain examples, as well as the miniature varieties. As it is, the “facts on the ground” do not coincide entirely with the biblical descriptions, indicating at the very least two differing perceptions, if not religious realities, where texts and artifacts are concerned.

3. We have many archaeological examples of various exotic terra-cotta vessels and implements, often one of a kind, that are probably best understood as “cultic” in nature. That is, they were no doubt used for ritual purposes, even though the exact manner in which they were employed, as well as the rationale, may elude us. One class of such cultic vessels would be the *naos*, or model temple, discussed above, of which we have several Israelite examples. They continue a long Bronze Age tradition of model shrines for household usage, often with a deity or pair of deities depicted standing in the doorway. The frequent association with lions, doves, and Hathor wigs suggests that these model shrines were used in the veneration of Asherah, perhaps by women at local shrines and in domestic cults.

Another class of cult vessel is the *keros* (pl. *keraioi*), or “trick-vessel,” closely connected with Cyprus and perhaps introduced into Israel by the “Sea Peoples” or the Phoenicians. These are usually small bowls with a hollow rim that conducts fluid and communicates with hollow animal heads perched on the rim at the top. When filled with something like olive oil or wine, these bowls can be tilted and manipulated so as to make the heads drink and/or pour. While some scholars seem to think that the *keraioi* were simply toys, it is more reasonable to presume that these complex, exotic vessels were used in the cult, no doubt for libation offerings. Such offerings are frequently mentioned in biblical texts; but again there is no hint of *keraioi* or of any other libation vessels that we can actually identify archaeologically. 35

Next we may note the very common terra-cotta zoomorphic figurines, especially from 8th-7th century Judean tombs. Most are quadrupeds like horses (sometimes with riders), cows, or bulls, but other common farm animals are portrayed as well (in one case an amusing three-legged chicken). Some of these animal figurines are hollow and could have served as libation vessels, but others are enigmatic. The horse-and-rider figurines or quadrupeds with sun-discs on their heads have been connected with references such as those in 2 Kgs. 23:11, 12 describing Josiah’s cleansing the Jerusalem temple of the “horses” and “chariots of the sun.” This is an obvious allusion to the Assyrian and Babylonian solar and astral cults that probably made serious inroads into Israelite and Judean religion in the 8th-6th centuries and which met with prophetic condemnation. 36


36. J. Glen Taylor, *Yahweh and the Sun: Biblical and Archaeological Evidence* for Sun
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Zoomorphic figurines from Cave 1 in Jerusalem, ca. late 7th century (Kathleen M. Kenyon, Jerusalem: Excavating 3000 Years of History)

There are many other terra-cotta items now known from archaeology that almost certainly had a cultic function, but I can mention only a few of them here. Particularly common in tombs are miniature models of household furniture, such as chairs, couches, or beds. They undoubtedly were meant to accompany the dead into the afterlife, and thus they must have had some religious (“magical”) significance. The same is probably true of the small stone-filled “rattles,” but apart from the general connection of music with the cult little can be said of these rattles. All these and other vessels are sometimes interpreted merely as “toys,” but it seems to me that such reductionist views simply highlight our ignorance (or lack of imagination?) in dealing with the ancient cult. On the other hand, some clay vessels, like the perforated tripod censers, have an obvious cultic function, and we must try to understand what that was.37

4. By far the most intriguing cultic artifacts that archaeologists have re-


37. Elizabeth Bloch-Smith, Judahite Burial Practices and Beliefs about the Dead. JSOTSup 123 (Sheffield: JSOT, 1992), 101-3.

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covered are the 2000 or more mold-made terra-cotta female figurines, found in all sorts of contexts. They depict a nude female en face, the earlier examples often clutching a tambourine (or bread-mold) or occasionally an infant to the upper body, the latter Judean ones prominently emphasizing the breasts. In contrast to the typical LB plaques depicting the Mother Goddess with large hips and exaggerated pubic triangle, the Israelite figurines usually show the lower body stylistically, the body only a pillar possibly representing the tree symbolism often connected with Asherah (giving them the name “pillar-base” figurines). These comparatively “chaste” portrayals may indicate that Asherah/‘Anat, the old consort of the male deity in Canaan, with her more blatantly sexual characteristics, has now been supplanted by a concept of the female deity principally as Mother and patroness of mothers. William F. Albright’s designation of these as “dea mutrix figurines” may be close to the mark. More recently, Ziony Zevit has aptly termed the female figurines “prayers in clay” — in this case, invocations to Asherah.38

In view of the obvious imagery of these female figurines, it is surprising that so many biblical scholars and archaeologists are reluctant to conclude anything about them. Some think them merely “toys” — what I call the “Barbie doll syndrome.” Others think that we simply do not and cannot know what they are. To me, however, their cultic connotations are obvious. I would argue that in ancient Israel most women, excluded from public life and the conduct of “official” political and religious functions, necessarily occupied themselves with domestic concerns. Predominant among these concerns were those connected specifically with reproduction — conception, childbirth, lactation — but also those connected with rites of passage, such as marriages, funerals, and all the other practical matters that insured the maintenance and survival of the family. To be sure, men were probably involved in some of these domestic activities as well, but “the religion of hearth and home” fell mainly to women in Israel, as it did everywhere in the ancient world. It would not be surprising if Yahweh — portrayed almost exclusively as a male deity, involved in the “political history” of the nation — seemed remote, unconcerned with women’s needs, or even hostile. Thus one-half of the population of ancient Israel, women, may have felt closer to a female deity, identified more easily with her. In this case, it would

38. See Zevit, The Religions of Ancient Israel. The most recent catalog and analysis of the “pillar-base” figurines is that of Ras Kletter, The Judean Pillar-Figurines and the Archaeology of Asherah (Oxford: Tempus Reparatum, 1996), and full literature cited there. Kletter’s interpretations, however, must be used with caution; he is ambivalent on the association with Asherah, but in the end he does accept it. For more astute comparison of the archaeological and biblical textual materials, see John Barclay Burns, “Female Pillar Figurines of the Iron Age: A Study in Text and Artifact,” AUSS 36 (1998): 23-49.
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Female mold-made terra-cotta figurines of (a) the “tambourine” style, ‘Tanach, 10th century (Sylvia Schroer, In Israel Gab es Bilder); and (b) the “pillar-base” style, Jerusalem, 8th century (Urs Winter, Frau und Göttin). Have been Asherah, who was still widely venerated in many guises in the Levantine Iron Age (and even much later). To this and other aspects of popular religion we now turn.

Toward a Definition of “Popular Religion”

At the outset of this chapter, I noted that nearly all commentators on ancient Israelite religion have based themselves on what we may call texts of the “Great Tradition.” In this case, the evidence comes from the official, or canonical, texts of the Hebrew Bible, which as we have shown are thoroughly elitist. That version of the religion of ancient Israel — the “orthodox” one — may have been the one intended by the final editors of the Hebrew Bible. Certainly it has been the one congenial to most of the theologians and clerics who have commented on the biblical text over the centuries. But such a portrait is artificial, even arbitrary; and it scarcely does justice to the rich variety and vitality of the actual religious practices of the majority in ancient Israel. It is only recent archaeological discoveries that have enabled us to balance this portrait, by giving attention to “folk” or “popular religion,” usually not directly reflected in the written sources.

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But what is popular religion? A number of recent studies have approached the subject, but none in my opinion even offers a working definition. That would include works like Susan Ackerman’s “Under Every Green Tree: Popular Religion in Sixth-Century Judah and Karel van der Toorn’s From Her Cradle to Her Grave: The Role of Religion in the Life of the Israelite and the Babylonian Woman.”

One way to define popular religion would be to look not only at the archaeological evidence, which may differ radically from official texts, but also to look closely at the condemnation of religious practices in the texts of the Hebrew Bible. In doing so we are making a practical and legitimate assumption, namely that prophets, priests, and reformers “knew what they were talking about.” That is, the religious situation about which they complained was real, not invented by them as a foil for their revisionist message. The irony is that in condemning popular religious practices, the biblical writers have unwittingly preserved chance descriptions of such practices, of which formerly the “archaeological revolution” constituted our only witness. (That is not to say, however, that the same writers and editors in their zeal for orthodoxy did not deliberately suppress much information about popular religion that we should like to have.) Fortunately, archaeology has supplied not only much supplementary information, but in doing so it has given us some valuable clues as to how to “read between the lines” in the biblical texts.

As examples of how we might read the textual and the archaeological records together, each illuminating the other on popular religion, I would suggest the following. In Jer. 7:18 there is a telling description of what must have been a common family ritual, although one decreed by the prophet: “The children gather wood, the fathers kindle fire, and the women knead dough, to make cakes for the Queen of Heaven.” The latter is either Asherah or her counterpart ‘Astarte; the two often coalesced in the Iron Age. An even fuller example of what was really going on in Judean times is the lengthy description in 2 Kgs. 23 of King Josiah’s reform measures in the late 7th century. Most biblical scholars have taken this famous passage largely as a piece of “Deuteronomistic propaganda,” not an accurate historical account. But apart from the question of whether the supposed “reform” was successful, there is the question of whether the purported need for such a reform is based on an eye-witness, realistic appraisal of the actual religious situation. It appears that it was; indeed, as I have shown recently, every single religious object and/or practice that is proscribed in 2 Kgs. 23 can readily be illustrated by archaeological discoveries. The terminology of the

39. See n. 16 above. Van der Toorn’s more recent work The Image and the Book coinsthe term “book religion” in contrast to “popular religion,” which I find useful.
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text is not at all "enigmatic," as has usually been supposed by textual scholars, but is a clear reflection of the religious reality in monarchical times.40

I would argue that all of the following features are now well known archaeologically and give us an accurate picture of what may be called "popular religion." Popular religion is an alternate, nonorthodox, nonconformist mode of religious expression. It is largely noncentralized, noninstitutional, lying outside state priests or state sponsorship. Because it is nonauthoritarian, popular religion is inclusive rather than exclusive; it appeals especially to minorities and to the disenfranchised (in the case of ancient Israel, most women); in both belief and practice it tends to be eclectic and syncretistic. Popular religion focuses more on individual piety and informal practice than on elaborate public ritual, more on cult than on intellectual formulations (i.e., theology). By definition, popular religion is less literate (not by that token any less complex or sophisticated) and thus may be inclined to leave behind more traces in the archaeological record than in the literary record, more ostraca and graffiti than classical texts, more cult and other symbolic paraphernalia than Scripture. Nevertheless, despite these apparent dichotomies, popular religion overlaps significantly with official religion, if only by sheer force of numbers of practitioners; it often sees itself as equally legitimate; and it attempts to secure the same benefits as all religion, i.e., the individual's sense of integration with nature and society, of health and prosperity, and of ultimate well-being.

The major elements of popular religion in ancient Israel, as we can gather both from substrata of the biblical text and archaeology, probably included: frequenting bāmot and other local shrines; the making of images; veneration of tātīrim (whether sacred-trees or iconographic images) and the worship of Asherah the Great Lady herself; rituals having to do with childbirth and children; pilgrimages and saints' festivals; planting and harvest festivals of many kinds; nāzzāḥ feasts (sacred banquets); various funerary rites, such as libations for the dead; baking cakes for the "Queen of Heaven" (probably Astarte); wailing over Tammuz; various aspects of solar and astral worship; divination and sorcery; and perhaps child sacrifice. And other elements of "folk" religion are often assumed to have characterized the religion of "hearth and home," and thus to have been almost the exclusive province of women. That assumption, typically made by male scholars, inevitably carries with it a note of condescension. After all, women in ancient Israel were largely illiterate and marginalized; they played an insignificant role in the socio-political processes that shaped Israelite life and institutions.41 Nevertheless, I think that family re-

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ligion in ancient Israel involved many men as well, especially in rural areas far from the influence of elite circles in Jerusalem. Asherah, who brought life, could be the patroness of men as well as women.

Asherah Abscondita

Why has the role of popular religion and the cult of the Mother Goddess in ancient Israel been neglected, misunderstood, or downplayed by the majority of biblical scholars? There are many reasons, including the male, Establishment, elitist bias of most students of the subject, agreeing (not coincidentally) with the biases of the biblical writers themselves; the typical preference of the Protestant scholars, who have dominated the study, for theology rather than cult (i.e., religious practice) in any form; and the notion that texts alone can inform us adequately on religious matters—that philology, rather than archaeology or the study of material remains, should prevail. Yet archaeology is literally forcing us to revise our basic notion of what ancient Israelite religion was. In particular, we now know that the old Mother Goddess Asherah — virtually expunged from the texts of the Hebrew Bible, and all but forgotten by rabbinical times — never died out, but enjoyed a vigorous life throughout the Monarchy. This is not really surprising, since most biblical scholars now agree that true monotheism (i.e., not merely "henotheism") arose only in the period of the Exile and beyond.42

There are even later reflexes of the cult of the Great Mother: the personification of divine Wisdom (Hokmah) in later Judaism; and the conception of the Shekinah, or effective divine presence in the world, sometimes called the Matronit or even the Bride of God, in medieval texts of the Kabbalist sect of Judaism. In the Christian Church, parallel doctrines that may go back to a primitive memory of feminine manifestations of the deity may be seen in the development of the doctrine of the Holy Spirit, a more immanent, nurturing aspect of the transcendent God. Especially relevant in this connection is the later ele-

cult specifically, among the best studies are those of Phyllis A. Bird, "The Place of Women in the Israelite Cultus," in Miller, Hanson, and McBride, Ancient Israelite Religion, 397-419; Carol Meyers, "To Her Mother’s House"—Considering a Counterpart to the Israelite Bet-ah" in Jobling, Day, and Sheppard, The Bible and the Polities of Exegesis, 39-51, 304-7.


41. There is now a vast literature on women in ancient Israel. On women and the

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vation of Mary to the position of Mother of God, a feminine intermediary through whom many Christians pray, rather than directly to God himself. Mainstream, more orthodox clergy, both Jewish and Christian, have always resisted these "pagan" influences in what are ostensibly rigorously monotheistic religions. In popular religion, however, the old cults die hard. But when they do, archaeology sometimes rescues them and thus writes a better balanced history of religion.43

The point of all the foregoing résumé is simply that the biblical writers and editors were once again not so much "wrong" in many of the facts of their history of Israel's religious development as they were one-sided in their interpretation of the facts. Yet despite their own partisan, rigorously orthodox outlook, they nevertheless give us many clues as to what the "real" religions of ancient Israel were. Perhaps they do this unwittingly; but nevertheless by their very condemnation of pagan beliefs and rites they confirm their widespread existence. Otherwise, there would have been no point to the repeated condemnations by prophets and reformers like the Deuteronomists. Here is where we might agree with the new literary critics and revisionists and do a little deconstruction of our own. It is by reading many of the biblical texts "against the grain," or despite their idealtistic pretensions, that we may best get at the truth about ancient Israelite religions. This may not be the religious "truth" that the biblical writers had in mind, but it is historical truth, and that is our proper goal as archaeologists and historians. Even without the archaeological evidence sketched here (and there is much more) we might, however, have grasped this truth long ago, were it not for the fact that too many of us, Jews and Christians, have sided perhaps unconsciously with one particular biblical worldview, that of the late Deuteronomists and reformist prophets. Yet there were many other worldviews that were once part of Israel's Yahwistic religion, however unorthodox they came to be seen in time. How the recognition of the actual diversity and vitality of religion in ancient Israel may contribute to our own religious thinking is a topic that we will explore further in the final chapter.

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Daily Life in Biblical Times: Fortifications

I have argued in Chapter 4 that ancient Israel had achieved statehood already by the 10th century, and even the revisionists would grant as much by the 9th century, for the northern kingdom at least. I based my case for statehood, for both the northern and the southern kingdoms, on the strong archaeological evi-

dence for several developments by the late 10th century: a pronounced shift to an urban settlement pattern; evidence for highly centralized administration; and the emergence of Israel as a major international and economic power among the nascent states and peoples of the southern Levant by the time of the fully developed Iron Age.

Apart from the difference of opinion among scholars about the date of the first unequivocal evidence of statehood, we need to inquire now whether the writers and editors of the Hebrew Bible had any real knowledge of such typical features of statehood as city fortifications in the Iron II period, or the Divided Monarchy, in which their history is set. In short, what convergences may there be between the biblical texts and what we now know archaeologically? Honoring our principle of independent sources and inquiries, let us look first at what we might learn from the biblical texts alone.

City walls are rather "generic," lacking in specific features. Thus, while they are archaeologically well enough known, they cannot be expected to be described in detail in the biblical texts. Let us look rather at city gates, which exhibit many diagnostic features. Numerous such features are mentioned in biblical texts. (1) General descriptions of city gates appear in several texts, such as 2 Sam. 18:4, 24, a passage that refers to a lower and an upper gate, an inner chamber, and two towers. This, of course, fits precisely the plan of the 10th-century city gates of Hazor, Megiddo, and Gezer (discussed above, pp. 131-34), and also a few 9th-8th-century gates, such as the ones at Lachish and at Assyrian-period Gezer. It is worth noting that none of the city gates of this type excavated thus far postulates the 8th century, so it is hard to see how much later writers could have "invented" them.

(2) Specific aspects of city gates mentioned in the Hebrew Bible include several features. (a) Swinging wooden doors (Heb. de'el), usually with metal bars, are mentioned in texts such as Deut. 3:5 (Bashan); 1 Kgs. 16:34 (Jericho); Judg. 16:3 (Samson, in Gaza). Actual sockets for such swinging doors can still be seen today in the excavated city gates at 10th-8th-century Gezer and at 9th-8th-century Dan. (b) The iron bolts (man'ālīy) that were needed to secure these doors in place are mentioned in Neh. 3:3-15, beams (qārāqī) and bars (beriyāh) that would have been used for reinforcement are noted in texts like 2 Kgs. 6:2, 5; 2 Chr. 3:7; and Deut. 3:5; Judg. 16:3; 1 Sam. 23:7; and 2 Chr. 8:5, 14:7. The holes in the threshold stone of the city gate, where the iron bolts were shot home, can still be seen in the gate at Gezer. (c) The fact that city gates served for more than defensive purposes, and could also have economic, juridi-

43. See Dever, "Folk Religion in Early Israel," 56.

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Foundation stones of the Gezer Field III gate, where an iron bolt and socket once were; ca. 10th century (Photo by William G. Dever)

cal, and ceremonial usages, is indicated by such biblical passages as 2 Kgs. 7:1, 18 (a "marketplace"); Deut. 21:19, 20; Ruth 4:1, 11; Isa. 29:21; Amos 5:12, 15 ("justice," "retribution," and "charity" dispensed in the gate). Several excavated 10th-7th-century gates have produced unique ceramic grain-scoops, large storejars, bronze balance-scales, and inscribed stone sheqel-weights — all clear evidence of commercial activities. In addition, there have been found benches lining the walls of the inner rooms of the gateway complex at Gezer and elsewhere — so basic that they were rebuilt and reused in every successive stratum. These benches would have been suitable for local judges sitting in tribunal in the gate area. Ceremonial functions of gate complexes are illustrated in particular by the gate at Tel Dan, which has in the outer courtyard a prominent low podium of dressed ashlar masonry, no doubt for a wooden throne, with four surrounding recessed stone column bases that served originally as supports for wooden beams which would have upheld an overhead canopy. That would explain a passage like Josh. 20:4, which prescribes that an accused person can flee to a designated "city of refuge" and there "stand at the entrance of the gate of the city, and explain his case to the elders of that city." Other texts refer to the custom of the city elders sitting in judgment in the city gate (Deut. 21:19, 20; Ruth 4:1, 11), reposing in the gate (Isa. 29:21), and hearing the claims of the needy in the gate (Amos 5:12). Above all, one recalls Amos's impassioned plea: "Hate evil and love good; and establish justice in the gate" (5:15). In addi-

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Reconstruction of the canopied "throne" in the inner gate plaza at Tel Dan, ca. 9th-8th century (Abraham Biran, Biblical Dan)

ation, the 9th-8th-century Tel Dan gate had in the outer courtyard area several unique structures that suggest the "bazaars" or extramural marketplaces (ḥūṣūt, or "outer installations") that Ahab was given permission to construct in Aramaean Damascus, and that the Aramaeans were granted reciprocally in Samaria (cf. 1 Kgs. 20:34).46

In conclusion, the many biblical passages that mention city gates — not as part of any deliberate propaganda, but simply offhand — fit remarkably well with excavated gates at a number of sites of the 10th-7th centuries, and only of this period. In the Persian-Hellenistic-Roman period such gates had long since passed out of existence and memory, as archaeological evidence has shown. No writer living then could have "invented" city gates like ours, known only long before in the Iron Age.

Literacy in Ancient Israel

One of the revisionists' principal objections to Israel's having been a centralized state in the 10th century is that writing would have been a bureaucratic necessity, but we have little if any 10th-century evidence. I have mentioned that the few early Hebrew texts that we do happen to have, however, include an abecdary, or list of the letters of the alphabet ('Izbet Sarṭāh; 12th-11th century), and a poem giving the agricultural seasons (Gezer, 10th century).47 Both are almost certainly schoolboys' practice texts. Students and others were now learning to write, adapting the Old Canaanite alphabet and script as Hebrew developed into a national language and instrument of cultural expression. We may assume that writing, and even what we may call "functional" literacy, was reasonably widespread by the 10th century, and certainly by the 9th century when even the revisionists must concede that an Israelite state did exist.48

It remains true, however, that we have relatively few examples of Hebrew writing of any kind from the 9th century and have produced no extrabiblical texts that could be considered real "literature." The problem becomes particularly acute if we consider the Yahwist and Elohist sources or "schools" that began the literary tradition which later grew into the Pentateuch and other historical works to have emerged as early as the 10th-9th century, as most biblical scholars have argued until recently. Could there possibly have been written sources that early, given our lack of any significant literary remains except the Hebrew Bible (which in its present form is later than the Iron Age)?

There is considerably more written evidence from Iron Age Palestine than the revisionists and other minimalists know or are willing to take seriously.49


48. Cf. further Chapter 2.

49. Consider, for example, the attempt of Philip R. Davies to date the late 8th-century Siloam tunnel inscription to the 2nd century — immediately and decisively refuted by a number of the world's leading epigraphers. See John Rogerson and Philip R. Davies, "Was the Siloam Tunnel Built by Hezekiah?" BA 59 (1996): 138-49; and cf. the devastating replies in the articles by leading epigraphers Frank Moor Cross, Esther Eshed, Jo Ann Hackett, Avi Hurvitz, André Lemaire, P. Kyle McCarter, Jr., and Ada Yardeni in "Defusing Pseudo-Scholarship: The Siloam Inscription Ain't Hasmonaean," BAR 23/2 (1997): 41-50, 68. Can there be any doubt that the repudiation of an absolutely dated Iron Age inscription — the very foundation of our palaeographical sequence — is the result not merely of scholarly incompetence, but also of an ideological predisposition against there having been a real Israel in the Iron Age?
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But before turning to this evidence, let us begin, as before, by looking at the evidence for writing in the Hebrew Bible itself.

Many scholars have suggested that biblical texts such as Deut. 6:6-9 — God instructing the Israelites to “write (the commandments) on your doorposts” — indicate early and widespread literacy. But this passage, although set by the Deuteronomistic editors in the “Mosaic era,” is almost certainly quite late, probably postexilic, and offers no real evidence for the early Iron Age. In fact, the text actually implies that the oral tradition was still the primary means for transmitting knowledge. Many of the other allusions to writing in the biblical “Patriarchal” and “Mosaic” eras reflect the same preliterate stage of cultural evolution, such as Exod. 17:14. This passage relates how, after the Battle of Amalek, God said to Moses: “Write this as a memorial in a book and recite it in the ears of Joshua.” Thus the mention of “writing” in these and related texts is really an anachronism, not historical evidence.⁵⁰

Seals and Sealings

There are several other biblical texts that offer more possibilities, especially for archaeological commentary. One category of Hebrew inscriptions that is well illustrated is the practice of writing on a gemstone for a signet or seal, which could be worn on a finger or hung around the neck. The Hebrew word for “seal” (ḥōšām) occurs a number of times in the Bible. In Gen. 38:18, 25 Tamar demands from Judah his “seal and cord” as a pledge that he will keep his promise of a gift. Signet rings themselves are described as gifts or offerings to God in Exod. 35:22; Num. 31:50. According to Exod. 28:11, 21, 36; 39:6, 14, 30, priests serving in the temple possessed “engraved seals,” some with “the names of the sons of Israel.” The king and other high state officials in ancient Israel had seals as symbols of their authority, worn on the right hand (Jer. 22:24).

Seals could be and were often not only symbols of wealth or authority, but were used in a practical way to designate ownership. In 1 Kgs. 21:8 Jezebel seals Ahab’s documents, that is, she affixes a signet-ring to a wax or clay patty that binds the strings and knots surrounding a rolled-up papyrus or parchment document. Jer. 32:10-44 refers several times to “sealing” deeds of purchase. In Neh.

⁵⁰ In short, oral tradition dominated in premonarchic Israel, as would be expected. It is significant that the revisionists never even consider oral tradition in their numerous attempts to discredit any real historical foundations of the later written traditions. They completely ignore the massive evidence that Niditch, e.g., documents in Oral World and Written Word.

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A selection of Israelite and Judean seals of the 8th-7th century (John W. Crowfoot, Grace M. Crowfoot, and Kathleen M. Kenyon, The Objects from Samaria)

9:38; 10:1 the priests “seal” a covenant document. Certainly seals were intended for making seal-impressions, as proven by the fact that all the hundreds of examples we possess are engraved in the negative, even though that was technically difficult. Both Cant. 8:6 and Isa. 8:16 use the term “seal” as a metaphor (the latter in reference to a megillah, or scroll), referring to God’s promise to “bind up my testimony, seal my teachings.” While these and a few other passages in the Bible attest to the rather widespread ownership of seals, many of the texts themselves cannot be dated precisely. Nor can it be assumed necessarily that everyone who possessed and used a seal could read or write — indeed, the inability to do so might be one reason for having a seal, although someone must be presumed to have been literate or the whole business of sealing something would have been pointless.

There are so many known Iron Age seals — perhaps a thousand or more, to judge from many recent publications and an Israel Museum Catalogue — that I can note here only a few of the most significant convergences with biblical texts.⁵¹

⁵¹ Nahman Avigad, “The Contribution of Hebrew Seals to an Understanding of Israelite Religion and Society,” in Miller, Hanson, and McBride, Ancient Israelite Religion,
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If space permitted, I could cite hundreds of 9th-6th-century seals inscribed with Hebrew personal names, the vast majority of which occur also in the Hebrew Bible, including the supposedly "Hellenistic-Roman" Deuteronomistic materials. A number of seals and seal impressions, however, have such specific connections with individual biblical texts that they must be singled out here. One of our best collections of bullae—or clay patties from papyrus scrolls, with seal impressions in them—is the group of more than 300 7th-6th-century examples published in 1976 and 1986 by Israeli epigrapher Nahman Avigad.52 Many of them bear ordinary Hebrew personal names well known from the Hebrew Bible (more than 140 different names); but at least some have the names and titles of high-ranking officials, since this is an archive of important documents. Three of this group of bullae feature the title "who is over the house," identical to the phrase in Isa. 22:15, identifying one Shebna as "the royal chamberlain." The same phrase—indeed with the same name, Shebna—occurs in another extrabiblical text, the famous Royal Steward Inscription (below). Two other bullae in the Avigad group feature the title "servant of the king," and three others belonged to "sons of the king" or royal princes (in this case, Neriyahu and Yerahme'el). The most interesting bulla, however, is that of "Berakyahu, son of Neriyahu the scribe." This is only the second Hebrew seal of a "scribe" to be published, and is thus unusual in itself. Moreover, as Avigad points out, this must be the seal of none other than "Baruch (the short form of the name), the son of Neriyahu," whom the Hebrew Bible identifies as the amanuensis of the prophet Jeremiah (Jer. 36:4-32).53 So important was this Baruch that some scholars think he was the real author not only of the book of Jeremiah, but perhaps of the first version of the Deuteronomic history. Richard E. Friedman's book, Who Wrote the Bible? even argues that much of the Hebrew Bible in its present form is the work of this very


wrote the scroll. On another occasion, Baruch was witness to a symbolic land purchase made by Jeremiah, who entrusted the "sealed deed of purchase" to Baruch with the request that he put it in a jar for safekeeping (Jer. 32:1–15). Was it sealed with the same signet-ring that produced the Avigad bulla? Perhaps. In any case, the seal was used repeatedly; we even have another bulla, now in the Israel Museum, impressed by the same signet-ring that made the Avigad bulla. Now what is the revisionists' reaction to this rather striking convergence, even if taken minimally? Thomas L. Thompson and Niels Peter Lemche have recently suggested, in all seriousness, that the bulla is a fake! 54 We now have at least 65 other late Iron Age bullae, however, some from well-controlled archaeological contexts, like those from Jerusalem and Lachish. It would be almost impossible for a modern forger to duplicate bullae like these, not only because there is no way that a forger could know the authentic early scripts that well, not to mention "inventing" nonbiblical personal names that are precisely of biblical type, but because of technological difficulties. Where would a modern forger get the right kind of papyrus to make the papyrus impressions that are clearly visible on the backs of the bullae? What can one say when scholars resort to such desperate measures to deny or to suppress evidence that may threaten their cherished theories?

One other point deserves mention here. While it is obvious that the more than 300 Hebrew bullae that we now possess were once attached to papyrus scrolls as seals, we have found only one fragment of an actual Iron Age papyrus scroll. It survived among the much later Wadi Murabba'at texts only because of the extremely arid conditions at the Dead Sea area.55 Does the present lack of any written remains on papyrus scrolls from the Iron Age mean that they never existed? To be consistent, and to protect their theories, the revisionists would have to say: Yes. But again, this is strictly an argument from silence — and in this case, manifestly absurd. It is obvious that at least a rudimentary or "functional" form of literacy was widespread in ancient Israel, and it could not have developed overnight only in the late 7th century, at the very end of the Monarchy. If much of the writing was done on papyrus, as both the textual and archaeological evidence demonstrate, we should not expect to recover very much. The fact, as all archaeologists know, is that in the damp winter climate of most of Palestine, organic materials like fragile papyrus simply do not survive. Fortunately, other written materials do.

Ostraca

From all appearances it seems that the more important documents in ancient Israel — such as official decrees, land deeds and other records of legal transactions, and whatever literature that may have been produced — were written on papyrus, even though it was perishable. Simpler transactions, however, were often recorded by writing in ink or scratching on the broken pieces of pottery

54. Thompson and Lemche also doubt the Tel Dan inscription's authenticity; see Chapter 2, nn. 10, 11. For a charge that many of the recently published seals and bullae are fakes, see Robert P. Carroll, "Madonna of Silences," in Lester L. Grabbe, Can a "History of Israel? Be Written?" 84-103. Carroll says of the distinguished epigrapher Nahman Avigad that "from such bits of clay he reconstructs the world" (100). For further discussion of the problem of possible forgeries, see Lemche, P. Kyle McCarter, and Thompson in BAR 23/4 (1997): 36-58 (Lemche suggesting specifically that the "Baruch" bulla is a forgery).

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(potsherds) that were lying about everywhere on the ground (Isa. 45:9) and came conveniently to hand. It is often implied that Hebrew ostraca (eg. ostracon) are as rare as other epigraphic materials. In the early days of archaeology they were indeed relatively unknown. But the Harvard excavations at Samaria in 1908-1910 discovered an archive of some 102 ostraca from the early 8th century — our earliest such archive (dating probably to the reign of Jeroboam II, 785-740, to judge from year-formulae of the ostraca themselves). They were found on the floor at an administrative complex attached to the palace built by Omri and Ahab a century earlier. These ostraca, written or scratched in cursive Hebrew on large potsherds, are mostly receipts for taxes paid by wealthy landholders in various commodities, such as oil or wine.66

Here we have clear evidence of centralized administration in the capital of the northern kingdom. Moreover, there are several interesting convergences with biblical texts. The personal names are usually similar to those known in the Hebrew Bible, consistent even to the short form of the divine name, -yav in northern compound names, compared with -y builder in Judah. Scholars have observed, however, that the proportion of personal names compounded with the name of Ba'al here in the “pagans” north, rather than with Yahweh, is higher than the ratio in the Bible: 6 of 15 compound names feature Ba'al, 7 Yahweh. That datum, however, accords well with the biblical portrait, biased or not, of the northern kingdom as much more heavily influenced by Phoenician religion. Another convergence lies in the fact that a relatively few taxpayers show up again and again on the Samaria receipts, no doubt evidence of large agricultural estates being owned and managed by landed gentry. Such a socio-economic situation provides us with a setting into which we can place the protest of the prophet Amos against the idle nobles who feel secure in “the mountain of Samaria”; who “trample on the poor and take from them extractions of wheat” (Amos 5:11; 6:1-6). And Micah complains of those who “covet fields, and seize them; houses, and take them away” (Mic. 2:2).

The second major find of Hebrew ostraca was made by British excavators in 1935-38 at the great Judean border fortress of Lachish. There an archive of 23 ostraca was found on the floor of the guardroom of the city gate, among the ashes of the Babylonian destruction wrought by Nebuchadnezzar in 587/586. These ostraca are letters written to Lachish on the eve of its destruction. Letter no. 4 is particularly poignant; it is a last-minute plea for help from an outlying village, saying that they can no longer see the fire-signals of nearby Bethel but are watching desperately for a signal from Lachish. Letter no. 4 also refers to an unnamed prophet; and letter 6 alludes to a prophet who “weakened the hands,” i.e., gives a discouraging oracle — the latter phrase exactly the same as a contemporary expression in Jeremiah (38:4). Letter no. 3 is also pertinent to our discussion of literacy, since in it one Haviyahu expresses his hurt feelings over the fact that his correspondent, Yahu, has accused him of “not knowing how to read a letter.” He protests that not only does he read every letter without any assistance (“nobody has ever tried to read me a letter!”), but he reads it immediately and remembers everything in it.67

A third major discovery of ostraca, the largest archive yet, with more than 100 8th-6th-century letters, was made by the Israeli archaeologist Yohanan Aharoni at Arad, near Beersheba.68 Mostly in Hebrew, but a few written in Arabic, the Arad ostraca are painted in ink on sherds of large jars: All those from Stratum VI belong to an archive of correspondence of “Eliezer, son of Irsah, apparently commander of the garrison in the late 7th century, stationed here to guard the desert borders with Edom. Many of these ostraca are rather banal, having to do with the transfer of various provisions. One, how-


68. For the original publication, see Yohanan Aharoni, Arad Inscriptions (Jerusalem: Israel Exploration Society, 1981); and cf. Pardee, Handbook of Ancient Hebrew Letters, 38; Niditch, Oral World and Written Word, 52; McCarter, Ancient Inscriptions, 105-9; Smelik, 101-15.
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A number of individual ostraca are also now known, enough to show beyond doubt that extensive written materials did exist in ancient Israel besides official archives, that is, that many besides elites could read and write. Particularly significant are the 8th-century inscriptions painted on pottery (although not strictly "ostraca") discussed above. The 8th-century fortress at Ajrud was really out in the boondocks, miles away from civilization. Yet people residing there, or frequenting the place as travelers, left behind quite a corpus of written material. Some of the short messages written on the plastered walls of the gate shrine may be considered more "graffiti" than the work of a trained hand; but that confirms my suspicion that even many ordinary folk in ancient Israel were at least "functionally literate," that is, they could manage simple business transactions and the like.

One isolated ostracon deserves special mention here. It was found by Itzhak Beit-Arieh in his 1982-88 excavations at Horvat 'Uza in the eastern Negev desert. Dating to the 7th century, it is written in Hebrew but also contains a list of Egyptian hieratic signs for numbers. Many of these same Egyptian hieratic numerals are found in other 8th-7th Hebrew inscriptions, even on sheqel-weights (below), indicating that for some reason an Egyptian system of numerals was preferred and used throughout Israel and Judah. Nadav Na'aman has recently suggested that this system must have been adopted from Egypt by the 10th century; it cannot have been borrowed from Israel's Semitic neighbors, since none used it. And it is conspicuously unattested in Egypt itself in the 8th-7th centuries, so it must derive from an earlier time. Finally, the Egyptian system is used in both the northern and the southern kingdoms. Thus Na'aman concludes: "These hieratic signs must have entered the Hebrew script before the division of the monarchy — namely in the tenth century B.C.E."

59. Na'aman, A had — highly critical, at times radical, historian who cannot be dismissed as a "biblicist" — concludes overall that the historical, written, and archaeological evidence now at hand requires the historian to take seriously the biblical concept of a Davidic-Solomonic "kingdom," in the 10th century, complete with a temple in Jerusalem.

Inscribed Objects

The reader will have noted that much of the inscribed material I have discussed thus far has been brought to light relatively recently. Before such discoveries,

50. See also n. 28.
First, the Hebrew word nesek, "libation," is the same term that is used in several biblical passages for the libation offerings that are prescribed for the temple. The libation vessels, however, that were to be used have not yet been convincingly identified with any surviving vessel known to us. That may be because those made specifically for temple-service were of precious gold and silver (as some texts specify), and so would long ago have been looted and melted down. We must suppose, on the other hand, that many ordinary folk also made libation offerings at local sanctuaries or at household shrines. Such rites are not ruled out directly by the biblical writers, of course (particularly the Deuteronomists), because they were considered "non-Yahwistic." But if such rites did exist, what vessels did most people use for libation offerings of oil or wine? The answer is obvious: ordinary household ceramic vessels, perhaps set aside or "consecrated" for special use by being inscribed. Now we actually have just such a libation vessel, specifying wine-libations. But there is more information on the new decanter: the liquid measure of the wine to be offered, "one-quarter." The larger unit is not noted, probably because it was so well known that it was assumed. Here we have, however, a direct convergence with such biblical texts as Exod. 29:40 and Lev. 23:13, which specifically state that the libation offering is to be "a quarter of a hin of wine." From other texts, as well as from excavated ceramic vessels and their evidence, we can calculate that the biblical liquid measure hin was equal to one-sixth of a bath. Thus, since the bath equaled about 5.5 gal, the hin was a little less than 1 gal. Deutsch and Heltzer report that their "one-quarter" decanter has a liquid capacity when full of 1270 cm³, or about 1.31 l (a little more than 5 cups). "One-fourth" of a hin of ca. 1 gal would be about a quart — not only within the range of a 5-cup decanter, but a suitable amount for a small libation, especially if we are dealing with the daily offerings of poor folk. Once again, we must pose some hard questions for the revisionists. Are these and the other iron Age decanters "fakes" too? If not, how can we explain their use of "Biblical" Hebrew in the 8th-7th centuries, if such Hebrew is a "late, artificial, scribal" language invented by the literati who wrote the Bible in the Hellenistic-Roman period? A final ostracon for our purposes here is the late 7th-century letter found in 1960 at Meṣad Hashavayahu, a small fortress on the coast south of Tel Aviv, near ancient Jamnia. The text, which is


complete, is a complaint dictated to a scribe by a poor field laborer whose outer garment or cloak (Heb. begēd) has been seized because of his alleged theft of goods or poor performance. This letter is to be sent to the local governor in hopes of redress of this injustice. One is struck, of course, by the similarity of this case to what must have been frequent practice, which the 8th-century prophet Amos denounced bitterly, pronouncing doom upon those who “lay themselves down beside every altar upon clothes (pl. begādim) taken in pledge” (2:8).

Tomb Inscriptions

Hebrew inscriptions somewhat more monumental than those discussed thus far have been found in several Iron Age tombs. One of the 8th-century tombs that I excavated at Khirbet el-Qôm, biblical Maikkedah, has been discussed above because of its inscription referring to “Yahweh and his Asherah.”66 Tomb I also had two Hebrew inscriptions, both around the doorway of one of the three burial chambers. The first read: “Belonging to ‘Ophai, the son of Nethanyahu. This is his tomb chamber.” The second, over the doorway, read: “Belonging to ‘Uzzah, the daughter of Nethanyahu.” Not only are these all good Judean names, well known from the Hebrew Bible (Ophai means “swarthy one,” or “Blacky”), but this is an excellent example of a typical Judean bench-style tomb that was used by a single family over an extended period of time, sometimes producing dozens of successive burials over a century or so. Under the back bench of each chamber is a large recess cut into the rock, where the bones of earlier burials were deposited in large piles. This recalls, of course, the common Israelite practice of referring to the death of an individual as being “gathered to the fathers,” or joining one’s ancestors. “Minimalists” might attempt to explain away such a phrase by saying that it is simply a general metaphor for the afterlife of the deceased. It is absolutely clear, however, that there was no such belief in Israel in biblical times, only some dim notion of Sheol. The doctrine of the “immortality of the soul” is the direct result of Greek influence and appears in the Hebrew Bible only perhaps in the book of Daniel, one of the latest books and probably Hellenistic in date.67 Being “gathered to the fathers” means just what it says: having one’s remains interred in an ancestral tomb that was designed specifically to receive and perpetuate them. Such tombs with communal repositories are typical in the Iron Age, but to my knowledge they do not appear in Palestine in the Hellenistic-Roman period. Again, we have an exclusively Iron Age setting for a biblical practice and form of speech.

A curious footnote can now be added to my publication of the Khirbet el-Qôm material nearly 30 years ago. In 1994, Deutsch and Heltzer included in their publication of a group of antiquities a stone slab that had come originally from el-Qôm at the time I was attempting to stop tomb robbing there, but lay unknown for

66. See n. 31 above and references there to other tomb inscriptions. On Iron Age tombs in general, see Bloch-Smith, Judahite Burial Practices.

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Stonecutter’s inscription from Khirbet el-Qôm (Robert Deutsch and Michael Heltzer, Forty New Ancient West Semitic Inscriptions)

years in a private collection. Written in nearly the same hand on this stone was the phrase: “Blessed be your stonemason; may he lay old people to rest in this!” This stone, like all other stonework in the el-Qôm tombs, shows excellent masonry skills. More to the point, however, is that here we have unusual evidence of the high esteem in which those who carved rock-cut tombs were held — a further manifestation of the respect for the dead that is implied in many biblical texts.

A Judean bench tomb very similar to the one I excavated at el-Qôm was found in 1961 by Joseph Naveh at Khirbet Beit Lei, some 7 miles east of Lachish in the Judean Shephelah. The tomb was a typical late Iron Age bench tomb, reused in the Persian period but not doubt originally dug in the 7th/6th century or so. There were several fragmentary inscriptions, really graffiti; but the main inscription is complete and reasonably well executed in a cursive Hebrew script. Naveh translates it:

Yahweh is the God of the whole earth; the mountains of Judah belong to him, to the God of Jerusalem.
The Mount of Moriah Thou hast favored, the dwelling of Yah, Yahweh.

What is noteworthy about this tomb inscription is that it is not a banal blessing formula, as expected, but has a truly literary quality. Furthermore, its “Jerusalem temple theology” is fully consistent with that of the Deuteronomistic history in Kings, with which the inscription is contemporary.


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Khirbet Beit Lei inscription, ca. 7th-6th century (Joseph Naveh)

One of the best-known Judean tombs is a monumental rock-cut tomb of elaborate architectural style that is still visible in the Arab village of Silwan (biblical Siloam), just across the Kidron valley southeast of the Temple Mount. In 1870 a badly damaged inscribed stone was cut out and removed to the British Museum. It lay there collecting dust until it was brilliantly deciphered in 1953 by Avigad.70 The inscription reads:

1. “This is [the sepulchre of . . .] yahu who is over the house.
   There is no silver and no gold here
2. but [his bones] and the bones of his slave-wife with him.
   Cursed be the man
3. who will open this!

Avigad dated the inscription to the late 8th century on the basis of paleography (the comparative shape of the letters). He saw at once the connection of the phrase “who is over the house” (Heb. ‘asër al-habbayit) with the identical phrase in 1 Kgs. 4:6; 16:9; 18:3, etc., clearly a technical term for “royal chamberlain.” In Isa. 22:15-19 we meet a certain “Shebna, who is over the house” in Hezekiah’s time, succeeded by Eliakim son of Hilkiah (Isa. 22:20-25; 36:3; 37:2). Avigad suggested that the broken Hebrew name of the beginning of the inscription should be restored as “Shebnyahu” (the typical Judean long-form of names compounded with the name of the deity), and all subsequent scholars have agreed. In that case, the impressive Siloam tomb is the very tomb of Shebna, King Hezekiah’s royal chamberlain. As though that were not convergence enough, we apparently have a direct biblical reference to this tomb in Isa.

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uge cave rather than a burial cave. It was discovered in 1974 by Pesah Bar-Adon, written elegantly in ink on a huge stalactite-like stone column on an isolated cliff overlooking the Dead Sea near Ein-gedi, and dating to ca. 700. It is not all legible, but much of it clearly has to do with formulaic curses and blessings, including the phrase “blessed be Yahweh.” What is significant here is the curious circumstance (a refugee, fleeing to the wilderness, seeking salvation?), but also the fact that here in the most remote area imaginable some anonymous Judean in dire circumstances was capable of such elegant handwriting. An “illiterate” society? 72.

Commerce and the Economy: Weights

One does not have to be a Marxist, or a “vulgar materialist,” to recognize the fact that economic concerns are paramount in any human society. Collective ideology may help to shape history; but unless individuals can shelter, and clothe, and feed themselves, there is no history, since no one will survive to write it. As one distinguished contemporary, Norman K. Gottwald, put it in his The Tribes of Yahweh: A Sociology of the Religion of Liberated Israel, ca. 1250-1050 B.C.E.: “Only as the full materiality of ancient Israel is more securely grasped will we be able to make proper sense of its spirituality.” 73

We shall look at ancient Israel’s economy from the vantage point of our two usual sources, texts and artifacts. The biblical sources on the overall economy are, however, too numerous and too diffuse for us to summarize all the data here. I have chosen therefore to focus on two classes of basic data that may have archaeological correlations, namely the evidence for commerce that weights and measures may provide.

The basic unit of currency in the Hebrew Bible is the shekel, the Hebrew term deriving from a root meaning “to weigh,” that is, to pay by weighing out silver. Shekel units are mentioned in many biblical passages. The booty from the Israelite conquest of Ai was reckoned in shekels (Josh. 7:21). Similarly, Goliath’s armor is evaluated in shekels (1 Sam. 17:5; cf. 2 Sam. 21:16), as is Absalom’s hair (14:26). The prices of various commodities are also given in shekels: fields (1 Chr. 21:25; Jer. 32:9), oxen (2 Sam. 24:24), measures of barley (2 Kgs. 7:18), and daily rations of food (Eze. 4:10; 45:12). When an ox goeses a slave, recompense is figured in shekels (Exod. 21:32). In addition, tribute in given in

73. (Maryknoll: Orbis, 1979), xxv.
units of sheqals (2 Kgs. 15:20; Assyrian tribute). Sheqal weights of varying systems are mentioned, such as "gold" sheqals (2 Chr. 3:9). Sheqel weights could be altered; Amos 8:5 protests the "enlarging" of weights in the merchants' favor. Special sheqel weights "of the sanctuary" are mentioned (Exod. 30:13, 24; Lev. 5:15; Num. 3:47, 50; 7:13).

Sheqel fraction weights are also mentioned in the Hebrew Bible, that is, specific weights smaller than 1 sheqel. Thus we have references to weights of a half-sheqal (Exod. 30:13-15; 38:26), of a one-third sheqal (Neh. 10:32), and of a one-quarter sheqal (1 Sam. 9:8). Smaller fractions are also mentioned, or gerahs, of which there were 20 to the sheqal (Exod. 30:13; Lev. 27:25; Ezek. 45:12). Several specific fraction-weights are mentioned by name in biblical texts: the beq'a, or half-sheqal (Heb. beq'â, "to split"), and the pîm (only in 1 Sam. 13:21, etymology unknown).

In addition to references mentioning sheqels, we have, as expected, texts referring to the balances with which the sheqel weights were used. The Hebrew term for balance is me'ărə'yim, a dual noun which really means "ears" — apparently from the fact that the flanking balance-pan could be seen as resembling two ears. A number of biblical passages refer to balances in general, such as Ezek. 5:1, describing how the prophet's severed hair was weighed. Lev. 19:36 mentions balances in connection with sheqel weights, and Prov. 16:11 mentions "balances" in parallel with "scales." Some biblical passages, however, refer specifically to "false balances," that is, balances that were tampered with in order to favor the merchant. Thus Prov. 11:1 compares both "just" and "unjust" balances and weights; and 20:23 protests "false scales" and "diverse weights." Mic. 6:10-11 denounces mercantile practices that were corrupted by "wicked scales" and "a bag of deceitful weights."

The above texts reflect a consistent system of sheqel weights, fraction weights, and balances in the Hebrew Bible. Now let us turn to archaeology to see whether there are any convergences with the biblical texts. If the revisionists are right, we should expect to find coins but no evidence of sheqel weights and balances: they, like all the rest, are literary "inventions" of writers in the Hellenistic-Roman period. In fact, we now have more than 350 Iron Age sheqel weights and fraction weights, as well as a number of balances and parts of balances, all from late 8th-7th-centuries Judah.74

The larger sheqel weights are dome-shaped, carved usually in soft limestone, and inscribed with both a symbol that obviously denotes "sheqel" (resembling a small pouch, in which silver was carried) and Egyptian hieratic symbols for numbers. At present, we have examples of inscribed stone sheqel weights in denominations that we can distinguish as 1, 2, 4, 8, 12, 16, 24, and 40 — that is, mostly in multiples of 4 or 8. As noted above, the numerical system is undoubtedly Egyptian, and it may have been introduced into Israel as early as the 10th century. Inscribed sheqel weights that we actually possess, however, all date from the mid-8th to early 6th century, or the Divided Monarchy, to judge from the stratigraphic examples. Numerous studies of these sheqel weights have been undertaken, including my own based on 10 weights from Khirbet el-Qôm. It appears that the "standard" sheqel was equivalent to ca. 11.35 grams; but there is some evidence for a parallel "heavy" (possibly royal) system of weight. Similar inconsistencies exist with dry and liquid measures, so we cannot entirely fathom the "logic" of the overall system of weights and measures in an-

74. See now the definitive work of Raz Kletter, Economic Keystones: The Weight System of the Kingdom of Judah. JSOTSup 176 (Sheffield: Sheffield Academic, 1998). I disagree, however, that these standardized inscribed weights have nothing to do with reform measures of the late Judean monarchy. See nn. 76, 77 below.
WHAT DID THE BIBLICAL WRITERS KNOW?

What is the average weight of a sheqel? In the 7th century BC, the weight of a sheqel was on average 11.33 grams. At an average of 6.003 grams, they are reasonably close. Smaller denominations, or gerah weights, are known from biblical references (20 to the sheqel) as well as in some 70 archaeological examples, but they are less well understood.

For instance, the numerical signs differ somewhat, still Egyptian-based, but perhaps now more "Hebraized." Also, the gerah weights deviate considerably from the 1/6 of 11.33 gm., or ca. 1.75 gm., that they ideally should weigh, often being heavier. Kletter has suggested that while a 20-gerah system could have been in operation, a 24-gerah system, analogous to that of Mesopotamia, could also have been in use.

What are the implications of the textual and artifactual data above, that is, what convergences do we see, and what do they imply? Here Kletter's exhaustive analysis makes things clear beyond doubt. (1) In the first place, it is obvious that the sheqel system emerged only in the 8th century in Judah. All but five of the 353 known weights come from there; and those that are well stratified cannot antedate the 8th century, most being in fact mid-8th to 7th century in date. (2) The overall system now appears to be far more standardized than formerly thought, with relatively few "exceptions" and only rare glimpses of another "royal" weight system. (3) The numerical signs were borrowed from Egypt, partly due to strong Egyptian influence in Judah in this period, and partly to facilitate international trade. (4) Royal initiation and supervision of such a standardized system must be presumed, beginning probably under Hezekiah in the mid-late 8th century in Judah, i.e., after the fall of the northern kingdom. (5) The continuing and widespread use of the sheqel weight system in Judah throughout the 7th century indicates use not only by a centralized government but by the entire population of Judah.

Kletter observes, as others before him, that some convergence might be sought between data provided by the sheqel weights and biblical notions of "reforms" and "justice." However, like so many Israelite (hardly "biblical") archaeologists, he declines to enter the discussion of biblical parallels. He does note, however, that "as relatively little is known from biblical sources, the weights actually aid in elucidating the biblical text, rather than vice versa." He thinks that this is partly because the biblical writers are biased in favor of elites, international relations, and political history, whereas "the Judean weights, on the other hand, reflect daily trade and economy." Precisely my point. But what do they reflect? And do the now precise date and well-established context of the sheqel weights tell us anything about an actual, Iron Age historical setting for the biblical texts? Here Kletter's reticence robs him of a golden opportunity; and, unfortunately,

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it indicates once again how little dialogue there has been between archaeologists and biblical scholars.

I would argue that it cannot be a mere coincidence that a standardized system of weights based on a “royal shekel” emerges exclusively in Judah, precisely in the long reign of Hezekiah (715-686), then peaks in the reign of Josiah (640-609). These are the two “reform” kings of whom the prophets and the Deuteronomic writers approve — indeed, the only two in all of Israel’s and Judah’s later history. Presuming that the biblical descriptions of the reigns of these two kings are not altogether “propaganda,” is it not likely that basic to any reform measures would have been the attempt to eliminate corrupt business practices by standardizing weights and measures under royal administration? Certainly that is what prophetic protest such as those of Hosea, Amos, and Micah are all about — all of them reformist figures who were active in the 8th-7th centuries. Micah, a Judean prophet who lived during the reign of Hezekiah and probably advised the king on religious matters, thundered (6:11): “Shall I acquit the man with wicked scales, and with a bag of deceitful weights?”

Kletter brushes aside such clear reference to deceitful weights (Heb. ‘even we-’eben, or “stones and stones”) by asserting that in an individual community “any deviation is neutralized if the same weights are consistently used: one wins as one buys, then loses as one sells.”78 Of Mic. 6:11 specifically, he says that any cheating implied there lay in using different, not “false,” weights. Yet he himself has shown that the actual weights we have do not differ significantly within each category. Did the unwary buyer not know the difference between a 1-shekel weight marked “1” and a 2-shekel weight marked “11” in the balance pan? Not only is Kletter’s notion of local trade facile, but he neglects to mention the fact that a number of known shekel weights show chisel-marks on the underside, as I pointed out in publishing the el-Qôm weights.79

Why is that? The explanation is quite simple: the stone weights were probably cut slightly oversized, then adjusted to conform to the standard as necessary by shaving off the bottom a bit. However, a “heavy” weight that would be to the merchants’ advantage — the old “butcher’s thumb on the scale” — could easily be produced by not shaving off quite enough. The fact that ancient weights were often altered is exactly the source of our English term “to chisel” someone. This practice in ancient Judah is surely what Micah is referring to: not “different” or various weights, but “differing” or altered weights. Does this prove that Hezekiah’s or Josiah’s reforms actually took place, and that the standardized shekel system was part of their economic policies? No; but it does provide a very plausible setting and thus lends historical credibility to the biblical narratives, whatever their theological agenda may have been.

Another significant datum is overlooked by Kletter, namely the fact that the biblical reference to a pîm weight in 1 Sam. 13:21 is the only occurrence of this term in the Hebrew Bible. It therefore gives us a terminus post quem (or “date after which”) for the final editing, if not the composition, of this passage: it cannot be earlier than the 8th century, although the story is set in the Philistine era. On the other hand, 1 Sam. 13:21 cannot be much later, for the simple reason that the shekel system of which it was an integral part went out of use completely with the fall of the Judean kingdom in 587/586 (as Kletter has shown), presumably replaced by a Babylonian/Persian system. The point for our purposes here is that the story about a pîm weight in 1 Sam. 13:21, told almost nonchalantly because everyone knew what a pîm weight was, cannot possibly have been “invented” by writers living in the Hellenistic-Roman period several centuries after these weights had disappeared and had been forgotten. In fact, this bit of biblical text from an original Iron Age setting was handed down intact, although the unique, enigmatic reference to a pîm was no longer understood — indeed, would not be understood until the early 20th century A.D., when the first actual archaeological examples turned up, reading pîm in Hebrew. If the biblical stories are all “literary inventions” of the Hellenistic-Roman era, how did this particular story come to be in the Hebrew Bible? One may object, of course, that the pîm incident is “only a detail.” To be sure; but as is well known, “history is in the details.”

Before leaving our discussion of the shekel weight system in ancient Israel, we need to note that fragments of the scales or balances that were used with them.

WHAT DID THE BIBLICAL WRITERS KNOW?

Balance beam and reconstructed scales, from Lachish (Gabriel Barkay)

have also been found. One of the best pieces of evidence comes from Lachish, where a well-stratified mid-8th-century ivory balance beam was found in 1972 among the remains in a residential unit. Significantly, it is clearly of an Egyptian type that was used throughout the New Kingdom and the Iron Age — another example of Egyptian influence on the Judean system of weights and measures. A similar ivory (or bone) balance beam was found long ago at Megiddo, dating in all probability to the 10th-9th centuries. At a number of other sites remains of Iron Age scales have been brought to light, especially bronze (or bone) scale-panns, as well as bits of chains, at sites such as Megiddo, Ein-gedi, Ashdod, and elsewhere.80 Thus the 14 references to "balances" in the Hebrew Bible (above). It is clear that silver was the preferred medium of exchange, usually in the form of scraps (Judg. 5:19) that were "paid/weighted" out in one balance-pann, the stone weight or weights being placed in the other (Jer. 32:9-10). The merchant held the scales in one hand and adjusted them with the other, just as street peddlers still do in Jerusalem today. It was easy, as the biblical prophets knew, to cheat and be cheated (as in the "chiselling" of weights noted above).

Measures of Volume in the Divided Monarchy

Many references in the Hebrew Bible mention various units of liquid and dry measures, if only in passing, since the biblical writers are interested primarily in the larger picture, not daily life. In principle, we might isolate and quantify a "vocabulary of measures," then determine whether the Hebrew terminology in

80. See n. 45 above.

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the Bible would fit better, for instance, in a preexilic or a postexilic setting. In practice, however, this is difficult. For one thing, the terminology of measurements is universally conservative by definition, and thus it may not change significantly over long periods of time. When we come to our question here — "What did the biblical writers know; and when did they know it?" — we face a peculiar difficulty. It is likely that the latest editors did have some older archives to draw upon. But ironically, they did not have our modern advantage: they had no extant examples of measures to reconstruct how the system worked. The ancients possessed traditions, but they did not have access to the complex set of information and techniques that would make it possible for the modern scholar to make history, rather than "story," out of the ancient evidence.81

The question is whether we can make history out of the biblical data. I would argue that it is only with the assistance that archaeology can provide that we stand any chance of doing that. Before citing that evidence, let us give a sort of consensus view that represents what we can reasonably reconstruct of the system of liquid and dry measurements from the biblical sources alone (using typical modern American, rather than metric, values).

Liquid measures:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Other Information</th>
<th>Approx. Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>hin</td>
<td>1/6 of an issaron</td>
<td>1 qt.</td>
</tr>
<tr>
<td>bath</td>
<td></td>
<td>5 1/2 gal.</td>
</tr>
<tr>
<td>log</td>
<td></td>
<td>1 1/2 pint</td>
</tr>
<tr>
<td>cor/homer</td>
<td></td>
<td>50-60 gal.</td>
</tr>
</tbody>
</table>

Dry measures:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Other Information</th>
<th>Approx. Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>kab</td>
<td></td>
<td>1 qt. plus</td>
</tr>
<tr>
<td>omer/issaron</td>
<td>1/6 of an ephah</td>
<td>2 qt.</td>
</tr>
<tr>
<td>seah</td>
<td></td>
<td>1/2 peck</td>
</tr>
<tr>
<td>ephah</td>
<td></td>
<td>1/2 bushel</td>
</tr>
<tr>
<td>dethch</td>
<td>1/2 of a homer</td>
<td>2 1/2 bushels</td>
</tr>
<tr>
<td>homer/cor</td>
<td></td>
<td>5 bushels (an &quot;assload&quot;)</td>
</tr>
</tbody>
</table>

It must be acknowledged that actual surviving examples of the vessels that were used in making these measurements are rare. That is to be expected, however, since many of the containers may have been perishables like baskets.

WHAT DID THE BIBLICAL WRITERS KNOW?

Others, mostly common pottery vessels used to measure, were probably not inscribed with the name of the unit in question, since it was familiar and taken for granted. In short, we confront again a relative lack of written evidence. Yet there is some.

Long ago Albright found at Tell Beit Mirsim in southern Judah a fragment of a large storejar inscribed in Hebrew bt, “bath,” a unit of liquid measure mentioned in such passages as Ezek. 45:11, 14, which was equal to the ephah and equivalent to about 5½ gal. Another, reading “royal bath,” comes from Level III in Lachish, dated now precisely to the destruction of Sennacherib in 701; this is either an “official” or a somewhat larger unit of measure. The issaron, equivalent to an omer, can be illustrated by the discovery of a storejar at Arad (and Beersheba) inscribed omer, which has a capacity of just over 2 qts. That would fit approximately with the note in Ezek. 45:11-14 that an omer is equivalent to “one third of an ephah,” the latter being approximately 1½ bushel.

Pottery in Ancient Israel

Archaeologists everywhere seem preoccupied with the study of pottery. Their fascination, however, is easily explainable. Pottery was almost universally used in antiquity and is abundant at every site. It broke easily, but if fired was virtually indestructible, so it provides us with thousands and thousands of little con-


84. The results summarized in James L. Kelso, “Pottery,” IDB 3:446-53.
WHAT DID THE BIBLICAL WRITERS KNOW?

What I have done in the following is based on the philological and exegetical analysis recommended above. To summarize the results in a non-technical way, I have put them in chart form, giving the Hebrew term; the general functional description apparent from a composite of all the references; and, most important for our purposes here, an example of a typical Iron Age vessel that I think the term may refer to. I stress that this analysis, while original, is still speculative and preliminary; I certainly do not claim that by this use of a certain Hebrew term the writers of the Hebrew Bible meant this actual vessel and no other. Again, we are trying simply to deduce, from all the evidence available, how much the writers of the Hebrew Bible actually knew about daily life in the Iron Age — how much, and perhaps how little.

Sources: 1-4, 7-16 (Ruth Amiran, Ancient Pottery of the Holy Land); 5 (Moshe Dothan, Ashdod II-III, 6, 17 (Yohanan Aharoni, Beer-sheba); 18 (Ze'ev Herzog et al., Excavations at Tel Michal, Israel)

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<table>
<thead>
<tr>
<th>Hebrew term</th>
<th>General description, function</th>
<th>Possible example (Fig. XX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>'agān</td>
<td>A large krater with handles, used as a bowl for dining in general</td>
<td>1</td>
</tr>
<tr>
<td>sēpel</td>
<td>A large bowl, perhaps with or without handles, used for eating or drinking</td>
<td>2</td>
</tr>
<tr>
<td>sallaḥat</td>
<td>A bowl or dish used for eating and drinking</td>
<td>3</td>
</tr>
<tr>
<td>kōs</td>
<td>A small bowl or cup for drinking</td>
<td>4</td>
</tr>
<tr>
<td>miṣ'ēret</td>
<td>A large bowl for kneading dough</td>
<td>5</td>
</tr>
<tr>
<td>plēyōr</td>
<td>A jug used for cooking</td>
<td>6</td>
</tr>
<tr>
<td>sēr</td>
<td>A large cooking pot</td>
<td>7</td>
</tr>
<tr>
<td>dūd</td>
<td>A smaller, narrow-mouthed cooking pot</td>
<td>8</td>
</tr>
<tr>
<td>nēr</td>
<td>An oil lamp</td>
<td>9</td>
</tr>
<tr>
<td>nēbel</td>
<td>A large jar for storing oil, wine, etc. (perhaps = 2 &quot;baths&quot;)</td>
<td>10</td>
</tr>
<tr>
<td>kad</td>
<td>A smaller jar for drawing water; storing water or oil, dry meal</td>
<td>11</td>
</tr>
<tr>
<td>'āstād</td>
<td>A large oil-jar</td>
<td>12</td>
</tr>
<tr>
<td>baqīq</td>
<td>A decanter for liquids</td>
<td>13</td>
</tr>
<tr>
<td>pak</td>
<td>A small juglet for oil or perfume</td>
<td>14</td>
</tr>
<tr>
<td>sappāhat</td>
<td>A &quot;canteen&quot; for water</td>
<td>15</td>
</tr>
<tr>
<td>gābr'ā</td>
<td>A chalice for wine</td>
<td>16</td>
</tr>
<tr>
<td>kīrayīm</td>
<td>A ring-base for cooking pots</td>
<td>A &quot;skillet&quot;</td>
</tr>
</tbody>
</table>

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WHAT DID THE BIBLICAL WRITERS KNOW?

It is significant that all the best ceramic parallels above come from well-dated 8th-7th century sites, almost all in Judah. This strongly corroborates mainstream scholarly opinion that the biblical texts that mention these vessels — mostly the J, E, and D sources — were largely composed and edited in penultmate fashion precisely in that period, i.e., in the late Monarchy. It is noteworthy that a few rare and enigmatic biblical terms, such as those for “frying-pan,” are attested only in Late Hebrew or in Aramaic parallels, and also occur only in the P or “Priestly” source, the final editing of which scholars have dated late. And it is precisely these forms that are completely and conspicuously absent from the earlier Iron Age ceramic repertoire. Such forms do occur, however, in the Hellenistic period, confirming the late editing of the references in the P materials. Once again, the ceramic repertoire with which the original writers of the J, E, and D traditions were familiar is that of the Iron Age or Monarchy — and no other period. The text may have been edited late, but most of its contents are early.

Art in Ancient Israel

Discussing art in ancient Israel, according to most biblical scholars until recently, should be relatively easy: there was none. The attitude of most biblicists may have been unduly influenced by a naïve presupposition that the Second Commandment — “You shall have no images” — should be and was taken seriously as “historical fact.” Nevertheless, the presupposition is wrong. But what does “Israelite art” consist of? And why would more conventional biblical scholars not be aware of its existence?

In answer to the first question, Israelite art of the period of the Divided Monarchy consisted primarily of engraved seals, some of which have been discussed above, although largely for their onomastic information (personal names); and carved ivory panels, mostly inlays for wooden furniture, of both Syrian and Phoenician styles.

85. Examples shown are based on Amiran. For the late terms here, cf. e.g., marhelet, a “frying-pan for meat,” only in Lev. 2:7; 7:9, obviously P material; mahkibbêt, a “pan for frying flat cakes,” only in Lev. 2:5; 6:14; 7:9, again P; and pitrit, a “pan for baking manna-bread,” only in Num. 11:8; 1 Sam. 2:14, both probably P. For examples of ceramic one-handled skillets from the Hellenistic period, see Paul W. Lapp, Palestinian Ceramic Chronology. Such vessels are absolutely unknown anywhere in the Iron Age (cf. p. 232, no. 18).

86. A German biblical scholar and art historian, Sylvia Schoer, has recently published a book with which few American biblical scholars seem to be familiar: In Israel Gab es Bilder? (in English, Was There Art in Israel?). OBO 74 (Göttingen: Vandenhoeck & Ruprecht, 1987).

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Seals

Much more could be said about the seals, or “glyptic art,” beyond the onomastic evidence discussed above, important though that is. Biblical scholars, however, philologically (and theologically) oriented, have rarely had much interest in or empathy with art history. A notable exception is the group of European biblical scholars headed by Othmar Keel of Fribourg University in Switzerland. The “Fribourg school” has created an impressive body of works intending to illuminate the history and religions of ancient Israel by studying ideology through its art and iconography, situating them in the broader context of ancient Near Eastern art and iconography. In addition to Sylvia Schoer’s volume on ancient Israelite art in general, distinguished recent books in this genre include Urs Winter, Frau und Göttin (English, Woman and Goddess). Especially noteworthy are a number of works by Keel himself: several large volumes on seals, in German, as well as synthetic works including The Symbolism of the Biblical World. A basic handbook is that by Keel and his student Christoph Uehlinger, Gods, Goddesses, and Images of God in Ancient Israel.

The corpus of artistic motifs in common use in ancient Israel and her neighbors that the Fribourg school has brought to our attention is so vast and so rich in parallels that I can only allude to some items here. In particular, Keel and Uehlinger have shown us how the several thousand seals they have collected can help to illuminate ancient Israelite religion. They have demonstrated, for instance, that most of the motifs of the 10th-8th-century seals are borrowed, either directly from Egypt, or more often via the medium of Phoenician art, which was characterized by a mixture of Egyptian and Mesopotamian themes. Later on, in the late 8th-6th centuries, Neo-Assyrian and Neo-Babylonian motifs predominate, as expected. Common motifs on the Phoenicianizing seals include lions, bulls, sacred trees, dung-beetles, and other themes from nature, most with known religious connotations. The later group features much more astral imagery — sun, moon, stars of the heavens — as well as specifically Mesopotamian themes.

Here we have both convergences and divergences with the biblical texts. On the one hand, such art ought not to have existed at all in light of the Second Commandment: “You shall not make for yourself a graven image, or any likeness
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wholly propagandistic. There does seem to be a tendency to purge Israelite art, if it can still be called that, of foreign elements, particularly in the late 7th/early 6th century. The Avigad and Shiloh hoards of bullae alone would confirm that; the seals used to make these bullae are almost all severely aniconic (and the personal names, as well, are mostly compounded with the name of Yahweh). I do not take this necessarily to mean that there was a sweeping "religious revival" in Josiah’s time, much less that it succeeded, since many of the seals and bullae may represent only the elites in Jerusalem and in other royal centers. Popular religion in the countryside probably remained highly syncretistic, as I have argued above. 90

Ivories and Ivory-carving

The second major class of ancient Israelite art, again strongly Phoenician in character, consists of a series of carved ivory inlays of the 9th-8th centuries. These are found mostly in the northern kingdom, at administrative centers such as Hazor, and especially at Samaria, the capital. The large collection of burned fragments found on the floors of the palace at Samaria was undoubtedly what remained from booty taken in the Assyrian destruction in 722/721. Ivory fragments in the same style, some with Hebrew letters engraved on the back, have been found at the Assyrian capital at Nimrud.

The carved ivory panels found in Israel all belong to an international style of art, mostly of north Syrian and Phoenician manufacture or style, that spread all over the Mediterranean world in the 9th-8th centuries. Large hoards have been discovered at Arslan Tash, Til Barsip, and other sites in Syria, as well as at sites from Carmona in Spain to the Neo-Assyrian capital at Nineveh and elsewhere. 91

The group of ivories known from Israel comes mostly from Samaria (over 500 fragments), some 9th-century pieces kept as heirlooms, others closer in date to the final destruction of the Israelite palace in 722/721. It is clear that most of these small, individual low-relief carvings, some partially inlaid or gilded, were designed to make up attached panels for costly wooden furniture. Many of the panels are half-scenes, or one of a matching pair, and others have tabs at the top and bottom for attaching them. That they are inlays is now shown from well-preserved examples of just such ivory-inlaid wooden beds and chairs from Phoenician tombs at Salamis in Cyprus, of the late 9th or early

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90. This is shown as well by Ackerman.

91. For orientation to the ivories, see works in n. 9 above.
WHAT DID THE BIBLICAL WRITERS KNOW?

Carved ivory inlays from Samaria, with lion and stylized "sacred tree" (John W. Crowfoot and Grace M. Crowfoot, *Early Ivories from Samaria*)

8th century. The major artistic motifs of most of the Israelite ivories known are typically Phoenician: lions, bulls, cherubs, palmettes, lilies, lotus blossoms, etc. As with the seals, we have here a convergence with the candid biblical notion that there was little native Israelite art, so that Solomon had to resort to Hiram, king of Tyre on the Phoenician coast, to design, build, and furnish his temple in Jerusalem. Phoenician influence also continued later, as reflected in the stories of Ahab, Jezebel, and the temple of Ba'al at Samaria.

It is in fact at Samaria that we find the most instructive convergence of the ivories with biblical texts. In a passage that remained enigmatic until the discovery of the ivories in modern times, the prophet Amos rebukes the idle rich who live in "great houses," "houses of ivory" (3:15). 1 Kgs. 22:39 specifies that the "house or palace" of Ahab at Samaria was built of ivory (cf. Ps. 45:8), where in fact most of the ivories were found. These references as they stand make little sense, since one could not possibly construct a house of the small ivory panels that elephant or boar tusks would yield. The writers or editors of 2 Kings do not mention ivory-decorated couches and armchairs, or the elephant hides and tusks given to Sennacherib as bounty by Hezekiah in 701 in order to spare the temple, but we know of these from Sennacherib's own tribute lists. These latter references obviously denote smaller items, for which ivory inlays would indeed be suitable. We also read in 1 Kgs. 10:18 (cf. 2 Chr. 9:17) of Solomon's "great ivory throne." And again a passage from Amos (6:4) comes to mind: "Woe to those who lie upon beds of ivory!" An even more striking convergence, just because it is such a seemingly casual footnote, is found in Amos 3:12, in which the prophet refers to the "remnant" that will be saved from Yahweh's wrath in the coming destruction of Samaria, "rescued, with the corner of a couch and part of a bed." This text has little meaning unless Amos is speaking of luxury items that may be valuable enough to be salvaged, like ivory-inlaid furniture — and the "beds" we have noted above.

The relevance of the 9th-8th-century ivories for our purposes here is obvious. The passages we have cited from such biblical sources as the prophets and the Deuteronomistic editors of Kings find astonishingly close and detailed convergences in the ivories that archaeology has brought to light — of the 9th-8th centuries — and only then. These distinctive Levantine Iron Age ivories passed out of use by the 7th-6th centuries, as did the custom of inlaying wooden furniture. It would be incredible to suggest that the biblical references were "invented" by writers living in the Hellenistic or Roman period. They must have had ancient sources, in this case records going back at least to the 8th century, if not earlier.

Secondary "Royal Residences"

In any discussion of convergences between biblical texts and archaeological artifacts, it would be particularly desirable, of course, to investigate the two ancient capitals, Jerusalem and Samaria. Of Iron Age Jerusalem we admittedly know very little (but see above); and we have already discussed the palace of Omri and Ahab, the ostraca, and the ivories from Samaria. The kings of both Israel and Judah, however, had not only a principal palace in their capital, but also smaller summer and winter residences elsewhere. Two of them are relevant to our discussion here.

Jezreel

A story of the type routinely dismissed by the revisionists as fiction is the well-known account of Naboth's vineyard in 1 Kgs. 21. The story recounts how Ahab, taunted by Jezebel, conspired to seize a vineyard of a small landowner, one Naboth, at Jezreel where the kings of Samaria had an auxiliary residence. This was probably a winter palace, since the high hill of Samaria can be bitterly
WHAT DID THE BIBLICAL WRITERS KNOW?

cold in winter, but Jezreel, beautifully situated on the south rim of the Jezreel valley at a lower altitude, enjoys a mild winter climate. As we have already seen, Amos says in the same breath as his denunciation of "the houses of ivory" that Yahweh will "tear down the winter house as well as the summer house" (Amos 3:15).

The ancient site of Jezreel, presuming that the story in 1 Kings may have had a historical background, has long been identified with a small but strategic mound near the modern Arab village of Ze'erin, on the southern heights overlooking the Jezreel valley. The Jezreel references in the Hebrew Bible have been much discussed by biblical scholars, but the proposed site was never extensively investigated until salvage excavations were carried out by Ussishkin and colleagues in 1990-91. The results provide another remarkable convergence with biblical accounts.93

There is some scattered occupation of the hilltop of Jezreel and in the vicinity in the 10th century, just as we now know was the case at Samaria. The major construction, however — an enclosure of ca. 10 acres surrounded by casemate walls with corner towers — dates to a single phase of use, in the 9th century. This fortified acropolis was destroyed sometime later, and the site of Jezreel was never again extensively built up.

The remarkable size of the enclosures, the deep, elaborate constructional fills on which it was erected, the casemate defense walls, and the use of alternating "pilasters" of dressed ashlar masonry are all typical features that would be found only in royal constructions. Indeed, similar architecture has been brought to light thus far only at Hazor, Megiddo, and Samaria in the north, and at Gezer and Ramat Rahel in the south — all but Ramat Rahel royal constructions of the 10th-9th centuries. Ussishkin modestly (and correctly) postpones direct connections with the specific biblical texts. As an archaeologist (and one praised by the revisionists, for his separation of biblical and archaeological data), Ussishkin concludes:

It would appear that the enclosure at Jezreel was built either by Omri (882-871 B.C.E.) or by Ahab (873-852), and was then used by Ahab's sons Ahaziah (852-851) and Jehoram (851-842). The destruction of the enclosure should be assigned to Jehu's coup d'état in 842 B.C.E. and is probably reflected in Hosea 1:4.94


Daily Life in Israel in the Time of the Divided Monarchy

My point in adducing the data here is simple. Once again, the direct correspondences indicate that the final editors of the Deuteronomistic history in 1 Kings did not imagine a "winter palace" at Jezreel in Ahab's time; they knew about it from much earlier sources, in this case sources that can scarcely be much later than the 9th century.

Ramat Rahel

Another example of a royal palatial estate is biblical Beth-Haccherem, or "The house/palace of the vineyards," identified with the small mound of Ramat Rahel just north of Bethlehem. Beth-Haccherem is not mentioned by name but is apparently alluded to in Jer. 22:13-19, where the prophet denounces Jehoiakim, the son of Josiah, for defrauding the poor to "build his house by unrighteousness." This palace does not appear, however, to be the main palace in Jerusalem; but it may be, like Jezreel, a country estate or retreat. This palace is described as "a great house, with spacious upper rooms" having "cut-out windows" and paneled with cedar and "painted with vermilion" (Jer. 22:14).

The site of Ramat Rahel, on a prominent hilltop overlooking terraced vineyards with Jerusalem visible on the horizon, was excavated by Yohanan Aharoni between 1954 and 1962.95 The site was founded in the 9th century and was then occupied principally in the later Iron Age and the Persian periods. The major structures belonged to Stratum V-B of the 8th century, and Stratum V-A of the late 7th/early 6th century. A large perimeter wall with its own gate enclosed an area of ca. 800 sq. m., most of it apparently not built up. The single structure inside the walls was a large multi-roomed citadel with its own casemate walls, a large central court, and many adjoining rooms. The construction was unusually fine, featuring dressed ashlar masonry laid in header-stretcher style — the only known example of such royal masonry after the 10th century. As with ashlar buildings elsewhere, at Ramat Rahel there were palmette or "Proto-Aeolic" capitals. A unique find was a stone window balustrade with several short palmette-columns with drooping fronds, topped with stylized palmette capitals joined to form a continuous window rail. That this was originally a window balustrade is shown by almost identical windows and balustrades on typical 8th-7th-century Phoenician ivories — often with a woman leaning over the balustrade, which is apparently meant to depict the second-story window of a palace or temple. Significantly, the columns and capitals bore traces of red paint.

Daily Life in Israel in the Time of the Divided Monarchy

Here the convergence between the description of a royal palace in Jer. 22 and the archaeological evidence from Ramat Raḥel is striking. The Stratum V B-A enclosure and principal structure are certainly palatial, built on far too grand a scale and embodying too costly construction to be of domestic character. The ashlar masonry alone makes this a “royal” establishment. The fenestrated window and balustrade fit the biblical description of a “cut-out window” astonishingly well, just as the traces of red paint correspond to the house “painted in vermillion.” All these architectural features had disappeared, were buried and long forgotten, after the destruction at Ramat Raḥel by the Babylonians in the early 6th century. A Persian administrative building occupied the hilltop later, but it cannot have given rise to the detailed biblical description of a “great palace” of the kings of Judah. Once again, it defies credulity to suppose that the biblical writers or editors in the Hellenistic or Persian period “invented” the Iron Age palace at Ramat Raḥel.

Plan of the “Palace” and enclosure at Ramat Raḥel, ca. 7th-6th century
(Helga Weippert, Palästina in vorhellenistischer Zeit)

Reconstruction of a stone balustrade from fragments found at Ramat Raḥel (Original drawing by Leen Ritmeyer, courtesy Simon & Schuster)

A carved ivory from Nimrud, 8th century (Othmar Keel, The Symbolism of the Biblical World)
service used terra sigillata or pottery of comparable quality, which was imported from overseas. There was no large-scale trade in fine pottery, such as that produced in Petra in New Testament times, but the potters at Qumran were very fine craftsmen who made high-quality utility wares, as did other potters in the country. This was the time in which, technically speaking, potters had reached the limits of what could be done with the local clays. Petra clays are of a totally different nature to those found in the mountainous areas of Palestine, and this is clearly shown in the products of the potters' workshop.

H. J. Franken

POTTERY CHRONOLOGY OF PALESTINE

Because pottery is almost always found in excavations from biblical sites in Palestine, and because pottery shapes and forms tended to change and develop over time, the historian, and particularly the archaeologist, turns to pottery remains for cultural and chronological information.

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A. Importance of Pottery

Pottery's importance as an artifact of antiquity is due in part to its durability. Once a clay object is fired at a high degree it will harden and although it will break, it will not decay or disappear. Except for those of stone, other ancient artifacts of wood, cloth, reed, or vegetable matter, or even metal, have a limited life span and disintegrate on exposure to air and humidity. Pottery does not disintegrate, but it breaks rather easily on impact and has to be replaced. Once the art of pottery making was mastered, clay vessels were cheap and easy to replace. Clay beds are plentiful in the Near East, and artisans learned to seek out the superior sources of clay. Pottery vessels became the main type of containers in most Near Eastern cultures. Yet the vessels were fragile and their life spans were probably a few years at the most. The broken pieces of pottery, i.e., potsherds, would be discarded, but since they do not disappear they remain as evidence of the ancient peoples who first made them.

A complementary factor has made pottery important as an interpreter of history. Pottery types—their variety in form and texture, style and decoration—developed differently in different places and cultures and changed over time. Standard types were developed according to the needs of a particular people, and there was general conformity in form and design, but over a period of time the needs and styles would change as vessels had to be replaced. Although styles were conservative by today's standards, materials, decorations, and particularly forms changed. For example, Cypriot billybils and Attic black-figured wares are associated with particular times and places. Wherever they are found they imply manufacture, trade, and cultural exchange during a specific time in history. Neolithic pottery of the Jordan valley indicates contacts with Anatolia, Syria, Egypt, and Mesopotamia. Even the common household wares have become known for their typical forms during a particular period and their changes of style over time. The symmetry and construction techniques of pottery manufacture make it possible to determine the whole form of vessels from "diagnostic" fragments—i.e., parts of vessels that are characteristic of a form such as typical rims, handles, bases, or decorated sherd s. The occasional unbroken pot, the restorable vessels, and abundant potsherds found on Palestinian sites are thus invaluable when collected and studied in accordance with advanced archaeological techniques.

B. As Chronological Indicators

Pottery has had a particular historical importance in Palestine because of the lack of written material and rich architectural finds. Thus far the archival collections of tablets and texts known from Mesopotamia, Antiochia, and Syria have yet to be found in Palestine and Transjordan. Monumental palaces, pyramids, and tombs have not been uncovered. Many times it has been the lowly potsherd that has revealed a story. The chronological factor reaches beyond dating the pottery for its own sake. Pottery has become the chronological indicator for other artifacts, architecture, and cultural features. This is possible through two principles which go hand in hand: stratigraphy and typology.

The first to realize the potential of pottery dating in Palestine was Sir Flinders Petrie in his excavations at Tell el-Hesi in 1890. As he isolated individual layers of occupation he noted the distinctive pottery types, their disappearance after a time, and the appearance of new forms. He developed what became known as sequence dating, assigning numbers to types, noting the levels in which they first appeared (lower levels) and then disappeared or became infrequent (at a higher level). His division of pottery into groups, such as bowls, jars, jugs, and cooking pots, was the beginning of pottery typology in Palestine. By relating his typology to the stratigraphy he was able to develop a relative chronology. When he found pottery types he recognized from similar finds in Egyptian tombs which were datable by scarabs and inscriptions, he was able to introduce some absolute dates. Pottery was on the way to becoming Palestine's main chronological indicator.

The latest pottery dates the particular layer of earth or debris in which the pottery was found. Pottery can then be used to date the other finds found with it, artifacts which did not change in style as rapidly or for which typologies
are not yet known. It becomes possible to date buildings, fortifications, and other cultural remains.

Petrie used the knowledge he gained at Tell el-Hesi in the following years as he excavated other sites, and his ideas were adopted by other Palestinian explorers. As archaeological methods developed, with emphasis on trained staff, detailed records, plans, photographs, and an understanding of the complex nature of the tell (the Reisner-Fisher method of the early 20th century), pottery took on corresponding significance. Ceramic chronology took a major step forward with the publication of W. F. Albright's excavations at Tell Beit Mirsim (1926–32) and his pottery studies from the EB through the Iron Age. By emphasizing the sorting and dating of the pottery which was found in a room, on a floor, or beside a wall, he distinguished building periods as comparative ceramic groups were assigned a particular stratum. In other words, the evidence of contemporary pottery types determined the stratum. It was the Wheeler-Kenyon method, developed principally in Palestine at Jericho (1952–58), that put emphasis on observable layers of debris and the use of vertical sections to examine, correlate, and record the layers of soil, particularly in relation to walls. Structures and artifacts, including pottery, are recorded in relation to the observed debris. Applications of these methods, along with modifications such as larger horizontal areas of excavation, are now generally used.

Because of comparative studies between sites excavated stratigraphically, it is now possible to date pottery within 50 to 100 years for many periods of Palestinian history. Although pottery dating is still the most helpful method for the Palestinian archaeologist, he must use it in coordination with more recently developed scientific methods. Radiocarbon, thermoluminescence, tree rings, magnetic measurements, must all be used, but as yet none of these are as refined and available as the ordinary potsherds. But the ceramic specialist is always open to new advancements in methods and scientific discovery.

C. In Survey Work

Pottery plays a significant role in archaeological surveys. When one desires to learn the history of a particular area, one unexplored or when more thorough or detailed information is desired about a previously explored area, an archaeological survey may be undertaken. Although methods may differ, the collection of artifacts found on the surface is the primary activity. From these finds, suggestions can be made as to the occupational history of a site or area. The most likely artifacts to be on the surface are stone tools or flints for pre-Chalcolithic sites, and pottery for sites occupied thereafter. Although there is always the possibility that the evidence may be lacking, in most cases sherds from every period of occupation have worked their way to the surface. The ability to date groups of diagnostic sherds means tentative conclusions can be reached concerning historical problems and the desirability of excavation and further study.

The ability to date sherds found on the surface has played a part in site identification even since Petrie's work at the end of the 19th century. As knowledge and methods have improved, older identifications have been many times revised. With new surveys, theories such as those of Nelson Glueck after his explorations in Transjordan and the Negeb have had to be reexamined.

D. Other Clay Artifacts

Although the principal efforts of the potter went toward manufacture of vessels, other clay artifacts are also found in excavations. Loom weights, sometimes of unbaked clay, and spindle whorls are common at some sites which seem to be dyeing and weaving centers. Clay figurines are unbaked in the EB. In the LB, they are made in molds. In the Iron Age they are partly formed by hand and partly in the mold. Ceramic animal figures and small pots, which may be toys, also appear.

Even broken pots were often reused in other ways. They were formed into lids or stoppers, or used as scrapers. Occasionally bowls were mended, as holes along broken edges testify. At Bethel a sherd was found with a piece of a drill through it, apparently broken off in attempting to mend the vessel.

Pottery occasionally provides written material. Sometimes vessels were impressed with seals or scratched with letters that marked ownership or destination. LMLK ("belonging to the king")-stamped pots are frequently found on Judean sites in Iron II. Rhodian jars were stamped for export. Records and messages were written on potsherds. These are known as ostraca and important historical evidence has been provided by such collections found at Samaria, Lachish, and Arad.

E. As Cultural Artifacts

Pottery's importance as a cultural artifact may first depend upon its date, that is the particular place and people with which it was associated. But along with its chronological value, pottery needs to be studied as a cultural artifact in its own right. Its style and decoration, its technique and care in making, its form and the possible use to which it was put—all can reveal something about its maker and the culture of those who used it. Its distribution over space and sources of manufacture tell something about the trade and economy of the ancient world. Complex economic, political, and social factors contribute to the movements of peoples, and the distribution of pottery is part of the evidence.

Renewed effort has been directed toward technical studies of pottery. See also the preceding article, POTTERY (TECHNOLOGY IN ANCIENT PALESTINE); POTTER'S WHEEL. Research concerning manufacturing methods and the kinds, sources, and qualities of clays indicate levels of skills, knowledge of environment, trade, and intergroup relations. Application of scientific techniques have served to determine clay composition and its sources. X-ray fluorescence spectrometry, neutron activation, and examination of thin sections under a petrologic microscope have helped to understand pottery manufacture and the raw materials.

Observations of modern potters disclose knowledge of clays and temper, use of the wheel, and firing techniques that can be applied to the understanding of ancient cultures. Ethnological studies reveal information about the social setting of the makers and users. Pots and potters of
a society are important vehicles for the understanding of that society.

F. In Excavation, Study, and Publication

It is obvious that the method of handling pottery on an excavation is very important. Every sherd must be collected, and the debris and locus from which it has come must be recorded. The usual method is to place each sherd in a bucket or container that is identified by locus. It is important that those that come from the same floor, room, or fill be kept in relation to each other so that the possibility of reconstructing vessels may be facilitated. As the sherds are brought in from the field they need to be carefully washed or dipped so that wash, paint, or ink is not removed. As soon as possible the ceramic specialist on the excavation will examine the pottery with the field supervisor of the area excavated so that tentative conclusions can be made as to date and the kind of debris being excavated. Incongruous results may send them back to the field to reexamine their work. A decision must be reached as to what sherds will be saved. If there are possibilities of reconstructing vessels everything is kept. Particularly important loci may demand that all pottery be saved. Some recent excavations have attempted to save every sherd, but on a large excavation sheer volume may make it impossible to handle all the material and storage itself may be impossible. In any case diagnostic sherds (rims, handles, bases, and decorated ware) will be labeled in indelible ink so that any individual piece may be identified. The sherds may be bagged or boxed at this point, but hopefully not long after the conclusion of the fieldwork the field supervisor and ceramicist who is responsible for the publication of the material will examine it again. The pottery then serves at least two important purposes. The sherds themselves will be used to date or corroborate the debris, constructions, and other finds from which the material came. This may take much comparative study, depending upon the familiarity of the material. Further, this pottery will also have a contribution to make to further ceramic studies and excavation, as it becomes a part of the total corpus of datable excavated pottery.

The publication of the pottery may include groups published by loci in order to show how particular areas and constructions are dated; it may include publication by type, as the dated pottery makes its contributions to archaeological data. Pottery may be published by photograph, but data is generally best presented visually by drawings in section and in profile. This takes a person skilled in drawing, and consistent methods must be followed in showing form and decoration. Plate layout must be meaningful and attractive. Ware descriptions should accompany each published sherd. The use of the Munsell Soil Color Charts is the usual standard to describe the hue, lightness value, and chroma of the ware. If further technical studies have been undertaken (see above), they will also be fully published.

G. Biblical References

The material remains of the Iron Age demonstrate the importance of pottery and the potter in Israelite society. However, specific biblical references are rather few. In the elaborate descriptions of the temple vessels and offerings, it is evident that the most luxurious and valuable vessels were of metals—bronze, gold, and silver (Exod 27:3; 37:24). However, clay pots were also used (Lev 14:5, 50; Num 5:17), perhaps so they could be destroyed if they became ritually unclean (Lev 6:28). In contrast, the Lord ordered Jeremiah to preserve his land deed in a clay jar (kēlā-hāres; Jer 32:14) a practice well known from Qumran and the caves of the Dead Sea. A piece of pottery, a potsherd (herēs), was used by Job to scrape his sores (Job 2:8).

Metaphoric use of clay vessels and their makers is the most usual reference to pottery in the Hebrew Bible. An ordinary household item and a necessary and flourishing industry was a natural way to express deeper truths for the biblical writers. The potter (yā'ēr) as maker of the pot (hōmer) is a metaphor for God, the creator of man (Isa 45:9; 64:7 [—Eng 64:8]; Job 10:9). Jeremiah used the figure of the potter (yā'ēr) reforming his imperfect objects of clay (hōmer) into other forms as what the Lord might do to Israel (Jer 18:1–6), and Jeremiah’s breaking a clay jar symbolized the breaking up of the kingdom (Jeremiah 19). In Daniel’s vision, the wild beast (Dan 2:31–45) had feet which were part iron and part clay (Aramaic hesap), symbolizing the empire as partly strong and partly weak.

Figurative and vivid uses of clay as a simile appear in the Psalms: “You will shatter them in pieces like a clay pot” (kēlē yā'ēr, Ps 2:9); “My throat is as dry as clay” (herēs, Ps 22:16—Eng 22:15). In the poetry of Isaiah, “He tramples over rulers as if they were mud, like a potter’s (yā'ēr) tramples clay (ḥāy)” (Isa 41:25), and in Proverbs (26:29) your fine talk covers what you really are like, “the fine glaze on a cheap clay pot (herēs).”

In the NT, Paul compares God’s control to the potter’s (kerameus) over the clay (pelas; Rom 9:20–21), and our treasure as being in “earthen vessels” (ostriakinos kēsous), i.e., power is of God, not our own (2 Cor 4:7).

The metaphorical use of clay in the Bible is perhaps the best commentary on the properties of clay and its use in antiquity: its form is at the mercy of the potter, in its hardened form it breaks easily, and the household pot is simple and ordinary.

H. Characteristics by Period

1. Neolithic (ca. 5500–4300 B.C.) Pottery is first known in Palestine toward the end of the Neolithic period. At Jericho, it was preceded by plastered floors and walls, vats and basins, clay figurines and plastered decorated skulls. Although the intermediate stages are not known, these activities could have led directly to the first use of fired pottery. Immediately new levels of civilization were possible: food could be cooked and preserved as never before. This was a major step toward a food-production economy.

The first pottery probably appeared about 5500 B.C. Handmade methods included forming “pinch pots” from a lump of clay held in one’s hand, molding in or around a basket or stone vessel, slabs joined by slip (a more liquid clay), or building up by coils. Technical developments were rapid, as pottery from the Jordan valley shows evidence of firing in kilns to 800°C or higher. Various tempers were used before the end of the Neolithic period, including fine-ground pottery (grog). Decoration includes fine slips, and experiments were made with various methods of turn-
ing pottery. The usual forms include cuplike bowls, medium and large bowls with sloping or curved sides, and globular jars with flat bases. Rims are very simple, and handles may be simple loop handles, small pierced lugs, or incipient ledges. There are both fine and coarse wares. The coarse is very crude; it had considerable temper and was fired at a low temperature, making it soft and crumbly. The fine wares are of cleaner clay and considerably better fired. The finish is especially attractive; in cream and red-burnished slips a reserved portion is left in various patterns of zigzags, chevrons, or triangles. There are also decorations with incisions, and sometimes a combination of incisions and slip or paint.

At Jericho the Pottery Neolithic B people improved on the Pottery Neolithic A pottery: it is much better fired, the ware is thinner and contains less straw as temper. The forms include jar rims which are concave on the interior, and the loop handle is common. The red-on-cream slips of the earlier fine wares is succeeded by a deep red slip, sometimes burnished. Characteristic is a band of herringbone incisions, sometimes covered by a cream slip.

2. Chalcolithic (ca. 4300–3200 B.C.). The transition from Neolithic to Chalcolithic is not sudden but gradual, and it is not yet clear whether some cultures are transitional, contemporary, or continuous. The Yarmukian and Jericho Pottery Neolithic B are transitional and may fit best into the early part of the Chalcolithic period. In any case, the Ghasussian–Beer-sheba cultures are widespread by late Chalcolithic times. Wares are more advanced—harder, thinner, and better fired. Pots are still handmade, but there is some evidence of a slow wheel or tournette. New varied forms include V-shaped bowls, goblets and chalices, churns, and cornets. Ear handles are common, sometimes in such excess that they must be merely decorative. Other forms of decoration include impresing, plastic, and paint. Large oil-made pithoi had elaborate rope-like clay bands, most likely in imitation of the rope which was necessary to hold them together as the pots were made. Holomeloun jars (POT04:a), which became so popular in the EB, began to appear. In addition to the household vessels the typical clay ossuaries of the Chalcolithic period should be mentioned; most were shaped like houses or animals, but jars were adapted also for this purpose.

3. Early Bronze (ca. 3200–2200 B.C.). The transition and degree of interruption between the Chalcolithic and EB ages has yet to be settled. Kenyon has called the early period of EB I the Proto-Urban period, beginning EB I with what others call EB IC. It was with the EB that the first correlations with Egypt were made, and the absolute chronology of the Bronze Age depends on correlation with predynastic and dynastic material of Egypt. Caranaita pottery found in Egyptian tombs and Egyptian artifacts found at EB sites in Palestine, along with local stratified Palestinian pottery, serve as the basis for EB chronology.

The periods of the EB Age are best delimited by the introduction of new pottery forms. Typical throughout the age is the ledge handle (POT04:h). It apparently originated in Canaan, and from there spread N as far as Upper Galilee, and Canaanite jars with ledge handles have been found in Egyptian tombs. The plain (or duckbill) handle and indented ledge handles were probably the first.

Typical of the N are red- and gray-burnished wares, including various kinds of teapots, small bowls with conical ophaloi, bowls with molded decorations or projecting knobs below the rim (POT04:b), high loop-handled juglets, amorphiskoi, large jars, and wide-mouthed jars. In the S the typical decoration late in EB I is a painted ware called "line group," usually straight or wavy lines in groups crossed by diagonal lines. Plain bowls often have a row of impressed dots or slashes below the rim. Juglets, amorphiskoi, and bowls are common, but most of the N shapes are present and there was undoubtedly intermingling between the two regions. To these forms, which are best known from tombs, platters and hole-mouth cooking pots found at stratified sites should be added.

Most of these forms of EB I continue to appear in EB II. Platters become plentiful, and amorphiskoi, particularly with the "line group" decoration, are less common. Combining as a finishing makes its appearance. Most typical of EB II are the Abydos wares, called such because they were found in the Egyptian tombs at Abydos and this was the first Palestinian type pegged to Egyptian chronology. The most typical characteristic is a symmetrical oval-shaped jug with a loop handle, red-slipped and hard-baked to a metallic quality. Sometimes they have one or two degenerate loop handles on the side in addition to the regular loop handle, and a form with a stump base develops. There are also jugs with a brown- or red-painted decoration—rows of triangles filled with incisions and separated by bands. The jug forms and types also appear as juglets.

In EB III many of the EB II forms continue. Platters and bowls, some of them deep, continue with more elaborate rims developing. Wavy ledge handles on jars are common (POT04:i). Pattern combing is characteristic on jars and bowls. The unique feature of EB III, however, is the introduction of KHIBER KERAK WARE. Known first from Khirbet Kerak in Galilee, it seems to be introduced into Palestine from the N. The ware itself is brittle and poor and the pots are entirely handmade, showing no knowledge of the wheel. However, the vessel is covered with a heavy slip which is polished or burnished to a high gloss. The method of firing produces vessels partly black and partly red, witnessing to a sophisticated knowledge of smoke blackening. The usual Palestinian pot sits on a base as wide or almost as wide as its mouth and gently curves up to its rim. Khirbet Kerak vessels have small bases, sometimes appearing too heavy, and the profile often curves up in an S-form. Most common are bowl forms, but there are also jugs, stands, and lids. New rim and handle types are introduced, and decoration includes incisions and relief, unlike any previously known Palestinian pottery.

Unique vessels sometimes found at EB sites are incense stands and kernoi (three or more small bowls or cups on a ring, probably also cotic in use). EB lamps are hardly more than shallow bowls with a slight pinch blackened by a burnt wick.

The next period sometimes is considered the final period of the EB and is known as EB IV (Dewer). Others prefer an "Intermediate EB–MB" designation (Kenyon, Kochavi), emphasizing possible relations with the following period as well as the EB. It was formerly known as MB I
POT.94. Pottery of Palestine—Chalcolithic and Bronze Age: (a) holemouth jar from Ghassul—level IV A, Late Chalcolithic; (b) bowl from el-Attala—EB I; (c) carinated bowl from Megiddo—level XIV, MB I; (d) carinated bowl from Megiddo—level XI, MB II; (e) carinated bowl from Megiddo—level VIII, LB II; (f) chalice from Megiddo—level XI, MB II—III; (g) Canaanite jar from Abu Hawam—level V, LB; (h) ledge handles from Deir es-Sa'aneh Mahadeh/Ras Abu Lofeh—EB I; (i) wavy ledge handle from Tell es-Sa'diyeh; (j) storage jar from Tell Beit Mirsim—level E, MB II; (k) bowl from Megiddo—level VIII, LB II.
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(Albright), and this is still preferred by some (Amiran): The urban life of EB II–III as known from large sites in Palestine and Transjordan largely disappears, and in some respects the pottery of the final EB phase is similar to that of EB I. As a rule, types of pottery are very localized and attempts have been made to find many migrations or influences coming into the country and to set up chronological frameworks. It is likely, however, that changes are as much due to the breakup of the city-state system as to new peoples coming into the land, and many of the varied groups may be contemporary.

Wide bases and gently curving sides in jars, jugs, and bowls continue. A profiled rim is typical of many large bowls. Teapots are particularly common. Lamps are open bowls with four wide-pinched spouts (POT.06:a).

Toward the end of the period or in MB I, “caliciform” ware appears. Probably introduced from Syria, the typical decorations are incised wavy lines between straight lines below the rim of the vessel. The jars usually have handmade bodies with necks and rims finished on a wheel.

4. Middle Bronze (1500–1550 B.C.). In the MB, technical advancements from the widespread use of the potter’s wheel resulted in improvements in form and decoration. A heavy and fast-turning wheel required a fine temper in the clay and additional care in drying and firing. There were new possibilities in delicate rim and base forms and pleasing shapes. The pottery and other material found indicates a prosperous society with time for luxury items. Improvements in technology probably helped bring this about.

The MB is easily distinguished from the earlier periods, although the beginning of the technical improvements were already emerging. Similar types occur throughout the MB, but some distinctions can be made between MB I, II, and III. A deep red burnished slip is common in MB I, and there are also cream-slip burnished vessels. Painted decoration is found. In MB II, burnishing continues but many vessels are plain, and painted decoration is less often found. However, Tell el-Yahudiya ware, dark-burnished with white-filled punctured holes, is characteristic.

Open, rounded bowls had gently curved sides in MB I. The bases were flat or low disk, and a shallow ring base was beginning to appear (POT.04:c). In MB II the bowl walls are less rounded and sometimes almost straight. Flatterers or large shallow bowls with a plain, slightly inturned rim are common. Bases are higher, often with a ring, but a concave disk base is also characteristic. The carinated bowls (POT.04:d) are smaller and closed in MB I with both sharp and rounded carinations. In MB II–III, they are much more varied; they are often flared and vary the place and angle of the carination. The base is better formed and the trumpet base and chalice (POT.04:f) have made their appearance. White or pale-colored thin wares are popular. Occasionally attractive bowls with three handles as bases appear.

Cooking pots are of two types. The flat-based, straight-sided pot has a molded band with thumb impressions and a row of punctures or holes below the rim. In MB II–III, the predominant type is round-based with carinated sides, usually handleless, with the rim rolled or folded outward.

Jugs and juglets take many forms and MB II–III types are generally a continuation of the MB I. Dipper, pyr-
POT05. Pottery of Palestine—LB and Iron Age. (a) domestic jar from Megiddo—level VIII, LB; (b) Cypriot milkbowl from Lachish—LB; (c) base ring II bibili from Jerusalem—LB; (d) base ring I bibili from Jerusalem—LB; (e) collar rim storage jar from Shiloh—Iron I; (f) pilgrim flask from Hazor—level 1B, LB; (g) beer jug from Megiddo—level VIA, Iron I; (h) chalice from Beth-shemesh—level III, Iron I; (i) decanter from Lachish—level II, Iron II.
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(a) lamp from Lachish—EB IV; (b) lamp from Megiddo—level XIII, MB; (c) lamp from Megiddo—level VIII, LB; (d) lamp from Hazor—level IX, Iron I; (e) lamp from Tell Beit Mirsim—level A, late Iron II; (f) lamp from Gezer, level IIA, Hellenistic; (g) lamp from Gezer—Hellenistic; (h) sausage jar from Hazor—level VA, Iron II; (i) fishplate from Gezer—level III, Hellenistic; (j) amphora (site unknown)—Persian.
Jugs and juglets continue the ceramic tradition of the MB. Zones of painted metopes are common decorations. Biconical jugs, where the upper part of the vessel is about equal in height to the lower, have a shoulder handle and the metope design on the upper part. Biconical cratered are similar but have two shoulder handles. Juglets tend to lose their shoulders and their necks become shorter and wider. Dipper juglets are not as elongated as MB forms.

A new form in the LB is the pilgrim flask (POT:05:f). It differs from other closed vessels in that its lentoid form cannot be thrown on the wheel all at once, but must be thrown as two plates and molded together. Development is seen in the handle attachments, and by the Iron Age they are smaller.

At the beginning of the LB, lamps are not too different from those of the MB, which had slight single spouts (POT:06:b). In LB II they become larger with a pinch that almost meets, and a rim develops (POT:06:c). As sometimes in the MB, and later in the Iron Age, full-body female figures, known commonly as "Astarte" plaques, are found with varying frequency at LB Palestinian sites. Their varied arm postures, hairstyles, and decoration show some affinities with curvaceous female representations of deities on Egyptian wall reliefs.

An important and characteristic part of the LB repertoire is the amount of painted and imported ware, found more often at this time than in any other period of antiquity in Palestine. Perhaps this accounts for the crudeness of much of the ordinary household pottery. Luxury items were made by specialists or imported.

The bichrome ware seems to be the result of a school of artisans working in the coastal area of Canaan. The wheel-made pottery is of high quality, of fine light-colored clay and well burnished before painting. The decoration is on the shoulder zone of the vessel in a frieze divided into patterned metopes enclosing ibex, birds, and fish. Vessel forms are those of the plain ware as well as some unique bichrome types. The "chocolate on white" ware is distinctive particularly because of its finish—a creamy-white-burnished slip on which the thick chocolate or reddish brown paint has been applied. The patterns are largely geometric. Both these wares appear at the end of MB II and flourish during LB I. In addition to these two wares, the palm tree and ibex motifs in a frieze, typically in metopes between triglyphs, occur on all kinds of closed vessels throughout the LB. Sometimes it appears to have disintegrated in LB II B specimens.

The typical imported wares, present in almost any LB Palestinian site or tomb, include Cypriot, Mycenaean, and some Egyptian wares. Well known of the Cypriot wares are the white-slipped "milk bowls" with "wishbone" handles and brown or reddish-brown ladder-painted designs (POT:05:b). The delicate patterns become more schematic in LB II. The other common Cypriot imports are juglets and juglets in Base Ring ware, known as "bibilis" (POT:05:c, d). They are of a well-fired clay, with a dark burnished slip, and are thin, hard metallic ware in appearance and resonance. Handmade, they may appear skewed in stance. Base Ring I is characterized by plastic decoration around its neck. Base Ring II is usually white-painted, and often more squat and considerably larger than Base Ring I. These vessels were imitated locally, and the local vessels can be easily recognized because they were wheel-made of poorer ware.

Mycenaean vessels of excellent workmanship are imported all over the Near East Mediterranean. They are wheel-made, and the glossy black paint of the design was also largely done by wheel. Typical forms are the pyxis, stirrup jar, and kylix. These were imported throughout the LB; they were also imitated locally, but lesser skill in craftsmanship is evident.

6. Iron Age I (ca. 1200–918 B.C.). This is the time when the Israelites came into the land of Palestine and formed an independent kingdom under Saul, David, and Solomon. Iron Age II begins with the division into the N and S kingdoms and lasts until the fall of Jerusalem in 587 B.C. However, the assumed distinctions between Canaanite and Israelite pottery beginning around 1200 B.C. can no longer be made with the assurance once assumed, since the Israelites slowly took over the land and pockets of Canaanite culture remained.

Another element, the Philistines and Sea Peoples, also settled in the land during Iron I. Their pottery is more distinctive, and where it is found gives some indication of their settlement, influence, or trade. But again, conclusions must be drawn carefully.

Albright made his first division of Iron I on the appearance of this "Philistine" ware at Tell Beit Miersim in the second period, about 1150 B.C., but pottery of the Sea Peoples is now known earlier at other sites. Although the pottery was made locally, connections with the Aegean are obvious in the decorated Philistine ware. The black and red paint appears usually over a white slip, covering the upper and central zone of the vessel. The central zone is divided into metopes containing geometric patterns such as spirals or circles with crosses, or more characteristically, large-feathered birds. Some of the forms are also Mycenaean: kraters with tilted handles, stirrup jars, and pyxides. However, local forms are also introduced, most typically the "beer jug" (POT:05:g), as well as various jugs, juglets, and pilgrim flasks.

Local painted wares continued to some extent into Iron I, but often in a debased LB style. A bichrome style is introduced which may be of local Phoenician-Palestinian origin. The decoration is typically red and black with concentric circles on the sides of jugs or inside bowls.

No sharp division occurs between the pottery forms of the Iron and LB ages. Carinated bowls, decorated rounded bowls, and small bar handles develop from LB forms. In addition, irregular hand burnishing has its beginning in this period. The chalice (POT:05:h) reaches the height of its popularity in Iron I, whereas a low-footed vase or goblet is dying out. The krater continues earlier traditions in form and painted decoration. There are sometimes four or more handles, as well as the horizontal handles known from the earlier period. A typical Iron Age thickened rim develops.

The cooking pot continues the LB shape: relatively shallow and carinated body with rounded base, usually without handles. The triangular rim is elongated in various forms.

The first pithoi are largely transitional from the LB, but the body becomes more elliptical and the neck narrower and shorter. A ridge develops at the base of the neck, and
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Albright was first to recognize the "collar rim" store jar (POT05:e). He identified this jar with the early Israelite settlers, but the history is probably much more complicated. Other Iron I store jars have ovoid bodies, and a painted jar with a spur appears. Amphoriskoi continue their Canaanite form. Typical jugs have globular bodies and trefoil mouths. Painted jugs and jugs with strainer spouts also appear. The popular juglet types are those with an ovoid body, trefoil mouth, and a slightly pointed base, and the small black-burnished juglet, more graceful and with a longer neck than in Iron II. In Iron I the upper handle attachment is below the rim. A "Cyprio-Phoenician" imported juglet appears in the 11th century in black-on-red wares.

The lamps are relatively small with a flat base or larger with a rounded base (POT06:d). Distinctive cultic vessels are frequently found in Iron I contexts, particularly incense burners and kernoi. Figurines and spouted animal bases also appear.

7. Iron Age II (ca. 918–587 B.C.). Iron II begins with the division into the N and S kingdoms and lasts until the fall of Jerusalem in 587 B.C. The pottery at present can generally be divided into an early and late phase. Tell Beit Mirsim A should now be recognized as belonging mainly to the early phase along with Lachish III, Beersheba II, Samaria, and other N sites. To the later period ending in the fall of the kingdom belong Lachish II, Ramet Rahel V, most of the Tell el-Ful and Beth-zur Iron II occupations, and En-gedi V. Also important during Iron II are the regional differences between the N and S, more apparent than earlier in the Iron Age. This probably reflects the political situation, the division of Solomon's kingdom into N (Israel) and S (Judah) entities.

The technical advances should also be recognized. Most pottery is wheel-made, and it is well fired. Many different forms and types are found, but large quantities of similar forms, often in varied sizes, indicate mass production. Every clan and family unit must have had their ceramic wares. Imported and painted pottery is not so common. Much of the local ware is slipped, often in red but in other colors also, and then burnished. This finish seems to be preferred over, or perhaps easier produced than, painted wares.

Improved workmanship is easily recognized in the bowls. Many are red-burnished. Irregular hand-burnished came in at the end of Iron I. By the latter part of Iron II the typical bowl has a thickened rim, is slightly carinated, and has a wheel-burnished reddish-brown slip on the interior and rim. It is made in a variety of sizes. There are also rounded, slightly flaring, and shallow plateike bowls, some plain-rimmed and some with different patterns of burnishing, but similar features are repeated over and over. A type of bowl found at many N sites with a high-quality red slip and burnish has been called Samaria ware.

The shallow Iron I cooking pot continues into Iron II, usually with a lower carination and a shorter triangular section in the rim. Later in Iron II the pot becomes more squat and rounded and has two handles, and the rim becomes ridged and appears in many variations. In the S a deep type appears with a rather high, narrow neck, often rilled, and two handles from the rim to the shoulder.

Storage jars with pronounced shoulders are typical. Ovoid jars with ridged necks and "sausage jars" (POT06:h) are popular in the N. The ovoid jar with a wide rounded shoulder, tapering neck, and four handles is the type on which the lalk ("belonging to the king") seal impressions have been found in the S. See STAMPS, ROYAL JAR HANDLE. Jar handles with personal stamps, a few with names found in the Bible, are found fairly frequently. A popular S form was the hole-mouth jar of two types: a rather small cylindrical and a large heavy, sometimes more rounded or barrel-shaped with sloping shoulders. Jars with three handles and a spur are found in both the N and the S. Amphoriskoi appear in both large and smaller variants, and a particular type with painted bands has been found in Jordan and suggests Assyrian influence.

Wide-mouthed jugs often with pinched lips continue Iron I types. Variants of jugs with strainer spouts also continue. The characteristic new form of Iron II is the well-made and often beautiful decanter (POT05:i). There are some variations between the N and S forms. The dipper juglet is typically cylindrical with a plain rim and appears in a range of sizes. Likewise the black-burnished juglet is found, some very tiny in size, others up to ten cm or more in height. Its handle is now attached to the rim. The pilgrim flask continues to appear to the end of the Iron Age. The pyxid has almost completely disappeared. Imported Cyprio-Phoenician ware is found in small quantities to the end of Iron II. Lamps have rounded or flat bases, sometimes with a wider lip and pronounced rim. Late in the Iron Age in the S a high-based lamp appears and continues into the next period (POT06:e). Figurines with molded heads and handmade bodies are frequently found on Judean sites.

8. Exilic and Persian (ca. 587–332 B.C.). Iron II ends with the fall of Jerusalem in 587 B.C. and is followed by what is usually called the Persian period. Before the Persian occupation, though, there is the period of the Babylonian Exile, ca. 587–532 B.C., and at some sites, particularly in Judah, pottery types have been distinguished that belong to this period. Apparently small colonies of Israelites continued to live in towns outside Jerusalem.

Typical of this exilic period are heavy high-based lamps, rather deep round cooking pots with ridged rims which first appeared late in Iron II and are a development of Iron II shallow pots, elongated juglets, wide-mouthed jugs, and large bowls, still sometimes irregularly burnished but more often not. An impressed chevron design sometimes appears on the shoulders of high-straight-rim kraters.

During the Persian period, 532–331 B.C., some differences have been distinguished between the pottery in the highlands and that of the coastal plain and Galilee. The coastal regions were more influenced by the E Mediterranean—Cyprus, the Aegean, Anatolia, and Egypt. However, most of the influences also reached inland as seen in the rich imported wares which have been found at Shechem, Samaria, and Jerusalem.

It is the imported Greek wares which were the first and the most easily recognized and often the determining chronological factor for this period. Though often fragmentary, imported black-figured ware of the late 6th century and early 5th, red-figured ware of the 5th, lecythoi of the 4th, and the black-glazed wares of the 4th have assisted
in giving absolute dates to strata and in developing typologies for local wares.

Local wares are sometimes developments of Iron Age types and other times are influenced from the W. The shallow mortaria with wide thickened rims, sometimes with ribbed sides, and with flat, ring, or high-footed bases are characteristic. Typical particularly of coastal areas, as it was used for international trade in the Mediterranean world, is the flat-shouldered jar with cylindrical body tapering to a pointed base. Sometimes the handle is twisted and ugly or the rim and handles have thick black-painted lines. An amphora with "basket handles" (two loop handles attached horizontally and extending high above the rim) is characteristic in both Cyprus and Palestine (POT06:j).

Rounded and elongated juglets have characteristic forms. Cooking pots tend to be deep with necks developing, predecessors of Hellenistic deep cooking pots. Lamps take a very characteristic form, with a wide rim and more flattened profile than in any other period. Molded and glazed imported lamps are also found and will soon be copied locally.

9. Hellenistic (ca. 332–63 B.C.). During the Hellenistic period, 332–63 B.C., influence from the E Mediterranean and the Greek world continues, but in many cases local attempts at imitation take the place of actual imports. Increased trade and contact point to similar pottery forms throughout the Hellenistic world. In Palestine Attic bowls are copied in form, and a poor paint or wash imitate the glazed wares. In time even the paint is omitted and round bowls with incurved rims and flat straight-sided bowls, descendants of "fish plates," are characteristic. Attic fish plate (POT06:i) had a depression in the center, sometimes stamped with a fish impression, and the oil could run down in the bottom of the dish. The pottery as a whole is hard-fired, but sometimes quite carelessly, and disfigured forms result.

Storage jars are elongated to bag-shaped with sloppily attached handles. Rims with undercuts develop into typical rounded rims, then are more flattened until an elongated flattened rim is typically late Hellenistic. Imported Rhodian jar fragments are easily recognized by their finely levigated orange or buff ware, high necks with rounded rims, stump bases, and angular handles with stamps. The inscriptions have been thoroughly studied and can be accurately dated. On one handle the name of the potter will be given and on the other, the priest in whose tenure of office the vessel was manufactured.

Wide-mouthed globular jugs with smoothly concave bases are characteristic. Flasks are varied and develop longer necks and become smaller as the Hellenistic period progresses. Cooking pots are deep with rather long necks and two strap handles from the rim to the shoulders. The ware is often quite thin. Late in the Hellenistic period there is also a shallow type with a ridge to accept a lid.

Except for a small folded lamp whose sides are folded over to meet (POT06:f), lamps are now made in molds (POT06:g). They are imitations of Greek forms, but the local ones are generally rather plain with a ridge or incised circle around the small oil hole and sometimes a small knob or vestigial handle. Ray, floral, and other motifs become common in the 1st century B.C.

A unique and characteristic Hellenistic form is the unguentarium. The early ones, sometimes known as "spindle bottles," are elongated at both ends and rather long and heavy. They become lighter and more delicate in the 1st century B.C. Later a pyriform juglet replaces them and this lives on into the Roman period.

Nabatean pottery first appears in the Hellenistic period and its typical forms and ware continue well into the Roman period. It is mainly found in S TRANSJORDAN, with its center at Petra, but there are also Nabatean sites in the Negeb and evidence of trade as far N as Damascus. This is the finest and most attractive pottery in the history of Palestine and Transjordan. It is red- or orange-colored, thin, hard-fired, and often beautifully decorated. The finest of clays and excellent firing techniques were used. Most forms are small compared with other Palestinian pottery: small bowls and plates, small jugs and cooking pots, juglets and unguentaria. Fine bowls and painted decorations developed sometime after 100 B.C. and for the next two centuries the painted ware is common. Initially the decoration is of a flowing, naturalistic style, executed in bright orange or light red paint with a delicate brush technique. Late in the 1st century B.C. another style appears—heavier and more formal, in a solid purplish-red pigment. This type seems to span the 1st century A.D. Other vessels are impressed, usually with rouletted designs. Jugs, juglets, and cooking pots are sometimes ribbed.

10. Roman (63 B.C.–324 A.D.). Terra sigillata, a red-glazed ware, is one of the best recognized wares of the Early Roman period. Besides the red glaze, rouletting on the interior or rim is common. Roman red wares of various kinds are imported from the W Mediterranean throughout the Roman period. Large amphorae with stamps in Greek and Latin continue to be found in Palestine as the containers for imports.

Local Early Roman forms are direct developments from Hellenistic wares. Jugs on storage jars become long collars with a characteristic ridge below. A cylinder-type jar is known from Qumran. The concave base on Hellenistic jugs becomes sharper. Narrow-necked jugs are common. Pyriform juglets replace the fusiform unguentaria. Asymmetrical pot-bellied flask develop exaggerated, twisted handles. Cooking pots have shorter necks and flat, ribbony handles. Ribbing becomes more common and extensive ribbing is typical of the following Byzantine period. Small incurved rim bowls continue for some time. In Jerusalem thin-walled bowls with red, brown, or black stylized floral patterns have been found in recent excavations. At first they were called "Pseudo-Nabatean," but they are different in motif and ware.

The "Herodian" lamp is typified by its bow spout and plain body, made in a mold as all lamps are by this time. Many elaborately designed lamps are imported from Italy and other places to the W by the 2d century A.D. Besides floral designs, some have mythological scenes.

11. Byzantine (A.D. 324–630). The Byzantine period is beyond the scope of biblical times, but archaeology of this period, as well as of later Islamic and Crusader times, is receiving more attention in Palestine and Transjordan in relation to early Christianity as well as the history and culture of the land.

Pottery characteristics include pronounced ribbing on jugs, juglets, jars, and cooking pots. Decoration includes
straight and wavy incised lines on jugs and bowls. "Frying pans" are shallow cooking pots sometimes with hollow handles. There are slipper and channel nozzle lamps, and "candlestick" lamps with six, seven, or eight branches around the spout and occasionally a cross or Greek inscription.

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POUND. See WEIGHTS AND MEASURES.

POVERTY. See POOR, POVERTY.

POWER, NT CONCEPT OF. The message of salvation in the NT is a message of power: God raised Jesus from the dead. The cross-resurrection event not only demonstrated God’s power over death, but also marked the defeat of the opposing sphere of power and its forces (Satan and his demons). Just as God delivered his people from bondage in Egypt "by his mighty right hand," the NT proclaims that he has now delivered his people from the bondage of death, the dominion of Satan, and the compelling influences of "sin" and "the flesh."

The most common word for power in the NT is dynamis (and its cognates), occurring some 375 times and used by every NT writer. Less common are the terms isichos and kratos, which are probably not to be distinguished sharply in meaning from dynamis. All three terms denote the inherent or derived ability to accomplish a given end. The plural form of dynamis is used frequently in the NT to describe powerful supernatural acts such as healings or exorcisms, and is normally translated "miracle." The effectual exercise of power is indicated by the term energia and its forms. It is only used of supernatural beings in the NT and is often used to describe God’s manifestation of power in raising Christ from the dead. The term exousia, usually translated "authority," has primary reference to one’s right to exercise power but implies an ability to exercise that right. The concept of power is also conveyed in many other terms and units of thought (grace, light, fullness, glory, word, spirit).

In the Judaism of the NT era, the OT idea of a powerful personal God involved in history was prominent. A future direct intervention of God in history to exercise judgment, overthrow evil, and bring salvation was integral to the Jewish hope. Just as God powerfully wrought deliverance in the past, the Qumran community envisioned a future triumph over "the children of darkness" (IQM 1:14; 6:6; 11:4; 9; 13:13–14). This victory would take place not only on the physical battlefield but, more importantly, in the heavens against the supernatural forces of evil. Throughout the Qumran documents, the manifestation of divine power is conceived of primarily in a salvation-historical sense (IQH 1:34; 4:28–29; 13:9; 14:13). Future deliverance was also expected to come through a divinely empowered Messiah as seen most clearly in the Psalms of Solomon (17:21–44): "Undergird him with strength to destroy the unrighteous rulers... and he will not weaken in his days, relying upon his God, for God made him powerful in the Holy Spirit" (vv 22, 37). God’s saving events of the past, particularly the deliverance from Egypt, also become the basis for an expectation for military victory in the Maccabean wars (1 Macc 4:9–11; 3 Macc 2:6). Josephus’ use of power terminology is almost exclusively tied to military activity. For Josephus, the Greek term dynamis has become a technical term for an “army” (e.g. JW 7 §252, 275).

In the 2 centuries leading up to the time of Christ, Judaism shows an increasing interest in supernatural power, especially the invisible realm of the angelic and demonic (see, for example, Jubilees, 1–2 Enoch, and Testament of Solomon). This appears to correspond to the heightened interest in divine power in the Greco-Roman religions. In Hellenistic religion, the gods were seen less as personalities and more as powerful beings needing propitiation or capable of manipulation. People sought divine power through invoking a deity (or a series of gods), by participating in the bloodbaths of a god (e.g. the Taurabolium of Cybele and Mithras), through being initiated into the mystery of a god, or by employing magical arts, which were well known to the masses of the Roman world. Asklepios could be praised because “every place has been penetrated by the saving power of the god” (Poyn. 1381.215), especially for physical healing and rescue from dangers at
THE ARCHITECTURE
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Building Materials and Architectural Elements in Ancient Israel

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Introduction

Ancient Israel can be divided roughly into two regions as far as the use of building materials — stone and sun-dried mud brick — is concerned. This division is the result, in general, of the country’s geomorphological division into mountainous regions, valleys and wadi beds. Of course, stones can also be found in wadi beds, in the kurkar formations along the coast, and elsewhere beyond the mountainous areas, and mud for bricks can be collected in the wadis of the mountainous areas as well. In addition, the building material most readily available in a certain area is not necessarily the one best suited for cutting and dressing or for constructing all parts of a house. For this reason, a combination of materials is used in residential buildings, with a preference for stone or mud brick for the walls according to the region.

A survey of the materials used to build dwellings in various regions of the country throughout the ages shows that preference generally went to local resources, as people chose the most available and cheapest supplies. This tendency is especially noticeable in residential buildings, where construction is directly related to the owner’s economic resources and technical and organizational ability. The situation changes to some degree where public buildings, or buildings erected mainly with public funds, are concerned, and when buildings required special materials not found in the vicinity.

The following discussion will center on descriptions of the various building materials used in Palestine during the periods treated in this book. It will include both commonly and infrequently used materials and techniques. This will be followed by a survey of architectural elements designed to solve the construction problems that arose as building methods developed and improved.

Stone as a Building Material

In studying in detail the parts of buildings constructed of stone, two components should be examined: (1) the kind of stone used or the materials substituted, and (2) the methods of dressing the stone and utilizing it.

Much of Israel consists of mountains in which different kinds of stone are exposed. The most common is a variety of limestone, but extensive areas in the north are covered with basalt. Smaller quantities of kurkar, beachrock, flint, sandstone, and some igneous rocks are also found.

Limestone. — Most of the rock exposed in Israel is limestone. Since it was formed in the geological past under a variety of conditions, it is found in varying degrees of hardness, colour, texture, and composition. The hard limestone group comprises the mizzi yahudi, mizzi hilu and meleke. Mizzi yahudi is a very hard stone, not easily quarried or dressed and not generally used for ashlar. However, it has been found used for door sockets and thresholds due to its hardness and resistance to wear. Although the other two kinds are close-grained limestones that can be dressed to produce stones of excellent quality, quarrying and dressing them are expensive. This kind of stone was exploited extensively for columns, capitals, and bases from the Hellenistic period onwards. The most famous example of the use of meleke limestone is the Herodian enclosure walls of the Temple Mount in Jerusalem.

Among the soft limestones are chalk and nari. Chalk is very soft and becomes even softer when it comes into contact with water. It was, therefore, almost never quarried for building stones in antiquity. However, the same properties made it suitable for hewing out burial caves, subterranean spaces, and water installations. Nari, on the other hand, is a friable, chalky rock that resulted from the disintegration of chalk in a
process still insufficiently understood. *Nari* is more easily quarried and dressed, although the surface of the dressed stone is never quite smooth, as in *meleke* and *mizzi hila*. This stone is also suitable for carving details of architectural ornamentation. Y. Shiloh and A. Horowitz have shown that, in the Iron Age, *nari* was the main raw material for producing ashlar and proto-Aeolic capitals for monumental buildings.1

**Basalt.** — Extensive areas in the north of the country — Galilee, Golan, and Bashan — are covered with basalt rock. The stone is distinguished by its hardness and porosity, as well as by its black colour and its resistance to heat, weathering, and water. It has unique properties absent from other building stones and was also carved into implements used for grinding and crushing. In areas where the basalt rock is exposed, most buildings and their component parts were of basalt — either fieldstones collected on the surface or dressed ashlar. Due to the stone's properties, it was also in demand elsewhere, not as the exclusively-used building stone, but for door sockets and door pivots (Fig. 1). Such basalt elements are found in public buildings — palaces, city-gates, and temples — which had large, heavy doors and in whose construction financial considerations did not play a part. Some good examples of this use of basalt come from Hazor. Its hardness and resistance to wear also made basalt a good choice for steps and thresholds (Fig. 2), of which the existing examples also come from public buildings, which had countless pedestrians and heavy chariot traffic.


The use of basalt for the Hazor orthostats2 indicates almost certainly that the choice follows a tradition that developed outside the region (in northern Syria) and was brought to Hazor with the plan of the building, the deity, and its cult.3

The resistance of basalt to erosion by water action made it suitable for drain pipes and segments of drainage channels (Fig. 3), especially when the channels had to pass through the walls of buildings or city-walls.4

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2. *Hazor* III–IV, Pls. Cl-CH, CIV:1; *Hazor*, pp. 75–96; Megiddo II, Fig. 46.


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Due to its black colour, which shows up well against white limestone, its relative hardness, and perhaps also its porosity, basalt was the preferred material for orthostats (Fig. 2), steles, and movable large, well-carved statues.

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Masonry Methods

Masonry methods develop from the properties of the particular stone and the requirements and purpose of the structure to be built.

Fieldstone. — Fieldstones are loose surface rocks and rubble that are collected in the fields. No particular kind of stone was selected, and as a result there are fieldstone walls of limestone, basalt, sandstone, etc. As no further work was to be expended on shaping the stones, attention was given to size and shape when they were being collected in the field so that they would fulfill the requirements of the planned construction.

Ashlars. — Ashlars are square-hewn stones that represent the optimal use of stone as a building material. Their sides are chisel-dressed to achieve a straight, smooth surface where they adjoin other ashlars. Usually, the following process for producing ashlars was used: after locating an exposed area of rock, a block of stone of the required size was quarried. In antiquity, two methods of quarrying were practised, both of which were used until recently in the traditional Arab quarry (before the introduction of mechanical equipment):

1. Long, narrow grooves (5–10 cm. wide and on average 30–60 cm. deep) were hewn into the rock. Then the block was separated from the mother rock with lateral pressure produced by inserting wooden or iron rods into the grooves. This method was suitable for providing relatively small building blocks.

2. Rows of deep holes were drilled into the rock and pieces of wood inserted. Then the wood was wet, producing inner stresses that split the rock along the rows of holes, detaching it from the mother rock.

What remains of ancient quarries are the stepped rock faces created by the extraction of blocks of stone. Sometimes blocks that were not completely separated from the mother rock are visible.

Rough-hewn Stones. — Rough-hewn stones represent an intermediate degree of dressing, between fieldstones and well-finished ashlars (Fig. 6). They are fieldstones that have been roughly shaped with a simple mallet but without a chisel. A few hammer blows by a skilled stone cutter gives the amorphous fieldstone a roughly rectangular shape. This shaping facilitated the laying of the courses. It reduced the number and size of the interstices between the stones and reinforced the corners of the building. Rough-hewn stones should

Fieldstone can be used for more than one kind of masonry: for stones placed randomly or laid in courses (Fig. 4), and for polygonal building (Fig. 5), in which many-sided stones are fitted so that as few small stones as possible are needed to fill the interstices. The polygonal building method was sometimes used for fortifications, such as the city-wall at Shechem (Tell Balata, Wall A) and the supporting wall of the ramp leading to the city-gate in Area K at Hazor.

6. Hazor III-IV, Pl. CXXXII:1, 2.

7. Shiloh and Horowitz (above, n. 1); see also nn. 18–22 for traditional Arab building methods.
not necessarily be considered a primitive forerunner of ashlars. Both were used in the Iron Age, ashlars particularly. Examples are the city-wall of the First Temple period in the Upper City of Jerusalem and the podium wall of the Israelite palace at Lachish. Hewing the stones into shape was not necessary in areas where the limestone beds were thin or where there was tabular flint in quantities, because the natural shape of the blocks did not require further work. A case in point is the Early Bronze Age palace, or Temple A at ‘Ai, which is built of tabular limestone, and the Ha-Ro‘ah fort in the Negev, which is built mainly of tabular flint.

Very large blocks of stone quarried and dressed to varying degrees appear in the east gate of Tell Balata (Shechem) and as square monoliths and long proto-Aeolic capitals in Iron Age II. The heaviest of these huge blocks must have weighed up to two tons before dressing. A stone of this size could be transported and set in place without particular difficulties by a small group of workers and a cart harnessed to draught animals. Much larger stones, such as obelisks, weighing dozens of tons, were quarried in neighbouring countries (Egypt, Assyria, and Babylonia). Transporting them from the quarry to the building site required extraordinary efforts and, in several cases, the operation was commemorated on reliefs. In Israel such huge stones were used from the Herodian period (first century B.C.) onward. As already mentioned, transporting the stones and setting them up at the building site required technical skill, organizational ability, and enormous financial resources.

Stone Dressing. — Information about the tools used by stone cutters and masons in antiquity appears in a variety of sources, but the tools are rarely found in archaeological excavations. Something can be learned about their use and shape from the written sources that mention building activities. Several tools are mentioned in the Bible: the axe (grzn) in 1 Kings 6:7 (and in the Siloam Tunnel inscription); the hammer, or mallet (mqr) in 1 Kings 6:7 and in Judges 4:21; the saw (mswr) in Isaiah 10:15; another kind of saw (mqrh) in 2 Samuel 12:31, 1 Kings 7:9, and 1 Chronicles 20:3; and the hammer (pits) in Jeremiah 23:29. However, it is not always possible to determine the exact function of each. Building tools are also mentioned in Egyptian and Mesopotamian written records, but their appearance in reliefs showing building activities is especially instructive.

Another way of learning about stone-dressing tools is to study the tool marks left on the finished stone. For instance, traces left by the stone-cutting saw are visible on the stone bases of Palace A at ‘Ai, dated to the Early Bronze Age. Marks from the drill used to bore holes in the top of the basalt orthostats at Hazor in the Late Bronze Age are also visible.

However, the tools most commonly used to dress stone were the chisel and hammer. Straight lines were drawn with a ruler and right angles were marked with a sharp instrument. This method of dressing stone (for various requirements and items) came into use in the EB II, at the beginning of the period of urbanization, when fortifications and planned houses began to be built in Palestine, and it has been used without any significant change up to the present day. Therefore, examining traditional Arab building methods in this country has contributed to our understanding of the tools and methods of stone work in antiquity. (See the studies by C. Schick, F.J. Dickie, T. Canaan, G. Dalman and others.)

The use of ashlars (Fig. 7) requires that at least the face of the stone block be perfectly rectangular.

13. R. Reich: Dur-Sharrukin (Khorsabad), Qadmoniot 12 (1979), p. 11 (bottom) (Hebrew); Nauman (above, n. 3), Figs. 15-17.
14. See also Enq. Mig., s.v הצל חלון (Hebrew).
17. Hazor III-IV, Pls. X:1, 2, CH:2.
Sun-Dried Mud Brick

Undoubtedly, sun-dried mud bricks were the most widely used building material in the Ancient Near East. Their use was especially widespread in areas where stone was not available, such as Mesopotamia throughout the millennia ('And they had brick for stone...,' Genesis 11:3). In Palestine buildings were constructed of mud brick in the coastal plain, in the valleys, and in wadi beds, where suitable clay was available in quantity, but it was also in demand in the hill country. The mud-brick house on fieldstone foundations and roofed with a few wooden beams covered by reeds and rushes has been the most characteristic dwelling in Palestine, from the Early Neolithic period until modern times.

Since brick making does not require special tools or skills, it did not develop as a craft in antiquity to the degree achieved by workers in wood and stone.

Clay, in its pure state in the wadi bed, is not easy to handle. It is 'oily' and is apt to crack when drying. Therefore other substances had to be added to it when it was kneaded (with the feet, see Nahum 3:14 and Isaiah 41:25, 'as the potter treads clay'). Bricks were made from a mixture of clay and sand, straw (Exodus 5:7), sherds, stone grits, and organic material taken from refuse dumps (Job 4:19). If the wet earth contained sufficient clay, it too was used to make bricks.

At first, mud bricks were made by hand and were shaped like buns (Fig. 8). The bricks were laid one next to the other in courses and the spaces between them were filled with mud of a similar composition.

24. Ibid., pp. 61–63, Pls. 22:1, 26:1, 28:2, 31:3.
25. When the toothed (comb-like) chisel began to be used is controversial. In Y. Aharoni's view, based on his finds in the Israelite fortress at Arad, it was the Iron Age. However, it now appears, according to Y. Yadin and C. Nylander, that its use began in the Hellenistic period. See Y. Aharoni and R. Amirian: Excavations at Tel Arad, 1962, IEJ 14 (1964), p. 135, Pl. 32B; Y. Yadin: A Note on the Stratigraphy of Arad, IEJ 15 (1965), p. 180; and C. Nylander: A Note on the Stonemasoning and Masonery of Tel Arad, IEJ 17 (1967), pp. 56–59.
27. Y. Aharoni: Excavations at Ramat Rahel, 1954, Preliminary Report, IEJ 6 (1956), p. 140, Fig. 9; Ramat Rahel II, Fig. 6.

8. Construction of hand-made bricks with fingerprints, Jericho. Jericho III (Plates), Fig. 116a.

Handmade mud bricks were used in Palestine from the beginning of the Neolithic period until the beginning of the EB I, when moulds began to be used.

At Jericho (Area M, dating from the Pre-Pottery Neolithic A or a little before) rounded lumps of mud resembling fieldstones are the earliest attempts at brick making that have come to light. Later, various other kinds of handmade mud bricks were produced there — some plano-convex and others with deep impressions made by the hand on the back of the brick, which provided a keying for the mud between the bricks. These kinds of bricks were subsequently found on sites from the Chalcolithic period and the EB I, such as Tel el-Ghassul, Afula, and Tel Kittan.

It was only from the end of the EB I or the beginning of the EB II onward that the rectangular mould-made mud brick came into use. This mould (mlbn, Nahum 3:14) was a frame made of four small wooden boards. Egyptian reliefs (Fig. 9) depict in detail the manufacture of bricks in moulds: in fact, in modern Egypt the same process continues to be used. The prepared clay was pressed into the moulds to obtain bricks of uniform shape and size. The clay ‘bricks’ were removed from the moulds and set out in rows in a field to dry in the sun. Use of the mould speeded up the process and produced much greater quantities than before. The uniform size and the greater quantities accelerated the scale of urbanization and fortification at many EB II-III sites in Israel.

Sun-dried mud bricks, although they are inexpensive and easy to produce, have several disadvantages. The chief one is that they deteriorate rapidly when they come into contact with water, either rainwater or the runoff water that flowed down alleyways alongside the outer faces of walls of houses. To protect against this danger, walls were plastered every year (Ezekiel 13:10–12).

Public buildings built of mud brick faced the additional risk of damage to the walls at shoulder height where friction was created by crowds (at temples, city-gates, and throne rooms). To counter this damage, walls were sometimes faced to shoulder height with stone orthostats or wooden boards. In both private houses and public buildings, stone was used for architectural elements that could not be constructed of mud brick, such as door thresholds and sockets, gutters, and column bases. Wood was used for roof beams, jambs and lintels, doors and windows.

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29. A distinction should be made between handmade plano-convex bricks like those from Jericho and the bricks called by the same name in Mesopotamia in the pre-Sargonid period. There the bricks were made in moulds and only the excess clay, which was not removed from the mould, gave the brick its convex back.


32. The method of laying plano-convex bricks characteristic of Mesopotamia in the pre-Sargonid period is very rarely found in Palestine. Only at Tel Kittan have walls built of such bricks been discovered, dating from the EB I. The bricks were laid on their narrow sides and slightly inclined, each course in a different direction, in a herringbone pattern (before the wall was plastered). See P. Delevage: Plano-Convex Bricks and the Method of their Employment [The Oriental Institute of the University of Chicago, Studies in Ancient Oriental Civilization 7], 1933, pp. 1–38.

33. Enz. Migr., s.v. 玕, Fig. 3 (after N. de G. Davies: The Tomb of Rekh-Mi-Re at Thebes, New York, 1943, Pls. LVIII–LX; ANEP, Fig. 115).

34. Enz. Migr., s.v. 玕, Fig. 4; EAEHL III, p. 714, s.v. Kheleifeh, Tell el-
Sun-dried mud brick has been almost completely neglected as a subject for research in architecture. Only Flinders Petrie, the first excavator in Palestine, took the trouble to record systematically the measurements of the mud bricks unearthed in his excavations. He hoped to establish a chronological series of brick sizes, but it has never been proven that changes in brick size can be related to different periods.

Because sun-dried mud brick deteriorates fairly rapidly, brick walls preserved to some height are rarely found. When they are, they are usually thick, massive city-walls or gates, such as the EB city-gates at Tell el-Far'ah (North) and Hazor, and the city-wall and gate at Lachish (Strata IV–III). Far less preserved are remains of arches and vaults built of mud brick. Only two examples are known in the country, the recently uncovered MB city-gate at Tel Dan, which is preserved with its vaulted roof intact, and the vaults of the Assyrian residency excavated at Tell Jemmeh.

Kiln-fired Bricks

No buildings of kiln-fired bricks dated earlier than the Early Roman period have been found in Israel. They were used in Mesopotamia, because of their hardness and resistance to water, to pave areas or reface mud brick walls, especially in throne rooms, temple shrines, and bathing installations. So far the only example of kiln-baked bricks in this country is the pavement of the Assyrian temple in northern Sinai (Chap. 22, p. 221).

In the Early Roman period (first century B.C.) kiln-baked bricks were used for the hypocaust system in bathhouses.

Wood

Various kinds of wood were used as building materials in the houses of the Ancient Near East. The Bible and other literary sources mention several kinds. Graphic representations — especially Egyptian and Assyrian reliefs — furnish details of wood working, of how the raw material was transported, and of where and how the wood was used. Archaeological evidence completes the picture: directly, when fragments of wood, usually charred, are found at a site; and indirectly, when finds, such as stone column bases, indicate that wooden elements, in this case columns that were positioned on the bases, had been used.

Timber, either as unhewn logs or as sawn planks, was a popular roofing material for rooms and halls — as it is today. The wooden beams used in the construction of private houses were taken from local trees, such as the tamarisk in the Negev and the sycamore in the Shephelah.

Most biblical references to the use of wood are to public buildings, such as temples, palaces, patrician houses, and fortifications. These accounts mention difficulties in obtaining and working a particular wood. The Bible describes in considerable detail the public buildings King Solomon was responsible for in Jerusalem, including the Temple, the royal palace, the 'house of the forest of Lebanon', and the house of Pharaoh's daughter. These descriptions record, in addition to the measurements of various parts of the buildings, technical details and terms, some of which occur only in the passages and remain obscure.

Producing timber for building purposes required skill in felling the trees (1 Kings 5:6), transporting them (1 Kings 5:9), sawing and preparing the wood for use, and fixing the finished piece in its designated place. The descriptions of Solomon's building activities also mention the various kinds of wood used. Most were imported from Lebanon and other countries: the cedar ('erz), a tree (brws), usually translated in the Bible as 'cypress' (but see below), the 'oil tree' ('w smn), and the almogim, or algumim tree ('algwym), sometimes identified as sandalwood. Many technical terms connected with wood working — carpentry, joinery, and decorating the finished building (krwtt, s'wrt, qwrw, sqwym) — are also mentioned. The

35. See, for instance, Gerar, p. 6, Pt. LXXII (right); Beth Pelet I, Pt. LXIII (bottom).
36. R. de Vaux: Les fouilles de Tell el-Far'ah, RB 69 (1962), Pls. XVII–XVIII, XXIV, XXVI.
38. Ussishkin (above, n. 9), Pl. 17:2.
40. The excavators of Megiddo claimed that the buildings in Stratum VIA were built of 'partially-burnt' bricks. These were certainly sun-dried mud bricks that had been burned when the city was destroyed by fire.
41. ANEP, Figs. 122, 123.
cedar of Lebanon (*Cedrus libani*) was used both as a structural material — for columns, ‘beams’ (?) *krwrt* on the columns, and *gšw* — and as panelling for the walls: “and covered the house with beams and boards” *gbm wsdwr*, of cedar,43 ‘all was cedar, there was no stone seen’ (1 Kings 6:9, 18). The other timber mentioned in these verses, translated as ‘cypress’ in the Bible, does not refer to the tree called cypress today (*Cupressus sempervirens*); it is generally accepted that it refers to a tree of the juniper family (see below). The oil tree (*eš ūmm*) probably provided timber more suitable for furniture and perhaps for carving. It was used for doors and the carved cherubim.

Today palaeobotanists can identify by microscopic examination the species of tree to which the wood found in excavations belongs. As wood was also used in antiquity for making furniture, handles and parts of tools as well as for firewood, it is impossible to relate all the information obtained in these investigations to the subject discussed here. One of the first published studies on wood is from the excavations at Tel Beersheba. In one experiment, the samples of wood (especially of Strata III-II of the ninth-eighth centuries B.C.) were plotted on the town plan in order to study their distribution — which samples came from public buildings and which from residential buildings.44 This mapping showed, among other things, that the amount of timber used in public and private buildings was more or less equal. The timber most commonly used came from the tamarisk (*Tamarix aphylla*) and acacia trees, whose natural habitat is the Beersheba basin. Many remains of white broom (*Retama roetam*) were also found, mainly in domestic courtyards and near ovens — indicating that it was used for firewood rather than as a building material. Among the imported timber found was cedar of Lebanon, but not earlier than Strata III–II. This evidence indicates the existence of trade in cedar wood at that time. Another study shows that there was no cypress wood (*Cupressus sempervirens*) in any Iron Age strata in Israel.45 This wood first appears in the Hellenistic period (second century B.C.), when it was used for beams; it was widely used in the Herodian period (first century B.C.) and later.46 These studies are significant for identifying the tree species called *brwš* in the Bible, usually translated as ‘cypress’, but that should be identified as a kind of juniper (*Juniperus*).

In Iron Age ashlars buildings at Hazor, Samaria, and Megiddo, long, narrow (6–10 cm.) gaps are visible between the masonry courses.47 A comparison with the building method in Anatolia, in which wooden beams and ashlars are combined, suggests that sawn wooden beams were inserted between the masonry courses to stabilize the masonry, leaving gaps when they decayed.48

### Earth and Loose Stones

The cities in Palestine in the biblical period were built, destroyed, and rebuilt repeatedly, thus creating, over centuries, the tells that dot the land. In the process of building a city on top of the ruins of an earlier one, a large-scale preliminary levelling operation was usually undertaken. Varying quantities of earth and stones were transferred in bulk from place to place inside the city limits and were sometimes even brought from a distance. During a city’s lifespan, earth was also repeatedly spread and stamped down on floors, courtyards and alleys, creating higher and higher surfaces.

Earth fills are themselves a building material used to avoid empty spaces or raise floor levels. Sometimes the fills remained in the city area by default, because the inhabitants could not or would not remove them. For the archaeologist, the earth fills, which contain loose stones, potsherds, and other small objects, are of great chronological value: the fill was put down and stamped before the new floor was laid over it, so that the potsherds randomly scattered within it are earlier than the floor and the building to which it belongs (or, at most, contemporaneous with it).

Sometimes the quantities of earth used in public structures were very large. For example the earthen ramparts that were the main fortifications in the Middle Bronze Age required huge masses of earth (Chap. 16, p. 129). In order to raise public buildings, such as palaces and temples, a few metres above their surroundings, retaining walls were erected around

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43. G. Barkay has suggested that the design of the walls in the large Iron Age tombs north of Jerusalem imitates in stone the timber construction of ‘beams and boards’ — *gbm wsdwr*.


47. Shiloh (above, n. 12), p. 61, Figs. 21.2, 22.2, 26:1, 28:2; but also in an LB gate, *Megiddo* II, Fig. 45.

them that were then filled with earth and stones and packed to create a platform. This method was especially common in Mesopotamia, where it was called tamlu. Together with its name, it was transferred to Palestine (the millo (in 1 Kings 9:15), where it was used for the palace at Lachish (Strata V-III), Palaces 1052 and 1369 at Megiddo (Stratum III) (Chap. 22, p. 218), and at the Assyrian fortress at Sheikh Zuweyd (see below, p. 221).

Earth was also used in erecting siege ramps, which required the expert skills of an architect or builder. The technique of the siege ramp was developed by the Assyrians, who built one at Lachish. The siege ramp at Masada is from a later period, as is probably the one at Kh. el-Hammam (Narbata ?).

Lime Mortar and Plaster

Burning limestone to produce caustic lime
\[ \text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2 \]
and combining it with water to make slaked lime
\[ \text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2 \]
which is a strong cement, or mortar, was known in the First Temple period (Deuteronomy 27:2, Isaiah 33:12, Amos 2:1).

The subject has not yet been studied adequately to determine when the method first came into use, the variable composition of the mixtures (the proportions of lime and other ingredients), and the material's different uses. The widespread use of lime for mortar, plaster for interiors, and hydraulic plaster for cisterns and other water installations began in Palestine in the Hellenistic period, which places the subject beyond the scope of this book.

Architectural Elements

The construction of the main components of a private dwelling — its foundations, walls, and roofings — are discussed in Chap. 2. In addition to these main structural components a series of architectural elements were incorporated: doors, columns, stairs, etc., that were architectural solutions to problems that arose in building a house, that improved its functioning and, thus, the quality of life in it. The most common architectural elements are described here briefly.

 Columns and Pilasters. — In antiquity the simplest way to support a roof was to make a column out of a rough tree trunk. The column held up several roof beams whose ends rested on the tops of adjacent walls. The column had to be of sufficient diameter to carry the weight placed on it. The drawback to this kind of a column was that it would sink into the ground from its own weight and the weight it supported. Moreover, it was difficult to attach several beams to its narrow end.

 Column Bases. — To keep wooden columns from sinking, they were set on flat stone slabs, either of fieldstone or of hewn stone. This reduced or minimized the pressure (the weight per unit of surface) and the danger of sinking. Sometimes the base of the column was inserted into a hollow space in the ground that was subsequently filled in around the column with rubble and earth. The flat, sometimes slightly sunken, stones on floors and the traces of rubble-filled hollows that are excavated, are what have survived of these architectural solutions.

Stone bases were either a small slab of fieldstone or a large block of stone. The two column bases in the Canaanite temple on the summit of Lachish are 1.2 m. in diameter; they suited the size of the columns, the size and character of the building, and the weight they had to bear. Sometimes, the stone base was roughly hewn into a rounded shape (as the column bases in the orthostat temple at Hazor, and the bases in the Megiddo temples [Fig. 10], into rectangular blocks.

52. Ussishkin, 1978 (above, n. 49), Fig. 3, Pl. 4-2.
53. Hazor III-IV, Pls. CIII:1–2, CVII:4, CIX:1–3, CXI:1, CXV:1–2, CXXVIII:1–2, etc.
(as the bases in Palace A at ‘Ai), or even carved ornamentally.\textsuperscript{55} As examples of the latter type of base, which is rare, one should mention bases for polygonal columns (Fig. 11) that show an Egyptian influence;\textsuperscript{56} the round stone bases at Tel Dan that were influenced by the art of northern Syria (Fig. 12);\textsuperscript{57} and those at Lachish (Fig. 13) influenced by the Persians.\textsuperscript{58}

In small spaces, where the width or length did not exceed ca. 5 m., one column placed in the centre was sufficient to support a roof. Larger spaces required more columns, usually arranged in a central row or in several rows, according to the size and character of the building. Columns were also placed in wide doorways. In addition to supporting the lintel, columns of this type enhanced the aesthetic appearance of the doorway and endowed it with symbolic and cultic significance. Such columns have been preserved and reconstructed at the entrance to the fortress temple at Shechem\textsuperscript{59} and in the Assyrian palaces at Megiddo.\textsuperscript{60}

Column bases are also found located near walls rather than in the centre of the room. These had an ornamental and cultic function rather than a structural one, like the columns of the ‘Jachin and Boaz’ type (1 Kings 7:21) that stood on both sides of a doorway at Hazor\textsuperscript{61} and the column bases along the walls of Palace A at ‘Ai.\textsuperscript{62}

**Capitals.** Initially, the problem of the tapering tree trunk was probably solved by making the fork-like branches part of the column and attaching the roof beams to them (Fig. 14). By analogy with examples from modern rural buildings in the Middle East, it can be assumed that, from the time boards were sawn and connected by metal nails, a short wooden board was nailed to the head of the column to broaden it, which acted as a simple capital.\textsuperscript{63} When stone columns were introduced (below, p. 11), stone capitals replaced the wooden ones. It is also possible that large stone slabs, which could carry the roof beams that rested on the column, were used. In the course of time,

\textsuperscript{55} Above, n. 10.
\textsuperscript{56} Ussishkin (above, n. 9), Fig. 3, nos. I-III, Pls. 4:2, 5:2.
\textsuperscript{58} Lachish III, Pls. 22:3, 4, 6, 7; Ussishkin, 1983 (above, n. 49), p. 165, Pl. 43:3.
\textsuperscript{59} Shechem, Figs. 41–43, 47.
\textsuperscript{60} See the columns south of the room in building 1369 in Megiddo I, Fig. 89.
\textsuperscript{61} Hazor III-IV, Pls. Cl (the base at the bottom of photo), CXI:1, CXV:2, and Hazor, pp. 87–89, Fig. 20; Ens. Mizr., s.v. צוותי.
\textsuperscript{62} Above, n. 10.
\textsuperscript{63} Shiloh (above, n. 12), pp. 43–44, Fig. 66, Pl. 20: 1–3.
this particular architectural element was ornamented. Only a few capitals from the period discussed here are known in this country: the Egyptian palmette or papyrus-shaped capitals (Fig. 15); the Egypto-

Phoenician Hathor-head capitals (Chap. 27, Fig. 4) and the Iron Age proto-Aeolic capitals (Chap. 22, Figs. 9, 10).

**Stone Columns.** — Trees suitable for timber for building purposes were not available in many parts of the country. For private buildings local materials were generally used, and where suitable timber was not available, substitute materials were found. Although stone columns and piers often replaced wooden ones, wooden roof beams continued to be used because there were almost no alternatives.

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64. Ussishkin (above, n. 9), pp. 22–24, Pl. 9:1; *Beth Shan II*, pp. 8, 16, Pls. XXVI:20, IIA:4; and A. Siegelmann: A Capital in the Form of a Papyrus Flower from Megiddo, *Tel Aviv* 3 (1976), p. 141.


66. For instance, Cohen (above, n. 11), pp. 10–11, Fig. 6, Pls. II:2, III:2, IV:1-2 (Hebrew).
The stacked-fieldstone column achieved its final stage of development only in the Persian period. The Persian phase of the residency at Lachish (Fig. 13) is the earliest evidence in this country of columns made of drums dressed to provide an exact fit. These columns achieved the stability of the monolith and retained the advantage of easy construction. The method also made it possible to erect higher columns.

Because these columns had to carry a heavy load, they could not sit on the floor or on a stone slab; they required a subterranean foundation (stilobate) — an underground masonry block that would absorb and diffuse the weight and thus prevent the columns from subsiding. The foundations under the column bases in the palace in the Persian phase at Lachish served just such a purpose.68

Entrances and Doors. — Architecturally, an opening in a wall is not a particular problem.69 However, a stone or wooden beam had to be found for a lintel that would be strong enough and long enough to bear the pressure of the wall above the opening up to the roof level.

Any opening in one of the walls created a weak point in the structure and deprived it of one of its most important features: the provision of a safe refuge. This was particularly true when the opening in question was a gate in the city-wall. Making a door for a large gate was difficult technically. The usual building materials — stone and mud brick — were not suitable, so wood, either beams or boards, was used almost exclusively. The first solution was probably an unattached door that was kept in place with diagonal wooden poles or heavy stones. This, however, would have been an awkward solution. There is evidence as early as the beginning of the Bronze Age of doors that turned on an axis.70 The first wooden door post assumed that such spaces and rooms served purposes for which an ordinary doorway would have been a disadvantage (for example, a grain silo). However, when only the foundations of a room have survived, the location of the doorway(s) cannot be determined, because the lines of the foundation continued under the door sill and would not have been interrupted by the doorway.

67. Tel Masos I, pp. 22–26, 28–29, Fig. 4; II, Pls. 21–24. Cf. also n. 58 above.
68. Ussishkin, 1983 (above, n. 49), p. 165; Lachish III, Pl. 43:3.
69. Sometimes spaces, or rooms, are uncovered that have no openings in the walls. They were probably accessible through an opening in the ceiling or roof by means of a ladder. It can be
70. Door sockets have been found in EB houses at Arad, for instance, Arad, p. 14, Pls. 143:3, 163:1, 3.
was probably stuck into the ground and propped up by three or four stones to prevent shifting. However, very shortly the bottom of the door post was placed in a hollow stone, the door socket,71 and the other end into a prepared hollow in the lintel.

Hard stones, such as basalt and mizzi yahud, limestone were selected so that the door socket would not wear out quickly. In large, heavy doors (of city-gates and temples), the axis was sometimes reinforced with a pin of hard stone — as in the basalt axis of the Hazor temple (Fig. 1),72 or by metal sheathing — as on the axis of the Jaffa city-gate (Fig. 18).73

There is no archaeological evidence in this country for the fastening of doors in the period discussed here, but several biblical passages refer to it: Judges 3:23-25 ('and shut the doors of the roof chamber and locked them'); 1 Kings 4:13 ('bronze bars'); Isaiah 22:33 ('key'); Isaiah 44:2 and Psalms 107:16 ('doors of bronze and bars of iron'); Nehemiah 3:3 ('doors, locks, and bars,'); and Chronicles 9:27 ('and they had charge of the key').

In order to prevent the wooden doors of city-gates from burning, metal sheets were nailed on their outer face. The bronze plaques that covered the city-gate doors of the Assyrian cities of the ninth century B.C. are well known,74 but fragments of sheathing and of fittings have also been found at Lachish.75 (See also 2 Chronicles 12:4, 9 and Psalms 107:16.) Iron, which is difficult to flatten by hammering but is easily worked in the forge, was used mainly to make bolts and nails. (See Isaiah 45:2, Psalms 107:16, and 1 Chronicles 22:3.)

Windows. — There is almost no direct evidence for the existence of windows in the periods under discussion because only the lower parts of buildings have been preserved. On the basis of scanty indirect evidence, it can be assumed that there were windows in public rather than private buildings. House models that have been preserved also furnish some information about the absence or presence of windows. The house model from Arad from the Early Bronze Age (Fig. 19),76 and that from Iron Age Tell el-Far'ah (North)77 (Chap. 27, Fig. 3) have no windows. The openings in Chalcolithic ossuaries78 and in the temple model from Bet Shean (Fig. 20) are interpreted by some scholars as imitations of windows in contemporary houses.79 Moreover, the stone balustrades found in Iron Age

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71. Many examples of this architectural element have been found, for instance, Hazor III-IV, Pls. CVI:1, 3, CXXVI: 1–3; and Megiddo I, Fig. 84.
73. Enc. Miqr. s.v Ḥūn, photo on p. 202, bottom (Hebrew); and Y. Kaplan: The Archaeology and History of Tel Aviv-Jaffa, Ramat Gan, 1959, Fig. on p. 61, photo facing p. 60 (Hebrew).
76. Arad, Pls. 66, 115.
79. Beth Shan II, Pls. LVIA, LVIIA: 1, 2.
palaces (as at Ramat Rahel, Chap. 27, Fig. 6) are considered to have been part of the windows, based on their similarity to balustrades on ivory carvings of windows (Chap. 27, Fig. 5). In any case, buildings seem rarely to have been provided with windows, and then only when the entrance opening did not give sufficient air and light. Some windows were undoubtedly only narrow slits at the top of walls, to prevent people, animals, and strong winds from entering. Large windows were almost certainly closed by means of boards, like the wooden doors.

Stairs. — Stairs were needed in buildings with several storeys, particularly fortifications, as well as in cisterns and underground silos. However, a difference in height which is to be overcome by means of a staircase might possess religious or ritualistic values (like a bammah) or be the result of prestige manifestation, as in the case of a raised dais for a throne. Both cases are in need of a staircase in which emphasis is given not only to the practical but also to cultic and aesthetic qualities.

The need for stairs is as old as the need for buildings. The earliest steps were probably no more than flat fieldstones placed next to a terrace wall so that people could go from terrace to terrace without climbing on their hands and knees. Steps were also used in stone-lined pit dwellings to facilitate descent. There is no evidence of a gradual development for this architectural element, as a skilfully built flight of steps appears early in this country, in the round Neolithic ‘tower’ at Jericho (Chap. 3, Fig. 4).

Throughout history the domestic dwelling has usually had a single storey (see other chapters in this book). The roof was used for many activities (storage, sleeping, crafts), and it can be assumed that access was by a wooden ladder. In a few Iron Age houses a flight of steps was built to give access to the upper storey. These ‘stairways’ were a thick wall built against one of the walls of a house, with steps either of fieldstones or of hewn stones laid on their sloping tops, as at Hazor and Beersheba. In the Israelite palace at Lachish, there is an exterior flight of steps built in this same manner.

Sometimes stairs were placed in a special room, the stairwell. If the flight of steps was straight, the room had to be long and narrow (its length depended on the number of steps and their rise). Such a stairway was safe, but gave access to only one floor. It was difficult to fit a long, narrow room into a building, because a single wall was not long enough for the entire flight of steps, which then had to be continued along one or more of the room’s walls, creating stairs with right-angled turns. These stairs were only protected on one side by the wall, and the handrail necessary for safety on the other side was unknown in antiquity. Moreover, this kind of construction would have been weak since the stairs were attached to the wall only on one side. Very soon such drawbacks must have led to the construction of a staircase whose steps were built around a square or rectangular pilaster and anchored both in the walls and in the central pilaster.

80. Ramat Rahel II, pp. 56–58, Pls. 44-2, 45-48; cf. also below, Chap. 22, p. 207.

81. Jericho III, Pls. 9-11, 244.
82. Hazor III-IV, Pl. LXXXII:1.
83. Y. Yadin: Beer-Sheba: The High Place Destroyed by King Josiah, BASOR 222 (1976), Figs 2–5. However, the stairs here are in a private house and not in a bammah, as Yadin thought.
84. Lachish III, Pl. 18:2, 3, 6.
85. This is the meaning of the narrow passages on both sides of some MB gates. See below, Chap. 16, pp. 134–136.
Presumably, the steps of such a staircase could have been built on a base of earth and rubble or mud brick around four sides of the pilaster, although so massive a base was unnecessary. The steps, either wooden boards or stone slabs, could be anchored in the walls of the room and in the central pilaster. This technique created a useful space under the steps and made it possible to continue them upward beyond the first four turns in buildings of several storeys or unusual height. Sometimes steps were of both wood and of stone, as, for instance, in the LB Canaanite palace at Aphek (Fig. 21).

An interesting feature of passageways through Bronze Age city-gates is the steps found at Tell el-Far'ah (North) from the Early Bronze Age,\(^7\) at Megiddo, Stratum XIII, from the Middle Bronze Age,\(^8\) and in the East Gate at Tell Balata (Shechem), from the Middle-Late Bronze Ages.\(^9\) These steps made the ascent to the city-gate easier for pedestrians but hindered the passage of chariots and carts. (Of course, these cities may have had another gate for vehicles.) The possibility cannot be excluded that these are not really steps but a stepped subterranean

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87. R. de Vaux: Les Fouilles de Tell el-Far'ah, RB (1962), pp. 221–236, Pls. XVIII, XXVIIa, XXIX, XXXI.
88. Megiddo II, pp. 6–8, Figs. 7–8.
89. Shechem, pp. 73–74.
reinforcement originally built to stabilize a layer of beaten earth for a ramp.

Flights of steps ascending to a *bammah*, or altar, are often found in temples. Sometimes it seems doubtful that such steps, especially when made of mud brick, were meant to be ascended, but were perhaps places on which offerings were set, as in the temples at Lachish and Tell Qasile. In other cases, the steps were definitely for the ceremonial ascent to the *bammah*. They were usually made of a hard material, either stone, as in the temples at Lachish (Fig. 22) and Bet Shean, or kiln-dried bricks, as in the Assyrian temple at Sheik Zuwyed.

Floors and Pavements. Throughout the millennia, domestic buildings in Palestine had earthen floors (stamped by foot or with a stone roller), without any additional flooring. The alleyways between the houses also were usually beaten earth.

Earthen floors can only be distinguished in a careful archaeological excavation, usually from traces left by the occupants — organic remains from kitchens and courtyards, vessels and remains of installations. Floors in houses were probably covered with straw mats and carpets, but such remains are very rarely found. Of special interest are the mat impressions on the floors of houses in Jericho.

Pavements out of hard materials — pebbles,

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90. Lachish II, Pls. VI:4–6, LXVIII, LXX, LXXI.
92. Usishkin (above, n. 9), pp. 15–16, Fig. 3, Pls. 4:2, 5:1.
94. See below, p. 221. Fig. 17.
95. Avigad (above, n. 8), Figs. 118, 119.
96. *Jericho III*, Pls. 41:a, b, 49:a, b, 147:1, 150:a, b, 158:a, b, 159:a, b, 161:a.
98. *Hazor III-IV*, Pls. XX:1, CXI, CXII; and Megiddo II, Fig. 154.
100. Ibid., Pl. CXXXVI:1–3; Megiddo I, Fig. 89, L. 500.
101. Usishkin (above, n. 9), Figs. 15, 16, Pls. 18:1–2, 19:3; idem, 1983 (above, n. 49), Figs. 11, 17.
102. *Megiddo I*, Figs. 89, 82, 92, 93.
103. *EAHEL II*, p. 436.
105. *Gezer I*, Fig. 109, p. 223.
DOMESTIC ARCHITECTURE IN THE IRON AGE

Ehud Netzer

A new type of house established itself at the end of the Late Bronze Age and the beginning of Iron I in Palestine, Transjordan, and parts of Syria and Lebanon. Within a short time it replaced the traditional courtyard house of the Middle and Late Bronze Ages, although in some areas they existed side by side.

Iron Age dwellings have been excavated in all areas of Israel — from Hazor in the north to Tel Masos and Atar Ha-Ro'ah in the south. At some sites, such as Tell el-Far'ah (North), Tell en-Nasbeh, Tell Beit Mirsim, and Tel Beersheba, relatively well-preserved residential quarters have been uncovered. Thus, it is now possible to study in detail the place of domestic architecture in the urban fabric.

The Three- or Four-Room House

The characteristic features of the three- or four-room house, and its attribution to the new population that settled in Palestine at the beginning of the Iron Age, have already been described by S. Yeivin and Y. Shiloh. Yeivin identified this house with the Israelite population and termed it the 'Israelite House'. Shiloh published an almost complete list of three- and four-room houses and defined their characteristic architectural features: the oblong, or infrequently square, overall plan; the broad-room at the back, which is the main space; the three front spaces (in the four-room house) built at right angles to the back room; the solid walls enclosing the back room; and the row of pillars separating the lateral front spaces from the central space (a courtyard?). These pillars are one of the important characteristics of the four-room house. Shiloh considered the central space, built at right angles to the back space, to be the internal service courtyard of the house, providing light and air for the rooms around it. Together with the main house type, Shiloh distinguished a secondary type with three spaces, as well as a two-room house that seemed to be an early prototype. However, lack of evidence prevented Shiloh from tracing the development from the two-room house to the three- and four-room house.

A full catalogue of the architectural evidence, updated to 1982, was published by F. Braemer, who attributed the origin of the house type to architectural elements he considered to have been present in the Late Bronze Age.

Recent excavations at Tel Masos, Giloh, and Izbet Sartab‘ make it possible to trace the internal development of domestic architecture beginning with the seminomadic population that began to settle in permanent villages toward the end of the thirteenth century B.C. It may well be that the house type under discussion goes back to a broad-room with an enclosed courtyard in front. However, from the beginning these broad-room units tended to be clustered and to use stone pillars and stone beams as structural elements integrated into the walls or the courtyards. The three-room house, with a corner courtyard and adjacent

1. The author wishes to thank Annabel Zarretski for her help in preparing this chapter.
4. Ibid., p. 278.
long compartment, both attached to the broad-room at the end of the building, already appears at an early stage. Houses with two broad-room units fronted by a courtyard continued to exist alongside this type. In the last stage of development it was realized that the most convenient form was oblong, with the entrance in the short side opposite the main room. In most cases the entrance was situated in the centre of the wall in the central space.

The earliest building types that have been preserved are the house at Giloh (late thirteenth century B.C.), two houses at Tel Masos, and several fragmentary structures at Izbet Sartah.

House 22 at Giloh. — The Giloh house (Fig. 1) appears to consist of a nuclear unit that corresponds to the definition of the primary structure at the beginning of the Iron Age: a broad-room measuring 2.5 × 7.7 m., with a row of pillars on the west side facing a rectangular courtyard (4.3 × 7.7 m.). The courtyard floor was not uniform and the natural rock, bearing some installations, protruded from the southwestern corner. The courtyard entrance was in the south, opposite the row of pillars. West of this nuclear unit was an additional space, between the wall of the house and the fence that enclosed the unit and its precinct. There was probably an opening between the courtyard and this space. Remains of only two pillars are preserved, but it is likely that the two monoliths found in the courtyard belong to the other pillars or to the lintels carried by them as at Tel Masos. North of the nuclear unit (House 22), there had been another room, but its connection to the unit is unclear.

House 34 at Tel Masos. — The house at Tel Masos (Fig. 2) closely resembles House 22 at Giloh. It has identical elements: basically, it is a broad-room (2.5 × 10 m.) faced by an enclosed courtyard (4.5 × 10 m.). Here too the entrance to the house is through the courtyard, opposite the broad-room wall (no pillars were uncovered because the house was badly ruined). A small storeroom was attached to the main room.

House 74 at Tel Masos. — House 74 (Fig. 3) shows the continued development of the house type: the courtyard becomes rectangular, and its long axis is perpendicular to the main broad-room — a feature that will continue to appear in the later four-room house. At a later stage a row of pillars was erected along one side of the courtyard, thus creating a three-
room house. The entrance to this house is placed in the short side of the courtyard, opposite the doorway into the main room, a common feature in the later buildings.

House 1016 at Izbet Sartah. — Although the remains of House 1016 at Izbet Sartah (Fig. 4) were fragmentary, they could be seen to contain some of the elements found in Houses 34 and 74 at Tel Masos. However, it could not be established whether pillars had been used, as they had been in the houses at Tel Masos and Giloh.

Despite a range of geographic locations — the northern Negev, the Judean hill country, and the Sharon — the four examples discussed here present a uniform picture: the three- and four-room house grew out of a nuclear unit consisting of a broad room and a courtyard. In this early stage, pillars were already


used at a number of sites where the houses were dated to the late thirteenth and early twelfth centuries B.C.

The development of the late three- or four-room house resulted in a dwelling with a distinctive plan. One of the main problems to be discussed here concerns the function of the space in the centre of the house: was it indeed an open-air courtyard, as has been generally accepted? Or, was it a covered space of which the roof served as the floor of a second-storey

7. Although this theory is supported by several scholars, this writer hesitates to accept it and finds more convincing the assumption that the three- or four-room house developed independently. For the possibility that this unit developed from the nomadic tent or booth, see Tel Masos (above, n. 6), p. 34.
open-air courtyard? In many cases there is evidence that it indeed was an enclosed space and that the open courtyard was on the second storey.

The central of the three parallel spaces in the four-room house, and one of the two parallel spaces in the three-room house, is generally considered to be an open courtyard. This space, which will be called 'the central space', is usually wider than the structure's other spaces. The entrance into the house was in most cases at the short end of the central space, opposite the broad-room. The central space was usually paved with beaten earth and the lateral adjacent spaces with stone, especially when a row of pillars separated them from the central space (for instance, Buildings 436 (Fig. 5), 440, and 443 in Stratum III at Tell el-Far'ah (North). Various installations, such as cooking pits and ovens, have been uncovered in the central space, in greater concentrations than in other areas.

There are considerable difficulties in defining the central space in this group of buildings as an open-air courtyard, even though that is the considered opinion of most archaeologists. The difficulty arises when these spaces are long, narrow rectangles, in some houses no more than 2 m wide (for instance, House A 11 NW 33 at Tell Beit Mirsim). While an oblong space is convenient for storage and can be used to lodge people or animals, it offers no advantages as a courtyard. An open courtyard does not have to be rectangular. The main consideration, which could have resulted in such oblong central spaces with a fixed width (especially in houses with such a well-defined plan) was the wish to cover these spaces with flat ceilings, based on the wooden beams used in the roofing technique common in the Land of Israel in the Iron Age. Roofing the central space was a function of the layout of the rooms in the upper storey.

Various scholars have discussed the possibility that some of these buildings had a second storey, at least over part of the ground floor. It appears that these houses, with their well-defined plans, not only had a second storey, but one that covered the entire building. Indeed, the careful planning of the ground floor, as mentioned above, derived from the planning of the storey above it. In fact, it would have been


6. Schematic reconstruction of a dwelling with unroofed central courtyard on lower floor.

11. *Tell Beit Mirsim* III, pp. 22-51; *Shechem*, p. 161, Fig. 79; *Hazor*, pp. 183–184.
difficult to organize the lay-out of the second storey without a floor covering the central space below (as would have been the case if this space were an open courtyard). From a planning point of view, the passage from room to room, especially when the rooms are as narrow as these lateral rooms often are (1.5–2.0 m.), would not have been logical (Fig. 6).

The central space of these houses can be reconstructed, therefore, on two levels. Most of the lower level was roofed, and this roof functioned as the floor of the open-air courtyard of the upper level. A wooden ladder or a steep flight of stairs would have connected the two levels. The lower level served as an entrance and communication area, where various domestic activities were also carried out. Light and air penetrated into the lower level through the outer doorway (usually located at the end of this space), through the opening in the ceiling that gave access to the upper level (Fig. 7), and perhaps also through the intervals left intentionally between the wooden beams (or branches) that constituted the floor of the upper level. The upper level of the central space served both as communication between the rooms on that storey and as an important source of light and air for the entire building. It was also a place where domestic activities could be carried out and where the family group could gather. Thus, the upper level took the place of the open courtyard that characterizes the Mediterranean region.

Some of the ‘long-spaced’ houses, a description more suitable than three- or four-room houses, have

12. It is possible that stone steps were also used, or that there were stone steps below, continued above by wooden steps.

13. The possibility cannot be ruled out that the opening between the two levels was larger than that required for the steep stairs.
stone steps on the outside (for example, Building 10370 in Stratum VI in Area G at Hazor; Fig. 8). These steps gave direct access to the upper storey, without going through the ground floor. The outside steps, which probably were used in addition to internal wooden ones, furnish additional evidence for the existence of an upper storey. Moreover, the rows of relatively closely spaced pillars on the ground floor encourage this assumption. Surely only the need for a strong substructure to support the walls of an upper storey would call for such pillars. Otherwise fairly narrow wooden posts spaced at greater intervals would have sufficed. Both the similarities and the differences in the houses discussed here (especially the houses with two rows of pillars, such as the Hazor house and Building M 379 at Tell en-Nasbeh [Fig. 9]) and the outstanding group of pillared buildings discussed in Chap. 23 (the stables or storerooms) deserve attention. The common elements in these two groups of buildings are the oblong compartments (one next to the other), the rows of pillars between them, and the stone pavements in the lateral compartments. Presumably, such stone pavements were used where animals were to be housed. Although there are differences of opinion concerning the function of the paved lateral compartments in the pillared buildings (stables or storerooms) many archaeologists assume that in the three- or four-room houses such pavements do indicate the housing of animals. In any case, it is very probable that the lateral spaces had ceilings much lower than the pillared stables/storerooms. The rooms on the ground floor were often very low indeed, and the combined height of both storeys was usually no more than 4–5 m.

14. Hazor, pp. 183–184, Fig. 49.
15. The theoretical possibility that the buildings had only one storey and that the masonry steps served as access to the roof seems unlikely. Yadid stated that at Hazor this building certainly had a second storey; Hazor, pp. 183–184.
16. Tell Nasbeh, p. 208, Fig. 51.
17. Chap. 23, p. 223. In this writer’s opinion, most of the pillared buildings were stables, not storehouses. The area available for storage, according to Herzog, would have been small and out of proportion to the building’s total area. Unless the installations (tables?) between the pillars were troughs, they would have been a nuisance. On the other hand, unloading need not have been done inside the storehouse, but could have taken place outside or at the entrance, if the buildings were storehouses. The use of some of these buildings for storage before they were abandoned (for example at Beersheba) does not preclude their having been built as stables. For this and other reasons, this writer believes that the pillared building uncovered in Area A at Hazor was intended as a stable.

As for the possible reconstruction of the pillared buildings, in this writer’s opinion, they, whether stables or storehouses, should be reconstructed with a 2 to 3 m. high wall resting on the pillars, interrupted by clerestory windows, and not as Herzog suggests (Chap. 23). Such a wall would make the height of the various spaces to be built independent of the height of the pillars, which surely did not exceed 2 m. In addition, it would also create a suitable difference of height between the roofs of the lateral spaces and the roof of the central space.


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According to Shiloh, the back room in the three- or four-room house was the main room, or living quarter.\textsuperscript{20} Although the room may have been used for that purpose, the main living area must have been on the second floor, around the upper courtyard, which was airy, had plenty of light, and was isolated from the inhabitants of the ground floor — the chickens, sheep, goats and cattle quartered there.\textsuperscript{21} The construction of the house on two levels made possible the convenient functional division between the storage, livestock, and workshop accommodations on the ground floor and the family living quarters on the upper floor. Here it must be said that the commonly held view that the natural location of cooking stoves and baking ovens (tabuns) is in an open courtyard is not necessarily correct, as such courtyards were open to rain and wind. Indeed, at some sites, cooking facilities have been uncovered in closed rooms (although most were near doors leading outside). This was, for example, the case in the Zealots’ living quarters in the casemate wall at Masada.\textsuperscript{22} Although this example dates from a later period, no known significant changes had occurred in cooking and baking facilities. All the installations set up in the lower, roofed part of the central space enjoyed, as already mentioned, reasonable amounts of light and air.

The fact that the long-spaced house continued to be built throughout most of the Iron Age, and that its dispersal roughly corresponds to the areas settled by the Israelite tribes or by related tribes in Transjordan, as Shiloh has noted,\textsuperscript{23} raises the question whether the distinctive layout of this house, as well as its frequent occurrence, is a result of the Israelite tribes’ way of life. This is a subject worthy of attention and further study.\textsuperscript{24}

It appears that the house with long spaces, in its distinctive layout (either as a three- or a four-room house), became common mainly under conditions of dense urban building, when houses were contiguous and there was no possibility of enlarging a building horizontally. The division of functions between the two storeys made it possible to crowd the houses. On the other hand, if the supposition that the division of functions (between the two levels) had special significance for the Israelite tribes is correct, then, it explains its existence in sites that were not particularly densely built up (for instance, Tel Masos).

The size of the buildings discussed here — their height, the narrowness of the spaces, and their relatively thin walls — ensured that building costs would be low. The choice between a three-room and a four-room house was almost certainly determined by the size, needs, and wealth of the family and by conditions in the urban complex. From an architectural point of view, the four-room house is the optimal type among these ‘long-spaced’ houses.

**Courtyard Houses**

‘Long-spaced’ houses constitute the majority among the houses built according to a well-defined plan in the Israelite period. The few buildings with a characteristic plan that do not belong to this large group are located mainly in the large royal cities (Hazor, Samaria, and others).

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21. Evidence for this has been found, \emph{inter alia}, at sites such as Atar Ha-Ra‘ah and Tel Masos, where lintels were preserved between the pillars. The pillars are so low, however, they could have supported the lintels at a height suitable only for animals.
22. Y. Yadin: \emph{Masada: Herod’s Fortress and the Zealots’ Last Stand}, London, 1966, pp. 154–156 and photograph on pp. 158–159. This writer was one of the architects on the expedition, so that these opinions are based on first hand acquaintance with the site.
24. In a general discussion of this subject with Prof. M. Weinfield of the Hebrew University, one of the subjects tentatively explored was the issue of the separation between purity and impurity — such as the avoidance of a woman during menstruation. This writer wishes to thank Prof. Weinfield for his insights.

10. Dwelling, Tell Beit Mirsim, the ‘western tower’. \emph{Tell Beit Mirsim} III, Pls. 6, 8.
Megiddo), buildings which Herzog has defined as scribes' offices (Chap. 23), or are of an administrative nature (like the western tower at Tell Beit Mirsim, Fig. 10). In fact, there is a typological connection between them. They can be described as rectangular houses, with rectangular courtyards surrounded on two or three sides by rows of rooms; for convenience we have designated them as 'courtyard houses'. Although there is a close resemblance between some courtyard houses and some houses with long spaces, the courtyard houses, however, are characterized by a clearer and more uniform division of the rooms around the central space. Here there are no long spaces divided into rooms or compartments, but definite rooms built one next to the other. The evidence for this is the larger size, the more careful planning of these rooms, and the attention expended on their doorways. The courtyard houses are generally larger and better built than the houses with long spaces; they have wider courtyards and rooms, thicker walls, and more generous measurements. Generally speaking, courtyard houses do not have rows of pillars.

The size of the courtyards (usually 4 m. or more in width) and of the rooms, as well as their organization, suggests that the open-air courtyard in these houses was on the ground floor. However, it is probable that in some cases there was a second storey (as in Houses 3100, 3601, and 3208 in Stratum VIII at Hazor, Area B). If so, there must have been some means of connection among the rooms on the upper floor. Although the rooms are wider than the lateral spaces in the houses with long spaces, the absence in the courtyard houses of an internal space on the upper floor to give access to the rooms is similarly problematic (see above). Perhaps access to the rooms was by means of narrow wooden balconies that ran around the courtyard walls at the upper floor level. Although no evidence of such wooden balconies has been found, it seems that such an arrangement could have, tentatively, provided the access to and between the rooms. Such an arrangement would have been impractical in courtyards less than 4 m. wide, but in cases of courtyards wider than 4 m. the balconies (which could be as narrow as 0.7–0.8 m.) could have been built along two side walls rather than along only one of the longitudinal ones. In the absence of a built staircase, access to the upper floor was most probably by means of a ladder or steep wooden stairs. The following buildings belong to this limited group of courtyard houses.

**Courtyard Buildings with Rows of Rooms on Two Sides.** — Buildings 3100, 3067, and 3208 in Stratum VIII, Area B at Hazor (Fig. 11 and see above); Buildings 409, 424, and 406–408 at Samaria; and the northern and central units in Building 1482, Stratum IVB at Megiddo have rows of rooms on two sides. At Samaria and Megiddo, the buildings are not freestanding structures, but units incorporated into larger complexes. At those two sites they were 29. C.S. Fisher, D.G. Lyon, and G.A. Reiner: *Harvard Excavations at Samaria 1908–1910*, Cambridge, Mass., 1)924, pp. 114–17, Fig. 41. 30. *Megiddo I*, pp. 24–27, Fig. 12.
probably one-storey buildings, but at Hazor two storeys almost certainly existed.

Courtyard Buildings with Rows of Rooms on Three Sides. — Building 14, Stratum A at Tell Beit Mirsim (the western tower)\textsuperscript{31}; the house uncovered in the northeastern quarter at Tell el-Hesi;\textsuperscript{32} and the Stratum VIII citadel in Area B at Hazor\textsuperscript{33} are courtyard houses with rows of rooms on three sides. The remains clearly indicate two storeys for the first two; the thickness of the walls shows that the citadel at Hazor could have had three or four storeys. The courtyard here was located on the second floor and access to the rooms on the tentative third and fourth floors may have been by means of wooden balconies around the courtyard walls. Typologically this large building should be defined as a courtyard house rather than a four-room house, as Shiloh has suggested.\textsuperscript{34}

A few buildings are difficult to classify as either courtyard houses or houses with long spaces. House 2a in Stratum VI, Area A at Hazor, is a case in point.\textsuperscript{35}

The location of most, if not all, the courtyard houses indicates that they were primarily intended as administrative offices or as dwellings for functionaries. However, it may be that some of the houses with long spaces also were living quarters for officials (for instance, Houses 3148 and 3169 in Stratum VA, Area B at Hazor;\textsuperscript{36} the four-room house near the water supply system in Area L at Hazor;\textsuperscript{37} and the four-room houses Nos. 23, 226, and 379 at Tell en-Nasbeh).\textsuperscript{38}

It could be argued that the courtyard house developed from a type of LB house built around a courtyard (Chap. 13). However, the clear and characteristic features of the courtyard house attest to meticulous central planning — also evident in the fortifications, water-supply systems, stables, and/or storehouses of the period — that assigns it to the Iron Age.

33. Hazor, pp. 169–71, Fig. 45.
34. Shiloh (above, n. 3), p. 277.
35. See House 29 at Hazor (Hazor, pp. 179–180). Although on the eastern side there is a row of pillars characteristic of houses with long spaces, and in spite of the size and organization of the rooms on the north and the west, the building is best classified, in this writer's opinion, as a courtyard house.
36. Hazor, pp. 174, 177, Fig. 46.
37. Ibid.
38. Tell Nasbeh, pp. 206–212, Figs. 51, 52A, 52B.
SETTLEMENT AND FORTIFICATION PLANNING IN THE IRON AGE

Zeev Herzog

The study of settlement planning in the Land of Israel is subject to a number of limitations. First, the excavated area at many sites is too small to permit the study of planning principles in the settlement. Second, there are difficulties in analysing sites at which the stratigraphy has not been properly discerned, for example, at Tell en-Nasbeh. Third, for many of the sites, no overall plan has been prepared or published, or the excavation plans were published according to different scales as at ‘Ai and Bet Shemesh (Iron Age I) and Megiddo. This chapter emphasizes the general principles of planning by integrating excerpts of separately published plans into a single plan with a uniform scale and topographical features. In addition, an attempt will be made to reconstruct areas not yet excavated, or since destroyed.*

The following discussion distinguishes between the Iron Age I (twelfth–eleventh centuries B.C.) and the Iron Age II (tenth–sixth centuries B.C.) which represent two different conceptions of settlement planning. The Iron Age I is characterized by a low level of planning and an absence of public buildings and fortifications, as expected of a society in the process of settlement. The Iron Age II is notable for the planning of its fortifications and public buildings alongside residential buildings, appropriate to a stratified urban society with economic, military, and religious institutions. The settlement models from each of these phases of the Iron Age will be classified by types in an attempt to broaden the discussion beyond the above-mentioned, commonly accepted generalizations.

The Iron Age I (Twelfth–Eleventh Centuries B.C.)

The number of settlements from this period which have been completely exposed is quite small. A study

* The plans in this article were prepared by Mrs. Yehudit Dekel.
of the various sites reveals considerable architectural differences between settlements during the same period, although occasionally the concentration of one settlement model in a specific geographical area indicates the existence of a particular ethnic group in that area. The appearance of settlements composed of huts and pits (see below) in many areas of the Land of Israel indicates that this settlement type was, from the very beginning, part of the settlement process. Single-period sites such as 'Ai, Tel Masos and Giloh will also aid in developing this study.

The settlement models of the Iron Age I may be classified into seven types: 1. settlements of huts and pits; 2. clusters of pens; 3. enclosed settlements; 4. Israelite settlement villages; 5. clusters of enclosures; 6. planned cities; 7. Canaanite cities and Egyptian administrative centres.

Settlements of Huts and Pits

The geographic distribution of these settlements extends over the northern valleys, the hill country, the Sharon Plain and the Negev. In these settlements, of which some were built on top of ruined Canaanite settlements and others on mounds unoccupied in

In Stratum IX at Tel Beersheba, seven pits were exposed; they reached a depth of over 3 m. In at least one pit (No. 1321) there was clear evidence that it was used as a dwelling. In Stratum VI at Tel Dan, twenty-five silos were found, one of which was full of pottery, mostly storage jars. At Hazor many pits were found in Stratum XII, some of which were originally lined with stone, and next to which were found remains of huts. Pits and depressions for hut poles were uncovered at Tell Deir 'Alla in an early phase of the Iron Age.5 Pits were also uncovered at Tel Zeror6 and Tel Burqata,7 both in the Sharon Plain, at Tell Beit Mirsim (Stratum 1B)8 and Tel Masos.9 The wide distribution of hut settlements leads to the conclusion that this model of settlement was used by a population in the transition stage from nomadism to permanent settlement.

Clusters of Pens

It is possible that the long walls uncovered at Giloh,10 south of Jerusalem, were the walls of sheep pens inside which were also dwellings, although the excavator has interpreted some of the segments of the exposed walls as remains of a city-wall. It seems that the settlement at Giloh comprised five pens which served as dwellings for five families and their herds (Fig. 1B). It may be surmised that similar pens also existed at other sites

in the hill country. The relative paucity of dwellings at Giloh may be evidence that the settlement on the site was in the earliest stages of permanent settlement.

Enclosed Settlements

This type of settlement is characterized by dwellings encircling a central court. This layout affords the settlement protection even without a freestanding system of fortifications.\(^{11}\) A good example of an enclosed settlement is found in Stratum VII at Tel Beersheba (Fig. 2).\(^{12}\) The main characteristics are: 1. the contours of the settlement fit the conditions of the location, preferably on a slope, probably for protection against high winds; 2. the dwellings are adjacent to one another;\(^{13}\) 3. the centre of the settlement served as a court, probably for penning the herds of the residents at night. The houses are of uniform size with no public buildings among them. The entrance was placed in a space intentionally left between two houses and was sometimes guarded by two rooms that made the passage narrower. Similar settlements which are characteristic of the Negev and Judah and the wilderness of Beersheba were discovered at Hatira, Refed, and Rahba.\(^{14}\) A larger settlement was discovered at Tel Esdar.\(^{15}\) Settlements of this type have been discovered in other areas as well: Izbit Sartah, in western Samaria,\(^ {16}\) and Horvat 'Avot in the Upper Galilee.\(^ {17}\) Apparently in all these areas the settlements were built in this way essentially for defense, a need which grew out of the expansion and consolidation of Israelite settlement in the eleventh century B.C.\(^ {18}\)

The prototype of these settlements is probably to be found in the Canaanite settlements which were built in a similar fashion,\(^ {19}\) for example, Megiddo Strata VII B and VII A in which the governor’s palace and the adjoining buildings served as a defensive belt (Fig. 3). It does not seem reasonable to identify the prototype of this model as a nomadic settlement surrounded by a ring of tents.\(^ {20}\)

Israelite Settlement Villages

Unlike the enclosed settlements, the Israelite settlement villages are characterized by the fact that every area of the settlement is covered with dwellings which have no central court. It may be surmised, therefore, that these settlements evolved as a result of the transition to permanent settlement, increasing the utilization of the land for cultivation while decreasing the extent of sheep and cattle herding.\(^ {21}\) Settlements of this type were discovered at 'Ai and Bet Shemesh.

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12. For a full report see \textit{Beer-Sheba II}.
13. For a detailed discussion of this problem see Herzog (above, n. 11). In Beersheba and elsewhere dwellings are of the four-room house type or one of its subtypes, though the fact that the back rooms of these houses are broad-rooms may mislead us into thinking that this is a casemate wall. For this reason some of the settlements in the Negev have been erroneously termed 'fortresses'. However, a detailed examination of the plans shows that the dwellings were built as freestanding units without any continuation of the facade line or of the inner wall. It should also be recalled that for the early settlers, the casemates were houses in every sense.
14. Herzog (above, n. 11).
18. Herzog (above, n. 11).
21. I. Finkelstein proposed this idea which is developed at length in his doctoral dissertation, \textit{The Izbit Sartah Excavations} BAR (Inter. Series) No.
The settlement at 'Ai (Fig. 4) extended over an area of some 10 dunams, densely settled in the

22. Close to half the area of the mound has been exposed in the excavations. An attempt was made to overcome the handicap of the partial publication of both Marquet-Krause and Callaway's excavations by processing and integrating the partial plans which were published with the overall plan of the site (Fig. 4). The plan is based on an integration of the

following plans: `Ay, Pls. XCII, XCVII; J.A. Callaway: The 1964 'Ai (et-Tell) Excavations, BASOR 178 (1965), Fig. 7; (1965), Fig. 7; idem, The 1966 'Ai (et-Tell) Excavations, BASOR 196 (1969), Figs. 3–4 and photographs (in the absence of any plan of the eastern area); idem, The 1968–1969 'Ai (et-Tell) Excavations, BASOR 198 (1970), Figs. 3, 5, 6. For the general contour, the excellent aerial photograph (although part of the excavated areas were recovered with soil) which was published in idem, Excavation 'Ai (et-Tell): 1964–1972, BA 39 (1976), pp. 22–23 was of great help.
northern part, without a peripheral belt of buildings. Apparently the settlement here arose gradually, in an unplanned fashion, until it was entirely filled with buildings. This settlement is in fact an example of agglutinative growth in which a settlement that begins with sporadic houses comes to be filled up during its entire existence. Remains of the sanctuary (palace) from the Early Bronze Age in the western part of the settlement were also incorporated into the new settlement by dividing the building into small dwelling units. The rock-hewn cisterns for storing rainwater inside the settlement show that care was taken to insure a steady supply of water. The spaces between the buildings served as passages (alleys) although some of them were blocked in the second phase of the settlement by silos.

The settlement from the Iron Age I at Bet Shemesh (Stratum III) (Fig. 5) was larger and extended over most of the mound's surface (ca. 26 dunams). Unfortunately, it is difficult to analyse the site due to the excavators' problems in distinguishing the phases of the Iron Age. Apparently it is impossible to discern a circumvallation of the settlement in Stratum III by a fortification wall, although perhaps sections of the Bronze Age city-wall which were still standing were incorporated into the dwellings.

Despite its considerable size, Bet Shemesh Stratum III is not an urban settlement, but a village similar to 'Ai. The distribution of the buildings and the random orientation of the houses and walls indicate that the residents had no experience in construction. There is no evidence of streets or alleys. Since the silos are located inside the houses, it is possible to discern in the open areas between the buildings cooking ovens, wine presses, furnaces, and kilns for the metal and pottery industries. Many of the rock-hewn cisterns which were exposed on the site belong to this stratum, although most of them were also in use in later periods.

The population of the settlement can be estimated by analysing the finds from the 1933 season in which fifteen dwelling units were exposed in an area of 1,200 sq. m. Accordingly, in an area of 26 dunams there were approximately 137 units serving as dwellings for around 1,500 persons (based on an average of eight persons per unit); in other words, a density of 57 persons per dunam. This population density, though slightly higher than the average, is evidence of the poverty of the village.

As at 'Ai, at Bet Shemesh there are no prominent buildings, although possibly the well, uncovered in the southern part of the mound, was first dug in this stratum, as was the Iron Age I well at Beersheba. Perhaps the main building in Stratum II (in Squares X-W/30-28) was first erected in this stratum.

In summary, it seems that the settlement of Stratum III at Bet Shemesh was a village of settlers which developed according to the agglutinative principle and whose economy was based, in addition to agriculture, on various crafts such as metal working, pottery production and wine making. The settlement is dated on the basis of the ceramic finds (including Philistine ware) to the twelfth—eleventh centuries B.C.

Other settlements like those at 'Ai and Bet Shemesh apparently existed in the hill country and the coastal plain. At Tell Beit Mirsim there was a find from the period in question, but it is difficult to separate the


24. Callaway sees this as evidence of the penetration of a new population into the area, a population lacking any experience of village life. However, it may simply have been the result of population growth or an increase in agricultural production.

25. The absence of an overall plan of the building remains and the lack of a unified grid in the plans from the various seasons of excavations were a severe handicap. An attempt was made to overcome these handicaps by matching sections of the plans and attaching them to a single map which includes all the building remains which can be ascribed to Stratum III. It should be mentioned that not every structure can be ascribed with certainty to Stratum III, but the plan can serve as a basis for analysing the general characteristics of the settlement. The map is made up of the following plans: excavations from the 1928–1930 seasons, 'Ain Shems I, Pls. IV-V; excavations of the 1931 season, 'Ain Shems II, Pl. XXV; excavations from the 1933 season, 'Ain Shems III, Map II; the 1911–1912 excavations, D. Mackenzie: *Excavations at Ain Shems*, *AEPF* 2 (1912–1913), Pls. II-III. The combination of the plans was made possible by the map of the areas which was published in 'Ain Shems III, Fig. 1.

26. Shiloh (above, n. 1, 1980). The datum which leads Shiloh to the area of Bet Shemesh (40 dunams) does not fit the area of the Iron Age settlement.

27. E. Grant: *Bet Shemesh, A Report of the Excavations Made in 1928*, Haverford, 1929, p. 221. Its use as a sanctuary during this phase may be indicated by the magnificent three-tiered incense-burner which was discovered there (*ibid.*, p. 103).


29. *Tell Nantel I, Survey Map.* It is doubtful whether the section of the plan which Shiloh adduces (above, n. 1, 1978), Fig. 3, really represents the earliest phase of the history of the settlement.
buildings belonging to it from the other buildings. It would seem that a similar type of village existed at Khirbet Raddanah where buildings of the ‘four-room-house’ type were found with rock-hewn cisterns underneath.\textsuperscript{30}

Clusters of Enclosures

In the opinion of the author, contrary to that of the excavators,\textsuperscript{31} the settlement at Tel Masos (Fig. 6), which extended over a rather large area of at least 50 dunams (five times larger than any other settlement from this period), was not built with a peripheral belt of dwellings surrounding the entire settlement for protection, but rather was created from a group of separate enclosures. The main problem with the excavators' proposal stems from the fact that in Area A (where the most extensive excavations on the site were carried out) all the doorways of the houses face outward rather than toward the inside of the settlement. This would mean that the settlement had no peripheral defense.\textsuperscript{32} For this reason, the remains at Tel Masos are interpreted here as a cluster of enclosed settlements built next to each other. The main drawback of an enclosed settlement is that it cannot be enlarged. The large number of enclosures was probably meant to solve the problem of population growth in a settlement of this type. Possibly the enclosure in Area C, close by the well and containing a public building, Building 480,\textsuperscript{33} was the first enclosure built on the site; it may have served some administrative purpose.

Planned Cities

An interesting example of a planned city is to be found in Stratum X at Tell Qasile (Fig. 7) which boasts an orthogonal network of streets\textsuperscript{34} which divides the settlement into insulae, and creates a functional division of the insulae themselves. In the earlier strata, XII and XI, only limited areas were exposed. On the other hand, in Stratum X, 2.5 out of 10 dunams of the settlement's area were uncovered. However, it is still not clear whether the 5-metre-thick wall, uncovered in the northwestern part of the mound, belongs to a building or was part of the city-wall.

The author accepts the basic street system proposed by the excavator (two streets running north-south and four streets running east-west), but suggests that the city's area more closely corresponded to the topography of the hill, resulting in a clearer geometrical link between the street system and the outer framework, which, in the opinion of the author, was rectangular.\textsuperscript{35}

Inside the city area were twelve blocks of buildings of unequal size. Nonetheless, it is possible to estimate that the average block comprised six units. The entire settlement consisted of approximately 72 houses with a population of some 550 persons. Apparently, whole families engaged in the same occupation resided in some of the blocks. Area A, for example, was probably for crafts and storage. In another block, the sanctuary and the buildings annexed to it are prominent. Inside the blocks the location of the buildings is not very precise and the house facades do not form a uniform line with respect to the street.

In disagreement with the excavator, who considers the continuation of the sanctuary from Strata XII and XI as evidence of the organic development of the city, it is proposed that the orthogonal planning of Stratum X indicates a new plan which took into account only the location of the sanctuary, since the quarter in Stratum X in which the sanctuary was located does not symmetrically fit the orientation of the streets in

30. The plan of the remains which were exposed has still not been published. For the preliminary report see J.A. Callaway and R.E. Cooley: A Salvage Excavation at Raddanah, in Birkh, \textit{BASOR} 201 (1971), pp. 9–19.

31. Kempinski \textit{et al.} (above, n. 9), Figs. 3, 12. In the excavators' opinion, this hypothesis cannot be valid since the belt of houses abutting the wall follows the topographical boundaries of the settlement. Sections of this belt were also found in Area B. See the final report, \textit{Tel Masos}, pp. 34–35.

32. In the writer's opinion, the solution lies in the interpretation of the belt of houses in Area A as the outer part of the compound which continues northward rather than southward. Hence the doorways of the dwellings would face the center of the compound while the rear of the houses would face its outer periphery. The remains of the houses in the southern areas would belong to separate compounds. This interpretation is based on two facts: first, the topographical conditions in Area A do not tell anything about the perimeter of the hill, but only about a clear continuation to the north (see the 3 m. and 4 m. lines of elevation in the plan); second, the dwellings ('House 1000' on the overall map \textit{ibid.}, Fig. 2) to the northeast, outside the conjectured outer area of the settlement, certainly prove that the belt of structures in Area A does not mark the perimeter of the settlement.


34. A. Mazar: \textit{Excavations at Tell Qasile, I: The Philistine Sanctuary: Architecture and Cult Objects [Qedem 12]}, Jerusalem, 1980, pp. 76–77, Fig. 17.

35. An additional correction in A. Mazar's original suggestion regards the western road which runs south to north. For no apparent reason, the road deviates from its course and bears northward. According to this writer's reconstruction, the road continues northward symmetrically in a straight line.
settled in the area.

The layout of the fortification walls is detailed in the diagram, with various structures and gates indicated. The text mentions the reconstruction of Tel Masos Stratum II, after Tel Masos III, Plan 2.

6. Tel Masos Stratum II a reconstruction, after Tel Masos III, Plan 2.
Tel Masos, Iron Age I (Stratum 2), aerial view.
7. Tell Qasile Stratum X. *Qedem* 12 (1980), Fig. 17.

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finds indicate that the residents engaged in fishing.\textsuperscript{38} The areas exposed thus far in the Philistine strata at Ashdod and Tel Gerisa are too small to enable us to determine whether these settlements were built according to a crystallized plan.

**Canaanite Cities and Egyptian Administrative Centres**

Unlike the settlement models examined thus far, which are characteristic of new settlements, these are cities which continued to exist from the Bronze Age. Such settlements are found mainly in the valleys, but can also be seen in other areas such as Lachish in the coastal plain and Shechem in the hill country. Bet Shean and Megiddo provide extensive information for the following discussion.

Bet Shean was one of the Egyptian administrative centres in Canaan. A considerable portion of its acropolis has been excavated (approximately 8 dunams) and a large number of dated monuments of pharaohs were found, more than at any other site in Palestine. Strata VI and V are assigned to the Iron Age.\textsuperscript{39} A comparison of the overall plan of these strata\textsuperscript{40} indicates the continuity in the location of the temple area, but a change in the overall planning conception.

In Stratum VI the acropolis was divided into two blocks with an open area, probably a courtyard, between them. The area in the north of the acropolis was built around Building 1500 which served as a citadel or palace for the Egyptian governor. The southern area was built around Temple 1032 and most likely was used for cultic purposes. This division also reflects the division of the population: the local Canaanite inhabitants lived in the vicinity of the


\textsuperscript{39} There are differences of opinion among scholars as to the dating of the strata and the sanctuaries. Strata VI and V belong to the Iron Age although in the opinion of several scholars the beginning of Stratum VI dates to the time of Rameses II, that is, towards the end of the Late Bronze Age. In this summary the dating of F. James with which T. Dothan concurs, and according to which the beginning of Stratum VI dates to the time of Rameses III, is accepted. Stratum V is divided into two phases, the earlier of which (Stratum V lower phase) is from the eleventh century B.C. For a summary of the various opinions see F. James and A. Kempinski: Barth Shean, \textit{EAEH} I, pp. 214–215; Dothan (above, n. 28), pp. 81–82.

\textsuperscript{40} F.W. James: \textit{The Iron Age at Beth Shan}, Philadelphia, 1966, Figs. 74–77.
temple, while the Egyptians resided in the vicinity of the palace. Perhaps, with some reservations, these blocks can be seen as being divided by a network of orthogonally laid out streets. If this reconstruction is correct it is evidence of Egyptian influence, since this type of plan is well known in Egypt\(^1\) (Fig. 9).

41. A. Badawy: Orthogonal and Axial Town Planning in Egypt, Zeitschrift für Ägyptische Sprache und Altertumskunde 85 (1960), pp. 1–12. From here it is only a small step to raise

In the early phase of Stratum V the plan was different. Temple 1024 (Fig. 10) served to divide the blocks and the open area. Division into residential quarters cannot be discerned and there are almost no regularly laid out streets (except for 1524). The possibility that the orthogonal plan of Tell Qasile is also a product of Egyptian influence on the Philistines (or the Sea People in general) arising from the cooperation in the government of Canaan during the twelfth century B.C.
uniformity of the plan (single orientation, right angles, parallel walls and a tendency to small rooms) indicates that in this stratum the acropolis was a military and administrative centre resembling a citadel. There is no information about the extent of the acropolis, but the city-wall seems to have been built in conformity with this complex. The difference between Strata VI and V stems most probably from the transfer of control from the Egyptians to the Philistines. The military character of Stratum V reflects the Philistines' struggles with the Israelites which reached their height in the time of Saul at the end of the eleventh century B.C.\textsuperscript{42}

42. S. Yeivin considered the change in the plan of the sanctuaries in Stratum V as a result of the Philistine conquest. See M. Avi-Yonah and S. Yeivin: The Antiquities of Israel, Tel Aviv, 1955, p. 181 and n. 60 (Hebrew). It is interesting to note that in the upper phase of Stratum V, from the tenth century, there were no significant changes in the plan. Perhaps the new settlers simply conquered the fortress and made changes only in the vicinity of the entrance where they built a gate and storehouse — James (above, n. 40), Fig. 73.

At Megiddo three different Iron Age I strata were uncovered. Stratum VIIB (twelfth century) continues the building characteristics of Stratum VIIB (thirteenth century). In this stratum some 20% of the area of the tell was exposed, most of which consisted of public buildings that covered an estimated 40%
of the area of the city (Fig. 3). The location of the palace in the west, and the sanctuary in the east continues the tradition of the Late Bronze Age. In the vicinity of the sanctuary a new building was constructed which may have served as a residence for the priests of the sanctuary. In addition to the western palace there was a second palace (in Area DD and in Square K 10) of comparable size, which was first built in Stratum VIII. This building, which has not yet been entirely exposed, comprises a central court ringed by rooms. The courtyard between the two palaces may have served as a plaza. The city itself was not surrounded by a wall in Stratum VII, but by a ring of peripheral structures. The gate built in Stratum X was still in use. The pillars uncovered near the western palace, which in the author's opinion may have resembled the pillars near the eastern palace, may also have supported a balcony from which it was possible to shoot down at attackers. The absence of fortifications is widespread in the Late Bronze Age.

In the residential area in the south of the mound (Area CC), where the excavators had difficulties distinguishing between Stratum VIII and Stratum VII, it is difficult to discern the organization of the streets or alleys. The quality of the construction was quite poor and the quarter seems to have expanded according to the agglutinative principle. A comparison of this quarter with the public buildings in the north and the quarter in the south of the mound shows a pronounced polarization of socioeconomic classes.

The transition between Stratum VIIA and Stratum VIB is extremely sharp at Megiddo. The contrast is particularly noticeable in the palace area where poor dwellings lacking any uniform plan were built on top of the palaces. The settlement, which resembles the Iron Age villages at 'Ai and Bet Shemesh (see above), may not have extended over the entire surface of the mound; Areas BB and CC lack remains from this stratum.

In Stratum VIA the city again covers the entire surface of the hill. In the north a planned palace (2072) was built, which together with the buildings west of it creates a peripheral belt (Fig. 11). This required the construction of a new gate with one chamber on each side. Perhaps the late phase of Sanctuary 2048 can be assigned to this stratum. East of the gate a well-planned quarter was built in which Building 3000 stands out. In Areas BB and CC, on the other hand, there seems to have been an unplanned residential quarter which housed a poorer population.

It is worth noting the similarity between Strata VIIA and VIA and the difference between these two strata and Stratum VIB between them. Stratum VIB in fact fits the definition of a typical Israelite settlement village and its inhabitants were probably Israelites, while Stratum VIA was most likely inhabited by a Canaanite population (Philistine?) which returned to the city after a brief time and rebuilt it according to the city model of Stratum VIIA, making secondary

43. Herzog (above, n. 11), pp. 103–118. The plan of Stratum VIA (Fig. 12) is based on Megiddo II, Figs. 384, 404, 409, and 412 which were superimposed on the topographical map, Fig. 377. For a similar processing of the plans of Late Bronze Age Megiddo see I. Baumgarten: The City Plan and City Planning in the Late Bronze Age in the Levant, M.A. Dissertation, Hebrew University, Jerusalem, 1978, Pls. III-V (Hebrew), and Chap. 17 in the present volume.

44. Baumgarten (above, n. 43), pp. 32–33, proposes to interpret this building as a sanctuary. In light of the reconstruction proposed here, it is difficult to accept his theory. For parallels of the plan of the palace in Megiddo Stratum VII and Hazor Area F see I. Dunayevsky and A. Kempinski: The Megiddo Temples, ZDPY 89 (1973), pp. 161–187. Unfortunately, large portions of all the plans of these buildings have been reconstructed.

45. This is the earliest stratum which the excavators reached in Area DD aside from several sections of walls on its western side (Megiddo II, Fig. 411), which are assigned to Stratum IX and may indicate continuity in this phase. It would seem possible to hypothesize that between Stratum VIB (Fig. 411) and Stratum VIA (Fig. 412) there was a real change in the plan. However, since the entire eastern wing of the building in Stratum VIA comprises precisely the same walls as in Stratum VIII, it is obvious that it must have been in use also in the transitional Stratum VIB, and for some as yet unknown reason it was omitted from the plan of this stratum.

46. It would seem that the absence of fortifications in the Late Bronze Age cities in Canaan is a widespread phenomenon resulting most probably from the policy of the Egyptian rulers of discouraging rebellion amongst the local kings. A peripheral system of defense of this type does not preclude the need for an entrance gate to the city, and indeed the gate, which most probably originated in Stratum X, was in use until Stratum VIA.
use of partially burnt bricks which were removed from the ruins of the city.

Summary of the Iron Age I

The settlement models which were surveyed from the Iron Age I clearly show the multiplicity of plans typical of this period in the history of the Land of Israel. Apparently the settlements of the Iron Age I defy the simple distinctions which are usually made in the classification of settlements, for example, as cities or villages. Furthermore, the usual variables in the analysis of urbanization, such as the existence of a city-wall as a criterion of an urban settlement or the area of the settlement, do not suit an analysis of the settlement models in question. For example, Tel Masos Stratum II, which covers an area of approximately 50 dunams, is not defined as a city, whereas Tell Qasile with its 16 dunams is considered a planned city. On the other hand, Megiddo of Strata VIIA and VIA, although unwalled, is indubitably an urban settlement.

Another difference between most of the Iron Age settlement models and the Canaanite city in Megiddo VIIA (and to a lesser extent in Bet Shean VI, Megiddo VIA and Tel Masos II) is the existence of sharp socioeconomic distinctions revealed by the existence of splendid palaces alongside poor dwellings. In the settlements typical of populations in a settlement process, whether in enclosed settlements or in villages attributed to the Israelites or even in Philistine Tell Qasile, there is an obvious uniformity in the size and plan of the dwellings which undoubtedly represents a high degree of economic equality.

Orthogonal Planning, Peripheral and Radial Plans. — The outer contour of the settlement is an important criterion of planning. The orthogonal contour based on the square may be distinguished from the oval contour which fits the natural surface conditions of the site (Fig. 12). The oval settlements, it seems, may be divided into two types. The first is the peripheral settlement in which the line of the city-wall is planned in accordance with the topography of the mound but the houses are built without any uniform plan, as in the settlement in Tell Beit Mirsim A. The second type, which may be defined as radial, is planned with the help of radii emanating from central points, as in Beersheba II.

Orthogonal planning does not conform to the natural contours of the hill or mound on which the settlement is built; hence the settlement stands out from its surroundings, lending it a monumental character. This plan was preferred at settlements of social, political or military importance as on the acropolis of a capital city or main administrative city, as well as in fortresses. The orthogonal plan also made it easier to integrate square building units into the settlement and to divide it into quarters. Orthodox planning required great engineering work (leveling and quarrying) and prevented the maximal utilization of the area possible in an oval settlement. The well-planned construction also demands more skillful building. The number of orthogonal Iron Age II settlements is small, apparently due to the numerous difficulties inherent in this plan. It is noticable that in these few cities there is also greater use of monumental building techniques (ashlars, proto-Aeolic capitals, carved window balustrades, etc.).

Iron Age II (Tenth-Sixth Centuries B.C.)

Planning Principles in the Cities

Iron Age II remains have been exposed in scores of settlements, but due to reduction in the extent of excavations, the settlement and fortification plans from only a few sites can be discussed. It is possible, however, to discern planning to some extent in all the settlements of this period. In order to determine the degree of planning, a number of criteria will be proposed which will serve as a basis for comparison and will then be used to create a typology. Three aspects of settlement planning will be considered.

51. For the application of these terms to the Late Bronze Age see Chap. 17 in this volume.
The peripherally organized settlement represents the simplest city plan and refers in fact only to the lines of the city-wall which were built at government initiative. It is possible that in several of the peripherally planned cities the radial plan was used, as can be discerned in Beersheba (see below). The main question regarding these settlements is whether the diagonal lines are the result of strict planning and the use of foci from which lines were drawn toward the sections of the circumference, as seems more likely, or the result of pure chance, the buildings erected according to an oval circumference.

The orthogonal plan is, as mentioned above, the most difficult and costly to apply. Therefore, in many cases the planners of the Israelite city compromised by combining official orthogonal building units within a peripherally contoured city, as in Lachish Stratum III.

The quantitative relationship between public structures and private dwellings (Fig. 13). — This relationship may shed light on the importance of the city in the administrative hierarchy. In this case, the category of public structures should also include the city-walls, the city-gates, the storehouses, water systems, the palaces and their courtyards, etc. It is assumed that the more important the city in the eyes of the royal planners, the greater the area of the settlement devoted to such structures, while the greater the area devoted to private dwellings, the less important the city and hence less planning went into it. It is possible that the residential units may also have served the representatives of the Monarchy, and not only private citizens. For example, the residential buildings in the citadel at Arad are unquestionably 'public structures' which served the representatives of the administration. For this reason the relationship between the two types of structures should not be considered independently or definitively, but only by comparison with the other criteria of planning. Generally speaking, this relationship will be examined by considering whole blocks of buildings within the settlement whose overall character is unequivocally public or private.

Streets and open areas in the urban system. — The system of streets and open areas between the buildings of the settlement is an excellent criterion of the degree of planning. There is a broad spectrum of systems ranging from settlements without any streets, with open, irregularly shaped areas connecting the various parts, and settlements with a high level of planning, with streets of uniform width, uninterrupted by buildings. In general, a planned settlement utilizes its area more efficiently, particularly the open areas, but there are also areas which were planned as open spaces, for example in Megiddo and Lachish. These courtyards must have been for the encampment of
army units or the setting for market places or for other commercial activity.

The ease of transportation in cities with a peripheral (or radial) plan, where some of the streets lead directly to the gate thereby permitting the free flow of traffic, should be noted. By contrast, procession through cities with an orthogonal plan requires many turns and a longer course.

**Capital Cities**

To this category belong primarily the capital cities of Jerusalem and Samaria. Of the royal acropolis of Jerusalem nothing seems to have survived. However, many parts of the upper city of Samaria, the capital of the Kingdom of Israel, have been exposed, making it possible to discover the principle of its plan. While the area of the acropolis (Fig. 14), which was uncovered under the enormous structures from the Hellenistic and Roman periods, is known, only single remains were found on the lower terraces of the mound. Apparently, however, the lower city extended over hundreds of dunams.

The acropolis was built in two phases. The first (Stratum I), from the first half of the ninth century B.C., most probably from the time of Omri, extended over an area of approximately 17 dunams and was surrounded by a wall 1.6 m. thick. In the southeastern corner of this enclosure a large building, doubtless the royal palace, was erected. The area east of the palace served as a large court. On the northern side remains of dwellings were exposed. In the small area which was uncovered, an intersection of streets was found among the remains of the houses. This shows that most likely the residential quarter was divided by a network of streets.

In the second phase (Stratum II), also from the first half of the ninth century B.C., most probably from the reign of Ahab, the acropolis was enlarged and surrounded by a casemate wall on at least three sides (see below). The acropolis now covered an area of approximately 26 dunams. In another area to the west was erected a structure symmetrically divided

54. For a summary of the opinions on the date of the two phases see N. Avigad: Samaria, *EAEHL IV*, pp. 1041–1043.
into rooms on both sides of central corridors. This is clearly an administrative structure. Most of the Samaria letters discovered to date strengthen this interpretation. At a later phase, a large building, perhaps another palace or an extension of the citadel, was added to the western part of the acropolis.

The construction at Samaria is remarkably precise, and undoubtedly the planners’ intention was to erect a rectangular building with true right angles. Upon closer examination, however, discrepancies of up to three degrees from a right angle are detectable.

Even though the acropolis has not been entirely excavated, it is unquestionably of a royal, monumental character which is manifested in the orthogonal plan, the devotion of a large area to public structures, and perhaps also the regularly laid out streets. All this, along with the high quality of construction, perfectly fits the role of the acropolis of the capital of the Kingdom of Israel. The structure of the acropolis, at any rate, clearly indicates that the planners made certain to separate completely the royal enclosure and the civilian residential quarters. It may be supposed that this model also applied to the acropolis of Jerusalem, capital of the United Monarchy and the Kingdom of Judah.

Major Administrative Cities

Major administrative centres are cities in which the public complexes occupy the largest part of the settlement plan. These complexes are orthogonal units within the framework of the peripheral settlement plan. Included in this model are the cities which were uncovered in Megiddo Strata VA (VA–IVB according to Yadin and others), VIB (according to Yadin), and IVA, and in Lachish Strata IV and III. Probably other cities such as Hazor Strata X–IV, Gezer and Tel Dan in the strata from the tenth century on, were similarly planned, but the archaeological data are insufficient.

Megiddo. — The excavations in Iron Age Megiddo are very extensive, but the stratigraphy and chronology of various strata are unclear. Various excavators have tried to clear up the difficulties centering mainly around Stratum VA (or VA-IVB according to Albright’s suggestion) through the early phases of Stratum III. Their various approaches are summarized in Table 1 which refers to strata, chronology, ‘Solomon’s Gate’, the offset-and-inset wall, and the possible existence of a casemate wall from the time of Solomon, a possibility which Aharoni and the author reject. The following discussion is based on the stratigraphic division proposed below.

A more difficult problem is that of the stratigraphic attribution of several structures to the various strata. Opinions differ most sharply over the possibility of the existence of an early phase of use of ‘Solomon’s Gate’. In Yadin’s and Shiloh’s opinion, such a phase does exist and it was during this phase that Megiddo was surrounded by a casemate wall. See Yadin, ibid.; Y. Shiloh: Solomon’s Gate at Megiddo as Recorded by its Excavator, R. Lamon, Chicago, Levant 12 (1980), pp. 67–76. In the opinion of Aharoni, Herzog, and Ussishkin, there is no stratigraphic possibility of the existence of such a phase. See Aharoni, ibid.; Herzog, the city-gate (above, p. 31), pp. 102–116; D. Ussishkin: Was the ‘Solomon’s’ City Gate of Megiddo built by King Solomon?, BASOR 239 (1980), pp. 1–18. Ussishkin accepts Aharoni’s and Herzog’s stratigraphic conclusions but proposes to date the settlement level under the offset-and-inset city-wall to the time of Solomon, and the city-wall and Solomon’s Gate to a later period. There is also disagreement over the dating of the strata in question and their link to the period of the kings of the United Monarchy and the Kingdom of Israel.

The excavators of Megiddo ascribed Stratum VA to the time of David; Aharoni and Herzog concur in this date. Yadin, on the other hand, ascribes this stratum (which he calls VA-IVB) to which he adds ‘the early phase’ of the six-chambered gate, to the time of Solomon, while Ussishkin ascribes it to the time of Solomon but without including the gate. Yadin ascribes the new city of Stratum IVB (which he calls IVB) to the time of Jeroboam I. Aharoni ascribes it to the time of Solomon, and Ussishkin to one of the kings of Israel after the time of Solomon. In Stratum IVA of the city a few changes were made, the most conspicuous being the replacement of the six-chambered city gate by a four-chambered gate. There is unanimous agreement that this change was made in the ninth century, probably in the time of Ahab.
The urban plan of Megiddo in the strata which we call VA and IVB (see table) maintains certain common characteristics, but nonetheless there is a significant difference between them. The resemblance lies in the contour of the periphery and the inner structure. In both phases large public structures were erected alongside residences. The differences are in the type of fortifications and the extent (or strength) of the public structures.

<table>
<thead>
<tr>
<th>Megiddo I</th>
<th>Megiddo II</th>
<th>Y. Yadin</th>
<th>Y. Aharoni</th>
<th>Z. Herzog</th>
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<tr>
<td>HIIA</td>
<td>IV</td>
<td>IVA</td>
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<td>Main phase of IV</td>
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<td>IVA1</td>
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<td>V</td>
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The early phase of Structure 1482, whose plan indicates its administrative character, also belongs to this stratum. The city-gate is beneath the foundations of 'Solomon's Gate' and to it led Access Road 2160 onto which a cultic structure may have abutted. Parts of the residential quarter which were exposed indicate irregularly planned peripheral buildings. The houses lack a uniform plan or orientation as they do in Strata VIIB and VB. At any rate, the very noticeable contrast between the residential quarters and the public enclosures indicates the difference in standards of living and most probably reflects the contrast between the agricultural population and the representatives of the royal administration.

The plan of Megiddo Stratum IVB (IVA according to Albright and others). A new planning concept is evident in this stratum of which much was exposed (37 dunams). First and foremost is the defensive military trend which is embodied in a massive offset-and-inset wall (3.6 m. thick) which comprises a large inner six-chambered gate with a facade of two towers separated from an outer gate by an inner courtyard (Fig. 16).

The public buildings cover a larger area. West of the enclosure of Palace 1723 (the palace itself was destroyed but the enclosure is still standing) was built a large complex of pillared buildings which served as stables for horses, in the opinion of some scholars, or as storehouses, in the opinion of others, including the author (and see p. 224). The southern complex, together with a large court, covers ca. 10 dunams. A second, trapezoidal, complex of stables (or storehouses) was built abutting the city-wall in the north. The governor's palace was erected at this time south of this complex and was defended by

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56. The plan of this building resembles that of the 'Ostraca House' which was discovered at Samaria, and it may have served a similar administrative purpose (Chap 23 in this volume).
57. Yadin does not mention this gate in his discussion of the relationship between 'Solomon's Gate' and Stratum VIA (above, n. 55), pp. 50–51, and therefore he is inclined to ascribe the drainage channel of Stratum VA to Stratum VIA (above, n. 55, Fig. on p. 51), despite the fact that the channel is incorporated into the outer wall of the access road of Stratum VA (Megiddo II, Figs. 91, 338).
58. The building objects which were found concentrated in a corner of Courtyard 2081 in this stratum (Megiddo II, Figs. 190–195) may well have originated in the gate sanctuary and been hastily taken inside the city in times of war.
59. The sources for Fig. 16 are Megiddo I, Figs. 3, 49; Megiddo II, Figs. 389, 414; R.S. Lamon, The Megiddo Water System, Chicago, 1935, Fig. 2.
15. Megiddo Stratum VA. *Megiddo I*, Figs. 12, 34, 49; *Megiddo II*, Fig. 105; *Megiddo Water System*, Fig. 2.
a freestanding gatehouse. Administrative Building 1482 (an archive?) was reduced in size and nearby there may have been a secondary city-gate at the point where the city-wall deviates from its course. Most probably the first phase of the water system also belongs to this stratum.

The residential buildings were exposed in only one area, west of the city-gate. The houses, unlike those in the earlier stratum, are not located on the perimeter but were built separately from the city-wall with a rather uniform orientation.

An analysis of the lines of the urban plan in the stratum in question reveals the sharp contrast between the peripheral line of fortifications and the orthogonal units within. These complexes were built parallel to the line of the adjacent city-wall with only partial coordination between the units. The spaces between the units are irregular and are not properly utilized.

In contrast with 75% in the earlier stratum, private houses covered only ca. 18% of the city area (5 dunams for a population of approximately 500). The rest of the area was for stables (or alternatively, for the storage of agricultural and other products) and some of the courtyards were most probably used for encampments of army units or passing caravans.

Megiddo as an Assyrian Administrative Centre (Stratum III). Although the entire city area in Strata III–II has been excavated, stratigraphic problems prevented the excavators from publishing the plan of Stratum III separately from that of Stratum II in the southern area, and from publishing the plan of the central area of the mound. With the aid of the published aerial photographs it was possible to provide at least a partial reconstruction of the missing parts (Fig. 17).

Megiddo of Stratum III, aside from the offset-and-inset wall which continued in use, was replanned according to new principles and is a fine example of an Assyrian administrative centre in the Land of Israel. Innovations include the concentration of all the administrative buildings close to the city-gate (in the north) and the distribution of the residential structures, which covered the rest of the city, into parallel bands of buildings comprising dwellings which were divided by straight streets. In addition to the main streets running north to south, there were also streets crossing from east to west. Unlike the main streets, the bisecting streets do not continue uninterrupted, and the spaces between them are not uniform.

The city-gate was replaced at this time by a new two-chambered gate. On the western side two palaces (1052 and 1369) were exposed while another palace (490) was uncovered east of the gate. Each of the three palaces has a large central court and sophisticated drainage system. Erected in the northeastern corner of the city were several enclosures not used for residences. Perhaps they were open courtyards for encampments of army units. Within the residential area was a large public silo (11 m. in diameter and 7 m. deep with a total volume of ca. 450 cu. m.).

The bands of houses were built with great precision. Each band is 20–23 m. wide; the width of the streets is 2.5–3 m. An examination of the measurements shows that the planning was based on the Assyrian cubit.

In this stratum, the residential structures covered ca. 35 dunams, some two-thirds of the city's area. Their excellent planning and the existence of the public silo within the residential area may indicate that this quarter was meant for royal officials. Stratum III is dated by most scholars to the time of Assyrian rule when Megiddo was the provincial capital. In

62. Shiloh was the first to propose that the structure be reconstructed as a gate — Y. Shiloh: The Proto-Aeolic Capital and Israelite Ashlar Masonry [Qedem 11], Jerusalem, 1979, Fig. 73.
63. The sources for Fig. 17 are Lamon (above, n. 61), Fig. 2 and Megiddo I, Figs. 17, 27, 89, 115–118.
65. R. Amiran and I. Dunayevsky defined the western palaces as Assyrian open-court buildings, but they did not propose a plan for the eastern palace — Ruth B.K. Amiran and I. Dunayevsky: The Assyrian Open-Court Building and its Palestinian Derivatives, BASOR 149 (1958), pp. 25–32. On the other hand, the Nordurb of Schumacher's excavations, which they considered another example of an Assyrian palace, cannot be from Stratum III since it was 'cut by one of the storehouses of Stratum IVB'. The excavators in the American expedition ascribed this building to the Middle Bronze Age (Strata XII, XI) — Megiddo II, Fig. 415.
66. The length of the Assyrian cubit is 49.5 cm. — R.B.Y. Scott: 'The Hebrew Cubit', JBL 77 (1958), p. 297. It may be surmised that the width of the blocks of buildings between the streets was set at 42 cubits (or 7 reeds) which is approximately 21 m. The width of the streets was certainly 6 cubits (one reed) or ca. 3 m. When the width of the entire area is calculated, a length of 157.5 m. is yielded which comprises 7 blocks of buildings (i.e. 294 cubits or 145.5 m.) and 6 streets (36 cubits or 17.8 m.) and their planned length must have been 163.5 m. The deviation from the plan was thus 5.8 m., an error of only 3.6%. When it is considered that the lines of the streets are parallel, it can be seen that this error is quite small, showing great engineering capability.
Stratum II (reign of Josiah)\textsuperscript{67} part of the residential area continued in use while on the eastern part of the settlement a fortress was built. 

\textit{Lachish Stratum III.} — Most available data from the Iron Age at Lachish (Fig. 18) is derived from Stratum III.\textsuperscript{68} The most prominent element of the plan in this stratum is the spacious enclosure which occupies the major part of the settlement’s interior — a square enclosure measuring 106 x 106 m. (200 x 200 cubits?) to which was annexed a wing of storehouses in the south. The total area is ca. 13 dunams. The enclosure comprised a raised palace, a court, royal storehouses, and an additional group of structures south of the court which may have been warehouses or stables. The central court was probably used to accommodate passing caravans and army units. There may have been another public area north of the thick revetment which is a continuation westward of the palace’s southern side. Another public area consists of a large pit, perhaps an unfinished quarry or water system, uncovered southeast of the city. The entire public area, along with the city-gate, covers ca. 15 dunams.

The residential quarters uncovered at Lachish lie east of the gate, unlike at Beersheba or Gezer, where there is no inner plaza. Several shops open onto the street leading to the gate from the east. The residential quarters were not built in accordance with any clear, well-defined plan, or for the maximal utilization of the area for building purposes. It is not clear whether all the residential quarters have been uncovered, but there are indications that the residential structures covered only a small area of the city, perhaps only 15% of its 70 dunams, in which a population of 500 persons resided.

The contrast between the monumental planning of the public part of Lachish and the poor residential quarters, indicates a predominantly administrative function which accounts for the presence of the fortifications, palace, court, storehouses, and perhaps also the stables.

An analysis of the city plans of Megiddo Strata IVB and Lachish Stratum III indicates the obvious predominance of the well-planned public-administrative units over the poor, irregularly-planned private residential quarters. This may indicate the existence of two groups of residents, the representatives of the Monarchy who lived in sumptuous buildings, and the private residents who built their houses themselves.

**Secondary Administrative Centres**

Tel Beersheba is the only city which may be categorized as a secondary administrative centre, although typologically there are points of resemblance between Beersheba and the royal fortresses which have been uncovered in Judah.\textsuperscript{69}

The area of the city was approximately 11.5 dunams, ca. 60% of which has been excavated in the latest Iron Age city (Stratum II) from the eighth century (Fig. 19).\textsuperscript{70} Of the earlier cities only very small portions have been exposed, but apparently there was continuity in the city plan beginning with Stratum V, the first royal city from the time of the United Monarchy. The continuity is embodied in the continuous existence of the peripheral road (beginning in Stratum V) and in the western residential Quarter (beginning at least from Stratum III).\textsuperscript{71}

Unlike Megiddo Strata VA and IVB and Lachish Stratum III, Beersheba seems to have been planned all at one time when the areas for public building and the areas for dwellings were incorporated into a single harmonious system. This is evident in the street system. The outer peripheral road is parallel to the city-wall and separated from it by a row of buildings. The inner peripheral road is parallel to the outer one; the distance between them is twice the distance between the outer road and the city-wall. In addition, the settlement is divided down the middle by a street emerging from the city-gate. The street layout enables efficient internal transportation as well as drainage of runoff water through the gate. The streets are of quite uniform width (ca. 2.5 m.). The house facades are generally straight; the curve required by the oval contour of the city was achieved by varying the angles between the houses.

67. For a discussion of the historical considerations in favour of viewing Stratum II as the result of Israelite or Egyptian initiative see A. Malamat: Josiah’s Bid for Armageddon, \textit{JANES} 5 (1973), pp. 267–279.

68. The plan is based upon the following sources: \textit{Lachish III}, Pl. 114 and \textit{Lachish V}, Pl. 58 and plans from Ussishkin’s excavations which were copied with his kind permission. D. Ussishkin: Lachish in the Days of the Kingdom of Judah — The Recent Archaeological Excavations, \textit{Qadmoniot} 15 (1982), p. 42 (Hebrew).

69. On the functional parallel between Beersheba and Arad see Herzog (above, n. 1).

70. The plan of the settlement in this stratum and the proposed reconstruction of the blocks of buildings and streets and parts of the city which were not excavated, were processed and prepared anew by the author.

Beersheba. Iron Age II (Stratum II), aerial view.

A characteristic phenomenon at Beersheba is the incorporation of the houses into the casemate wall, unlike the casemate wall at Hazor (Strata X–V) for example, which is separated from the city by a road. The public buildings at Beersheba included the city-gate, the forecourt of the gate, three units of storehouses covering an area of ca. 600 sq. m., and a water system most probably built in Stratum V. Of the rest of the city buildings which served as dwellings, Building 416 is noteworthy. It may have been the residence of the governor of the city, while Building 32 (the ‘cellar house’) may have been erected to replace the destroyed sanctuary. Common in the residential area is a structure consisting of a pair of long halls separated by a row of pillars, with a long space behind them. In some of these structures there is another hall in the front, sometimes with stairs leading up to the roof.

According to this analysis, Beersheba exhibits a radial city plan. This conclusion is based on the fact that the main construction lines in all the exposed dwelling blocks converge at a single point within the city’s area (Fig. 19). Therefore, it may be inferred that the planners used cords anchored with a tent peg atop a vertical pole to form the city’s axis.

72. Hazor II, Pls. CXCIX–CCIII. It should be noted that the example from Hazor as well as the city plans of Megiddo, Gezer, and Tell el-Far‘ah (North) indicate that the conception of the existence of a ring road within the peripheral belt of houses does not appear universally in the planning of Israelite cities as one might suppose from the discussion in Shiloh (above, n. 1, 1978).


74. This idea was suggested by the architect Shlomo Lavi during a class on city planning which was given at Tel Aviv University in 1981.
peg at several pivotal points which can be located. Apparently, the length of the cord was equal to the radius of the outer line of the city-wall. The relation between the various angles of the house walls may be due to chance (in keeping with the curves of the settlement as a whole), but this seems unlikely. Rather, the plan was determined by the pivotal points used when planning with the cord. In the first phase of the building process, the city-wall was built in accordance with the shape of the hill, but in straight sections, and projections were created in the angles between these sections. In the second phase the blocks of dwellings were built leaning against the city-wall with the aid of the pivotal points, and only afterward was the inner part of the city planned. The public buildings (the gate, storehouses, water system, and governor’s residence) were planned in the third phase, using the orthogonal method, with slight deviations deriving from the adaptation of the structure to the street lines.

The harmony of the plan of Beersheba, by contrast with those of Megiddo and Lachish (see below), may result from the fact that public needs were limited, and the population consisted of administrative officials whose houses were part of the public-administrative system. This fits a small city the size of Beersheba which served as an administrative centre for a geographical area of secondary importance. The dwellings take up 9 out of 11.5 dunams (approximately 78%). Some 600 persons inhabited 75 residential units, an average of approximately 52 persons per dunam.

**Provincial Towns**

Several settlements may be defined as provincial towns. The main examples discussed here are Tell Beilt Mirsim and Tell en-Nasbeh.

**Tell Beilt Mirsim.** — The city’s area is ca. 30 dunams, of which approximately seven have been excavated in two separate quarters. The city-wall is ascribed to Stratum B3 (first half of the fifteenth century B.C.), but most of the city excavated belongs to Stratum A2, which is contemporary to Beersheba Stratum II.

The clearest architectural unit in the city is the city-wall which was built according to the topography and the peripheral plan. The excavated part of the city has no public buildings. Even the city-gate with its two phases is not a gatehouse but only a simple entrance guarded by towers. The layout of the houses shows that few were built according to a plan, in contrast with the high degree of planning at Beersheba. The streets are not of uniform width and arc, in fact, little more than open areas between the houses. Access to some of the houses is through winding alleys. Unlike in Beersheba, in Tell Beilt Mirsim there is no uniform row of houses parallel to the city-wall. In a few of the dwellings, the residents could not use the rooms of the city-wall. Unlike in Beersheba, where all the houses have a common wall, in Tell Beilt Mirsim there are many instances of double walls which may indicate that the dwellings were the property of the residents. Moreover, the erection of the dwellings in the centre of the city indicates a lack of any planning in their orientation, as can be seen in several of the areas of settlement. Apparently here, too, there was a process of agglutinative growth. The land was not utilized efficiently — ca. 53% of the area as opposed to ca. 92% in Beersheba. The number of inhabitants of Tell Beilt Mirsim, based on Shiloh’s estimate of 164 dwellings, was approximately 1300 persons (eight persons per family) and the population density was around 44 persons per dunam. This waste of space in Tell Beilt Mirsim can be considered as further proof of lack of planning.

With the exception of the city-wall, no public buildings were discovered in the excavated areas. The western tower does not belong to the original plan, while the public building (citadel?), only partially exposed near the city-gate, was probably built at a later phase (both are most likely from the seventh century B.C.). In light of all these facts, it seems quite certain that Tell Beilt Mirsim was not a planned city, and was, therefore, entirely different from the administrative cities discussed above. Thus, it should be considered a provincial town, differing from a village mainly in size and fortifications.

**Tell en-Nasbeh.** — Despite stratigraphic problems, it is apparent that a great part of the remains uncovered thus far belong to the late phases of the city from the Iron Age II (Fig. 20). Of the city, whose area is ca. 30 dunams (like Tell Beilt Mirsim), some 70% has been excavated. The city comprises four elements: 1. the massive city wall; 2. densely packed dwellings;

75. It is a fact that other settlements with peripheral houses do not seem to exhibit this trait.
76. For plans see Tell Beilt Mirsim III, Pls. 3–7.
77. Beersheba I, p. 6.
78. Kenyon was the first to note this fact which Aharoni stressed, contrary to Shiloh — Kenyon (above, n. 64), p. 273; Beersheba I, p. 17 and n. 9; Shiloh (above, n. 1, 1970), p. 185.
79. Shiloh (above, n. 1, 1978), pp. 28–29. Shiloh estimated the empty and the public areas at only 25% of the total area.
80. Above, n. 77.
3. three four-room houses; 4. tens of silos located between the houses and the city-wall.

The city-wall was built at the beginning of the ninth century B.C. The area of the settlement which preceded it (in the eleventh–tenth centuries B.C.) was smaller, only 15 dunams in all. Of the 15 additional dunams, the city-wall, its towers and the glacis occupied some 6 dunams, while the area of the city, enlarged by the city-wall, reached ca. 9 dunams.

It is difficult to determine the plan of the early settlement. In disagreement with Shiloh, this should not be considered as a planned settlement with a casemate wall and peripheral road, but as a provincial settlement partly surrounded by a peripheral belt of houses and partly by a city-wall 1–2 m. thick (indicated in solid lines in the figure).

The plan of the enlarged city (indicated with dotted lines in the figure), is clearer. In addition to a massive city-wall and towers, three four-room houses were erected in the new area and several buildings were annexed to them, especially in the area south of the city-gate. The setting of the structures and their regular plan indicate that they were built for the officials of the Monarchy who were in command of the city when it became a fortress-city. In addition to these structures, the new area contained 40 stone-lined silos. The concentration of the silos in this area shows that they belonged to the Monarchy, but supplied the needs of the public, that is, the storage and supply of grain. In those cities which were originally built as administrative centres, special storehouses were built for this purpose, but at Tell en-Nasbeh, where the existing provincial town was not destroyed, the planners found an original solution to the problem of storage.

A similar solution was also adopted to solve the water supply problem. In the early settlement, water was collected in rock-cut cisterns inside the houses of the settlement. When the massive city-wall was built, at least six additional cisterns were hewn beneath the planned course of the city-wall and the wall was built over them. The rain which fell on the enlarged city area collected in drainage channels leading to the cisterns and went to fill the city's reserves, increasing its capacity to withstand a siege.

These data from Tell en-Nasbeh present a unique model of an Israelite city which began as a provincial town and which, with its conversion to an administrative city, was not re-planned: the royal administrative units — fortifications, storehouses, and water supply system — were located in the belt of buildings which was added by enlarging the area of the city.

The enlargement had almost no effect on the size of the population. If it is assumed that 750 persons inhabited the original area of 15 dunams, then the new structures added at most 50 persons when the area of the city was doubled. Therefore, the population density in the enlarged city would have been only 26.7 persons per dunam.

In addition to Tell Beit Mirisim and the early city of Tell en-Nasbeh, a provincial town was also uncovered in Bet Shemesh Stratum IIA, but a plan of this city cannot be published due to imprecision in the stratigraphic data. In its essential characteristics, this city is a continuation of the Iron Age village from Stratum III, except that in several places a casemate wall was added in the fifth century B.C.

Conclusion: Urban Settlement Models in the Iron Age II

In his study of the Israelite city, Y. Shiloh proposed a model with the following essential characteristics: a city-wall with a peripheral belt of houses abutting it, and parallel to it a peripheral road; the nucleus of the settlement lay within the area bounded by this road. An analysis of the city plans surveyed above shows that there are a number of different models of Iron Age II cities whose architectural characteristics indicate their differing functions within the framework of the royal administration. The models of the Iron Age II urban settlement are:

- **Capital City.** — The only example is the royal acropolis at Samaria with its orthogonal plan both

81. Shiloh (above, no. 1, 1978), pp. 38–40, Fig. 3. Yadarn's attempt to reconstruct 'an early casemate wall' in the area south of the northern gate is not plausible. The two sections of walls which were uncovered in this place are not parallel or connected to each other. Furthermore, the walls are located on a stone terrace which is 10 m. lower than the houses of the city to the west of them and stratigraphically they cannot serve as fortifications. See Y. Yadarn: The Archaeological Sources for the Period of the Monarchy, in A. Malamat (ed.): The World History of the Jewish People, The Age of the Monarchies: Culture and Society, Jerusalem, 1979, pp. 131–168 (Hebrew).

82. Branigan emphasized the uniqueness of the four-room houses and proposed that they be viewed as the residence of the army officers in command of the sections of the city-wall. In the writer's opinion, their administrative functions also included the food and water supplies as shall be stressed below. See K. Branigan: The Four-Room Buildings of Tell en-Nasbeh, IEJ 16 (1966), pp. 206–208.

83. Shiloh (above, no. 1, 1978).
in the outer contour and its internal layout. The royal enclosure at Samaria covered an area of 26 dunams, which is nearly the same as the area of Tell en-Nasbeh or Bet Shemesh, and more than double the area of Beersheba. In terms of area, fortifications, and closed plan, Samaria constitutes an organic administrative-military unit totally separate from the lower city around it. It can be surmised that a similar royal enclosure was also built in Jerusalem on the hill north of the City of David.

Major Administrative City. — In contrast with the acropolis at Samaria, the contour of the administrative cities is oval and built according to the peripheral principle. The distinction between the parts of the city which served the royal administration and the areas devoted to the dwellings of the civilian population is clear and highlighted by the differences in the planning principles: the structures serving the needs of the administration were erected according to the orthogonal principle, whether in separate units distributed over the area of the city (Megiddo Stratum IVB) or concentrated in a single enclosure (Lachish Stratum III). On the other hand, the civilian dwellings were built according to the peripheral principle but were extremely poor in comparison. The predominantly royal function of the city is reflected in the layout of the areas within it. The limited area designated for private dwellings indicates that the population of the chief administrative cities was only 500–750 persons. The great majority (82–84%) of the area of these cities was devoted to public structures such as storehouses or stables, palaces, large courtyards, water systems, etc. Hence the population density in these cities was only 10 persons per dunam, a mere one-fifth of the generally accepted estimate! The concentration of royal structures in the administrative city is evident in the city of Megiddo Stratum VA in which ca. 25% of the area was devoted to official functions, and whose population numbered approximately 1700 persons, that is, 32 persons per dunam. The difference between Megiddo Strata VA and IVB exemplifies the depletion of the civilian population from the administrative cities as their importance within the royal administration grew.

In addition to Megiddo and Lachish, most probably the cities which existed in the Iron Age II at Hazor, Gezer, and Tel Dan belong to this model, but the architectural data are too meagre to confirm this supposition.

Secondary Administrative City. — A clear example of this model is Beersheba Stratum II. Its plan exhibits a striking absence of any distinction between administrative areas and private residential quarters, while the overall radial arrangement of the city is pronounced. Presumably in small administrative cities in secondary areas, the whole city was erected at the behest of the Monarchy for the exclusive needs of the officials of the administration. From this standpoint Beersheba is a 'public city' in every sense and played a role similar to that of the royal fortresses uncovered in Judah and the Negev. Excellent planning enabled maximum utilization (92%) of the area for building. The population of the city numbered approximately 600 persons, with a population density of 52 persons per dunam.

Provincial Town. — By contrast with the administrative cities, the provincial towns have no or few public structures. Most of the city's area is occupied by private dwellings which are not planned but rather emerged within the city according to the agglutinative principle. The influence of the central government is discernible in these towns in the construction of the city-wall around the settlement. The secondary role of the provincial town meant that the city-wall was generally an economical casemate wall (Tell Beit Mirsim) whose rooms partly served the residents of the adjacent houses. In a number of cases the provincial town was protected by a belt of peripheral houses, and partly by sections of a city-wall (as in the early city at Tell en-Nasbeh and Bet Shemesh Stratum IIA). The lack of planning in the provincial town is also reflected in the inefficient utilization of the urban area for building: nearly 40% of the area of Tell Beit Mirsim was empty as opposed to a mere 8% of the area devoted to streets and the enlargement of the gate at Beersheba.

Tell en-Nasbeh is a good example of the conversion of a provincial town into an administrative city in which the administrative area surrounded the early provincial town which remained intact. This change in the function of Tell en-Nasbeh may be understood in light of its identification with biblical Mizpah/Mizpeh which, with the division of the Monarchy, became a border town in the north of the Kingdom of Judah.

Y. Ikeda has studied the terms al sarrui — 'royal city' and al dannu — 'fortified city' in the Neo-Assyrian sources referring to the kingdoms of the house of Adan and Hammat in northern Syria. He noticed that in the area of one kingdom there was more than one royal city and hence the capital was

84. Chap. 26 in this volume.
not the only city so designated. According to the city models which have been discerned in the Land of Israel, the capital cities and main administrative cities fit the Assyrian definition of a 'royal city', whereas the secondary administrative cities, fortresses, and provincial towns fit the Assyrian term 'fortified city'.

The city in Megiddo Stratum III is an outstanding example of an Assyrian administrative city in the Land of Israel. It is characterized by overall planning and regularly laid-out streets which have no parallel in the Iron Age II.

Fortifications in the Iron Age II

Typological Classifications

In the early 1960's Y. Yadin proposed a schematic development for the fortifications in the Land of Israel whose main features were as follows: until the time of Solomon the fortified cities were protected by casemate walls, whereas beginning in the ninth century, the walls were of the offset-and-inset type. The reason for this was, most likely, that during this period the armies of Assyria began to make use of mighty battering rams which casemate walls could not withstand... hand in hand with the change in the style of city walls there also began a change in the plans of city gates. Instead of the six-chambered gates, in the beginning of the ninth century they started to build four-chambered gates. The reduction in the size of both storeys of the gate made it sturdier, less apt to be toppled by the battering ram. This process was gradually improved until finally a small, two-chambered but not massive, gate came into use. Yadin never modified this scheme but his starting point, which exclusively links changes in type of city-walls and gates with the appearance of the Assyrian battering ram, may be attacked on four major grounds:

Chronology. — The battering ram appeared in Assyria several decades later than the appearance of massive walls in the Land of Israel, even according to Yadin's own estimates. The earliest battering rams are depicted in Assyrian reliefs from the time of Assurnasirpal II (883–859 B.C.), but these battering rams are still rather crude, clumsy and difficult to transport long distances. Tiglath-pileser III, in the eighth century B.C., was the first to introduce light, maneuverable battering rams into his army, and he owed the conquest of many strong fortified cities to this invention. On the other hand, Yadin himself assigns the offset-and-inset wall at Megiddo to the time of Jeroboam I, that is, the last quarter of the tenth century — decades before the appearance of the early battering ram and 175 years before the light, transportable battering ram came into use.

Methodology. — No one factor can be cited as the sole determining factor for the types of fortifications. Even if chronologically it were possible to weigh the impact of the appearance of the battering ram, the urban planners still had to take into account additional factors before they decided what type of fortifications best suited each city. First and foremost among these factors was the role of the city within the Monarchy. Whether capital city, major or secondary administrative city, or provincial town, it would affect the position of the city within the overall strategic system of the Monarchy. For example, in the provincial town of Tell en-Nasbeh, a massive city-wall was built because the city stood on the northern border of the kingdom of Judah, while in Tell Beit Mirsim, which is not near any border, a casemate wall was preferred. A third functional factor was certainly the economic consideration. Undoubtedly in those areas in which economizing was important, the casemate wall was preferred because of its obvious advantages: it requires less building materials and fewer man-hours than a massive wall, and more efficiently utilizes the area of the city.

The Archaeological Finds. — An analysis of the archaeological finds, both from Megiddo, on which Yadin based his scheme, and from many other sites excavated in the last 20 years, does not substantiate his scheme. A stratigraphic analysis of the Israelite strata at Megiddo shows that the settlement of Stratum VA (Fig. 15) was surrounded by a belt of houses without any freestanding wall, whereas the offset-and-inset wall and the six-chambered gate were first built in Stratum IVB (see Fig. 16). The excavators of Megiddo considered the possibility that this gate had two phases of use, the earlier being adjacent to

85. Y. Ikeda: Royal Cities and Fortified Cities, Iraq 41 (1979), pp. 75–87. The author would like to thank Israel Ephra for drawing his attention to this article.
87. Yadin (above, n. 81).
89. Herzog (above, n. 1), pp. 109–118.
21. Megiddo. Z. Herzog: Das Stadttor in Israel und in den Nachbarländern. Fig. 83. 22. Hazor. *Ibid.*, Fig. 81. 23. Gezer. *Ibid.*, Fig. 82. 24. Ashdod. *Ibid.*, Fig. 80. 25. Lachish. *Ibid.*, Fig. 84.
the access road of Stratum VA, as became apparent from an examination of the diary of excavations kept by Y. Shiloh. However, the fact that the excavators were aware of such a possibility yet decided to reject it, and even omitted it from the final publication of the excavations, proves that they possessed clear stratigraphic data militating against it. In fact, these data are also clear in their tentative plan: the walls of Access Road 2150 do not touch the offset-and-inset wall or the gate, but are clearly 'cut' by them, and the drainage channel built into the northern wall of the road passes under the base of the southeastern pilaster of the gate. Thus the six-chambered gate at Megiddo was built at the same time as the offset-and-inset wall and both of them preceded by several decades the introduction of the battering ram into the Assyrian army.

Nor does an examination of the types of gates confirm Yadin's scheme. First of all, there is no basis for his assumption that the four-chambered gate is stronger than the six-chambered. The Iron Age II city-gates, which measure ca. 20 m. x 20 m., were massive fortifications so solid that they could not be knocked down as a complete unit. Only the outer walls were for defensive purposes, and these did not change at all at Megiddo when the six-chambered gate was replaced by the four-chambered. Apparently, in choosing the city-gates, the planners were moved by consideration of the many and varied uses (civil and military) of the gate chambers, which would influence the appearance of various types of structures during that period.

Unequivocal archaeological-stratigraphic proof of the incorrectness of the schematic approach comes from the latest excavations at Ashdod. Here two gates were discovered. The earlier one, from the end of the eleventh century B.C., has four chambers while the later gate, from the tenth century, has six chambers (Fig. 24). In other words, the order of development was just the reverse of that postulated by Yadin. Yet another example comes from Beersheba (see Fig. 19) where two four-chambered gates were found, the earlier from the tenth century and the later from the ninth century.

Function. — In any examination of Iron Age II fortification methods, due emphasis must be placed upon the highly impressive water systems in such cities as Hazor, Megiddo, Gezer, Jerusalem, Beersheba, and Gibeon (see Chap. 25), for these, too, must be studied in light of methods of warfare during this period. The tremendous engineering and technical efforts invested in these systems clearly show that the planners of the fortifications sought a solution to the problem of prolonged siege and that this problem was even more pressing than that of frontal assault upon the city with battering rams. In this connection it is instructive to note that some of the cities in which elaborate water systems were constructed, such as Gezer and Beersheba, were protected by casemate walls against frontal assault. From this it can be concluded that frontal assault with the aid of battering rams was not the overriding consideration in planning defenses for the Israelite cities.

The appearance of the glacis, another feature of Iron Age II fortifications, which was meant to protect the city-walls from without, is not consistent with the assumption that the fortifications of this period were determined by the introduction of the battering ram. The obvious function of the ramparts was to protect the foundations of the city-wall from erosion and to impede the attacker's efforts to penetrate into the city by digging down under the wall. On the other hand, if the attackers intended to use a battering ram to breach the city-wall, the first thing they would do, obviously, would be to heap up a ramp of dirt and rocks on top of which they would move the heavy battering rams close to the wall. In that case, the sloping glacis would have made a solid base for the attacker's ramp. Once again we see that the threat of the battering ram was not the overriding factor in the choice of defense systems for the Israelite city. Sloping dirt glacis have been uncovered in many Iron Age II sites such as Beersheba, Lachish, and Tel Malhata, while stepped (or sloping) glacis built of stone have been found at Tell en-Nasbeh and Gezer.

It may be surmised, then, that most of the city-walls were strengthened with outside glacis, even if the area outside the city-wall has not been excavated. At any rate, in all examples cited above, the glacis, which would actually have facilitated the use of the battering ram, abuts the massive city-wall whose main purpose was, presumably, to make this more difficult.

On the basis of the above chronological, methodological, stratigraphic, and functional considerations, a different approach is proposed for the analysis of the methods of fortification in the Iron Age II. Instead of a rigid scheme based on a single functional factor, the variety of fortification methods which
Table 2: Characteristics of Six-Chambered Gates
(measurements in metres)

<table>
<thead>
<tr>
<th>Site</th>
<th>Overall Measurements</th>
<th>Width of Passage</th>
<th>Thickness of Walls</th>
<th>Dimensions of Chambers</th>
<th>Forecourt of Gate</th>
<th>Type of Wall</th>
<th>Date of Construction</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Facade Depth</td>
<td>Length Width</td>
<td>Width Depth</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Megiddo IVB</td>
<td>17.50 19.75</td>
<td>4.25 1.47 2.10</td>
<td>2.80 4.80 6.50</td>
<td>3.50 Massive</td>
<td></td>
<td></td>
<td>Mid-10th Cent.</td>
</tr>
<tr>
<td>Hazor X</td>
<td>18.20 20.50</td>
<td>4.20 1.60 1.60</td>
<td>3.00 5.00 6.10</td>
<td>4.50 Casemate</td>
<td></td>
<td></td>
<td>Mid-10th Cent.</td>
</tr>
<tr>
<td>Gezer</td>
<td>17.00 17.00</td>
<td>4.10 1.60 1.60</td>
<td>2.20 4.50 5.00</td>
<td>3.00 Casemate</td>
<td></td>
<td></td>
<td>Mid-10th Cent.</td>
</tr>
<tr>
<td>Lachish IV</td>
<td>24.50 25.00</td>
<td>5.20 2.80 2.20</td>
<td>*2.80 6.00 17.00</td>
<td>*6.50 Massive</td>
<td></td>
<td></td>
<td>End-10th Cent.</td>
</tr>
<tr>
<td>Ashdod</td>
<td>18.40 20.90</td>
<td>4.90 1.70 1.95</td>
<td>*3.30 5.00 10.00</td>
<td>3.70 Massive</td>
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<tr>
<td>Tel 'Ira ?</td>
<td>18.00</td>
<td>1.60 1.60 *2.50</td>
<td>? ? ?</td>
<td>? Casemate</td>
<td></td>
<td></td>
<td>8th Cent.</td>
</tr>
</tbody>
</table>

* Average measurement.

Table 3: Characteristics of Four-Chambered Gates
(measurements in metres)

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<tr>
<th>Site</th>
<th>Overall Measurements</th>
<th>Width of Passage</th>
<th>Thickness of Walls</th>
<th>Thickness of Towers on Facade</th>
<th>Dimensions of Chambers</th>
<th>Date of Construction</th>
</tr>
</thead>
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<td></td>
<td>Facade Depth</td>
<td>Length Width</td>
<td>Width</td>
<td>Facade Depth Width Width</td>
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<tr>
<td>Megiddo IVA</td>
<td>25.00 15.50</td>
<td>4.20 2.30 2.20</td>
<td>5.00</td>
<td>*3.00 8.20</td>
<td>End-10th Cent.</td>
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</tr>
<tr>
<td>Beersheba V</td>
<td>20.80 12.60</td>
<td>4.20 2.00 2.00</td>
<td>3.00</td>
<td>3.00 6.00</td>
<td>Beg.-10th Cent.</td>
<td></td>
</tr>
<tr>
<td>Beersheba III</td>
<td>16.60 13.60</td>
<td>3.60 1.00 2.00</td>
<td>3.80</td>
<td>3.00 5.00</td>
<td>9th Cent.</td>
<td></td>
</tr>
<tr>
<td>Tel Dan</td>
<td>29.50 17.80</td>
<td>3.70 3.60 2.20</td>
<td>5.00</td>
<td>*4.50 9.00</td>
<td>10th Cent.</td>
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<tr>
<td>Ashdod 10</td>
<td>16.50 13.75</td>
<td>4.20 1.00 1.20</td>
<td>4.80/6.10</td>
<td>2.40 3.80</td>
<td>End-11th Cent.</td>
<td></td>
</tr>
<tr>
<td>Tel en-Nasbeh (Early)</td>
<td>15.00 12.90</td>
<td>4.00 1.50 2.10</td>
<td>6.60</td>
<td>1.80 *4.40</td>
<td>End-10th Cent.</td>
<td></td>
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* Maximum measurement

Table 4: Characteristics of Two-Chambered Gates
(measurements in metres)

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<th>Site</th>
<th>Overall Measurements</th>
<th>Width of Passage</th>
<th>Thickness of Walls</th>
<th>Dimensions of Chambers</th>
<th>Former type of Defense</th>
<th>Date</th>
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<td>Length Width</td>
<td>Width</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>13.00 7.00</td>
<td>3.00 1.80 1.80</td>
<td>3.00 3.00</td>
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</tr>
<tr>
<td>Megiddo VA</td>
<td>11.50 6.00</td>
<td>3.00 2.00 2.00</td>
<td>2.50 2.50</td>
<td>Indirect approach</td>
<td>Beg. of 11th Cent.</td>
<td></td>
</tr>
<tr>
<td>Tell Beit Mirsim B3</td>
<td>13.50 6.00</td>
<td>4.00 1.50 1.50</td>
<td>2.00 3.00</td>
<td>Towers</td>
<td>Beg. of 11th Cent.</td>
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</tr>
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<td>13.50 6.00</td>
<td>2.00 1.50 2.00</td>
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<td>Indirect entry</td>
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<tr>
<td>Megiddo III</td>
<td>24.50 12.50</td>
<td>4.20 2.20 2.60</td>
<td>4.60 8.00</td>
<td>Front gate</td>
<td>8th Cent.</td>
<td></td>
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</tbody>
</table>

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existed side by side at various times during this period, chosen as a result of various functional considerations, should be emphasized. One such consideration was the function of the city within the monarchical administration, its location and strategic importance, and the adaptation of the fortifications to the expected form of attack upon the city.

In order to demonstrate how varied were the methods of fortification, the various components of the fortifications will be presented and summarized, in a chronological-typological table (Table 5).

A Peripheral Belt of Houses

This form of defense, which is clearly a continuation of the tradition of Iron Age I enclosed settlements (see above), existed in several cities in the Iron Age II, particularly in the first part of the tenth century.

A distinctive example of this can be seen in Megiddo Stratum VA (Fig. 15), which continues the local tradition of Late Bronze Age Megiddo. The settlement was defended by the walls of the peripheral houses and palaces, from the roofs of which the defenders could observe and fire down upon the attackers. For this reason, the palaces were built around the perimeter rather than in the center of the settlement. In the excavations at Gezer, Macalister uncovered large portions of the city from Stratum VI. In the northern part of the city continuous parts of dwellings creating a peripheral defense system are discernible. If the six-chambered gate (Fig. 23) and the fortress abutting it in the west, are added to these remains, it may be hypothesized that Gezer, like Megiddo Stratum VA, was protected by a belt of houses along its perimeter into which an administrative unit was incorporated and which was the only part of the city protected by a casemate wall. This principle of defense was also adopted at Tell en-Nasbeh, in the early settlement which continued to exist in the tenth century, and most probably in Lachish Stratum V where the dwellings extended all the way to the edge of the mound.

Examples from Megiddo, Gezer, Tell en-Nasbeh, and Lachish show that in the period of the United Monarchy there was still no need in the hinterland to fortify provincial towns (Tell en-Nasbeh and Lachish Stratum V) or administrative centres in the early stages of crystallization (Megiddo and Gezer). In all four of those cities massive city-walls were erected in the early period of the Kingdoms of Israel and Judah, almost certainly as a result of the destruction wrought by Shishak's campaign, the creation of the new border between the two kingdoms, and the conversion of these cities into important administrative centres.

Casemate Walls

Casemate city-walls are characteristic of Iron Age fortifications in the Land of Israel from the tenth century to the end of the eighth century B.C. Three subtypes of casemate walls may be distinguished which differ from each other in their dimensions and their relation to the houses of the city.

Freestanding Casemate Walls. — This type of casemate wall is separated from structures within the city by a road onto which the entrances to the rooms of the wall opened. A good example of this type is the casemate wall in Hazor Stratum X from the tenth century, assigned to the time of Solomon.

As noted above, the casemate wall at Gezer does not surround all of the city, but is confined to a fortress in the gate area; thus it is not bordered by a road. The casemate wall at 'En Gev Stratum IV (second half of the tenth century) is possibly of this type.

Integrated Casemate Wall. — This type of wall is integrated into the dwellings inside the city. The best and most complete example is found in Stratum III at Beersheba (ninth century) and continued to exist until it was destroyed in the late eighth century (Stratum II). Due to a lower level of planning at Tell Beit Mirsim, the residents of the adjacent houses made use of the rooms of the casemate wall even though they were not always integrated into them. Albright assigned the construction of the casemate wall at Tell Beit Mirsim to the time of David, in the first half of the tenth century.

Filled Casemate Wall. — In this type, the rooms of the wall were not meant for daily use, but most probably served as a framework to be filled with earth. This method created a structure far more stable by comparison with the empty casemate wall, which could be built to a much greater height. On the other hand, this type of wall is no more resistant to the battering ram than the empty casemate wall, for in both types the outer wall served as the defensive link in the fortifications. When a battering ram breached

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93. Ussishkin, (above, n. 68), p. 44.
94. Haor II, pp. 1–2, Pl. CXCI (Hebrew).
95. B. Mazar et al.: Ein Gev Excavations in 1961, IEJ 14 (1964), pp. 1–13, Fig. 2.
96. Tell Beit Mirsim III.
Table 5: Typological-Chronological Summary of Details of Fortifications

<table>
<thead>
<tr>
<th>Type of Fortifications</th>
<th>End of 11th cent.</th>
<th>First half of 10th cent.</th>
<th>Second half of 10th cent.</th>
<th>9th cent.</th>
<th>8th cent.</th>
<th>7th cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peripheral belt of houses</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Megiddo VIA, VB</td>
<td>Megiddo VA</td>
<td>Bet Shemesh III</td>
<td>Bet Shemesh IIa</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Tell en-Nasbeh</td>
<td>Tell en-Nasbeh</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Casemate wall separate from the settlement</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casemate wall incorporated into the settlement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell Beit Mirsim B3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filled casemate</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Offset-and inset wall</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Massive wall with towers</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Megiddo IVB</td>
<td></td>
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<td></td>
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<tr>
<td>Ashdod 10</td>
<td></td>
<td>Ashdod 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular massive wall</td>
<td></td>
<td>Beersheba V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lachish IV</td>
<td></td>
<td>Tel Malhata</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tel en-Nasbeh</td>
<td></td>
<td>&quot;En Gev V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dan (?)</td>
<td></td>
<td>Dan (?)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6-Chambered Gate</td>
<td></td>
<td>Ashdod 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Megiddo IVB</td>
<td></td>
<td>Gezer 6</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Lachish IV</td>
<td></td>
<td>Megiddo IVB</td>
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</tr>
<tr>
<td>Ashdod</td>
<td></td>
<td>Tell en-Nasbeh</td>
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<tr>
<td>Dan (?)</td>
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<td>Dan (?)</td>
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<tr>
<td>4-Chambered Gate</td>
<td></td>
<td>Ashdod</td>
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<tr>
<td>Megiddo VIA</td>
<td></td>
<td>Gezer 6</td>
<td></td>
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<td></td>
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<tr>
<td>Lachish IV</td>
<td></td>
<td>Megiddo IVB</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Tell en-Nasbeh</td>
<td></td>
<td>Dan (?)</td>
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<tr>
<td>Beersheba III</td>
<td></td>
<td>Beersheba III</td>
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<tr>
<td>2-Chambered Gate</td>
<td></td>
<td>Megiddo VIA</td>
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</tr>
<tr>
<td>Megiddo VA</td>
<td></td>
<td>Tell en-Nasbeh</td>
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<tr>
<td>Tell en-Nasbeh</td>
<td></td>
<td>Tell en-Nasbeh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell Beit Mirsim B3</td>
<td></td>
<td>Tell Beit Mirsim B3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gate without Chambers</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Lachish II</td>
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</tr>
</tbody>
</table>

the outer wall, the dirt fill in the casemates spilled out or could easily be scooped out so that the inner wall could be demolished. Therefore the filling in of the casemate wall at Hazor (Stratum X) by the builders of Stratum VIII (nineth century) did not make the wall better able to withstand the Assyrian battering ram as Yadin thought\(^98\), but simply enabled it to be built higher (probably because of the rise in the level of the floors inside the city). The most typical example of a filled casemate wall is in Samaria and it, too, is from the ninth century (the time of Ahab). It must be emphasized that the fortifications of the upper city of the capital of Israel combined a section of a massive wall (in the southeast of the acropolis) with a casemate wall. This shows how local considerations — not a rigid scheme — might influence the choice of fortifications.

Massive Walls

The massive walls from this period are not constructed according to any uniform technique, but consist of several subtypes.

Offset-and-Inset Wall. — A typical wall of this type is the city-wall of Megiddo Stratum IVB from the middle of the tenth century (Fig. 16). The wall is built of sections ca. 6 m. long which alternately project and recede. The degree of projection, 0.5–0.6 m., is not sufficient to enable enfilade as the balustrade protecting the defenders on top of the wall prevented

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\(^98\) Yadin (above, n. 86), pp. 69–70. That the fill in the casemate wall was not added in response to the threat of the battering ram is proven also by the construction of regular dwellings in the continuation of the line of the filled wall, in the northwestern corner of the city. *Hazor*, pp. 169–170, Fig. 45.
them from obtaining the right line of sight. On the other hand, the great advantages of the offset-and-inset wall were that they probably lent greater stability to the wall, and the insets which faced outward could be used for building balconies with holes below them for shooting straight down. In this way it was possible to compensate for the 'dead area' at the foot of the wall. It must be stressed that the offset-and-inset wall at Megiddo is the only one of its kind, so far, to be discovered in Israel.

**Wall with Towers.** — In this type of massive wall, towers are built into the wall which project quite far (ca. 3 m.) and so it is clear that they served as bases for enfilade. The towers must certainly have risen to a much greater height than the other sections of the wall. Inside the towers were rooms, as seen in the Assyrian reliefs showing fortifications in the Land of Israel during the eighth and seventh centuries. A massive wall with towers was uncovered at Tell en-Nasbeh (Fig. 20) from the beginning of the ninth century, at Gezer from the end of the tenth century, and probably at Lachish from the same period. A section of the wall built in Stratum VA at Hazor is also of this type.

**Regular Massive Wall.** — This group comprises simple massive walls. To be sure, even here there are differences in building techniques, especially in the thickness, but they all lack offsets and insets. Chronologically, the massive wall appeared in the Land of Israel already at the end of the eleventh century, in Stratum 10 at Ashdod. The mud-brick city-wall, 4.5 m. thick, was replaced during the tenth century (Stratum 9) by a thicker wall, 5.6 m. wide, which thickens to 8.9 m. in the vicinity of the gate. The massive wall from Stratum V at Beersheba is noted for its 'sawtooth' style attributed to the first half of the tenth century. Sections of the wall deviate at intervals in the same direction some 0.3–0.5 m., like the teeth on the blade of a saw, rather than alternately projecting and receding as in the offset-and-inset wall. This technique also appears in the casemate wall of Strata III–II at Beersheba (see Fig. 19), as well as in the massive wall at Arad in Stratum X. In addition to stability, the projections were possibly meant to break up the smooth expanse of the wall by creating a vertical shadow which would make the wall appear higher, and therefore more formidable, to anyone outside. A narrow section of a massive wall, 1.85 m. thick, was uncovered at 'En Gev in Stratum V from the first half of the tenth century (beneath the casemate wall of Stratum IV). The end of the tenth century was also the period of the massive wall uncovered at Tel Dan, although Aharoni dates it even earlier, to the beginning of that century. The massive wall at Tel Malhata is also dated to the tenth century.

The construction of the mighty seven-meter-thick wall on the western hill of Jerusalem, the four-meter-thick city-wall of Tel Batash in Stratum III, and the city-wall integrated into the dirt rampart at Ashdod-Yam are assigned to the eighth century.

**The City-Gate**

The approximately 20 Iron Age II city-gates discovered in Israel provide information for understanding the functions of the gate, the various types of gates, and the phases of their use. The functional uniqueness of the city-gates of this period stands out by comparison with the gates of the Middle Bronze II. To be sure, in both periods the passageway of the gate is flanked by two large towers, but whereas in the Bronze Age the rooms of the towers are closed and separate from the passage, and only narrow pilasters projected into it, in the Iron Age II the chambers of the gate open onto the passage all along their width. Their openness, the considerable size of the gate chambers, and the fact that some of them contain benches and stone basins indicate that by contrast with the purely defensive military character of the Bronze Age gates, in the Iron Age the structure of the gate was also suited to daily

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101. Ussishkin (above, n. 68), Fig. on p. 45.
102. Hazor, pp. 187–189, Fig. 52.
103. Above, n. 91.
104. Aharoni (above, n. 92).
105. Beer-Sheba I, Pl. 87.
107. B. Mazar et al. (above, n. 96).
108. Aharoni (above, n. 92).
What was the reason for the change in the number of chambers? It was obviously not connected with forms of warfare, since for that purpose it would have been sufficient to change or strengthen the outer wall of the gate. It must be explained in terms of the daily civilian uses as well as military functions. The pair of chambers closest to the opening of the gate was the area into which the doors turned when opened, and according to the evidence (for example Tel Dan) (Fig. 26), special blocking stones the open doors at right angles to the gate facade. Hence the open doors blocked the greater part of the opening to the first pair of chambers. From this it can be concluded that in two-chambered gates, the gate had the primarily military function of sheltering the guard at the gate (when the gates were locked) and containing the open doors during the day. On the other hand, in the four-chambered gates, an additional pair of chambers was left open and available for civilian activities. A good example of the difference between the two pairs of chambers is in Stratum II at Beersheba where plastered benches were found only in the rear chamber closest to the square.

In terms of the emphasis on the civilian functions of the city-gate, the six-chambered gate may be viewed as the culmination of a process. Even though the two front chambers were largely blocked by the doors, there were still four chambers available for various peacetime activities. The rooms were serving as shops in the marketplace. In the evening the merchants gathered their wares, the doors were closed, and the gate then assumed its military function of transforming the city into a fortress.

Six-Chambered Gates (Table 2). — To date, six gates of this type have been discovered in Megiddo (Fig. 21), Hazor (Fig. 22), Gezer (Fig. 23), Ashdod (Fig. 24), Lachish (Fig. 25), and Tel 'Ira. Despite typological similarity, they differ from each other in external dimensions and in many constructional details. They also differ in the type of city-wall to which they are attached. In Megiddo, Lachish, and Ashdod the gates abut a massive wall; in Hazor and Tel 'Ira they abut a casemate wall, while in Gezer the gate chambers abut a casemate wall which most probably surrounded only an inner citadel. The towers in the facades of the gates also differ. At Hazor the towers are hollow and project beyond the line of the city-wall. At Megiddo they are filled and form a continuation of the line of the city-wall, and only here is there also a sophisticated front gate. At Tel 'Ira the towers are hollow but do not project beyond the line of fortifications.

113. I. Beit-Arieh: Tel 'Ira — 1980, Hadashot Arkheologiot 74–75 (1981), pp. 31–33 (Hebrew). The author would like to thank I. Beit-Arieh for permission to study the plan of the remains from Tel 'Ira and to publish the dimensions of the gate (Table 2).
SETTLEMENT AND FORTIFICATION PLANNING IN THE IRON AGE

Tel Dan. Iron Age II city-gate.

Tel Dan — Reconstruction of Iron Age II city-gate

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The gate at Lachish (Fig. 25) is the largest gate excavated so far (ca. 25 m. x 25 m.). The gate at Gezer, excluding the outer walls of the casemates, is the smallest. The differences in the thickness of the walls and the dimensions of the chambers show that the gates were not built according to a single fixed plan. There is no certain similarity between the gates at Megiddo and Hazor, but even here the details vary with great accuracy that they cannot be attributed solely to errors in measurement. This fact, in addition to the other reasons mentioned above, must serve as additional evidence of the absence of schematization in the planning of fortifications, even of a single type of gate. The gates of this type appear from the tenth to the end of the eighth centuries.

Four-Chambered Gates (Table 3).114 — As in the preceding type, the main similarity among them is the number of chambers, but beyond this, the differences are great. At Tel Dan, Beersheba Stratum V and Megiddo Stratum IVA, the gates are connected to a front gate; in the other gates there is no such structure and so the towers in the facade of the gate are even more prominent. In Beersheba Stratum II (see Fig. 19) the gate abuts a casemate wall, whereas in all the others it abuts a massive wall.

Gates of this type appear all through the Iron Age II. A four-chambered gate from the end of the eleventh century has been recovered at Ashdod. The gates in Beersheba Stratum V and perhaps also at Tel Dan have been assigned to the time of David, in the tenth century. At Megiddo the gate was most probably built after Shishak's campaign at the close of the tenth century, and in that same period a similar gate was built at Tell en-Nasbeh, but was removed from use by the decision to extend the territory of the city toward the north.

Two-Chambered Gates (Table 4).115 — This type, the simplest of all Iron Age gates, is essentially a framework for the doors. Most of the gates in this group are small gates of cities of only secondary importance. Noteworthy for its unique character and large dimensions is the gate of the Assyrian city in Stratum III at Megiddo (Fig. 27). This fact, too, is sufficient to warn against viewing Megiddo as a schematic model for the changes in the structure of gates. Gates of this type were in use all through the Iron Age II, from the end of the eleventh century in Megiddo Stratum IVA to the eighth-century gate in Stratum A2 at Tell Beit Mirsim. These gates, except for that of Megiddo Stratum III, are quite small (an average of 6 x 12.5 m.). To this group belongs the late gate at Tell en-Nasbeh which was built between two large towers (see Fig. 20).

![Image of Megiddo Gates](image_url)

27. Megiddo. Ibid., Fig. 96.

Inner Gates of Fortified Palaces. — In several administrative cities the entrance to the royal enclosure was guarded by a gate within the city limits, intended to protect the administrative officials from the civilian population. These gates generally project outward from the enclosure wall and form a type of watch tower and freestanding lookout. Inner gates are found in Megiddo Stratum VA dating to the tenth century (Fig. 15), at the entrance to the enclosure of Palace 1723, in Megiddo Stratum IVB (Fig. 16) at the entrance to Palace 338, and most probably this was also the purpose of the acropolis gate in Bet Shemesh Stratum V (upper phase).116 Recently, it was proposed that a freestanding gatehouse be reconstructed in the entry to the acropolis of Lachish (Strata IV–III) (see Fig. 18).

Summary of Types of Fortifications in the Iron Age II

The great variety of fortifications is evidence of the complex of functional considerations facing the planners. This range of military, economic, social, and religious considerations reflects the social institutions which operated within the Israelite city and shaped its character.

The types of fortifications and their chronological distribution are summarized in Table 5 above. The table emphasizes those phases in which the features of the fortifications were first built in the various cities.

114. Z. Herzog (above, n. 1), Figs. 85, 86, 88, 90, 100; Ashdod IV, Plans 5–10.
115. Z. Herzog (above, n. 1), Figs. 93–96, 101.
116. Beth-Shan I, pp. 1–2, Fig. 2.
GLOSSARY OF ARCHITECTURAL TERMS

Ronny Reich and Hannah Katzenstein

The glossary deals with architectural terms related to the architecture of the Ancient Near East in the pre-classical era (preceeding the Greek culture). However, archaeologists and art historians make use of terms adopted from Greek terminology (e.g.: stylobate, temenos, dromos, etc.).

For a number of architectural phenomena there are in use several synonymous terms, usually originating in different languages, for example: naos, debir, cella, holy-of-holies, adyton. Such terms are cross-referenced.

Abutment  A solid structure (wall, pilaster etc.) which receives the thrust of an arch or vault (s.v.).

Acropolis  (Greek: ἀκρόπολις = high, edge; πόλις = city). The highest and most fortified part of a city, the inner citadel of a city.

Adyton  (Greek: ἅδυτον = not to be entered). The innermost sacred part of a temple into which entrance is restricted to priests. Also called: holy-of-holies, debir, naos, cella (s.v.).

Alley  A narrow street or passage between buildings.

Anta, antae  (Latin). Pilaster-like door jambs. Thickening of the end of a wall. Antae are occasionally provided with a base and a capital. A porch or portico, in which columns are located between the antae, is called in antis.

Antechamber  Room leading into a more important chamber such as an antechamber into a throne room in a palace (s.v.), or into the naos in a temple.

Apse  Part of a structure with a rounded wall, or a semicircular niche or recess in a wall. See also: Apsidal building.

Apsidal building  Building with one semicircular wall.

Apsis  (Greek: ἀψις = outer circle of wheel, vault). See: Apse.

Aqueduct  Water channel which carries water by gravity; usually covered. See also: Water channel.

Arch  Built series of stones or bricks, placed one next to the other to form a curved construction (usually a semicircle) in such a way that each member of this series supports the other as well as the heavy burden resting upon them and being diverted sideways and downwards.

Architrave  Beam of wood or stone resting upon columns.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaeological cross-section</td>
<td>Graphical presentation of building details and the various adjacent layers of debris, floors, pits etc. as they appear on the sides of the excavation trench.</td>
</tr>
<tr>
<td>Architectural cross-section</td>
<td>Graphical presentation of all architectural elements of a building as they appear along a certain line (axis) within the building. The elements on this line are given in section, whereas those seen from that line — in elevation (side view). Serves to describe the dimension of height of the building.</td>
</tr>
<tr>
<td>Ashlar</td>
<td>A cut and dressed stone, worked by means of a chisel to the desired shape (usually rectangular).</td>
</tr>
<tr>
<td>Bema (Hebrew, from Greek: βημα — a raised podium or pulpit for a speaker).</td>
<td>A raised platform used for cultic purposes; high-place.</td>
</tr>
<tr>
<td>Barrel vault</td>
<td>A vault (s.v.) with a semicircular cross-section.</td>
</tr>
<tr>
<td>Basalt</td>
<td>Black stone of volcanic origin. Covering large areas in the eastern Galilee, the Golan and the Bashan.</td>
</tr>
<tr>
<td>Base, column base</td>
<td>The lower part of a column (or pilaster, anta). Usually somewhat broader than the column itself. Where there is no stylobate, the base prevents the column from sinking into the ground. See: Stylobate.</td>
</tr>
<tr>
<td>Basement</td>
<td>Any structure built on or below ground level. See also: Cellar.</td>
</tr>
<tr>
<td>Bastion</td>
<td>Part of fortification standing out from the general line of fortification (e.g. the L-shaped retaining wall supporting and defending the ramp which leads upward and turns sharply into the city-gate).</td>
</tr>
<tr>
<td>Battlement(s)</td>
<td>Projecting constructions, with gaps in between, built on top of the parapet of a city-wall, tower or gate; constructed to give protection to defenders fighting from the top of the fortification.</td>
</tr>
<tr>
<td>Beam</td>
<td>Long, thick piece of timber or an elongated block of stone used to support a ceiling or roof.</td>
</tr>
<tr>
<td>Bench</td>
<td>Low construction made of stone, mud brick or the like, sometimes plastered; usually built against and along a wall to be used for sitting (in private houses) or for display of offerings (as in certain temples).</td>
</tr>
<tr>
<td>Block</td>
<td>Basic urban unit of buildings grouped together. Usually bounded by streets or alleys on all sides. See also: insula.</td>
</tr>
<tr>
<td>Breithaus (German)</td>
<td>Building whose main room (e.g. throne room, cela) is a Breitraum (s.v.).</td>
</tr>
<tr>
<td>Breitraum (German = broad-room)</td>
<td>Room whose entrance is located in one of its long walls, on its width-wise axis.</td>
</tr>
<tr>
<td>Brick</td>
<td>Unit of building material made of clay mixed with other materials (e.g. straw, crushed pottery, sand). See also: Burnt, baked brick; Plano-convex brick; Mud brick.</td>
</tr>
<tr>
<td>Broad-room</td>
<td>See: Breitraum.</td>
</tr>
<tr>
<td>Burial chamber</td>
<td>Built or rock-cut room which contains burial places (loculi, troughs etc.).</td>
</tr>
</tbody>
</table>
Burnt, baked brick  Brick made of clay and additives which was fired in a kiln, similarly to the production of pottery vessels.

Buttress  Projection built to support a wall or city-wall and to minimize lateral thrust. Sometimes a buttress is used as a mere decoration.

Cairn  See: Tumulus.

Capital  The uppermost element of a column, usually decorated. It receives the thrust of a lintel, architrave, arch, roof, etc.

Casemate wall  Defensive wall constructed of two parallel walls, which are usually thinner than a solid city-wall; the space between these is divided by short partitions into rooms (casemates).

Catacomb  (Latin: cataumbas — district near ancient Rome where one of the earliest Christian cemeteries was located). Subterranean rock-cut burial complex.

Cella  The innermost and holiest room within a temple. Also called: holy-of-holes, deibir, naos, adytom (s.v.).

Cellar  Room located below ground level of a building. Used for storing provisions or as a vault for the safekeeping of valuable goods.

Cement  Substance applied to building materials to bind them together; it sets hard when mixed with water. Before the invention of Portland cement in modern times, lime or clay were usually used as cement, with different aggregates to create plaster (s.v.).

Cistern  Space cut in bedrock or in the earth and faced with masonry, for the collection and storage of water. To prevent the water from seeping out of the cistern, it was usually coated with hydraulic plaster (s.v.).

Citadel  Fortified complex of buildings within a town, usually providing extra protection for palace or temple. See also: Fort, Fortress, Acropolis.

City-gate  Main opening in the line of fortifications of a city for in-and-outgoing traffic. Usually provided with large doors or other movable barriers. Often located within a large and elaborate building — the gatehouse (s.v.).

City-wall  A thick wall built around a city in order to protect it from enemy attacks. The city-wall incorporated other means of fortification, such as city-gates, towers, etc. (s.v.).

Clay  Fine-grained earth, often accumulated in wadi beds. After proper preparation (such as mixing with other materials like straw, crushed pottery, sand, stone grits, etc.), it is used for the production of bricks and pottery vessels.

Colonnade  Series of columns with entablature.

Column  A tall architectural element (with a height much larger than its width), made of solid material (stone, wood); it usually serves to support roofs, lintels, arches, etc. See also: Engaged column.

Column base  See: Base, column base.

Column drum  The architectural element which forms part of a column shaft (s.v.).
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<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Column shaft</td>
<td>Central, main part of column resting upon the base and supporting the capital. It may be made of one piece (monolith; s.v.) or of several blocks (drums).</td>
</tr>
<tr>
<td>Continuous foundation</td>
<td>Elongated foundation built continuously under a wall and any openings in that wall.</td>
</tr>
<tr>
<td>Corbelled vault, dome</td>
<td>Vault or dome (s.v.) built on the principle of the false arch (s.v.).</td>
</tr>
<tr>
<td>Course</td>
<td>Continuous horizontal layer of stones or bricks in a wall.</td>
</tr>
<tr>
<td>Court, courtyard</td>
<td>Unroofed space, surrounded by buildings, walls, fences or porticos. See: Open-court house.</td>
</tr>
<tr>
<td>Cyclopean masonry</td>
<td>(Named after the Cyclops — one-eyed giants known from Greek mythology to be master masons). Type of masonry which makes use of large irregular boulders fitted well to each other as building stones.</td>
</tr>
<tr>
<td>Dado</td>
<td>Lower part of wall faced with wood panels or stone orthostats or painted.</td>
</tr>
<tr>
<td>Debir</td>
<td>See: Cella.</td>
</tr>
<tr>
<td>Dolmen</td>
<td>(Celtic: tol = table; men = stone; or from Cornish: doll = hole). Megalithic (s.v.) structure composed of several upright stones which create a compartment, roofed by an additional large stone. Often used for burial.</td>
</tr>
<tr>
<td>Dome</td>
<td>Spherical roofing, usually covering circular spaces. Seldom in use before the Roman period, and then only as corbelled dome (s.v.).</td>
</tr>
<tr>
<td>Door axis</td>
<td>See: Pivot.</td>
</tr>
<tr>
<td>Door jamb</td>
<td>See: Jamb.</td>
</tr>
<tr>
<td>Door socket</td>
<td>A stone with a cavity on its upper side in which the door pivot (s.v.) or axis turns. Sometimes a cavity in the threshold serves the same purpose.</td>
</tr>
<tr>
<td>Dressed stone</td>
<td>See: Ashlar; Stone dressing.</td>
</tr>
<tr>
<td>Dromos</td>
<td>(Greek: ὀδός = course, lane). A corridor-shaped approach to a tomb or catacomb.</td>
</tr>
<tr>
<td>Drum</td>
<td>See: Column drum.</td>
</tr>
<tr>
<td>Enclosure wall</td>
<td>Fence. A built partition, usually not part of a building, demarcating a large open space, e.g. courtyard.</td>
</tr>
<tr>
<td>Engaged column, pilaster</td>
<td>Column or pilaster partially incorporated in a wall, protruding about half its thickness. Its constructive contribution to the building is limited, and it is used mainly for decorative purposes. See also: Buttress, Anta, Pilaster.</td>
</tr>
<tr>
<td>False arch</td>
<td>A curved construction resembling an arch but differing from it in principle. Created by stones protruding from both sides of the wall's</td>
</tr>
<tr>
<td>Term</td>
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<td>----------------------</td>
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</tr>
<tr>
<td>Fence</td>
<td>See: Enclosure wall.</td>
</tr>
<tr>
<td>Fieldstone</td>
<td>See: Rubble.</td>
</tr>
<tr>
<td>Flagstone</td>
<td>Flat stone used for paving halls, courtyards, streets, etc.</td>
</tr>
<tr>
<td>Flat roof</td>
<td>Simple type of roofing in which a series of wooden beams (rarely stone beams) bridge the gap between the room’s walls, with or without the support of columns.</td>
</tr>
<tr>
<td>Floor</td>
<td>The bottom of a room, courtyard or any other space made for people or animals to stand upon. Made of beaten earth or from rigid materials (stone, wooden planks, etc.). See also: Pavement, paving.</td>
</tr>
<tr>
<td>Fort, fortress</td>
<td>Fortified building within a city or erected on crossroads, frontiers or at strategic points to guard and protect them.</td>
</tr>
<tr>
<td>Fortification(s)</td>
<td>Complex of buildings and earthworks erected for the protection of a settlement. Fortifications may include: city-walls, towers, city-gates, postern gates, fosse and ramparts, forts and citadels (s.v.).</td>
</tr>
<tr>
<td>Fosse</td>
<td>Trench excavated around outer perimeter of a city-wall, to prevent the enemy from easily approaching the city-wall. Moat.</td>
</tr>
<tr>
<td>Foundation</td>
<td>Lower part of building upon which rests its upper structure (walls, columns, stairs etc.); its purpose is to render stability. Usually laid in a subterranean foundation trench, its masonry is more massive and wider than the walls which it supports.</td>
</tr>
<tr>
<td>Foundation trench</td>
<td>Trench cut in bedrock or earth to receive the foundations of a wall.</td>
</tr>
<tr>
<td>‘Four-room’ house</td>
<td>Domestic building typical of the Iron Age. Its basic plan comprises four oblong rooms or spaces. Of these the central space is usually identified as an inner courtyard, with the other three arranged on three of its sides and the main entrance on the fourth.</td>
</tr>
<tr>
<td>Framework</td>
<td>Series of wooden beams and struts which form the skeleton of a building, especially of a gabled roof (s.v.).</td>
</tr>
<tr>
<td>Gable</td>
<td>Triangular-shaped front of a roof sloping to two sides.</td>
</tr>
<tr>
<td>Gabled roof</td>
<td>Roof of wooden beams with supporting struts constructed to form a framework; or simply made by leaning large stone plates one against the other, to form a triangular-shaped, double sloping roof.</td>
</tr>
<tr>
<td>Gallery</td>
<td>1. Long, narrow space which is partly open behind a portico (colonnade).</td>
</tr>
<tr>
<td></td>
<td>2. Long, narrow room or corridor.</td>
</tr>
<tr>
<td></td>
<td>3. Raised floor within a room or hall, usually supported on columns or extending from the wall.</td>
</tr>
<tr>
<td>Gate</td>
<td>See: City-gate, Postern, Gatehouse, Gateway.</td>
</tr>
<tr>
<td>Gatehouse</td>
<td>Elaborate gate either incorporated into the city-wall, or a separate building, with both an outer and inner opening.</td>
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<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>Gateway</td>
<td>Path, usually paved, which crosses the gate or the gatehouse.</td>
</tr>
<tr>
<td>Glacis</td>
<td>Outer facing of earthen rampart which serves as fortification of the lower slope of a mound (tell), or the lower outer-sloping part of the city-wall. Constructed of different materials such as: beaten earth, lime plaster, bricks, stones, etc.</td>
</tr>
<tr>
<td>Hall, 'Ulam</td>
<td>1. A large, spacious room. 2. The room which occupies the forepart of a temple, from which one passes into the holy-of-holies. See: Hekhal.</td>
</tr>
<tr>
<td>Header(s)</td>
<td>Ashlar or brick incorporated into a wall with its long axis perpendicular to the line of the wall. See also: Stretcher(s).</td>
</tr>
<tr>
<td>Header(s) and stretcher(s)</td>
<td>Method of wall construction in which the ashlers or bricks are laid alternately as headers (s.v.) and stretchers (s.v.).</td>
</tr>
<tr>
<td>Hekhal</td>
<td>(Hebrew) 1. Temple; 2. Palace; 3. One of the halls in the temple. In a two-spaced temple it is identical with the 'hall' ('ulam); In a three-spaced temple it is the central space, located between the 'ulam and the holy-of-holies (debir).</td>
</tr>
<tr>
<td>Hewn stone</td>
<td>Fieldstone or rubble which is roughly worked to a desired shape (usually rectangular) by several blows of a hammer.</td>
</tr>
<tr>
<td>Hippodamic layout</td>
<td>Orthogonal layout in town-planning; named after Hippodamus of Miletus, the fifth-century B.C. Greek architect.</td>
</tr>
<tr>
<td>Holy-of-holies</td>
<td>See: Cells.</td>
</tr>
<tr>
<td>Hydraulic plaster</td>
<td>Watertight plaster used to coat cisterns, pools, water channels, etc. See: Plaster.</td>
</tr>
<tr>
<td>Insula</td>
<td>(Latin: insula = island). Basic urban unit of buildings which occupy one block (s.v.).</td>
</tr>
<tr>
<td>Intercolumnniation</td>
<td>Placing of columns at intervals; also such intervals.</td>
</tr>
<tr>
<td>Intercolumnnar space</td>
<td>The distance between any two adjacent columns of a colonnade (s.v.). Usually measured at the base or bottom of the column shafts.</td>
</tr>
<tr>
<td>Jamb, door jamb</td>
<td>Each of the two side posts of an entrance, upon which the lintel rests.</td>
</tr>
<tr>
<td>Joint</td>
<td>Area of contact between two adjacent building components: ashlers, bricks, etc.</td>
</tr>
<tr>
<td>Keystone</td>
<td>Central stone (usually dressed) at the top of an arch.</td>
</tr>
<tr>
<td>Kurkar</td>
<td>Type of sandstone found in the coastal plain of Israel. It is easily cut and frequently used as building stone.</td>
</tr>
<tr>
<td>Langhaus</td>
<td>(German). Building whose main room (e.g. throne room, cella) is a Langraum (s.v.).</td>
</tr>
<tr>
<td>Langraum</td>
<td>(German – long-room). Room whose main entrance is located in one of its short walls, on its longitudinal axis (s.v.).</td>
</tr>
<tr>
<td>Lime</td>
<td>Common building material with adhering qualities. Produced from limestone burnt in a kiln and then mixed with water.</td>
</tr>
<tr>
<td>Lime plaster</td>
<td>Plaster in which the adhering component is burnt lime which solidifies when mixed with water.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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</tr>
<tr>
<td>Lintel</td>
<td>Upper part, of an entrance usually consisting of a single stone or wooden beam resting on the door jambs. Sometimes constructed as an arch.</td>
</tr>
<tr>
<td>Longitudinal axis</td>
<td>Imaginary line drawn lengthwise through a building, usually through its centre.</td>
</tr>
<tr>
<td>Long-room</td>
<td>See: Langraum.</td>
</tr>
<tr>
<td>Lotus capital</td>
<td>Capital in the shape of a lotus. Typical of ancient Egyptian architecture.</td>
</tr>
<tr>
<td>Marginal dressing</td>
<td>Method of dressing ashlar in which a frame is cut along the four edges of the stone (sometimes only along part of the edges), leaving the central part of the stone's face protruding.</td>
</tr>
<tr>
<td>Mason's mark</td>
<td>Sign incised on dressed stones to direct the mason in the correct placing of building components (e.g. column drums in the correct order); also sign used by mason as his personal mark.</td>
</tr>
<tr>
<td>Mausoleum</td>
<td>Large, magnificently decorated tomb (named after the tomb of Mausolus, king of Caria, considered one of the world's seven wonders).</td>
</tr>
<tr>
<td>Megalithic</td>
<td>(Greek: μύγας = big; λίθος = stone). Constructed of very large boulders, e.g. dolmen (s.v.).</td>
</tr>
<tr>
<td>Megaron</td>
<td>(Greek: μύγαϕων = Shrine etc. or a temple). Temple, usually built as a long-room, with side walls projecting from the façade as two antae, with two columns in between (in antis) (s.v.).</td>
</tr>
<tr>
<td>Moat</td>
<td>See: Fosse.</td>
</tr>
<tr>
<td>Model</td>
<td>Small scale design of a building used as a construction guide.</td>
</tr>
<tr>
<td>Monolith</td>
<td>(Greek: μονόζιθος; μόνος = single; λίθος = stone). Made of a single stone.</td>
</tr>
<tr>
<td>Monolithic column</td>
<td>Column of which the shaft is made of a single block of stone; as opposed to a column made of drums or segments.</td>
</tr>
<tr>
<td>Mortar</td>
<td>1. Mixture of earth or clay to which other components are added, such as straw, sand, potsherds, gravel, etc. In its plastic state this mixture is used for producing bricks (mud bricks, s.v.) and for plastering walls (see: Plaster). Sometimes this mortar was cast in a large mould made of wooden planks (terre-pisée). 2. Plastic mixture with a high percentage of clay or other adhering components. Used as binding material between building stones or bricks.</td>
</tr>
<tr>
<td>Mud brick</td>
<td>Brick (s.v.) made of mud mortar (s.v.) and dried in the sun. Early mud bricks were shaped by hand. Since the Early Bronze Age II bricks were cast in moulds as rectangular blocks.</td>
</tr>
<tr>
<td>Niche</td>
<td>Recess in a wall or rock-cut face designed for a definite purpose such as storage or the placing of a statue.</td>
</tr>
<tr>
<td>Obelisk</td>
<td>(Greek: δέλος = spit, a pointed pillar). Tall tapering stone shaft, usually</td>
</tr>
</tbody>
</table>
monolithic, square or rectangular in cross-section, set up as a monument. Often covered with inscriptions and decorations. The obelisks of Egypt were made of immense blocks of stone, which required special effort and know-how to be quarried, transported and erected.

Offset/inset wall  City-wall whose outer face is not straight but built with sections projecting and receding from the general line of the wall.

Open-court house  House with a central courtyard (s.v.), surrounded on all sides by rooms. The courtyard occupies a significant part of the house's area.

Opening  An unbuilt open space in a wall, which serves for entrance and exit. Closed by a door. See also: Gate, Postern gate, City-gate.

Orientation  (Latin: *ores* = east, the main direction of the compass, towards which maps were directed in antiquity, similar to modern-day north). The point of the compass to which a building's plan is directed (its façade, corners, or main axis, etc.). Orientation is particularly significant in temple planning.

Orthogonal layout  Urban plan and layout in which the streets intersect at right angles thus forming square- or rectangular-shaped insulae. Also called: Hippodamian layout (s.v.).

Orthostat  (Greek: ὀθρόστατης = upright shaft; pillar; ὀθρος = straight; στάτης = standing).
1. A large stone slab, sometimes carved in the shape of an animal (lion, hybrid animal, etc.), often flanking the entrance into a temple or palace.
2. One of a series of large flat stones, usually worked, forming the lower part of a wall.

Outer gate  Gate located in the outer wall of city fortifications. Sometimes connected to the main (i.e. inner) gate by short wall segments so that a small inner space is created between the gates.

Outer wall  An additional wall to the city's fortifications, intended to prevent the enemy from easily approaching the main wall.

Oval, circular building  Building which has an oval or circular plan, different from the usual orthogonal plan. See also: Apsidal building.

Pavement, paving  A solid covering which creates a hard floor. Made of stone (pebbles, slabs, tiles, tesserae, etc.), burnt bricks, plaster or wooden planks.

Palace  Building, usually large, spacious and elaborate, serving as the residence of a sovereign, high official, local governor etc., including his household and administration.

Panel  Broad wooden plank, usually square or rectangular, used as wall facing.

Parapet  Narrow wall on edge of city-wall, tower or gate serving to protect the defenders fighting from behind it.

Partition wall  Wall which does not reach the full height of a room, designed to divide it into separate spaces. Usually built on the floor without foundation.

Pilaster  Column with rectangular cross-section, built of stones, bricks or drums, in contrast to a column which is made of a single block (monolith). See also: Engaged pilaster.
**Pivot**
Projection at the lower corner of a door (and sometimes also at the upper corner) placed in a socket, upon which the door revolves.

**Plan**
Graphical representation of the architectural elements and components of a building (wall system, rooms, courts, openings, stairs, columns, etc.).

**Plano-convex brick**
Mud brick with one flat side and the opposite side rounded (convex).

**Plaster**
Mixture of materials (including lime, sand, etc.) used to coat walls to make them smooth or watertight. See also: Hydraulic plaster.

**Podium**
Raised platform, constructed of retaining walls, fills of debris and loose stones. Used for raising a building of special status (e.g. palace, temple) above its surroundings.

**Polygonal masonry**
(Greek: πολύς = many; γωνία = corner, angle). Masonry style which employs polygonal stones fitted to each other as closely as possible. No courses can be distinguished in this style.

**Pool**
Natural, rock-cut or constructed space, used to collect and store large quantities of water (runoff, or diverted into it by an aqueduct). Usually not covered.

**Portico**
Part of the façade of a building, consisting of a row of 2-3 columns standing in front of the building or within its opening.

**Postern**
Secret passage, usually a narrow tunnel, which traverses the fortifications of a city or citadel.

**Post hole**
Small, narrow pit in which a post or column was erected. Usually marked by small stones put into it in order to steady the post.

**Pronaos**
(Greek: πρῶ = in front of; ναός = the holy-or-holies). The hall in the forepart of a temple. The pronaos sometimes has only the shape of a portico.

**Propylaea**
Elaborate entrance or gatehouse in public buildings (temple, palace) incorporating columns.

**Proto-aecolic capital**
Capital usually made of a single rectangular limestone block of which one or both elongated faces are adorned in relief with a motif comprising a central triangle and two volutes. This type of capital is characteristic of the Iron Age.

**Public building**
A building which functions, in whole or in part, to serve the public, or is open to the public, such as: temples, fortifications, city's stores, and that part of the sovereign's palace to which the public has access.

**Quarry**
Site where stone is cut from the ground, in an open pit or in a mine, for constructional purposes.

**Ramp**
Sloping causeway, designed to enable easier approach to a city-gate, an altar, etc. Usually composed of debris and loose stones beaten to a compact surface. See also: Siege ramp.

**Rampart**
Earthen mound piled up around a city as a fortification or part of it. It is typical of the Middle Bronze Age II.

**Relieving arch**
Arch (s.v.) built over a lintel (s.v.). It is intended to divert the weight of the wall resting upon the lintel to the door jambs. An arch of this
type may be constructed within the solid masonry of a wall and not necessarily over an opening.

Repository  Niche or depression in the bottom or the side of a burial chamber, into which the loose bones of the dead were collected and deposited for secondary burial.

Residency  Palace of a high official.

Retaining wall  Wall built to support a fill of debris and loose stones piled up on one of its sides. See also: Podium, Terrace wall.

Rise of step  Vertical part of a step which connects two treads of a staircase.

Robber's trench  Foundation trench out of which the building stones of a ruined wall and its foundation were extracted for reuse somewhere else, the open trench then left to be filled with debris. It indicates the existence of a wall in antiquity.

Roof, roofing  The upper part of a building, covering its rooms and walls. Can be constructed in different ways and materials. See also: Flat roof, Gabled roof, Vault, Dome.

Room  The basic unit of a house, a space surrounded by walls, a floor and ceiling.

Rubble  Stones collected in the field (fieldstones), or fragments of stones from old buildings, incorporated in a wall, without any dressing.

Sanctuary  See: Temple.

Seam  Line along which two segments of walls or two buildings, meet. In the seam, the vertical joints form a straight continuous line.

Secondary use  The reuse of building materials (ashlars, columns, flagstones, etc.) which have been extracted from old ruined buildings.

Shaft  Long, narrow vertical or inclined tunnel giving access to a subterranean structure, cut in bedrock or in the earth.

Shrine  See: Temple

Siege ramp  Ramp (s.v.) piled up against a besieged city's fortifications to facilitate the ascent of a battering ram or other siege machinery.

Silo  Structure for the storage of provisions. Usually built without openings in its sides as protection against rodents.

Socket  See: Door socket.

Socle  Plain, low rectangular block serving as support for pedestal, vase, statue, etc.

Staircase  Flight of steps, within a stairwell (s.v.), or free-standing, which enables access from floor to floor, or up to a higher construction (such as: podium, altar, etc.).

Stairwell  Space in building which houses the staircase.

Stele  Upright slab of stone, worked or unworked, erected for memorial or cultic purposes. Sometimes inscribed or decorated.
GLOSSARY OF ARCHITECTURAL TERMS

Step
A built or rock-cut flat and narrow surface with which one climbs from a lower to a higher level. Usually grouped in a staircase.

Stoa
(Greek: στοά). Building with one or more sides consisting of a colonnade.

Stone dressing
The art of shaping fieldstones (with chisel and mallet).

Stonework
Masonry, the part of a building made of stone, with or without mortar.

Street, alley, path
An elongated space between houses of a settlement, created for communication. It may be comprised of beaten earth or paved with rigid materials such as pebbles, crushed limestone, flagstones, etc.

Stretcher(s)
Ashlar or brick incorporated in a wall with its long axis parallel to the line of the wall. See also: Header(s); Header(s) and stretcher(s).

Structure
1. Building; 2. The way a building, or part of it, is constructed in terms of selection of building materials, architectural elements and method of assemblage.

Stylobate
(Greek: στυλός = column; βάσις = base, foot). Foundation upon which columns are placed to prevent them from sinking into the ground due to their weight. Usually a subterranean construction, sometimes protruding from the ground. See: Base; Column base.

Temenos
(Greek: τεμένος). Holy precinct within a city or close by, separated by a wall from the secular parts of the city.

Temple, sanctuary, shrine
The dwelling of the god. A public building to house the god, in which the god's statue was erected and his cult and rites performed.

Terrace wall
Wall built on a slope to retain fills of earth and stones, thus creating patches of level ground suitable for agriculture. Usually only the exterior side has a neatly constructed face.

Terre-pissée
See: Mortar.

Tholos
(Greek: θόλος). Circular building, usually roofed by a dome.

Threshold
Part of doorway, usually made of stone; on one or both sides are the sockets in which the door pivot turns.

Throne room
Most important ceremonial room in a palace, in which the throne stands and the ruler gives audience. Usually one of the largest and most richly decorated and equipped rooms in the building.

Tower
Building constructed for defensive purposes, permitting a good view and firing position. A tower may be an isolated construction, or part of the city's fortifications, projecting outwards from the city-wall's line, or built as part of the gatehouse.

Tread of step
The horizontal part of the step, upon which the foot is placed. Designates the horizontal depth of the step. See also: Rise of step.

Tumulus
(Latin: mound of earth, tomb). Heap of stones and earth, usually round in outline, which covers one or several tombs. Cairn.

Tunnel
Long, narrow subterranean passage, usually horizontally cut in bedrock or earth.

Twofold door
Door with two wings, designed to close a large opening (in the city's
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<td><strong>Ulam</strong></td>
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<tr>
<td><strong>Undressed stone</strong></td>
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<td><strong>Upper structure</strong></td>
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<td><strong>Urbanization</strong></td>
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<td><strong>Vault</strong></td>
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<td><strong>Voussoir</strong></td>
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<td><strong>Wall</strong></td>
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<td><strong>Water channel</strong></td>
</tr>
<tr>
<td><strong>Water system</strong></td>
</tr>
<tr>
<td><strong>Well</strong></td>
</tr>
<tr>
<td><strong>Window</strong></td>
</tr>
<tr>
<td><strong>Yard</strong></td>
</tr>
</tbody>
</table>

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322
Fortress Footprint Comparison (Tamar, Kadesh Barnea, and Tell el-Kheleifeh)

Tamar (100 x 100 meters)

Kadesh Barnea (34 x 52 meters)

No gate; towers and walls are well-preserved; no earthen ramp or wooden stairs were noticed during excavation.


"It is believed that K-B fortress served as the administrative center for these Judean strongholds in the central Negev."

Tell el-Kheleifeh (Aqaba) (45 x 45 meters)

Iron I fortress measures 45x45 meters, made of mud brick casemate walls, with 4 room house that measures 41x44 sq. ft., situated inside fortress.

Diagram: 10 sq. m. grid

Period 1

Period 2:  
- walls (diagonally slashed)  
- Glacis (vertically slashed)  
- Towers (solid grid (lower corner only)

- Clay hearth
- Fireplace
Fig. 1. Distribution of the "four room house" in Palestine, up to 1984.

1. Hazor
2. Tell Dalheimiya
3. Shiqmona
4. Yoqne'am
5. Tel Qiri
6. Megiddo
7. Tel Mevorakh
8. Dotan
9. Tell el-Far'ah
10. Shechem
11. Qarnei Shomron
12. Tell Sa'idiyeh
13. Tel Qasile
14. Aphek
15. 'Izbet Şartah
16. Deir el-Mir
17. 'Ai
18. Horvat Raddana
19. Tell en-Nasbeh
20. Giv'eon
21. Jerusalem
22. Jericho
23. Vered Jericho
24. Horvat Shilha
25. Tel Batash
26. Beit Shemesh
27. Lachish
28. Tell el-Hesi
29. Tell Beit Mirsim
30. Tell esh Shari'a
31. Tell Jemneh
32. Tell Be'ersheba
33. Tell Malhata
34. Tel Masos
35. Atar Ha-ro'eh
36. Kh. Ritma
37. Horvat Haluqim
38. Ramat Matred
39. Tell el-Kheleife
Figure One: Four Room House Distribution (1984)
Fig. 27. Plans des maisons de type III4 :
a. Tel Masos, 454 ; b. Tell Qasile, Xb, J ; c. Tell Qasile, IXa, J ; d. Hazor, 3169 ; e. Tell en
Nasbeh, 23 ; f. Tell en Nasbeh, 226 ; g. Mishor Haruah, B ; h. Megiddo 1279 ; i. T. Beit Mirsim,
SE33/12 ; j. Gilboaen, 123 ; k. Megiddo, 207 ; l. Mersin.
Une disposition analogue est attestée à Mersin (fig. 271), puis plus tard au niveau 4 de Al Mina (76) en Cilicie et Syrie du Nord, mais avec des différences fondamentales : l'absence de mur de façade dans la pièce centrale, et le débordement d'un espace latéral sur la pièce transversale rapprochent cette maison des modèles mésopotamiens. La maison 201 de Megiddo peut renvoyer à un modèle de même origine (77).

**

Comme nous l'avons dit au début du chapitre (p. 70), il n'y a que deux maisons où un espace rectangulaire est bordé par des pièces sur ses deux petits côtés et un de ses longs côtés : Tel Masos, maison 314 et Horvat Haluqim, maison 3 (fig. 28). L'espace central est très grand, (plus de 6 m. de côté) et reçoit une ou plusieurs pièces sur chacun de ses côtés. Le système de circulation est toujours le même, entrée par la pièce centrale (qui n'a, semble-t-il, pas de mur de façade à Horvat Haluqim) et de là, passage vers les autres pièces. En dehors de ces caractères généraux, beaucoup de choses diffèrent dans

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76 - Garstang, 1953, p. 253, Woolley, 1938, pl. 5, pp. 137-143. La similitude de ces deux plans avec ceux de Palestine est évidemment frappante, mais peut-être vaut-il mieux y voir une évolution du plan de type "hilani" connu dans cette région pendant tout l'âge du Fer comme en témoigne celui de Chatal Hüyük (Haines, 1971, p. 19). Là encore, notre méconnaissance de l'habitat syrien interdit de porter un jugement démonstratif sur le problème.

77 - Si la porte principale est bien située dans l'angle de la maison on aurait une entrée en chicane très caractéristique.
ces deux maisons, nombre de pièces périphériques plus grand et escalier intérieur à Tel Masos, présence de piliers sur le pourtour du grand espace rectangulaire et doublement d'une pièce latérale à Horvat Haluqim.

Type IV. Maisons composées d'un espace rectangulaire bordé de pièces sur ses quatre côtés.

Suivant la logique de notre classement, nous arrivons à ce dernier type qui reste cependant un peu virtuel dans la mesure où il ne correspond qu'à deux maisons connues : Atar Haro'a, maison II (Xème siècle), et Tell Beit Mirsim, maison SE 22/4 (fig. 29).

Fig. 29. a. Atar Haro'a, II ; b. T. Beit Mirsim, SE22/4.

Ces maisons se rapprochent, pour ce qui est du corps principal, respectivement de celles de type III.1 et III.2, une pièce transversale est rajoutée sur le quatrième côté de l'édifice. Il semble, au moins à Atar Haro'a, que ce ne soit pas le résultat d'un remaniement mais que la maison ait été conçue ainsi au départ. C'est moins sûr à Tell Beit Mirsim, où la pièce Ouest est peut-être postérieure, ce qui rapprocherait alors la maison de celles où, comme nous l'avons noté plus haut, un espace irrégulier a été délimité devant le corps de l'édifice.
|| TYPES DE PLANS | FER I | FER II | FER III |
|---|---|---|---|
| XIème - XIIème siècle | XIIème - milieu IXème siècle | milieu IXème - VIIème siècle |
| IA | 'Ai | T. el Far'ah (III), T. Abou Hawam (III), Hazor (XII) | T. Beit Mirsim, Beer Sheba (II), Ch. Hûyûk (IV) | U. el Biyara. |
| IB1 | 'Afula, T. Qasile (X) | T. el Far'ah(S), R. Matred, Sichem (IX), T. Abou Hawam (III), Megiddo (V), T. Keisan (V) | Hazor (VII-V), Ch. Hûyûk (IV) | T. Beit Mirsim, T. en Nasbeh Engedi, Ch. Hûyûk (IV) | Megiddo (III) |
| IB2 | T. Abou Hawam (IV) | T. Keisan (V) | T. Beit Mirsim, T. en Nasbeh | Megiddo (III) | T. Beit Mirsim, T. en Nasbeh Engedi, Ch. Hûyûk (IV) | Megiddo (III) |
| IIA1 | T. Abou Hawam (IV) | T. Masos (II) | T. Kesan (V)? | T. Beit Mirsim, T. en Nasbeh Engedi, Ch. Hûyûk (IV) | T. Masos (II) | T. Beit Mirsim, T. en Nasbeh Engedi, Ch. Hûyûk (IV) |
| IIA2 | T. Qasile (X) | T. Sera' (VII) | U. el Biyara. |
| IIA3 | Gezer | T. Masos (II) | U. el Biyara. |
| IB1 | T. Masos (III), 'Ai | R. Matred, H. Ritma, Refed | T. Beit Mirsim, Beth Shemesh (III), Jericho, Hazor (VI), Megiddo (III) |
| IB2 | T. Qasile (X) | T. Masos (II) | T. Beit Mirsim, Beth Shemesh (III), Jericho, Hazor (VI), Megiddo (III) |
| IIB3 | Bethel (?) | T. Aphek | T. Beit Mirsim, Beth Shemesh (III), Jericho |
| IB4 | T. Qasile (X) | T. el Far'ah (III) | T. Beit Mirsim, Beth Shemesh (III), Jericho |
| III1 | I. Sartah | H. Halyqim, Megiddo (V-VI) | Hazor (VI-V), T. el Far'ah (II) | T. el 'Areini |
| III2 | T. Masos (II), T. Qasile (X) | T. Sera (VII), T. Mevorakh, T. Qasile (IX), H. Ritma | T. en Nasbeh, T. Beit Mirsim, T. en Nasbeh, T. Beit Mirsim, Megiddo (III) |
| III3 | T. Masos (II) | T. el Far'ah (III) | T. Beit Mirsim, T. en Nasbeh, T. Beit Mirsim, Megiddo (III) |
| III4 | T. Qasile (X) | T. Masos (I) | T. Beit Mirsim, T. en Nasbeh, T. Beit Mirsim, Megiddo (III) |
HOUSES

The typical private house in the land of Israel during the Bronze Age and the Iron Age was built of sun-dried mud-bricks resting upon two or three layers of stone foundations. The walls were forty to seventy centimeters (sixteen to twenty-eight inches) wide and were plastered with mud. While the floors of some of the private houses were plastered with mud or paved with stone, the typical floor was of trodden earth. The ceiling and the flat roof were made of wooden beams and reeds packed together with earth and straw. From the Ugaritic epic poem *Aqhat* we learn that a characteristic task of the sons of the household was the plastering of the roof with mud to prevent seepage of water during the rainy season (October to April). An upper floor is mentioned in the Hebrew Bible.

Archaeological evidence for the upper floor of the typical Canaanite or Israelite private house consists of (1) the debris of broken pottery and mud-bricks presumed to have fallen from the upper story; (2) slanting beams; (3) the seemingly exaggerated width of the walls, which must have been designed to support an upper story; and (4), in the Middle and Late Bronze Age Canaanite house, an internal staircase in a corner of the courtyard and, in the typical Israelite four-room house, an external ladder to the flat roof of a single-story house. The typical Middle Bronze and Late Bronze Age private house at Ugarit and elsewhere in Syro-Palestine had three rooms. It appears that in the private houses of Jericho (modern Tell as-Sultan) the ground floor was used for storage and the sheltering of livestock and the upper story was used for dining, sleeping, and entertaining visitors.

Several of the houses at Middle Bronze Age Jericho feature attached rooms that can be entered only from the street. Since these same houses often feature evidence of such crafts as weaving (numerous pottery loom weights), grain milling (numerous grinding stones), or pottery making (evidenced by a potter’s wheel), it is surmised that the attached rooms were the shops from which the residents sold their products.

One of the most typical innovations of the Israelites is the characteristic four-room rectangular house found in every Israelite site from the eleventh century to the Babylonian conquest of Judah in 586 (fig. 1). The ground floor of such a house consisted of an open courtyard that was entered by means of a wooden door, which swung on stone sockets and pivots. The round mud-brick oven for cooking and baking was located there. A second, roofed, courtyard to the left of the open courtyard was where such activities as spinning and weaving took place. To the right of the open courtyard a large room equal in size to the roofed courtyard served as the kitchen and pantry. Frequently, provisions were kept in large storage jars at one end of this room. At the rear of the house, perpendicular to the open courtyard, was the living room where dining, sleeping, and entertaining of guests may have taken place. It is widely believed that some of these activities may have taken place in rooms in an upper story. The suggestion that one or

![Fig. 1. Floor plan and model of an Israelite four-room house, circa eleventh century to 586 BCE. ERETZ ISRAEL MUSEUM, TEL AVIV](image-url)
more of the ground-floor rooms may have been used as a shelter for livestock is corroborated by 1 Samuel 28:24, which relates that the necromancer at Endor "had a stall-fed calf in the house." It appears that at Ai and Radanna enclosures for the animals were built adjacent to the houses. Perhaps it is the rear living room that is designated yarkaté betékā, "the innermost parts of your house," as in Psalm 128:3: "Thy wife shall be as a fruitful vine, in the innermost parts of thy house." While the walls of Bronze Age and Iron Age houses have not survived to a height sufficient to indicate the location, number, and size of windows, the windows of Canaanite and Israelite private houses are referred to in the Bible (Joshua 2:15, Judges 5:28), and they are depicted on ivory plaques. At night and on cloudy days, illumination within was provided by pottery lamps fueled with olive oil and employing wicks of flax. From the beginning of the Middle Bronze Age, the typical household lamp in Syro-Palestine had the form of an open saucer or ashtray with a single pinched corner for holding the wick. Lamps were placed in wall niches, on shelves projecting from the walls, and on lampstands (fig. 2).

Families engaged in particular crafts often lived in specific neighborhoods in the larger cities. Isaiah 7:3 (eighth century) refers to "Fuller’s Field" in Jerusalem. Jeremiah (late seventh century) mentions Jerusalem’s "Way of the Potters' Gate," where the potters lived and carried on their craft (Jeremiah 19:1), as well as "Bakers’ Street" (Jeremiah 37:21). Zephaniah (seventh to sixth centuries) notes that the merchants of Jerusalem resided in the district called Maktesh (Zephaniah 1:11). Nehemiah (fifth century) informs us that in his day "the Temple servants were living on the Ophel, as far as a point in front of the Water Gate in the east, and the jutting tower" (Nehemiah 3:26). In Nehemiah’s time goldsmiths also lived in a distinct neighborhood (Nehemiah 3:31). Moreover, in some of the towns of ancient Israel, specific industries predominated, such as the scribal art at Jabez (1 Chronicles 2:55) and the dyeing industry at Debir.

FURNITURE

Knowledge of the furniture typical of the Canaanite and Israelite household is culled from the following sources: (1) a list of the craftsmen of fifteenth-century Alalah (modern Tell Atchana) and the goods produced by sixty-four different manufacturers (Alalah Tablet 114); (2) a list of furniture ordered from the manufacturer and not received by the purchaser, also from fifteenth-century Alalah (Alalah Tablet 227); (3) the list of the spoils of Megiddo plundered by King Thutmose III of Egypt in 1488 (Pritchard, p. 237); (4) the lists of tribute that Assyrian kings such as Assurnasirpal (883–859) received from cities in Syro-Palestine (Pritchard, pp. 275–276); (5) passing references in Ugaritic literature and in the Bible, such as 2 Kings 4:10, where the Shunammite woman provided Elisha the Prophet (ninth century) with a second-story room furnished with “a bed, a table, a chair, and a lamp”; (6) pictorial illustrations on cylinder seals, ivory plaques, and bronze bowls; and (7) the archaeological evidence from the tombs at Middle Bronze Age Baghouz and Jericho. At these sites, the presence of natural gas preserved some organic matter, including wooden furniture.

Beds

It appears that the typical Canaanite home had chairs or stools and tables. Beds were found only in the homes of the wealthy; the typical Canaanite slept on a rush mat. According to Genesis 49:4 and 1 Chronicles 5:1 it was upon such a mat,
vessels (including a goblet); a decorated bone whorl and spindle; and an inlaid bead were found along the walls. The other finds in the room included at least twenty small cooking pots (three in situ), two incense burners of whitish-yellow clay—a small one in the shape of an inverted bell, decorated in the ‘Kerbschnit’ technique and the other a bowl and stand with plastic decoration—broken amphorae, ten casseroles and ten casserole lids. One of these contained fragments of an iron knife and a whetstone. Forty coins were recovered, mainly in two heaps next to W1006 and W1011; most date from the mid-4th century CE, in the reign of Constantius II (with the latest no later than 361 CE). Coins found next to W1006 were mixed with coral beads and a conch shell used as an ornament.

Room 2, which was devoid of any ashes and bones, seems to have been destroyed suddenly. The coins recovered in this room and in the last phase of the adjoining Room 1, as well as the position of the contents of the rooms, suggest that the building was destroyed in the severe earthquake of May 19, 363 CE, when Petra was also laid waste, and that it was never reoccupied.


Rudolph Cohen and Yigal Israel

The excavations at ‘En Ḥazeva (ESI 10:46–47) were carried out intermittently in 1990–1992 and continuously in 1993–1994. The excavations were directed on behalf of the Antiquities Authority by R. Cohen, and from 1992, in cooperation with Y. Israel. In 1990–1991 the work was assisted by Y. Israel, Y. Lender and R. Cohen-Amin and in 1992 by R. Cohen-Amin. Also participating in 1990–1992 were V. Shorr and I. Vatkin (surveyors), N. Sneh (photographer) and students from the Denmark High School in Jerusalem, led by S. Cohen, assisted by S. Maizlish (1992). In the 1993–1994 seasons, the directors of the excavation were assisted by O. Feder, E. Tischler, A. Ganor, M. Zivarecz, S. Blankenstein and Y. Kalman, with the participation of N. Kolele, D. Poretzki, R. Niculescu and I. Vatkin (surveyors), N. Sneh (photographer), Z. Sagiv and K. Amit (studio photos) and students from the Denmark High School in Jerusalem, led by S. Cohen and with the assistance of A. Ganor, M. Zivarecz and M. Halfon. Assistance was provided by the Negev Tourism Development Administration and the Ministry of Labor.

The excavation areas were extended in these seasons, mainly in Areas C and D in the north and Area E in the east (Fig. 114). The abundant finds added to the information concerning the two main periods of occupation at the site: the Late Roman period (Stratum 2, 3rd–4th centuries CE) and Iron Age II (Strata 5–4). A few remains of the Nabatean period (Stratum 3) were also recovered.

LATE ROMAN PERIOD

The Fortress. In Areas C and D all the casemates along the west and north sides of the Roman fortress were cleared. Two main building phases were distinguished. In the first phase (second half of the 3rd century CE), the square fortress (46 × 46 m) was erected. Four corner towers (7.0 × 8.5 m) projecting from its walls were added toward
the end of the 3rd century CE, probably in the reign of Diocletian. The abundant pottery and the coins attributed to this phase indicate that it was destroyed in the mid-4th century CE, probably by the earthquake of 344 CE, and was almost immediately rebuilt. Changes made in this phase are evident in its inner layout, especially in the size of the cisterns. Its final ruin should be attributed to the earthquake of 363 CE, which also destroyed Petra.

This fortress was the largest and thus the most important in the disposition of the Roman fortresses built in the Arava Valley to protect the southeast frontier of the Empire—the border of the settled lands—and the trade routes in this area. The fortress between ‘En Boqeq and ‘En Hazeva, those at Qasr el-Juheiniye and next to Yotvata and the strongholds erected in the Roman period along main roads in the Negev and the Dead Sea area should be attributed to this defensive system. The Roman fortresses along the road from the Dead Sea south to Elat are similar in plan. A Latin inscription commemorating the construction of the fortress near Yotvata in the reign of Diocletian (EST 5:115) can probably be used to date the other fortresses as well, including that at ‘En Hazeva.

**Bathhouse** (Fig. 115). The excavation of the bathhouse in Area E, located c. 50 m southeast of the fortress, was completed. Like the fortress, the bathhouse dates from the 3rd–4th centuries CE and was also built in two phases. Three entrances were identified—in the north, south and west. Leading to the baths’ west entrance was a corridor which ran between the baths and another building,
probably a caravanserai or a palaestra. The apodyterium, tepidarium, sudatorium, caldarium and
bathubs for cold and hot water were preserved, as well as the praefurnium in the east of the building.
A room uncovered in the south was probably a latrine.

NABATEAN PERIOD

Remains of the Nabatean period (Stratum 3) were exposed under the ruined Roman fortress (Stratum
2). For the present, the plan of these remains, which includes a room containing four intact store
jars, could not be determined.

IRON AGE

The Fortresses. The ruins of the latest (Stratum 4) of
the three Iron Age fortresses discovered at the site
were uncovered only in Area A (ESI 10:46–47).
These remains were scanty and thus far, no coherent
plan could be traced, though it was clearly
smaller than the middle fortress. Wall remains are
mostly limited to the foundations, although there
are a few sections where up to three courses were
preserved. The north corner of the northeast tower
still stands c. 2 m above the casemate wall of the
middle fortress. Pottery characteristic of the 7th–6th
centuries BCE was found on the floors of the
towers. The finds in this stratum included a stone
seal carved with a horned altar flanked by two an-
tithetically facing figures. The Edomite inscription
above the figures (deciphered by J. Naveh) reads
"(belonging) to m'sktson of whzrn" (Fig. 116).

Excavations of the middle fortress (Stratum 5;
9th–8th centuries BCE) continued in Areas A–D
Fig. 117. 'En Hazeva. Gate of Iron Age middle fortress (Stratum 5), looking north.

Thus far, mainly the casemate wall (c. 100 x 100 m) has been exposed. Three towers projected c. 3 m from the wall. The outer wall has offsets and inlets of 8–10 m each (width of wall at offsets c. 3 m; at inlets 1.5–2.0 m). The width of the inner wall is 1.5–2.0 m; the walls separating the casemate rooms are 0.9 m thick. The rooms are 2.1 m wide and 8.0–10.7 m long.

The casemate rooms were exposed along the entire north façade of the fortress on both sides of the four-chambered gate (Fig. 117), as well as partially along the three other sides. Most of the casemate rooms were full of earth. An assemblage of pottery and stone artifacts characteristic of the 9th–8th centuries BCE, found in one of the casemates west of the gate, is of special interest. It included intact pottery vessels—a cooking pot, an amphora, an Akhiv-type jug and juglets—as well as a stone bowl on a stone stand; a ceramic bowl (Fig. 118) containing a clay lamp had been placed inside the stone bowl. These vessels were found next to a rounded stone (massa'ela?).

The chambers of the four-chambered gate, characteristic of fortifications in the Land of Israel in the 9th–8th centuries BCE, were of uniform size (2.5 x 3.3 m). The gate piers (c. 2.5 m in width) were impressive in the quality of workmanship and state of preservation; their walls, built of well-cut stones, still stand c. 3 m high. The gate passage narrowed from the outer entrance (width 4.8 m) inward (width 4 m between the piers). An open corridor (courtyard?) has been found north of the gate, probably leading to the outer gate.

A row of east–west casemate rooms divided the fortress in two: the northeast wing ('gate complex'; 50 x 50 m) and the remaining fortress area, which is three times larger. For the present, it cannot be determined whether this division indicates two occupation phases, though two architectural phases can be identified, the earlier being the

Fig. 118. 'En Hazeva. Stone bowl (diam. c. 30 cm) containing a pottery bowl.
northeast area. That part of the fortress, including the gate, is similar in plan to the contemporaneous fortress at Tell el-Kheleifeh (Stratum IV).

The Stratum 5 fortress was four times larger than other Negev fortresses (Tel Arad, H. Tov, H. Uza and Tell el-Kheleifeh) and was almost as large as contemporaneous fortified cities, such as that at Tel Sheva. There is, therefore, some difficulty in identifying the purpose of the fortress at 'En Hazeva, though it is somewhat similar to that now being excavated at Tel Yizre'el, which served as an administrative center. The strategic importance of the site is reflected in the immense size of the Stratum 5 fortress; it was erected on the road to Elat, which crossed the Arava from north to south and defended the area opposite the mountains of Edom to the east.

The remains of a building (Stratum 6) predating the middle fortress are now being exposed under the gate of the Stratum 5 fortress; these may belong to a 10th century BCE fortress.

Assemblage of Edomite Cult Vessels. A unique assemblage of cult vessels was exposed in the north part of the site, at the foot of the wall of the Stratum 5 fortress. It was discovered in a favissa dug next to and east of the foundations of a long building (2.5 x 6.5 m; width of walls 0.7 m; Fig. 119). The vessels had been shattered by ashlars of various sizes which were placed on top of them after having been dismantled from the nearby shrine (Figs. 120, 121). Thanks to M. Ben-Gal's skilful restoration work, it is now possible to conclude that the assemblage consisted of 65 complete pottery items and seven stone altars of various sizes (Fig. 122; see color plates). Nine types can be discerned among the pottery items: three anthropomorphic stands (see front cover), one of which may be of a woman carrying a bowl, similar to figures found in the Edomite temple at H. Qitmit; eight stands, including one which served as the base for an anthropomorphic figure, and cylindrical stands, some with incised designs (Fig. 123) and some decorated with figures (see color plate); fourteen incense burners with fenestrated bases (see color plate) and eleven incense burners decorated with projecting triangles (Fig. 123); eleven small chalices (Fig. 124:a); four perforated cup-shaped incense burners (Fig. 124:b, c); four small bowls;
Fig. 122. 'En Hazeva. Stone altars: (a) max. width 9.3 cm, incised decoration; (b) height c. 12 cm.

Fig. 123. 'En Hazeva decorated incense stands: (a, d) height c. 50 and 32 cm; (b, c) height c. 20 cm; (e) detail of incised figure of bull on Stand (d).

Fig. 124. 'En Hazeva: (a) small chalices (max. height c. 16 cm); (b, c) incense cups (max height c. 9.4 cm); (d) incense shovel (length c. 24 cm).
two incense shovels with a projecting handle (Fig. 124: d); and two types of pomegranate-shaped vessels—three tiny, intact specimens (Fig. 125) and three larger ones, which had been shattered together with the other vessels. This unique assemblage—probably cult vessels from an Edomite shrine—can be attributed to the late 7th or early 6th century BCE. The smashing and burial of the vessels should probably be associated with the existence of the late Iron Age fortress (Stratum 4).

**Identification.** The finds recovered in the recent seasons of excavations confirm Aharoni’s proposal that the site be identified with Roman Tamara, the biblical Tamar. The contexts in which Tamara is mentioned in ancient sources—such as the Tabula Peutingeriana, Eusebius’ *Onomastikon*, the Maccaba map, the *Notitia Dignitatum* and the work of Ptolemy the Geographer—indicate that the site served as an important military and administrative center in the Roman period.

The construction of the earliest Iron Age fortress should probably be attributed to the reign of Jehoshaphat, who attempted to regain Ezion Geber when “there was then no king in Edom” (1 Kgs 22:47). The fortress may have been erected against the background of the retaliatory campaign undertaken by Jehoshaphat toward the end of his reign together with Jehoram, son of Ahab, king of Israel, against Mesha, king of Moab. However, it is also possible that the fortress was built by Amaziah, the son of Joash, who defeated the Edomite army in the ‘Valley of Salt’ in the northern Arava and conquered Selah (2 Kgs 14:7), or by his son Uzziah, who “built Elath and restored it to Judah” (2 Chr 26:2) and who fortified the frontiers of his kingdom. The construction of the late fortress should be attributed to the reign of Josiah, who may also have been responsible for shattering the Edomite cult vessels, as part of his religious reforms.

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**Har Karkom, Survey – 1993/1994**

*Emmanuel Anati*

Two seasons of surveys in the Har Karkom area were carried out in the spring months of 1993 and 1994 (*ESI* 12:115) under the direction of E. Anati and the sponsorship of the Camunian Center for Prehistoric Research in Italy. In 1993, six teams participated: G. Cottinelli, I. Mailland and C. Zani (survey of prehistoric sites), A. Fradkin-Anati and R. Bricchi-Bastoni (rock art), M. Cucarzi and V. Di Cesare (electromagnetic and geo-radar tests), D. Fornoni and O. Paperi (cave exploration), P. and C. Barbier, M. Cucarzi, V. Di Cesare, L. Mangolini (Hellenistic acropolis), and E. Anati, F. Canestrari and T. Chiebato (surface exploration). In 1994, the teams were coordinated by E. Anati (surface exploration), G. Girolomoni (Cave 332), G. Fornoni (Cave 224), L. Cottinelli and F. Mailland (prehistoric sites and topography) and A. Fradkin-Anati and R. Bastoni (rock art). S. Hanegbi and A. Gadhon were in charge of catering services. The expedition was supported by the General Direction of Cultural Relations of the Italian Ministry of Foreign Affairs and W. Selz of the International Christian Embassy, Jerusalem.

The survey area extended over 200 sq km, between latitude 120–130 and longitude 960–980. The south half of this area was surveyed for the first time in these seasons, while in the previously surveyed north half, sites were re-examined. More than 60 new sites were recorded in 1993, bringing the number of sites described to 932; some of the sites were attributed to two or more periods. A
On the Road to Edom
Discoveries from 'En Ḥaẓeva

Rudolph Cohen    Yigal Yisrael
Introduction

Many important finds have been uncovered in the excavations conducted in recent years at 'En Ḥazeva, situated in the heart of the Arava. Undoubtedly, the most unusual, impressive, and interesting of these are the group of “Edomite” cult vessels. More than seventy examples were unearthed in 1993, hidden in a pit near a long building that probably served as a shrine. Most were made of clay, though a few were of stone; they had been broken deliberately, and were found lying beneath the ashlars that had been used to crush them. Some of the vessels closely resemble Edomite finds unearthed in excavations at Horvat Qitmit, about 45 km northwest of ‘En Ḥazeva. In order to clarify the uniqueness of the ‘En Ḥazeva vessels, they will be described in the wider context of archaeological research at the site, giving an account of the different periods in its history: beginnings, florescence, recurrent destruction, and reappearance on the stage of history.

The excavated finds from ‘En Ḥazeva show that the site was continuously occupied for hundreds of years, from the tenth to sixth centuries BCE. After being abandoned for a long time, it was reoccupied in the second century BCE, and then deserted again in the fourth century CE. Finally, there was a brief period of resettlement in the sixth-seventh centuries CE.

The excavations revealed six strata, the first three of which date from the First Temple period:
- Stratum 6: Tenth century BCE
- Stratum 5: Ninth-eighth centuries BCE
- Stratum 4: Seventh-sixth centuries BCE
- Stratum 3: Nabataean and Early Roman periods – first century BCE to first century CE
- Stratum 2: Late Roman period – third-fourth centuries CE
- Stratum 1: End of the Byzantine and beginning of the Early Muslim periods – sixth-seventh centuries CE

The site’s longevity is a sign of its importance, both during the period of the United Monarchy and the Judean kingdom, and in the Nabataean and Roman periods. Its location on the border of Judah and Edom and at a crossroads leading west, northeast, and south turned it into a military and administrative center and the hub of major trade routes.
Its proximity to Edom, which extended eastwards from Nahal Ha-arava, presents scholars with the thorny problem of the exact nature of the links between the finds and the various national and political entities. For example, it is difficult to determine who was responsible for construction of the fortresses from the period of the Monarchy, and whether they served the Israelite kingdom in Solomon’s reign and then the kingdom of Judah, as we suppose, or were an Edomite center, as suggested by other scholars.
Identifying the Site

The site of 'En Ḥazeva lies on a hilltop to the west of a spring that bears the same name and is one of the most abundant water sources in the central Arava. A wealth of vegetation, including a jujube tree (Ziziphus spina-christi) renowned for its size and tremendous age, grows in the vicinity of the spring. The fortress at 'En Ḥazeva stood at an important junction with roads leading from north to south and east to west. In the First Temple period (the Iron Age), it lay on the main route through the Arava, which led down to Eilat and the Red Sea; in the Nabataean period, it controlled the “Spice Route” that ran from the east to the Mediterranean Sea and to the road crossing it from north to south, which led in turn to Aila (Eilat); and in the Roman period, it lay on the road west to Mamshit and Aror, the road northeast to the Dead Sea region and 'En Boqeq, and ultimately 'En Gedi and Jerusalem, and the road south along the Arava to Yotvata and the Eilat region.

Today, Kibbutz Ir Ovot is located near the site. Since the nineteenth century, scholars traveling in the region have noticed ancient remains protruding from the ground near the spring. A. Musil, who visited the site in 1902, was the first to identify a square fortress, measuring 120 feet along each side, with projecting corner towers. He also noticed the remains of a structure with several rooms adjoining the fortress on the south, as well as traces of a bathhouse to the east. The fortress was damaged in 1930, partly destroying its original plan. Two years later, F. Frank identified the structure as a Roman fort. N. Glueck, who visited the site in 1934, believed it to be a caravanserai, originally built by the Nabataeans and later used during the Roman period. A. Alt was the first to suggest linking the Roman site Eseiba with Ein Husub (today's 'En Ḥazeva), based on the linguistic similarity between the names. Eseiba appears in only one Roman source — in the Edict of Beersheba, a list of places taxed annually by the authorities.

A new factor bearing on the site’s identification came to light in 1950, when B. Mazar and M. Avi-Yonah found sherds from the First Temple period there, in addition to decorated Nabataean ware and Roman-Byzantine vessels.
In the wake of the discovery of these early sherd{s, and taking into account the site's location on the probable border between Edom and the kingdom of Judah, Y. Aharoni suggested that it should be identified with the biblical Tamar, mentioned in the Book of Ezekiel in the description of the southern border of Canaan: “And the Negev southward from Tamar to the waters of Meribot-Qadesh” (Ezekiel 47:19, 48:28),* and with the Tamara mentioned in a number of Roman sources.

In our opinion, the Iron Age fortresses uncovered by archaeological excavations conducted at the site since 1972, as well as other finds from this period and the numerous items dating from the Early and Late Roman periods, lend further support to Aharoni's proposal. Several ancient sources provide an indication as to the location of Roman Tamara. The Tabula Peutingeriana (a Roman road gazetteer from the second or fourth century CE) shows Tamara as a station on the road from Jerusalem to Eilat. A stretch of road leads to it, and the position is marked to the south of the Dead Sea. From there, the road continues into Transjordan. The Onomasticon (a list of places compiled by the historian Eusebius in the fourth century CE) records that Tamara is a day's walk from Mamshit, and that a “military garrison” is stationed there. Tamara is also marked on the mosaic map at Madaba in Transjordan, and is mentioned in the Notitia Dignitarum (a digest of the civilian and military hierarchy of the Roman

* I Kings 11:15, some scholars miss this word.
empire, dated to the beginning of the fourth century CE), and in the work of Ptolemy, a geographer of the second century CE.

* I Kings 9:17-18 records that King Solomon "built Tamar in the wilderness, in the land"; some scholars are of the opinion that a letter is missing here, and that the name should be "Tadmor," since the parallel description in II Chronicles 8:4 reads "Tadmor in the wilderness."
Group of stone and pottery cult vessels from the middle fortress, First Temple period.
Remains from the First Temple Period

The Earliest Fortress
United Monarchy Period
Tenth century BCE

The excavations at the site have revealed that three fortresses were built here, one above the ruins of the other, during the Iron Age, from the tenth century to the destruction of the First Temple in 587 BCE. The earliest known remains at the site come from a fortress built in the mid-tenth century BCE, during the reign of King Solomon. They were uncovered about 3.5 m below the ground surface, underneath the gate complex from the middle fortress (see below, p. 20).

The central unit of the fortress was a rectangular structure, measuring 13 x 11.5 m. Its southwestern corner is most impressive: built of layers of large silex blocks, it has been preserved to a height of more than a meter. The fortress’s plan resembles that of a few other fortresses in the Negev highlands, and it seems reasonable to assume that it met the same fate as many of them – destruction during the punitive campaign waged by Pharaoh Shishak in Eretz Israel in the last quarter of the tenth century BCE. A complete handmade clay cooking pot, of the type known as “Negbite” ware, was retrieved from the floor of the structure’s southeastern room. Vessels of this type, dating from the tenth to early sixth centuries BCE, were found in the excavation of the fortress at Tell el-Kheleifeh and in the three fortresses at Tel Qadesh Barnea.
A large square Iron Age fortress was uncovered above the remains of the earliest fortress. Covering approximately 10,000 square meters, it was surrounded by a casematte wall, and towers have been revealed at three of the corners. This fortress is roughly four times the size of the great fortresses of the Negev, and is almost as large as contemporary fortified cities, such as that at Tel Beersheba. These impressive dimensions, together with the fact that the fortress gate faces north, raise the possibility that this was actually a Judaeanc fortified city rather than a fortress.

The lower courses of the wall were built of dressed stones, and may have been topped by courses of ashlar. The building stone (soft limestone) came from a quarry along Nahal Hazeva, about 3 km from the site. The outer wall's offsets and insets are spaced about 10 m apart, with the gap between the outer and the inner wall producing casematte rooms.

The inner courtyard, the gate of the fortress, the storehouse, and the granaries were also uncovered, as were the rampart and moat that surrounded the fortress. Most of the casematte rooms uncovered were built along the north side of the fortress, on either side of the four-chambered gate, while only a few were uncovered on the other three sides. These rooms had no floors, and almost all of them were deliberately filled with earth. Some of the walls have been preserved to a height of 4 m and more, while another section was razed to the foundations, probably when stones were taken by robbers.

For the time being, it is impossible to determine how many stages of construction the fortress underwent. However, it seems clear that the original building was relatively small, approximately 50 x 50 m, covering the area from the gate to the inner row of casematte rooms (the "gate complex"), and was subsequently enlarged to the west and south.

The fortress has a unique, complex plan that reflects two types of fortress design: the square type, surrounded by a thick offset-inset wall, similar to the fortresses at Tel Arad, Horvat Tov, and Tell el-Kheleifeh; and the type with projecting towers, such as the two upper fortresses at Tel Qadesh Barnea and at Horvat 'Uzza. In certain ways it resembles the fortress currently being excavated at Tel Yizre'el, which was an important administrative center in the kingdom of Israel. Its plan also resembles that of the fortress at Tell el-Kheleifeh (Strata II-III), and it seems likely that they were both built at the same time.

Corner tower from the middle fortress, First Temple period
מגדל פינת של המệpדה התיכונה, מימי ה.SetActiveות
The middle fortress, first Temple period.
The Gate Complex
The gate complex, which measures about 50 x 50 m, was located near the northeastern corner. Its plan differs from that of the rest of the fortress; it is constructed of well-dressed stones and has been preserved to a height of about 3 m. The four gate piers, each 2.5 m wide, are superbly built and very well preserved. The gate passage is wide at the beginning, with a narrowing towards its end, and is flanked by two chambers of identical size (2.5 x 3.3 m) and two massive “pillars” (2.5 x 3 m). It seems probable that these pillars served as the central support for wooden staircases resting on a stone base.
This is a four-chambered gate, a type that was common in fortifications in the country in the ninth-eighth centuries BCE. Part of its western side was destroyed down to the foundations in the Nabataean and Roman periods, at which time the stones were used for building the later fortresses at the site.
Some complete clay and stone vessels were retrieved from the two casemate rooms to the west of the gate, including a number of jars, pots, and stone bowls in turn.

The St, Remains of a corner part of a long nave about 1.5 m long were found, and the wall with es

The Gateway, First Temple period

Fortress gate, First Temple period
שערי מצודה, ימי בית ראשון
a number of types characteristic of the ninth-eighth centuries BCE: a cooking-pot, juglets, an amphora, and an Akhiziv-type jug. Alongside this collection was a stone bowl placed on a stone stand; the stone bowl held a clay bowl containing, in turn, a clay lamp. Nearby stood a round stone, which may have been used as a mazzebah (cultic standing stone).

The Storerooms
Remains of three parallel walls were found near the inner southwestern corner of the gate complex, probably part of a storehouse containing three long narrow rooms. Each room was about 17 m long and about 2 m wide. A long corridor separates this unit from the buildings to the north of it. No floors were found in the storehouse complex, and the remains of the rooms were filled with earth.

The Granaries
Two granaries were uncovered near the storehouse. One was approximately 3.5 m in diameter, built of undressed stones, and preserved to a height of about 0.5 m. On its plastered floor were found a jug, a large decorated flask, and charred remains of wheat and barley grains. The second granary, preserved to a height of about 1.2 m, featured an outer wall made of clay bricks. Its floor rests on the walls of the Stratum 6 structure; the space between them was filled with silex stones.
Tracing the History of the Middle Fortress
During whose reign was this huge fortress built? It may have been constructed in the time of Jehoshaphat (867-846 BCE), when “there was no king in Edom, a deputy was king” (I Kings 22:48), in an unsuccessful attempt to repeat Solomon’s achievements: “Jehoshaphat made ships of Tarshish to go to Ophir for gold, but they did not go, for the ships were wrecked at Ezion-geber” (I Kings 22:49). Perhaps the fortress should be attributed to Amaziah son of Joash (798-769 BCE), who carefully fortified his kingdom and, after instituting reforms in the army, went to war with Edom and defeated the enemy in the Valley of Salt, in the northern Arava. Perhaps it was from this very fortress that Amaziah went out to wage war on the Edomites — or perhaps it was his son, Uzziah, the powerful, active king who “built Elot and restored it to Judah” (II Chronicles 26:2), fortified the borders of his kingdom with “towers in the desert” (v. 10), and (like his father) consolidated the army (v. 13), who built this fortress.

It is also possible that the struggle between the kingdoms of Israel and Moab played a role in the construction of the ‘En Hațeva fortress: it may have been built in connection with the retaliatory campaign against Mesha, king of Moab (II Kings 3:4-27), whose rebellion against the king of Israel is also mentioned on the Mesha Stele. The fortress’s strategic importance is clearly reflected in its dimensions and mighty fortifications, and its location on the road leading south to the Red Sea almost certainly helped defend the region opposite the mountains of Edom.
Another puzzling question has to do with the destruction of the fortress. Who destroyed it, and when? Could there have been two episodes of destruction?
Was the fortress ruined during the great earthquake in the reign of Uzziah, mentioned in the prophecies of Amos (1:1), which was a landmark in the history of Judah and an important chronological reference point for contemporaries?
Or was it levelled during the violent struggle with Edom?
The latest fortress of the First Temple period was smaller than the middle fortress, and very few remains of it have been preserved. In most places, only the foundation course of its walls has survived, rising to a maximum of three courses in a few places. It is thus impossible to reconstruct its entire plan. Excavations have revealed the eastern side of the fortress wall, which is 2.25 m wide, with two projecting towers set about 14 m apart. The southeastern tower (11 x 11 m) has been completely uncovered. The northern corner of the northeastern tower, which was built over the casemate wall of the middle fortress, is preserved to a height of approximately 2 m. The pottery recovered from the towers’ floors is characteristic of the seventh-sixth centuries BCE, and includes fragments of a jug and a large storage jar.

A very important find was made to the west of the northeastern tower: a circular stone seal, hemispherical in shape, 15 mm thick and measuring 22 mm across.

The seal is skillfully and delicately engraved with two standing male figures, dressed in long robes and apparently bearded. They face each other, with a tall horned altar standing between them. One figure raises a hand in a gesture of blessing, while the other figure extends one arm as though making an offering. Above the figures is a two-line inscription which reads lmskt bn whzn, referring to the name of the seal owner. The script has been identified as Edomite by Prof. Joseph Naveh. It is possible that this seal belonged to one of the priests serving in the Edomite shrine uncovered at ‘En Ḥazeva. One of the figures it depicts bears a close resemblance to a figure on a seal discovered at Horvat Qitmit.

Figure of a warrior on a seal impression

דמשק להב על סומקט HDDM
Schematic reconstruction of the Edomite shrine
של מדרים של המקדש האדום

Anthropomorphic cult stands from the Edomite shrine
כמו פליאוגיה דמוי אדם מקמקדש האדום
The Edomite Shrine

The crowning discovery of the 1993 excavation season was the group of cultic vessels from the seventh-sixth centuries BCE (Stratum 4). This was found on the northern edge of the site, outside the wall of the middle (Stratum 5) fortress, in a pit dug near the foundations of a small elongated building that seems to have been a shrine. The vessels had been smashed with ashlars of varying size, probably taken from the shrine, which were found lying on top of the vessels. The assemblage included 67 clay objects and seven stone altars of different sizes. Nine types of clay vessels were observed: three anthropomorphic stands, one in the shape of a woman(?) carrying a bowl, similar to those stands found in the Edomite shrine at Horvat Qitmit; eight cylindrical stands — including a stand for a statue — surrounded by relief figures; 15 incense burners in the shape of fenestrated chalices; 11 incense burners decorated with projecting lugs, with the figure of a bull incised on one specimen; 11 small chalices; five perforated cup-shaped incense burners; five small bowls; two clay incense shovels with projecting handles; and two types of pomegranates — three tiny, whole pomegranates and three larger specimens.

Particularly impressive are the three anthropomorphic stands. The head and body were made on the potter’s wheel; the limbs and facial features — eyes, ears, nose, mouth, and chin, as well as long locks of hair — were made of clay strips modelled by hand and then applied. Traces of reddish-brown paint are visible. Also noteworthy is a tall cylindrical stand decorated with relief figures. The upper part of the stand is adorned with two crudely modeled figures of goats facing each other, with two identical roughly-fashioned clay human figurines between them. Above the figures is a row of lugs and above them, atop the stand, four birds in flight.

Traces of the attachment of the figures to the stand are visible. This assemblage probably dates from the end of the seventh or the beginning of the sixth century BCE. The vessels were gathered in one place, crushed and then hit by the timbrel of the procession of Josiah (II Kings 23:4). The timbrel of the procession of Josiah ([II Kings 23:4](http://www.biblegateway.com/passage/?search=II%20Kings%2023:4&version=NIV))

Josiah (II Kings 23:4) probabilis, of flores kingdom converter cultic v Josiah: (II Kings 23:4) process sparte the Lav comma purificat emptie made f and for 23:4) 7 through worship and the places i his king The face were fo ments i cates th there at hypoth King Jr
then hidden in a pit at this time, i.e., at the time of the latest fortress, which was probably built in the reign of King Josiah (640-609 BCE), the last period of florescence and expansion of the kingdom of Judah before the Babylonian conquest. The smashing of the Edomite cultic vessels may have been part of Josiah's wide-ranging religious reforms (II Kings 22-23; II Chronicles 34-35), a process of religious awakening that was sparked by the discovery of a “Book of the Law” in the Temple. At Josiah's command, the Temple was repaired, purified of all traces of idolatry, and emptied of “all the vessels that were made for the Baal, and for the asherah, and for all the host of heaven” (II Kings 23:4). This was done in Jerusalem and throughout Judah: the king uprooted the worship of strange gods from Jerusalem and the villages and dismantled the high places found within the boundaries of his kingdom.

The fact that the crushed cultic vessels were found *in situ* with all their fragments in a pit – a sort of *javissa* – indicates that they were deliberately taken there and smashed, reinforcing our hypothesis that this was done as part of King Josiah’s reforms.

Analysis of the assemblage is still in its preliminary stages, and the finds will be subjected to close scrutiny in the future. For the time being, the vessels’ association with the Edomites rests on the following pieces of evidence:

1. The small elongated building near which the smashed cultic vessels were found bears some resemblance to the Edomite shrine at Ḥorvat Qitmit.
2. The cultic nature of the structure can be deduced from its remains and surroundings: it does not resemble typical residential buildings of this period, and as mentioned above, the remains of a large quantity of cultic artifacts were found nearby.
3. Some of the cultic vessels – in particular the unique anthropomorphic stands – recall those found at Ḥorvat Qitmit. It seems likely that the figures modeled in clay represent temple priests or worshippers; in any case, they are not images of gods. The stand decorated with goats and a human figure apparently also has a parallel among the finds from Ḥorvat Qitmit.
4. Several vessels from this assemblage, used for offerings or for burning incense, are made in two parts: the upper part is a bowl featuring a rim decorated with projecting triangles, and a base from which a long, narrow clay pipe protrudes. This pipe fits a wide opening in the lower section of the vessel. The decoration of projecting triangles at the edges of bowls or other vessels is familiar from finds uncovered in the Edomite stratum at Tell el-Kheleifeh and sites in Edom, such as Buseirah. Some of the projecting triangles found on the bowls from ‘En Ḥazeva are pierced so that an object could be suspended from them – possibly a pomegranate such as those discovered with the cultic vessels. Similar pomegranates were also found at Ḥorvat Qitmit.

At the same time, however, the cultic vessels include numerous incense burners of certain types known from seventh-century sites in Judah and other regions and therefore not Edomite in origin.
Aerial view of 'En Haseva. The gate complex of the massive 100 x 100 m Stratum V fortress lies in the upper right hand quadrant (northeast). The fortress's inset-offset walls peak through at the perimeter of the excavated area. The wall system connects three towers in the northwest, southwest, and southeast corners. The western wall of the Roman era fortress, Stratum 2, is prominent near the center of the photo, to the left of the modern building. Courtesy of the Israel Antiquities Authority.

By Rudolph Cohen and Vigil Yisrael

An astonishing assemblage of clay vessels and stone altars highlights the recent discoveries unearthed at the Arabah site of 'En Haseva. The fortresses at this crucial commercial crossroads were among the most immense of the region during the Iron Age and Roman Periods. In an article last year (BA 57, 1994), we outlined the Roman, Nabatean, and Iron Age remains at 'En Haseva and presented arguments for the identification of the site with the biblical Tamar and the Teman mentioned in Roman and Byzantine sources. The termination of fieldwork at the site at the end of this past summer (July 1995) offers the chance to display the reconstructed vessels from what was probably an Edomite shrine and to supply further details concerning 'En Haseva's Iron Age history. In particular, the remains of an additional fortress (Stratum 6), earlier in date than the two previously uncovered (Strata 4, 5), now complete the stratigraphical sequence at the site.

The Iron Age Strata (Strata 4, 5, 6)
The work at 'En Haseva has now distinguished six occupation levels (from the latest to the earliest):

1. Late Byzantine and Early Islamic Periods (sixth-seventh centuries CE)
2. Late Roman Period (third-fourth centuries CE)
3. Nabatean and Early Roman Periods (first-second centuries CE)
4. Iron Age (seventh-sixth centuries BCE)
5. Iron Age (ninth-eighth centuries BCE)
6. Iron Age (tenth century BCE)

Of three fortresses attributed to the Iron Age, the earliest (Stratum 6) probably dates to the tenth century BCE, to the period of the United Monarchy. The Stratum 5 fortress, the largest and best-preserved of the three, has been ascribed to the ninth-eighth centuries BCE. The latest fortress (Stratum 4), apparently concurrent with the Edomite Shrine and accompanying cult remains, and possibly constructed by Josiah (second half of the seventh century BCE), was destroyed after a relatively short existence around the time of the


destruction of the First Temple (586 BCE).

Stratum 4

As previously reported (Cohen 1994:208), only the eastern side of the Stratum 4 fortress (ca. 36 m long) with two projecting towers (ca. 14 m apart) was cleared. The southeastern tower (11 x 11 m; its walls ca. 1.5 m in width) was completely cleared. One side of the northeastern tower was built atop an earlier Stratum 5 casemate wall, while the other side lay beneath Late Roman and Nabatean period remains (Strata 2-3).

The ceramic assemblage from this stratum belongs to the seventh-sixth centuries BCE. On this basis, we suggest that the Stratum 4 fortress was constructed during the reign of Josiah (639-609 BCE) and destroyed at about the same time as the First Temple in Jerusalem (586 BCE; Cohen 1994:208).

Though the last three seasons of excavation uncovered no major architectural remains that could clarify the plan of this structure, the area near the northeastern tower offered a very important find in 1994: a circular, polished seal. Made of choice stone, the hemispherical seal measures 22 mm in diameter and is 15 mm thick. Two standing, apparently bearded, male figures are skillfully and delicately engraved on this seal. They face one another and are dressed in long gowns. Between them is a tall horned altar. The figure on the left stands with one hand raised heavenward in a gesture of blessing, while the figure on the right stands with one hand raised in a gesture of offering. Above the figures are two lines of engraved Edomite script (deciphered by Prof. Joseph Naveh): imsk[b]n(son)whm ("belonging to [šik] son of whm"). This seal may have belonged to one of the priests serving in the shrine uncovered at 'En Hasaya (see below). A seal discovered at Horvat Qitmit depicts a similar figure (Beit-Arieh 1991:99; Beit-Arieh and Beck 1987:19).

The group of cult vessels described below with the Edomite Shrine in which they were found, also belongs to this time period.

The Edomite Shrine

The crowning discovery of the 1993 excavating season was without a doubt the group of vessels of a cultic nature found in the northern part of the site. Excavators found the assemblage at the foot of the fortifications of the large (Stratum 5) fortress, near the remains of a small structure (6.5 x 2.5 m) whose walls are 0.7 m thick. This shrine appears similar in plan to a structure exposed several years ago at Horvat Qitmit, some 45 km northwest of 'En Hasaya, which was identified as an Edomite shrine (Beit-Arieh 1988; 1991). The vessels—smashed by ashlar of varying sizes which were placed on top of them and which probably were removed from the shrine—were found in a pit nearby and east of the shrine. The nearly six months of intensive work required to restore these important finds proved worthwhile in light of the overwhelming results! Our restorations confirmed that the smashed vessels had been placed in the pit intact; we were able to find and restore every piece of each vessel. At Horvat Qitmit only a few objects were complete even after restoration.

The assemblage included sixty-seven clay objects and seven

burners in the shape of fenestrated pedestalled bowls; eleven incense burners decorated with projecting lugs; eleven chalices; five tripod—perforated cup-shaped incense burners; five small bowls; two incense bowls with projecting handles; three tiny whole pomegranates and four larger incomplete specimens used to decorate incense burners.

One of the anthropomorphic stands recovered may be the figure of a woman carrying a bowl. The head and body were wheelmade; facial and other features—eyes, ears, nose, mouth and chin—were marked by added pieces of clay modeled by hand. Long locks of hair were affixed to the head, and traces of reddish-brown paint remain visible.

The stands included one which served as the base for one of the anthropomorphic figures, a cylindrical stand, and cylindrical stands adorned with figures in relief. Very crudely-fashioned human and animal figures were attached to one of the decorated fenestrated cylindrical stands. The upper part of the stand was decorated with two sheep; one opposite the other, with two identical clay human figures between them. A string of lugs encircles the stand, and above it four doves in flight grace the top of the stand. Traces of the join marks are visible.

One other object deserving mention is a stone sculpture—perhaps representing a god—with what may be very stylized human attributes.

The anthropomorphic figures, as well as other objects in our assemblage, are reminiscent of finds from the Edomite shrine at Horvat Qitmit.

Apparently this unusual collection can be ascribed to the end of the seventh or the beginning of the sixth centuries BCE and can probably be connected in some way to the remains of the late Stratum 4 from Age fortress. We attribute this fortress to the reign of Josiah (639-609 BCE), the last period of Defiance and expansion of the Judean monarchy before the Babylonian conquest. The smashing of the cult vessels may have been part of Josiah's religious reform (2 Kings 22:20-23; 2 Chr 34:35).

According to the biblical historian, the wide-ranging reforms instituted by Josiah in Judea, initiated because the Book of the Law was found in the Temple in Jerusalem, included repairing the Temple, removing the worship of strange gods from Jerusalem and the surrounding villages, and dismantling the high places found within the boundaries of his kingdom. Although our investigations and analysis of the material are still in progress, both the archaeological record and biblical accounts lead us to believe that the shrine was a high place dedicated to one of the "idolatries" which King Josiah destroyed in Jerusalem, Bethel, and other cities of Judea (2 Kings 23:5-20), and throughout the land of Israel (2 Chr 34:3-7).

The cultic nature of the shrine at En Haseva is suggested by its distinctive architectural features, which are quite different from ordinary residential structures. There is some noteworthy architectural resemblance between the remains of the shrine at En Haseva and that at Horvat Qitmit.

The prodigious presence of cultic vessels and ritual installations at the site also points to the presence of a shrine.

Head of an unusual three-horned goddess from Horvat Qitmit. This as yet unidentified goddess was part of an assemblage of about five hundred complete or fragmentary figurines and reliefs gathered at the site. The collection shares many iconographic similarities with that of En Haseva. Courtesy of the Israel Antiquities Authority.

Moreover, some of the En Haseva finds—especially the anthropomorphic stands—are similar to those from Horvat Qitmit. The stand decorated with relief figures of sheep and humans apparently also has a parallel among the finds from Horvat Qitmit, where, however, the figurines were unearthed separately from the stands (Beit-Arieh 1986:103-104, fig. 49; Beit-Arieh and Beck 1987:24-25).

What was the function of the anthropomorphic pottery in a shrine—were these idols of the gods? The clay human figures likely represent the priests from the shrine or other worshippers; they are probably not representations of gods. Beck came to a similar conclusion regarding the Horvat Qitmit assemblage, suggesting that the statues represent "worshippers, who donated them to serve as constant reminders before the gods, in order to obtain their blessing and protection" (Beit-Arieh and Beck 1987:26). The horned goddess figurine from Horvat Qitmit is the obvious exception to this (Beck 1986; Beit-Arieh 1991:110-111; Beit-Arieh and Beck 1987:27-29).

Where does one look for the origins of the artistic tradition of the pottery? Beck found Phoenician elements and various Transjordanian traditions in the iconographic material from Horvat Qitmit (Beck 1986; Beit-Arieh and Beck 1987).
The Edomite Shrine
Artifacts from En Hāseva

The collection of restored cult vessels (above) includes cult stands, pottery incense burners, chalices, tanged perforated cup-shaped incense burners, incense chafers with projecting handles and diminutive stone incense altars. Moving clockwise: a multiple tiered fenestrated incense burner topped with four birds in flight; anthropomorphic stand of a woman carrying a bowl; a profile view of one of the anthropomorphic stands; three large pomegranates, decorative elements for an incense burner; and one of the small limestone incense altars, a prominent aspect of the religious material culture in Judea and elsewhere.

Courtesy of the Israel Antiquities Authority.
1987:23-31). She stressed the fact that although the remains from Horvat Qatmit are "well rooted in the religious iconography of the Near East in general and of the Levant in particular, ... there are ... aspects which...mark a departure from...tradition...by the creation of new artistic forms" (Beck 1995:189).

We agree with her that the human figures cannot be the work of Judean artists, but may very well be that of Edomite or some other foreign artisans (Beck 1995:189-190). Furthermore, these two assemblages may represent the archaeological expression of what is known in current literature on the ancient cult in Judea as popular religion (Ackerman 1992; Dever 1994).

Several vessels from this assemblage were used for offerings or burning incense. Potters created these vessels in two parts: the upper part is a bowl whose edges are (almost always) decorated with projecting triangles, also called denticulated fringe decoration (Belt-Arieh 1995:253). A long, narrow clay pipe protrudes from the center of the bottom of the bowl to fit, funnel-like, into a larger pipe emerging from the top of the base of the incense-burner. The decoration of projecting triangles at the edges of bowls or other vessels is known from the finds exposed in the Edomite stratum at Tell el-Kheleifeh (Götz 1987:27, 36, figs. 2, 6a-6c, 5:2; Pratco 1985:25, fig. 13:9) and at Ba’al (Bennett 1974:Fig. 16:4) and Kadesh-Barnea (Cohen 1983:30). Sometimes the projecting triangles found on En Hasa’eva bowls are pierced so that an object—perhaps a pomegranate like those found in the En Hasa’eva assemblage—could be hung from them. The three tiny pomegranates in our collection may have been intended for hanging or just such a small vessel, while the larger pomegranates were meant for a larger vessel. Similar pomegranates were also found at Horvat Qatmit (Belt-Arieh 1988:41; Belt-Arieh and Beck 1987:17). The bases of some of these two-part cultic vessels were engraved prior to firing in a kiln, one of them is engraved with a bull.

A significant proportion of the En Hasa’eva assemblage includes both clay and stone incense-burners of different types that are known from several sites in Judea and other regions (Gitin 1993).

A major difference between the En Hasa’eva and Horvat Qatmit assemblages is their discovery location. The objects found at Horvat Qatmit were found on the floors of the shrine, while the finds from En Hasa’eva were uncovered in a pit or latrine. Furthermore, they were found crushed by ashlar. This and other differences between the En Hasa’eva and Horvat Qatmit assemblages suggest that there is also a chronological difference between them. While the Horvat Qatmit finds are dated to shortly before or soon after the end of the Judean state, the collection at En Hasa’eva, as well as the construction of the shrine, may have emerged earlier from religious trends existing during the time of King Manasseh (ca. 698-642 BCE). Manasseh is charged by the biblical record with engaging in idol worship (2 Kgs 21:1-16; 2 Chr 33:1-19), setting up once again the high places, and installing a sculpted image in the holy Temple (2 Kgs 21:3-7; 2 Chr 33:3, 7). The historian J. Bright, based on biblical passages, describes Manasseh thusly: ...

Manasseh’s policy represented a total break with that of Hezekiah and a return to that of Ahaz... [As a vassal of

The large gate complex of Stratum 5 measured ca. 15X13 m and consisted of six piers, creating four chambers, and a corridor or courtyard that may have led to an outer gate. Similar structures have been unearthed at Tel Jerenel and Tell el-Kheleifeh. Courtesy of the Israel Antiquities Authority.

Assyria]...Manasseh apparently felt impelled to pay homage to his overlord’s god; altars to astral deities, probably of Mesopotamian origin were erected in the Temple itself. But Manasseh’s actions went much farther than this and constituted a thorough-going repudiation of the reform party and all its works. The local shrines of Yahweh, which Hezekiah had attempted to suppress, were restored. Pagan cults and practices of both native and foreign were allowed to flourish, with apparatus of the terrorizing religion and the ritual of sacred prostitution being tolerated even within the Temple...Divination and magic...were the vogue in Jerusalem...as were foreign fashions of various sorts...” (1981:332).

**Stratum 5 (The Middle Fortress)**

Remains of an earlier Iron Age fortress (ninth-eight centuries BCE) were first discovered in 1987 in well-recorded stratigraphy (Cohen 1994). The 1992-1993 seasons were dedicated principally to exposing the plan and outline of this fortress.

The large Stratum 5 fortress (200x100 m) was surrounded by an inset-offset casemate wall with three corner towers projecting approximately 3 m from the wall. Casemate-rooms (21 m in width) appeared on all sides of the fortress, but no tower was found in the northeastern corner; builders had intentionally filled most of the rooms with earth. Their walls exhibit various states of preservation—from a height of ca. 4.5 m to
nothing more than foundations.4

Excavations also exposed casemate rooms on either side of the beautifully preserved, four-chambered gate (Cohen 1994:220). Two of these rooms yielded a pottery assemblage which included a number of complete ceramic and stone vessels characteristic of the ninth-eighth centuries BCE: a cooking-pot, jugs, a storage jar, and an Achiqim-type jug (Phoenician redslipped ware). Alongside this collection was a stone bowl placed on a stone stand; in the bowl was a pottery bowl that contained a clay lamp. Nearby was a round stone megilah (7).

The last three years of excavation saw to the final clearing of the large gate-complex (ca. 150 x 12.8 m). In addition to the four chambers and piers found inside the gate (Cohen 1994:220), a long open corridor/courtyard (136 x 4.0 m wide) was found immediately outside, probably leading to the outer gate of the fortress. The walls of this corridor/courtyard were 3.2 m wide and the length of the eastern wall was 25 m. There was a structure attached to the 18 m western wall. The structure (9.4 x 4 m), a bastion or rooms related to the outer gate, contained two adjacent chambers. In addition to its resemblance to the fortress-gate at Tell el-Kheleifeh (Glueck 1939:13-14, fig. 1; Pratice 1985; 1986), this fortress-gate is also very similar to—although better preserved than—the gatehouse uncovered at Tel Jezreel (US-18b and Woodhead 1994:13-24).

Excavations also uncovered a storeroom complex (magazines) and granaries in Stratum 5, stratigraphy (Cohen 1994:206-12). The storeroom complex consisted of three parallel long rooms. They were located south of the gate and adjacent to the inner southwestern corner of the gate complex (Cohen 1994:206). The rooms were 1.5-2.6 m wide and 17.2 m long, with walls 10-13 m thick, most preserved to a height of 3 m. No floors were found and, like the casemate-rooms, the storerooms were filled with earth. A long, parallel corridor (ca. 35 m in width, its walls 1.0-1.2 m wide) separated this complex from whatever structures may have stood to the north. Structures of this type, considered to be storehouses (Carr 1992:102-7; Shiloh 1970:184), stables (Holladay 1986), barracks (Fritz 1977), or market places (Hen 1983) are known at various important sites of the Iron Age II, like Beersheba (Aharoni 1973:14-15; Herzog 1973) and Horvat Tov (Cohen 1985; 1988/89).

Two granaries emerged near the magazines. The largest, east of the storeroom unit, was ca. 35 x 35 m in diameter, built of undressed stones, and preserved to the height of ca. 0.5 m. Its plastered floor offered burnt wheat and barley remains. The granary also contained two complete vessels: a large decorated flask and a jug. The outer wall of the second granary, which stood to the north of the storeroom complex and was built above Stratum 6 wall remains, was constructed of clay bricks and preserved to the height of approximately 1.2 m. Its floor was paved with crude slabs (flint) stones. Since remains similar to those found in the first granary were not uncovered in this structure, we cannot be sure that it was, in fact, a granary.

The immense size of the Stratum 5 fortress (1 ha) suggests that 'En Haseva should be considered a fortified city and not merely a fortress. Its ground plan has several features in common with that of the fortress uncovered at Tell Jeddeh (Usiskin and Woodhead 1994) thought to be the central military base in the Iron Age Kingdom (Usiskin and Woodhead 1994:47). Furthermore, it is not surprising that its first phase resembles the plan of the fortress at Tell el-Kheleifeh (Usiskin 1939; 1940:12-13; Pratice 1985; 1986) since they were all most likely built during the same time period.

Stratum 6 (The Early Fortress)

Among the earliest remains uncovered at 'En Haseva are those of a rectangular structure (ca. 125 x 11.5 m) that may belong to the tenth century BCE. Uncovered beneath the piers of the fortress gate and to its west and south, the walls of the structure were built of silex. The impressive southwestern corner, built of large silex blocks, is preserved to the height of more than a meter. It appears to be a fortress, similar in plan to those found at several Iron Age sites in the central Negev (Cohen 1995).

Diggers retrieved a complete handmade Negbite cooking-pot, made of rather coarse ware and exhibiting very crude manufacturing, from the southeastern room of this fortress. Negbite ware has been found at Tell el-Kheleifeh (Glueck 1939:136; 1940:171; Pratice 1985:220) and in all three fortresses.
uncovered at Kadesh-Barnea (Cohen 1981; 1983a), dating from the tenth to the beginning of the sixth centuries BCE.

The Iron Age History of 'En Ḥekeva

The history of 'En Ḥekeva is a rich and varied one. We are now able to tell the story of a site at the center of religious, political, social, and military activity. Situated at a major crossroads, it served local inhabitants, travelers, commercial caravans, and soldiers not only during the Iron Age but throughout the later Nabatean and Roman periods as well. We have described the Iron Age finds. Now it is time to interpret them.

The small Stratum 4 shrine and its assemblage of clay and stone cult vessels establishes 'En Ḥekeva as a cult site along one of the Arabian trade routes apparently already in existence (Van Beek 1960: 75-82; Eph'al 1984: 12-12 232-33; Tadmor 1961: 245-46). The site may be connected to pastoral nomads or caravaneers who were active on the southern fringes of Judea (Eph'al 1984: 189-191). The apparently deliberate destruction of these cult objects—many of which show great similarity to the Horvat Qānit artifacts, while others parallel finds from other Judean and Edomite sites—may be attributable to the religious reforms of Josiah, described in 2 Kgs 22:23 and 2 Chr 34:35 (Dever 1994). This period represents the last period of Judean fall and expansion prior to the Babylonian conquest. If our historical understanding is correct, this may explain the link between the cult objects and other Stratum 4 remains; i.e., King Josiah may have built the fortress during his reign (639-609 BCE), with the purpose of retaking the shrine and its vessels.

As in the periods preceding and following, 'En Ḥekeva of the seventh-sixth centuries BCE stood at an important junction with trade and communication arteries leading northwest, south east, and west. The northwestern route led to Beersheba by way of Horvat Uza, Horvat Qānit, Tel Malaha, Tel 'Ira, and Tel Hodas. Alternatively, from Horvat Uza one could travel to Arad, Horvat Tov (Cohen 1985; 1980: 98a) and from there to the Hebron area and on to Jerusalem. The southern route led to Ezion-geber (Eilat). Traveling east took one to Edom and beyond and to the west, the road led to Kadesh-Barnea.

There are several good candidates for the builders of the Stratum 5 fortress. The results of the most recent excavations at the site have contributed to a change in our thinking concerning the initiator of this construction project. We now believe that it may have been built in the nineth-eighth centuries BCE rather than a century later as previously suggested. A look at the relations between Judea and Edom as they are described in the Bible is necessary to understand who the possible architects were and how we have arrived at our choice of the most likely candidate. Kadesh Barnea. Stratum 5 may represent a military base that was enlarged as necessitated by the political climate of the times. The initial period before the gate complex, may have been constructed by Jehoshaphat (876-846 BCE) when "there was no king in Edom, a deputy was king" (1 Kgs 22:49). 1 Kgs reports that, in an unsuccessful attempt to repeat Solomon's achievements, "Jehoshaphat made ships of Tarshish to go to Ophir for gold, but they did not go, the ships were wrecked at Ezion-geber" (1 Kgs 22:49; Bartlett 1989: 115-6). This attribution would also find support in 2 Chr 17:2: "And he [Jehoshaphat] placed forces in all the fortified cities of Judah, and set garrisons in the land of Judah." Later, perhaps at the end of his reign, the fortress was enlarged to accommodate the Israelite/Judean retaliatory campaign against Moab, king of Mosh (mid-ninth century BCE; 2 Kgs 3:4-15), who mentions his rebellion against the king of Israel in his Stele (Bartlett 1989: 116-22; Dearn 1989). The large Stratum 5 fortress may have served as the deployment center for this invasion. This would not only lend credence to the biblical statement that Jehoshaphat built fortresses and storage cities in Judah (2 Chr 17:22), but would also serve to strengthen the identification of the magazines at 'En Ḥekeva as, in fact, a storeroom complex and not as a building of some other kind (e.g., stables, barracks, or market places). The similarity in plan between the Stratum 5 fortress at 'En Ḥekeva and the Iron Age fortifications at Tel Jozorel (Usishkin and Woodhead 1994) suggests that they may date to approximately the same time, i.e., the ninth century BCE or some time thereafter.

Another possibility is that the fortress was built by Joash (788-769 BCE), the son of Joab, who was diligent in fortifying his kingdom both from within and without, and, after instituting reforms in the army, went to war with Edom. He defeated the Edomites in the Valley of Salt, in the northern Arabah, and then went on to conquer Sela (2 Kgs 14:7).


renaming it Joktheel, and settling descendants from the Tribe of Judah there. Was it from this fortress that he set out against the Edomites? Or was the fortress built during the reign of Amaziah's son Uzziah (780-745 BCE; 2 Kings 15:1), the powerful and active king who "built Elath and restored it to Judah" (2 Chronicles 26:2; 2 Kings 14:22), fortified the borders of his kingdom "and built towers in the wilderness" (2 Chronicles 26:10), and, like his father before him, strengthened his army in order to prevail over his enemies (2 Chronicles 26:13)? Although there is a strong possibility based on archaeological, historical, and biblical considerations, that Jehoshaphat was the builder of the Stratum 5 fortress, there are, nevertheless, archaeological remains dating to Uzziah, and a case may be made to support his having engineered at least part of the construction of this fortress.

We should also take into consideration the possibility that the Stratum 5 fortress was constructed following an Assyrian takeover similar to that which occurred in Edom during the reign of Adad-nirari III (810-783 BCE) and for which there is evidence in an inscription from Calah (Pritchard 1969:281; Bartlett 1989:124; Ephal 1984:76; Millard 1992). The inscription contains the first reference to Edom as a kind of vassal state, paying tribute to the king of Assyria; subsequent references abound (Bartlett 1989; Ephal 1984). Assyria's intense interest in protecting, if not controlling, at least portions of the Arabian trade routes could certainly have placed it directly or indirectly, i.e., through its supporters, in 'En Haseva any time from the eighth century BCE onward (Ephal 1984:81-111).

Another central question facing the site's researchers concerns the destruction of the Stratum 5 fortress. When did the fortress cease to function and why? Who was responsible for its collapse? Was it brought to ruin in a fierce military contest between Edom and Judea? Or is there a connection between its destruction and the earthquake mentioned in Amos and Zechariah (Amos 1:1; Zechariah 14:5)?

The book of Amos explicitly records the beginning of his service: "...in the days of Uzziah king of Judah, and in the days of Jeroboam the son of Joash [Jehoash] king of Israel, two years before the earthquake" (Amos 1:1). This earthquake was apparently of such strength that it left a lasting impression on the national consciousness, as expressed in the words of Zechariah: "...you shall flee, as you fled from before the earthquake in the days of Uzziah king of Judah" (Zechariah 14:5). Scholars date the quake to ca. 760 BCE and attribute it to the destruction of Stratum VI at Hazor (Yadin 1972:113, 127-91), Stratum IV at Lachish (Ussishkin 1977:521), and Gezer (Field XI; Dever 1992:28-30). Other sites linked, albeit speculatively to this earthquake are Deir 'Alla (Phase IX; Ibrahim and Kooi 1959:48) and Beer-sheva (Stratum III; Aharoni 1972:375). Based on the destruction debris and its configuration, we believe that the quake mentioned in Amos and Zechariah was responsible for the destruction of the Stratum 5 fortress gate complex at 'En Haseva. Enlargement of this fortress (to ca. 100x100 m) may have taken place after the earthquake. Final destruction of this stratum may have occurred closer to 755 BCE, during the reign of Ahaz, king of Judea (2 Kings 16:16). The biblical record tells us that the Judean kingdom under Ahaz was threatened not only by Syria and Israel, but also by the Edomites and Philistines (2 Chronicles 28:17-18; Ahlstrom 1993:684). An Edomite takeover of Elath is placed by the historian of Kings in the time of Ahaz (2 Kings 16:9).

Furthermore, Tell el-Kheleifeh Period IV—the second phase of the fortress—that corresponds to this time period—was considered by its excavator to be completely Edomite (Gluceck 1967:10), having been rebuilt by Edom after being destroyed during the Edomite takeover (Gluceck 1967:10). This effectively marked the end of Judean rule at Tell el-Kheleifeh. It is very likely that 'En Haseva was a casualty of this same Edomite

incursion, especially if M. Aharoni is correct in her conjecture that Arad Stratum IX was also destroyed in this campaign (1993:62).

Credit for the initial construction of the fortress at ‘En Ḥaseva (Stratum 6) must go to Solomon. Accepting the identification of ‘En Ḥaseva with Tamar (Aharoni 1963) joins it to the list of sites mentioned in 1 Kgs 9:17-18 as built by the king.8 The Stratum 6 fortress would have been part of the fortress-settlement network set up by royal initiative during Solomon’s reign (Cohen 1980; 1995). These outposts not only safeguarded the Negev highways but also defended the kingdom’s southern border. Many of them, including ‘En Ḥaseva, were destroyed in Pharaoh Shishak’s military campaign against the region in ca. 926 BCE (Mazar 1957; 1986:359-56; Kitchen 1986:403-301; 1987:430-47). As much as scholars continue to debate the date, function, and origin of these fortresses, we continue to interpret them as the product of a central authority projecting its power in defense of crucial trade routes.9 So too, Solomon, despite the debate that swirls round his historicity, can be credited with significant, archaeologically detectable achievements.10

Finally, the question remains as to what part, if any, the Edomites played in the Babylonian campaign against Judah, and to what extent their invasions of the south affected earlier strata at ‘En Ḥaseva. The biblical and archaeological records certainly suggest that the Edomites were willing participants. The Bible relates the origin of strained relations between the two nations in the story of Jacob and Esau. Edom’s conflict with Israel finds a place in the narrative in the story of the Children of Israel into Canaan and continues during the period of the United Monarchy. Saul is credited with armed conflict against Edom (1 Sam 14:47). David garrisoned Edom so that “all the Edomites became David’s servants” (2 Sam 8:14). David also annexed the Edom to his kingdom, thus insuring that the region’s copper mines came under his—and Solomon’s—sovereignty. During the subsequent reigns of Jehoshaphat, Amaziah, and Uzziah, they all conquered and subjugated Edom. In periods of freedom from the Judean yoke, Edom, in turn, invaded Judea capturing strategic sites like Ezion-geber. It is assumed that the nations fought over the right to control the trade routes and access to the Mediterranean and Red Seas. The rivalry that existed between the two peoples is echoed over and over again in the writings of the prophets (Isa 54:5-15; 63:1-4; Jer 49:7-22; Ezek 25:13-14; 35:5; Joel 4:8; Amos 1:11-12, Obad 1:2-5).

Further evidence for continuing animosity between Judea and Edom comes from an early 6th-century BCE ostraca from Arad. Known as the Ramoth-negeb ostraca and thought to be a letter from the king in Jerusalem, the text concludes “...Behold, I have sent to warn you today. Get the men to Elath. Let Edom come there...” (Aharoni 1970:20; 25-26). One scholar, remarking on the fall of Jerusalem, describes the role of Edom as “that of a police force in Babylonian pay” (Lindsay 1976:29). The biblical accounts make an Edomite role at ‘En Ḥaseva both credible and understandable.

The Iron Age at ‘En Ḥaseva witnessed both periods of expansion and development as well as those of more modest activity. For perhaps three hundred years or longer, the sites fortresses dominated the surrounding area offering protection and security to those who lived or traveled in their shadow. Although its role at the end of the Iron Age may have been somewhat diminished, as indicated by the architectural remains, ‘En Ḥaseva did not disappear completely. After a period of abandonment lasting some five hundred years, it once again began a rise to effrontery and prominence (Cohen 1994).

Notes

1 Excavations at the site of ‘En Ḥaseva in the Negev, Israel, were conducted on behalf of the Israel Antiquities Authority with funding provided through the Negev Tourism Development Administration. The excavations in 1993-1995 were directed by R. Cohen and Y. Yisrael with the assistance of O. Fedor, P. Righter, A. Cohen, M. Zia, and Y. Kalman. Also participating were N. Koll, D. Peretz, J. Watkin and R. Niedzweski (surveyors) and N. Smith (field photographer). Work is funded by the Ministry of Labor Students from the Denmark Comprehensive High School participated under the direction of S. Cohen and with the assistance of A. Cohen, M. Zia, and M. Håkken. The editor of English publications is C. Greenberg. For the latest communication on the results of this excavation, see R. Cohen and Y. Yisrael, ‘En Ḥaseva, Excavations and Surveys in Israel 15, in press.

2 The restoration work was done by Michal Ben-Gal, Head Potteries Restorer at the Israel Antiquities Authority.

3 This and all subsequent references to Herod at Qumran can be found in Beck 1995; Beil-Arieh 1988, 1991, 1995; Beil-Arieh and Beck 1987.

4 The existence of robber trenches, a common phenomenon on multi-period sites, indicates that these walls were destroyed deliberately rather than by natural forces. The trenches were dug along walls that were then dismantled so that their stones could be used in later construction activities. At ‘En Ḥaseva, this cutting seems to have been carried out principally by the builders of the Roman fortress.

5 We must stress, however, that the ‘En Ḥaseva fortress is smaller in size than that at 'En Gedi.

6 That mercantile links existed along both established land/sea routes as early as the Iron Age is suggested by the biblical account of the Queen of Sheshak’s visit to King Solomon (1 Kgs 10:1-13; 2 Chr 9:1-12; Ewell 1984:63-4; Holladay 1995:230), as well as by several other biblical passages (Isa 60:16; Jer 6:25; and Ezek 27:22). The domestication of the camel and its use in long-distance overland travel and shipping can probably be dated to the thirteenth or twelfth centuries BCE (Albright 1940:522-523; Voigt 1955:164:47-50). Commercial water routes were in operation as far back as the end of the third millennium BCE (G withhold 1953:181).

7 The position of ‘En Ḥaseva on the Syrian-East African Rift, which runs the length of the country and extends more than 6500 km from Turkey in the north to the African peninsula in the south, is almost certainly responsible for the earthquake activity documented there throughout ancient and modern history. The country as a whole has experienced numerous earthquakes because of its relationship to this Rift. See Amiran, Ahiez, and Turco 1994.

8 Although the Masonic Text for 2 Kgs 16:20 reads: At that time Rezin king of Syria recovered Elath to Syria... it is generally accepted that Rezin is a later addition to the sentence and Aram (Syria) is a misrecording of Edom, since Elath, never having belonged to Syria in the first place, could not have

been recovered by Sylla (Barthel 1989:127).

*See Dever 1990 especially note 15. We completely agree with Dever’s approach in this article.

* In his early writings Aharoni supported the view of an outside central authority having been instrumental in establishing the fortresses but his later research shows a change of opinion (Aharoni 1967; 1993). In 1977 Z. Meshel believed the fortresses dated to the United Monarchy but were meant as a show of force toward the local inhabitants (1977:133). Today, however, he supports the idea that the Hitite dwellers were involved in the establishment of these forts (Meshel 1994:54). That it was desert nomads who built the sites/forts/settlements in the Négew is a belief shared today by J. Finkelstein (1984), Z. Herzog (1994:143-4); but for his earlier beliefs see 1983:238-9 and D. Elton (1988:315) but not accepted by us. They further suggest an eleventh-century BCE date for this sedentarization. N. Naaman, while agreeing with Finkelstein’s premise regarding the establishment of these Négew sites, nonetheless supports my argument that Pharaoh Shishak was responsible for their destruction and notes the absence of an historical analysis of the sources in Finkelstein’s research (1992:73, 82-83, 86-88).

* Are the biblical stories about his building activities, immense wealth and overall improvements in the realm (1 Kgs 1:40; 2 Chr 1:9) historical fact or royal hyperbole? Those who take the traditional view credit Solomon with the achievements noted in the Bible citing literary, archaeological and epigraphic evidence (Mazar 1986; 1992; Aharoni 1974; Dever 1982; Lemaire 1986; Millard 1989; 1994:7; Younger 1993). Opponents maintain “that the biblical Solomon is almost entirely a literary creation” (Miller 1991:29) and also use literary, archaeological and epigraphic sources to support their conclusions (Carter 1988; Knau 1993). Miller is actually nowhere between the two believing that while the biblical description of Solomon is probably exaggerated, it need not be completely abandoned, just re-interpreted (Miller 1987; 1991).

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POTS and People

181 Ethnicity, Pottery, and the Hyksos at Tell El-Maskhuta in the Egyptian Delta
Carol A. Redmount
Once a mysterious presence in Egyptian history, the Hyksos (ca. 1663-1555 BCE) offer a fortunate case where a particular material culture can be associated with a specific people. Pottery unearthed at Tell el-Dab'a and Tell el-Maskhuta provides complementary evidence for defining Hyksos material culture. While exhibiting a dominant Middle Bronze Age Canaanite heritage, these ceramics show that the Hyksos produced a culture that joined Canaanite and Egyptian traditions with the addition of locally developed traits.

191 Ethnicity, Pottery, and the Gulf Olmec of Ancient Veracruz, Mexico
Philip J. Arnold III
The issues raised by pots and peoples, such as social variation and cultural change, are common to archaeologists on both sides of the Atlantic. These issues are especially well-illustrated by the Gulf Olmec, one of the earliest complex chiefdoms in Mesoamerica. Maize growers in the area of southern Veracruz and northern Tabasco, the Olmec (1200 BCE to 400 BCE) are renowned for their megalithic sculpture. Analysis of their pottery traditions and settlement patterns leads to an intriguing hypothesis regarding one region of the Olmec "heartland" and how its inhabitants, the Tuxtla, were caught up in a process of ethnic differentiation.

200 Ceramics, Ethnicity, and the Question of Israel's Origins
William G. Dever
The archaeological population groups that we now know in the early Iron I highland villages of Canaan meet many of the tests for a distinct, new ethnic group. From cooking pots to storage jars, an analysis of the ceramic corpus of the Late Bronze IIB/Iron I A horizon offers sufficient justification for recognizing a distinct population group. Defined by other categories of material culture as well, this complex deserves the appellation "Proto- Israelite."

214 Why Painted Pottery Disappeared at the End of the Second Millennium BCE
H. J. Franken and Gloria London
The pottery of Palestine at the close of the second millennium BCE, is notoriously ugly. Yet the quality of the ceramic repertoire did rebound. Did the same Late Bronze Age potters who produced the heavy wares with cracked bases relearn their craft somehow? Did the innovations emerge from within or enter from outside the society? A study of how a vessel is made and its clays, selected and treated is vital in any consideration of pots and peoples. Ceramic technology permits a move beneath the shape of the rim or the decoration of the surface.

223 The Iron Age Fortresses at 'En Haseva

Rudolph Cohen and Yigal Yisrael
For three centuries or more, a series of fortresses—, at 'En Hasex—a dominated a crucial southern
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CHAPTER FIVE

Kinship and Kingship

The Early Monarchy

CAROL MEYERS

For nearly a century at the beginning of the Iron II period (ca. 1025–586 BCE), most of Palestine was organized as a national state with a dynastic figure—a king—at its head. During the preceding two centuries, coinciding with the emergence of loosely connected Israelite tribal groups, people had lived mainly in small settlements scattered throughout the central highland areas and in a sprinkling of small cities in the lowlands and valleys. Then, with startling rapidity, a centralized state was formed late in the eleventh century. By the middle of the tenth century, according to the biblical narrative, this state reached near-imperial proportions, complete with a capital city, complex regional centers, a royal court, luxury goods, and other social, economic, and political features associated with the concentration of power in a monarchy. The changes it wrought in the structure of society and the accompanying cultural expressions rank among the most important in ancient Israel’s history.

The formation of a state in Iron Age Palestine, however its benefits and liabilities might be evaluated, was an extraordinary event. Never before in the millennia of sedentary life in the eastern Mediterranean had a territorial state existed in that land. And following the dissolution that would occur fairly soon, never again until the mid-twentieth century would this narrow stretch of the ancient Fertile Crescent be home to an autonomous cultural entity under local leadership. Brief as would be the lifespan of early Israelite kingship, its ideology would profoundly affect Western religious and political traditions. The very idea of the messiah in Judaism and Christianity is explicitly...
rooted in the dynasty of the "house of David." The notion that the eschatological resolution of the world’s social tensions and inequities will be manifest in a "kingdom" of God flows directly from the impact of the tenth-century BCE polity on its political and spiritual heirs. And the medieval concept of the divine right of kings would be based on biblical precedents associated with the Davidic dynasty.

Accounting for the origins of such a phenomenon requires us to consider the processes at work in state formation. We must identify the increasingly complex organizational structures that mark the development of a territorial state; and we must situate the emerging Israelite state within those trajectories of social, political, and economic development that across many different cultures constitute recognizable features of early, agriculturally based nation-states.

Yet addressing these crucial descriptive and analytical tasks is not enough. Profound moral issues hover in the background of the investigation of the Israelite monarchy, or of any such sociopolitical form. The monarchic state is an exceptionally powerful organizational construct. No matter how benign its rulers, it characteristically exists by dint of greater inequity in the distribution of resources than in virtually any other form of human collective. The pooling of resources can allow a state to make enormous changes, for better or worse, in the material and demographic shape of its territory. Furthermore, in giving up substantial amounts of individual or regional autonomy to state control, people may find themselves subject to despotic rule. Concentrating power in a single ruler and his or her support bureaucracies may often be beneficial, even essential, for the initial establishment of a state. Yet the famous dictum that power corrupts is everywhere evident in the often harsh and unjust policies that states impose on their populates. Thus the empirical questions that we must ask in assessing the rise of the Israelite state, or any state, can never be separated from difficult philosophical problems of justice and equity in human affairs, of the sanction of violence, of the nature of political power and its abuses. Linking the Israelite state with the concept of divine favor makes the issue of morality all the more difficult, overshadowing all critical assessments. Yet the profound moral questions about the consolidation of power in the hands of a few should remain in the larger field of vision on which the specific shapes of Israelite monarchic rule will be sketched.

Let us begin with some conceptual and chronological definitions. Defining state is as difficult as defining the word tribe. Indeed, the comparison of state systems of sociopolitical organization with nonstate or pre-state systems often reveals no clear distinctions between them. Nonetheless, some salient features of a state, found consistently in many different geographical and temporal settings, provide useful components of a working definition. The organization of power and leadership along lineage systems or kinship units (whether real or constructed) characterizes segmentary societies, as in premonarchic Israel. In contrast, a state system involves the formal concentration of
power on a basis other than kinship. States typically have a more or less stable hierarchy that can control resources and activities across the previously autonomous units that comprised its pre-state segments. Unlike other sociopolitical units—hunting bands, autonomous agrarian communities, perhaps even chieftaincies—states can overcome the tendency of such groups to split or subdivide as the result of local hostilities, competition for land and resources, and leadership struggles. Kinship ties within local communities remain integral to the activities of daily life; but as authority and status become detached from family or clan relationships and come to reside in national structures transcending local or traditional ones, kinship ceases to be the only determining factor in organizing community life. Kinship yields some functions to the power of kingship while maintaining others integral to daily activities and family life.

These comments describe early or archaic states, not modern or industrial nations. Early states such as ancient Israel were without exception agrarian, with largely sedentary populations and mixed agricultural economies. Such states can be described as either pristine or secondary. Pristine or original states emerged from a less complex system without knowledge of or contact with existing states. Such states are known only through archaeology. Their formation was not conscious or intentional but probably resulted from endogenous stimuli that slowly moved a society to increasingly complex, centralized, and hierarchical structures. Examples of pristine states, of which there were no more than a few dozen, are Teotihuacán in central Mexico in the early centuries CE, ancient Sumer, Shang China, and perhaps early dynastic Egypt. Secondary states share many of the same characteristics as pristine ones, but their emergence and shape are affected by contact with or pressures from existing state systems. They often take the organization and actions of existing states as models. Perhaps the simplest case of secondary-state formation occurs when one state arises out of a preexisting one in much the same territory, like the division of the early Israelite monarchy into two discrete kingdoms in the late tenth century BCE. A much more varied and complex dynamic is at work, however, when states existing elsewhere serve as a model or stimulus to the creating of structures of political control in an emergent state. Such were the processes at work in the early or United Monarchy in ancient Israel.

Closely linked to the concentration of power across kinship lines is the personality of the individual who wields power over the population comprising the state. The term king or its equivalent in other languages is the most obvious and frequently found term for the (male) sovereign whose authority extends over a region and its inhabitants. The king not only stands at the apex of centralized power of a state but also becomes its chief symbol; his personal and political successes and failures are intimately and inextricably linked to the fortunes of the kingdom.

To this point, we have not named the kings at the apex of the early Israelite state. Our resort to abstraction in this and other respects is deliberate. It is important that we
think of ancient Israel as a monarchy apart from the individuals who first occupied the throne. Particularistic historical writing, of which the Bible is a prime example, often ascribes social change to the talent, luck, or whim of a few highly visible leaders. Although the role of individuals in bringing about a royal state and in heading its organizational structures is significant, that role is not necessarily primary. We must set aside the “great man” notion of the emergence of the Israelite monarchy, as resulting from the charisma of a person and/or the supernatural direction of a deity, in order to examine the social dynamics and environmental features of state formation and organization. The rise of a state system in Israel is best comprehended by identifying the social pressures and patterns hidden beneath the layers of traditional theological and political explanations.

The rapidity with which states become established and the length of time they endure differ enormously. Variables that coalesce at the moment a state system becomes visible may have been present, latently, long before any semblance of a state appears. The duration of an existing state is easier to estimate, and for the early Israelite state a reasonable chronology can be established. Here, the biblical record of the reigns of three men and the archaeological traces of centralization and territorial integration together specify the individuals and dates associated with Israel’s United Monarchy.

The three men are Saul, David, and Solomon. All provided leadership above the kinship level, although whether all unequivocally qualify as kings of a national state is debated. Scholars have established the chronology of their reigns by calculating backward from the death of Solomon, the last of the three. Not until the late sixth century BCE can a date in Israelite history be securely established by comparing biblical and non-biblical sources. But the books of Kings’ chronologies for the Israelite and Judean kings do permit us to calculate, with an error factor of about ten years, the regnal spans of all the monarchs in question. These calculations place the death of Solomon at about 928 BCE. Working back from that date, it would seem simple to use the biblical information about the reigns of David and Solomon, were it not that these two kings are each said to have ruled for forty years (1 Kings 2.11; 11.42), a suspiciously round and symbolic figure. In the absence of other data, and because both kings apparently had long and eventful reigns, the date of David’s ascension to kingship is generally placed at about 1005 BCE.

Estimating the duration of the reign of the preceding king, Saul, presents a different kind of problem—textual corruption. The relevant biblical passage states that he was “a year old when he began to reign; and he reigned two years” (1 Sam. 13.1; my translation). That flawed information is usually adjusted upward. If there is any validity to the multitude of events that the Bible narrates for Saul’s reign, he ruled for at least ten years but not much more than twenty-five. Add to that the brief two-year reign of Saul’s son Ishbaal (or Ish-bosheth), which may have overlapped with the early part of David’s
reign, and the beginnings of the monarchy in Israel can be dated toward the end of the third quarter of the eleventh century BCE. From beginning to end, then, the combined reigns of Saul, David, and Solomon lasted about a century, at the beginning of the Iron II period (Iron IIA).

This correlation between the United Monarchy and the Iron IIA period is not universally accepted. Some archaeologists hold that the material culture of Iron I does not change substantially enough until the end of the tenth century to warrant a change in period designation until that time; and others claim that features of the tenth century Iron IIA culture continue well into the next century. The division followed here links historical-political events with material culture. The archaeological evidence contains differentiations that can be related to processes of state formation and consolidation. With allowances for a time lag between complex events and their traces in the archaeological record, the designation of the late eleventh and most of the tenth centuries as a distinct period seems justified.

**Biblical Sources for Reconstructing the Early Monarchy**

The task of understanding how and why Israel’s monarchy emerged, and the changes it brought about in the lives of many Israelites, involves the use of a variety of materials and methods. Foremost among them is the Bible. Indeed, an earlier generation of historians of ancient Israel, confronting problems of the historicity of biblical texts and of large gaps in the record, were often frustrated in their attempts to reconstruct the ancestral history of Israel and to delineate the premonarchic period. They came to the monarchical era with a sense of relief. Here at last, they felt, was extensive textual documentation replete with specific places, times, and events—the stuff from which history can be written. The whole of 1 and 2 Samuel, along with the first eleven chapters of 1 Kings, were deemed exceptionally full and of great historical value. Although not actual historical records themselves, the biblical texts seemed to draw on eyewitness accounts and to provide a fuller picture of monarchical beginnings than of any other period in Israel’s long history.

This optimistic perception meant that scholars holding divergent views about the ancestral and premonarchic periods often produced remarkably similar reconstructions of the beginning of the monarchy. That sequence began with the disastrous collapse of the tribal confederation in the face of severe military pressure from neighboring peoples, continued with the heroic deeds of Saul and David in rescuing the beleaguered people from the Philistine menace, and culminated in the development by David and then Solomon of a dynastic monarchy with a brilliant royal court and a glorious temple in Jerusalem. Opposition to these developments recorded in the biblical narratives was read as conservative resistance to change.
More recently, the traditional assessment of 1 and 2 Samuel and 1 Kings 1–11 as reliable sources for understanding monarchical history has been turned on its head. Literary studies have cast new light on the narratives about the first three kings, and also on those about Samuel, the charismatic figure whom the texts present as kingmaker in relation to both Saul and David.

Well before the advent of these newer literary analyses, scholars recognized that the dramatic tales of Samuel and Saul, and of David and Solomon, are embedded in the so-called Deuteronomic History (DH). A "school" or group of traditionists, probably originating in the northern kingdom of Israel after the division of the monarchy when Solomon died and shifting to Jerusalem after the collapse of that kingdom in 722 BCE, collected and told stories about Israel’s emergence and history, beginning with the "conquest" of Joshua and extending to the demise of the southern kingdom of Judah in the sixth century BCE. An early version of this narrative formed part of the propaganda associated with Josiah’s expansionist policies and economic and religious centralization in the seventh century. A final edition must have been shaped in the sixth century, after the destruction of Jerusalem and the exile of many Judeans. These two formative epochs in later monarchical history are the interpretive lenses through which the DH views all previous episodes of national life.

The biblical materials dealing with the rise and duration of the United Monarchy thus bear the mark of a distinctive DH style and perspective. As in Joshua-Judges, the Samuel-Kings narrative contains speeches and prayers, anticipatory leads and evaluative summaries, all of which put an unmistakable spin on the events recounted: the deeds of the people and their leaders are measured against the standards of the Torah of Moses. The DH knows how the story will end: the monarchy will divide, and each kingdom in turn will collapse. The DH’s editorial framework and its inserted theological interpretations anticipate and explain the horror of those events. The last edition even gives a hint of repentance and restoration.

One of the best examples of the DH perspective comes in Solomon’s long address in 1 Kings 8 at the dedication of the Temple. While he invokes the idea that God had covenanted with David to establish an eternal dynasty, Solomon also warns that the people will repeatedly disobey God and will have to be carried away into exile. But, he goes on, if they repent they will earn God’s forgiveness and presumably will be restored to their homeland (vv. 22–26, 46–53). Other major instances of the DH worldview in the account of the early monarchy are Samuel’s speech in 1 Samuel 12 about choosing to have a monarchical government, and the speech of the prophet Nathan with the accompanying prayer of David in 2 Samuel 7 about the divine promise of a “house” (that is, a temple) for God and of an eternal “house” (a dynasty) for David.

So effectively did the DH combine authentic sources with interpretive additions that it is difficult to read the narratives in 1 and 2 Samuel and 1 Kings 1–11 without being
Table 5.1 Relative Lengths of the Narratives about Saul, David, and Solomon

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<th>Saul</th>
<th>David</th>
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<td>Percentage of materials* in 1–2 Samuel, 1 Kings</td>
<td>12½b</td>
<td>67½</td>
<td>20</td>
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<tr>
<td>Number of chapters in 1–2 Samuel, 1 Kings</td>
<td>7c</td>
<td>40</td>
<td>9</td>
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<tr>
<td>Number of chapters in Chronicles</td>
<td>1</td>
<td>19</td>
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*Calculated on the basis of the total space of the component chapters and verses (not the total number of chapters, which vary in size).

bIncreases to 21 percent if overlapping David-Saul materials are included.

*cDoes not include the overlap with David.

caught up in the ideological concerns of the ancient editors. The legitimization of the Davidic dynasty, the sacralization of its capital in Jerusalem, and the attribution of an active role to Yahweh (symbolically present in the ark and then in the Temple), have been inextricably interwoven into the shape, sequence, and content of materials selected for inclusion in the DH’s dramatic portrayal of this epoch.

David—the epitome of the royal figure and the embodiment of the later hope for restoration—is the DH’s central figure in its account of the early monarchy. A statistical glance (see table 5.1) at the balance, or rather imbalance, of materials about the first three kings reveals David’s centrality.

In highlighting David and his deeds, the DH captures the sympathy of the audience. It is difficult to follow David’s story without being caught up in his heroic rise from shepherd boy to dynastic paragon. That he perpetrates violence and brutality along the way, the DH takes for granted. What other recourse has he against his enemies, who are cast as God’s enemies as well? One of the best examples of the aggrandizement of David is the Goliath story; the accomplishment of Elhanan in slaying the Philistine warrior (2 Sam. 21.19) becomes part of the David legend (1 Sam. 17).

The larger narrative context of the biblical account of the early monarchy—the entire history of Israel in the land, from Joshua to the exile—has also shaped the ancient editors’ choice and arrangement of materials. Samuel’s prominence as a “judge,” for example, links him to the sequence of stories about charismatic leaders in the preceding block of DH materials. Remarkably, the etymology given for Samuel’s name in 1 Samuel 1.20, the announcement in verse 28 that Samuel is to be dedicated to God, and the various references in 1 Samuel 1 to “requests” from God all contain wordplays on Saul’s name rather than Samuel’s. A narrative of Saul’s birth has apparently been appropriated for Samuel, to give him thematic prominence as the connector between the rule of judges and of kings, and also because of the text’s generally negative portrayal of Saul.
Within the interpretive setting provided by the DH, several major thematic segments can be discerned in the narratives of 1–2 Samuel and 1 Kings 1–11:

- A set of Saul stories, including an old cycle in which Samuel probably played no part, and later materials in which Samuel’s role as kingmaker is prominent, are found in 1 Samuel 8–15, though Saul’s story continues in subsequent chapters because his career overlaps with that of David until his tragic battlefield death.

- The account of David’s rise to power, and of Saul’s diminishing effectiveness, is given in 1 Samuel 16 to 2 Samuel 5.

- The Court History of David, part of which is sometimes called the Succession Narrative, appears in 2 Samuel 9–20 and climaxes with the final days and death of David in 1 Kings 1–2.

- The reign of Solomon is set forth in 1 Kings 3–11.

In addition to these substantial blocks of material, several smaller but thematically important sections appear in the two books of Samuel:

- The birth and call narrative of Samuel in 1 Samuel 1–3, with its supplement in 1 Samuel 7, connects the rule of kings with the preceding rule of judges. It also accounts for the legitimacy of the Zadokite priesthood, which prevailed in Israel from David’s time until the exile and beyond, thereby replacing the priesthood of Eli and his family, which played a central role in premonarchic religious affairs.

- The story of the ark of the covenant, a central icon of early Israel, appears in 1 Samuel 4–7.2, and has links to 2 Samuel 6 and 7.

- A miscellaneous appendix in 2 Samuel 21–24 of psalms, lists, and narratives connected with David.

This bare listing does not, however, reveal what literary analysis makes clear: the historiographic framework embraces segments that are highly legendary and folkloristic, if not novelistic. The account of the early monarchy is replete with traditional literary materials, including stylized motifs such as the sending of messengers or the hiding of spies; repeated type-scenes such as battle accounts and news of defeat; private dialogues in settings that preclude eyewitness records; strong interest in the private life and character of a few individuals at the expense of details about their public works and worlds. These artful literary constructions depict tensions and conflicts in the personal lives of the first kings, and in so doing they convey, more subtly and successfully than explicit history writing could, the moral questions inherent in the concentration of power in the hands of a few.

Recognizing the complexity and diversity of the biblical sources for the early monarchy and acknowledging their biases does not, however, mean discarding them as lacking in historical value. On the contrary, some passages exhibit features of archaic
language going back nearly to the time of the events that they narrate. Others contain details about procedures and propositions that reflect aspects of the sociopolitical dynamics of state formation. Such details are probably not later inventions; rather, they derive from the authentic reports of persons who experienced the transition from pre-state to state society.

The information about the material world of the early monarchy, especially in the passages describing Solomon's construction of a temple and palace in Jerusalem (1 Kings 5–7) and the wealth of his kingdom (1 Kings 10), is sometimes viewed as hopelessly exaggerated if not outright fictive. Yet as we shall see, the accounts of conspicuous wealth and grandeur, even if royal hyperbole, contain details of architectural and artifactual style that are rooted in the visual vocabulary of royal courts in the early Iron II period.

Mentioning the Bible's reports of the early kings' building projects brings us to a second major source of information, archaeology, that we shall consider more fully below. Recent archaeological surveys, for example, do confirm the historical value of topographical details and place-names in the narratives of 1 and 2 Samuel, and they indicate that sites newly founded in the late eleventh and early tenth centuries correspond with places mentioned in the Samuel narratives, particularly in connection with David.

Such external validation, while relatively rare, should not go unheeded. Nor should one ignore the Bible's own self-conscious claim to use ancient but no longer extant sources, at least for the presentation of Solomon (1 Kings 11.41; note also 2 Sam. 1.19). Indeed, the variety of styles and materials—from lists to legends, from poems to polemics—as well as the presence of conflicting items, imply that a rich array of traditional materials has gone into the canonical story of the early monarchy. The very inclusion of disparate materials suggests that the DH's ancient editors recognized their value. Authentic and ancient documentation of aspects of Israelite state formation is embedded in the final literary production, although it is difficult to separate the legendary embellishment from the record of historical experience. Yet the extent of the historical core of 1 and 2 Samuel and 1 Kings 1–11 is roughly indicated by the amount of material that is annalistic rather than literary. One can tabulate the extent of explicitly annalistic coverage—of economic activities, administrative decisions, military operations, and international affairs—as opposed to the space that the texts devote to legendary, folkloristic, and poetic materials. For Solomon, 45 percent of the coverage is annalistic, but for David it is only 8 percent and for Saul less than 5 percent. In short, although the bare outlines of the history of the early kings are found in these three biblical books, the preponderance of nondocumentary passages makes them less useful to the historian than their historiographic cast and vivid prose suggest.

First and 2 Samuel and 1 Kings 1–11 are not the only relevant biblical materials for the early monarchy. Additional information appears in 1 and 2 Chronicles, products
(along with Ezra and Nehemiah) of early postexilic chronicle writing. These works have clear biases, especially in their glorification of Jerusalem and idealization of the two kings, David and Solomon, who were founders of the capital and its Temple, the sacred center of Israel. Because of these preoccupations, the authors of Chronicles include virtually nothing about Saul, who had no connection with the establishment of Jerusalem as a capital and center of worship.

First Chronicles begins with nine chapters of genealogy, and the rest of the book (nineteen chapters) presents the kingship of David. Solomon’s reign is set forth in 2 Chronicles 1–9. For the most part Chronicles repeats, often word for word, large blocks of material from Samuel and Kings; but Chronicles also omits some Samuel-Kings traditions, especially when they cast David or Solomon in unfavorable light. In addition, Chronicles occasionally includes information, often little more than expositional expansion, not found in Samuel-Kings. Yet in a few instances the Chronicler drew on authentic ancient sources other than a protocanonical version of Samuel-Kings, preserving supplemental details or perspectives that cannot be dismissed as part of the Chronicler’s bias. Furthermore, the topographical information in some of the genealogies and lists in Chronicles most closely approximates the settlement pattern that modern research has reconstructed (using archaeological excavation and survey) for the Iron IIA period or, more narrowly, the period of David.

With varying degrees of reliability, several other biblical works may also be related to the early monarchic period. Classical historical-critical study of the Bible postulates that the Pentateuch in its present form weaves together four major literary strands, assembled in the first five biblical books to tell the story of preterritorial and prenational Israel from the creation of the world to the moment of entry into the Promised Land. One, perhaps the corporate work of many talented storytellers, is called the Yahwist because of the prominence of the name Yahweh for God in the book of Genesis. This source, or its author(s), is also known as J, from the German spelling of God’s name, “Jahweh.” The existence, nature, and dates of four sources of the Pentateuch are continually debated by biblical scholars. Thus, in considering J as a creation of the early monarchy, which is the dominant historical-critical judgment, the larger issue of the formation of the Pentateuch must be kept in mind.

Scholars favor placing J in the mid-tenth century BCE primarily because of the way it favors Judah, the eponymous progenitor of the tribe from which the Davidic dynasty is said to have come, as well as the territory that became the monarchy’s geographical core. In this interpretation, the successes of the first Israelite kings kindled nationalistic fervor and led to the composition of an epic that recounted the period before the monarchy, culminating in the glorious establishment of a territorial state whose dynastic ancestor was Judah. Thus, the promise to Abraham (in Gen. 15.18–21), for example, provides an etiology for later Davidic conquests of the peoples surrounding Israel’s tribal
core. Whatever its origin, J represents a powerful and artful presentation of the proto-Israelite story, and it is plausible that the royal court of tenth-century Jerusalem, which probably produced monumental architecture of world-class quality, also gave birth to a superb work of literature.

Both David and Solomon are also traditionally associated with significant blocks of material in the Ketubim, or Writings, section of the Bible, a product of the postexilic period. David's musical abilities are highlighted in several legendary vignettes in Samuel, so it is no surprise that the superscriptions of seventy-three psalms name the king himself as their author; thirteen of them even report the situation under which the psalm was composed. Similarly, Solomon's legendary wisdom links him with the authorship of the wisdom books of Proverbs and Ecclesiastes, and the report of his extensive marital liaisons similarly connect him with the Song of Solomon. Such claims for Davidic and Solomonic authorship of significant portions of the Writings are clearly late and unreliable. Yet some of the materials in the putative Davidic and Solomonic compositions may have tenth-century features. Davidic charisma and Solomonic diplomacy, characteristics integrally connected to the sociopolitical roles these men played, make it reasonable to trace the beginnings of Israelite psalmody and sapiential traditions back to the early court in Jerusalem.

Other Sources for Reconstructing the Early Monarchy

Given the extent and grandeur of the early monarchy as depicted in biblical writings, it is striking that absolutely no references to Saul, David, Solomon, or the new Israelite kingdom appear in any ancient Near Eastern documents of the late eleventh or tenth century BCE. The first nonbiblical text that mentions a political entity in Iron Age Palestine comes just after the split of the monarchy into two kingdoms at Solomon's death. Around 925 BCE, Pharaoh Shishak (Shoshenq I) marched into Palestine and, according to inscriptions on the wall of the Amun temple at Karnak, devastated a series of Palestinian towns or cities. At one of these, Megiddo, a fragment of a monumental stele bearing Shishak's name has been uncovered, thus supporting the inscriptions' claims about conquest. Unfortunately, the list of fallen sites does not name their national setting, nor is the configuration of the named sites particularly helpful in drawing the borders of late tenth-century Israel.

Two ninth-century inscriptions may attest to an Israelite monarchy in Palestine. One, an Aramaic inscription recently found at Tel Dan in northern Israel, was probably part of a basalt victory monument erected by a conqueror of Dan. It refers to the "king of Israel" and the "[king of] the house of David," the two monarchies that existed in Palestine by the ninth century, and in so doing names "David." The second inscription, discovered in 1868 in Moab, is known as the Mesha Stela because it was written to
A limestone relief of Pharaoh Shishak (Shoshenq I). Carved on the south wall of the Amun temple at Karnak in Egypt, this scene shows the god Amun and bound captives. The text lists over 150 names of defeated cities and towns which are important for studying his invasion of Palestine ca. 925 BCE, and provides an important datum point for the chronology of the Iron Age.

commemorate a victory by the Moabite king Mesha over Israel. A recent reevaluation of its lengthy text, which refers explicitly to Omri as the “king of Israel,” suggests that this monument also mentions the “house of David.”

But these finds are the exceptions. The biblical sources contain authentic political, economic, administrative, and topographic details of a tenth-century nation-state in much of Palestine and adjacent parts of Transjordan. Why then do other Near Eastern polities not acknowledge its existence? The answer probably resides in the circumstances of Israel’s emergence. During precisely these years a power vacuum existed in the eastern Mediterranean. Until the end of the Late Bronze Age, Egypt had maintained some degree of hegemony over Palestinian city-states. But after the collapse of Egypt’s Dynasty 20 around 1069 BCE, the Tanite kings of Dynasty 21 presided over a protracted economic and political decline. This period of Egyptian weakness, lasting over a century (1069–945 BCE), meant a relative paucity of monumental inscriptions. The kings had nothing
Plan of a group of houses from biblical Tell el-Farah (N), biblical Tirzah. Probably built before 925 BCE, they exemplify the pillared (four-room) house characteristic of the Iron Age. The interior space was used in part for stabling animals during the winter season; other areas were used for storage and for food preparation. Some of the living area would have been on a second story. The uniformity of these dwellings indicates that, except for the highest-level governors who lived in palaces, wealthier and poorer families lived similarly in the early Iron II period.

to boast about in the usual fashion of royal texts; none would have reported Egypt’s loss of its long-standing control over parts of the Palestinian corridor to Asia.

Similarly, the uncharacteristic silence of Assyrian sources of the late eleventh to early ninth centuries about the western territories it had long dominated can only mean that Assyrian control of the northern Levant had lapsed. Assyria, we know, suffered from the death of Tiglath-pileser I (ca. 1076 BCE) until its revival as the Neo-Assyrian empire under Ashur-dan II (934–912 BCE). Whether Assyria tried and failed to gain ascendancy over Syria-Palestine in the intervening years, or whether internal difficulties precluded foreign expeditions, is not clear. Babylonia likewise did not venture far beyond its borders for centuries after a raid on Assyria in 1081 BCE, and thus its records would hardly have mentioned a new dynastic state to the west. The emergence of a national state in Palestine is thus related to the weaknesses in the traditional centers of power in the Near East at the end of the second millennium BCE.

Important information about the early Israelite monarchy does, however, appear in nonwritten material remains. Since the beginnings of archaeological research in Palestine in the nineteenth century, sites and regions mentioned in the vivid biblical stories of Samuel, Saul, David, and Solomon have figured prominently in field projects. Yet this activity has not yielded a commensurate amount of information about the relatively short period of time represented by the early monarchy. Indeed, pinpointing that era in the archaeological record has proved to be fraught with controversy. Walls, artifacts, and buildings that some archaeologists assign to the time of David or Solomon are dated by others to earlier or later periods. In the absence of artifacts such as coins or inscri-
tions that allow for absolute chronology, the precise date of materials from the early Iron II period has been difficult to establish. Nonetheless, a tentative consensus now exists, and various structures and material objects of the late eleventh and early tenth centuries that throw light on the early monarchy will be discussed below.

What can the material remains tell us about the sociopolitical changes related to state formation? What environmental and technological features either determine or reflect a transition to a more complex sociopolitical organization? What sort of unity in the material culture suggests the advent of a centralized government with controls over an extensive territory? Not all of the reports of the older excavations contain the details needed to answer these questions. Thus the promise of archaeology to help us understand and reconstruct any period of biblical antiquity rests on more recent excavation projects—some that reexcavate the famous sites to which earlier archaeologists had been attracted, and others that investigate smaller sites that rarely can be identified with biblical place-names but that are representative of the village settlements inhabited by the majority of the population. Ultimately, establishing a fuller picture of the distribution and size of Iron IIa sites and their subsistence bases will contribute as much if not more to our knowledge of the early monarchy than all the past investigations of the major urban sites.

In answering the questions we have posed, techniques other than excavation are clearly valuable. One is archaeological survey, by which a region is systematically explored in order to locate and record its archaeological sites, their features, and relative sizes. By carefully sampling the surface finds of each site, the periods in which they were occupied can be determined with reasonable confidence. The formation of a monarchy is inextricably related to fluctuations in population and also to the arrangement of population on the landscape. Because surveys allow us to estimate population size and density, they provide information that can be related to what we know about population patterns in emergent states generally. Furthermore, settlements of varying sizes in particular configurations—such as a town site surrounded by smaller “satellite” villages—provide evidence of the centralization of economic and social functions that correlate with political centralization.

Surveys also investigate environmental factors that have a bearing on ancient historical changes. The study of the landscape and ecology of a region is necessary to understand human exploitation of the environment. Geological, hydrological, climatic, and topographic variables all help determine the subsistence base of a given site. Did environmental conditions allow local populations in the past to produce enough food to supply the needs of the number of people who are estimated to have lived at a site in a given period? Or did the ecosystem impose limitations that required the populations there to augment their food supply by trade? Is the environment especially suited for the production of one kind of commodity, thus making it possible to accumulate
surpluses that can be exchanged for goods produced at other sites? The answers to such questions have great potential for identifying the economic patterns that figure in the state systems' mechanisms of control and exchange of goods.

Whether we can answer such questions depends not only on the presence and reliability of the data but also on the strategies we use to interpret them. Interpretive strategies drawn from ethnoarchaeology can help here. Ethnoarchaeology assumes that, in traditional societies, human beings today within a given environment relate to their material culture and their structures in ways similar to the manner in which the people of past societies in similar niches acted. With this assumption archaeologists can suggest how an ancient society may have functioned given the particular configuration of artifacts that they left behind. Much of the value of the social-science models and theories to which we shall next turn rests on the results of ethnographic research, which has amassed a considerable body of cross-cultural information about state formation and its relationship to the material world.

**Interpretive Theories and Models**

Especially since the 1960s, as a rich array of new data has become known about pre-colonial African sociopolitical systems, anthropologists' ethnographically based models have become highly relevant to the question of Israelite monarchic beginnings. Although there are pitfalls in the anthropological discussions of state formation, such as the way ideas about the early state are colored by the familiarity of theorists with precapitalist, occidental (European) nation-states, the heuristic value of models that generalize behaviors and structures across cultures is considerable. These models authenticate the biblical presentation of an emergent monarchy, and they correct the traditional historical-critical tendency to see the monarchy as both a foreign institution and yet one that became uniquely Israelite. The anthropological work that has most influenced assessments of the early monarchy sees an evolutionary development of societies: from simple bands and/or tribes, to chiefdoms, and ultimately to states. In this scheme, Saul's rise to power and David's early reign constitute the chiefdom stage. Thus, the fact that the texts designate both Saul and David with the Hebrew term nāgîd (1 Sam. 9.16; 10.1; 13.14; 25.30; 2 Sam. 5.2; 6.21; 7.8), translated "prince" or "ruler," may characterize each man as a charismatic premonarchic or protomonarchic military leader, that is, as the head of a chiefdom—rather than as a dynastic melek, or "king," as head of a state.

We may not, however, be entirely justified in associating Saul, and to some extent David, with chiefly office. Part of the problem lies in the difficulty of precisely dating the archaeological evidence for a chiefdom. Similarly, material evidence suggestive of Solomon and a full-fledged state may well originate in Davidic planning. Correlating
different terminology—nāgid and melek—with different kinds of sociopolitical leadership is also problematic, coming as it does from the much reworked Deuteronomistic History of 1 and 2 Samuel. Furthermore, the critical aspect in identifying a chiefdom seems to be the number of levels of bureaucratic or administrative organization—in other words, how far the chief is structurally removed from the common folk. No means have yet been discovered to assess those levels in either the archaeological or the textual record. Finally, anthropologists themselves, in critiquing the evolutionary model, suggest that a chiefdom may be an alternative to a state system rather than precursor of it. Hence the question remains open whether we are justified in seeing the first two Israelite kings as chiefs. Fortunately, the answer does not seem to have serious consequences in assessing ancient Israel’s path to statehood.

Perhaps the most important aspect of anthropological discussions of state systems is captured in the second of those two terms, systems. The state emerges as both an adaptive response to changes in a society and its environment and a formalization of those changes. Once formalized, the centralized control of human and economic resources itself creates demands and accommodations. The initial shift to a state structure in effect sets off a chain reaction of other changes that mark the ongoing development of the system.

The systemic nature of the state, or for that matter any political community, poses a problem for the examination of an ancient state, particularly one such as Israel, for which archaeological evidence is an essential source of information. States by nature have more complex, hierarchical organizational structures than do nonstate systems. Yet it is not clear how or where in the transition from pre-state to state the visible correlates of differentiated social, economic, and political groups emerge. For example, the concentration of wealth in the hands of a few may cause the appearance of new and more differentiated sociopolitical structures—or it may result from such forms. Or again, such concentration may be both cause and effect. To take another example, an increase in population can signal a change in sociopolitical structure with a concomitant ability to support more people, or it can reflect a need for adaptive change in order to accommodate a larger community. If archaeological remains of the late Iron I and the Iron IIA periods could be dated with more precision, some of these issues might be resolved.

Factors Relating to State Formation in Ancient Israel

Reading the biblical account of the emergence of the monarchy while simultaneously considering social-science models of state formation has led recent investigators to reassess the role of the Philistines. The accounts of both Saul and David in 1 and 2 Samuel
are replete with war stories, and most scholars followed the lead of the biblical texts in linking the establishment of a kingdom with the Philistine menace. But is this an accurate portrayal of what happened in Iron IIA Palestine?

The Philistines were a group of people from the Aegean who arrived on the southern Palestinian coast at about the same time that the Israelite tribal groups were forming in the highlands. Portrayed in the Bible as aggressors, the Philistines are the quintessential "bad guys" in the narratives of the early monarchy. Hence their name has entered modern languages as a derogatory designation for someone lacking in culture, or whose interests are conventional and materialistic. The biblical texts describe them as commanded by warlords, as terrorists raiding Israelite settlements, as ruthless conquerors of tribal centers, as the villainous destroyers of the important religious shrine at Shiloh, and as the captors of the sacred ark, a symbol of Yahweh's divine presence among the people. According to the biblical narrative, the pressure of Philistine expansionism became so great that the people of Israel approached Samuel, the priestly prophet and judge whose leadership extended beyond his territorial home in Ramah, requesting that he appoint a king as his replacement. According to the biblical text, the Israelites perceived that he was aging and had no worthy successor. Passages such as 1 Samuel 9:16 explicitly connect the establishment of kingship with the Philistine threat. God, this passage reads, promises to provide the beleaguered Israelites with "a man from the land of Benjamin [Saul] . . . He shall save my people from the hand of the Philistines; for I have seen the suffering of my people, because their outcry has come to me."

Such language, although widely understood as part of a later tradition of dubious historical value, has deeply influenced modern histories of ancient Israel. The Philistines have achieved the status of prime mover in the story of Israelite transition to statehood. Standard histories thus do little more than restate the biblical tales. Even scholars who pioneered social-science approaches to pre-state Israel tend to contrast an egalitarian tribal period with an exploitative monarchical one. This glaring contrast is attributed to the external threat of Philistine domination: if only the Philistines hadn't been around, tribal Israel would have survived in an idealized egalitarian form.

But the process of state formation is more complex than the biblical text and its traditional interpreters have led us to believe. Military pressure is only one of a constellation of internal and external stimuli, stemming from both environmental and sociopolitical conditions, that produced a new political form—the state. The territorial state in Israel was a system that could effect changes in technology and in the organization and behavior of people in order to meet the pressures not only of external aggressors such as the Philistines but also of internal crises in resource management. True, the early Israelite state is linked to the need for military forces that could deal with Philistine incursions. It also had to repel the raids of such groups as the Ammonites (1 Sam. 10:27) and Amalekites (1 Sam. 30:1), and perhaps meet threats from neighboring
Moab, Edom, and Syria (1 Sam. 14.47; 2 Sam. 8.1–14). But conflict was not the only factor involved in the rise of the Israelite state.

Understanding state formation in early Israel thus means recognizing the convergence of complex variables, in addition to conflict, that required new organizational structures. Identifying those variables begins by considering the physical environment of the premonarchic settlements generally identified as Israelite.

Before the Iron Age, settlements in Palestine had for millennia been concentrated along the coast and in the major intermontane valleys. The beginning of Israel in the Iron I period (ca. 1200–1025 BCE) is associated with the establishment of new sites, mostly tiny agricultural villages, in the highland core of Palestine. Those sites occupied a marginal ecological zone. Uneven landforms, irregular stretches of fertile soils, and the lack of stable year-round water supplies made the establishment of viable farm communities a challenging enterprise. The cropping cycle in most of the better econiches of the highlands dictated that some months required labor-intensive efforts. At such times, having an adequate labor pool was the key to survival. The self-sufficient individual household was the primary economic unit of these highland villages; and an ethos encouraging a high birthrate and thus enough children to ensure a satisfactory labor supply for each household unit emerged as an important adaptive element.

Enlarging family size, as several biblical texts exhort, met with some success: Israel’s population grew. At the same time, the early Iron Age villages found relief from Late Bronze Age plagues, one of the waves of epidemic disease that periodically decimated premodern peoples. Furthermore, the agrarian settlers of the highland sites were probably joined by a small element of pastoralists who were taking up a sedentary lifestyle. Although a few human societies maintain a demographic equilibrium that keeps them at or below the ability of the environment of a settlement to yield enough foodstuffs to sustain the population, more often populations move inexorably toward overpopulation. The highland villages of pre-state Israel were no exception.

The most obvious solution to the problem of overpopulation is birth control (or infanticide), for which there is no evidence in early Israel. Alternatively, kinship-based societies can increase their agricultural productivity by developing new technologies or by putting existing ones to more extensive use. Highland villagers both expanded their acreage and raised their productivity by increasing use of agricultural terracing and cisterns. This agricultural intensification, however, required more labor, which in turn reinforced cultural sanctions for increasing family size. Thus there arose a self-perpetuating spiral of growth that eventually required other adjustments.

The unpredictable rainfall patterns of the region complicated this cycle. Agricultural intensification alone could not always provide a growing population with a secure food supply in the face of periodic water deficiencies. The highlands of Palestine as a whole are a medium-risk environment with respect to rainfall variability; periodically there
occur years with subnormal amounts of rainfall, defined as more than 30 percent below average. Typically three successive subnormal years will occur twice in a forty-year span, with such three-year droughts bringing an average farming household to the brink of disaster (see 2 Sam. 21.1). Even a delay in rains in a normal year can reduce the productivity of the soil as much as does an actual drought. Clearly the average highland farm family lived insecurely.

Increased family size and/or diminished rainfall, even with measures of intensification, characteristically require changes in the way resources are made available. Such changes appear in the organization of society above the village and kinship level. In precolonial African chiefdoms, redistribution of agricultural products was one of the ways in which a more complex sociopolitical structure could respond to increases in population density and periodic shortfalls of food supplies. Such redistribution, however, implies an altruism that may not be easily institutionalized in a centralized power structure. Other kinds of redistributive mechanisms that were part of the emergence of centralized governance may have dealt with such problems in other ways.

Another remedy by which agrarian societies have tried to deal with the rise of population above the land's carrying capacity is out-migration. Usually the emigrants are second and third sons who cannot inherit a large enough plot to support a new household. Such sons move to unsettled lands, usually as near as possible to their own family's village but sometimes in a neighboring lineage's territory. This solution is viable, of course, only while new lands are available and allow for a proper balance of cropping.

Constraints in either or both of these solutions create pressures for other, larger-scale adaptive measures.

The thorough archaeological survey of the highland territory forming part of the area occupied by the traditional tribe of Judah—in the area east of but not including Jerusalem—provides data about settlement patterns that seem to reflect out-migration. As a whole this region has a marginal character, although some areas are more hospitable to balanced agricultural productivity than others. In the Iron IIA period, from the late eleventh century well into the tenth century, settlement in the Judean hill country almost doubled compared to any earlier period. The thirty-four Iron IIA sites represent an increase of about 90 percent over the Iron I period; and the total amount of settled area increased about 80 percent, from 19.5 hectares (47.7 acres) to 33.5 hectares (83 acres).

Equally important to this radical demographic change is the distribution of sites by size. Several prominent sites (ca. 3 hectares or 7.5 acres each) lie in the most favorable environments, and five second-level sites (1.5–2 hectares [3.75–5 acres]) are distributed throughout the region. These in turn are surrounded by even smaller settlements. The range in site size and their configuration suggests "central places," larger sites that interact with smaller ones in the exchange of goods and services. The necessity for differential site size in relation to the expanding population of this region arises in part
from the location of new settlements in less fertile areas of the Judean hills. The environmental niches most conducive to cultivation had been settled in the Iron I period. But out-migration by the expanding population of those sites, which had reached the limit of what their usable lands could support even with technological innovations, led to the settlement of less productive areas. So too did an influx of people from nearby areas just to the north. The biblical and archaeological record of the destruction of Shiloh at about this time shows how the Philistine conquests caused the displacement of segments of the hill country population.

Whatever caused the population explosion in the Judean hills, clearly many of the new settlements occupied ecological niches that did not allow for balanced cropping. Such balance is essential for the characteristic Mediterranean pattern of "grain, wine, and oil," supplemented by occasional animal protein provided by small herd animals. If a given ecotone cannot provide a sufficiently varied set of food crops, its settlers must trade for them. For example, a subregion more suited by terrain, soil types, and water supply to the growing of grain would intensify its cereal production so that its surpluses could be exchanged for the surpluses of other communities in nearby ecotones with different cropping potentials. Such exchanges, in the absence of a true market economy, probably took place through religious activity. Regional ritual events, which we know involved the collection of offerings, allowed for priestly redistribution of commodities.

The groupings of Iron IIA sites in the Judean highlands suggest intraregional commodity exchange. Intensive surveys elsewhere in the central highlands, especially in Ephraim, the hill country north of Jerusalem, reveal the same pattern of sharp increases in the number of settlements as in the Judean hills, and also their expansion into subregions not suitable for the regular self-sufficiency of producing households. An increase in population density was clearly not a localized Judean phenomenon in the Iron IIA period; throughout the tribal lands there arose a need for adaptive mechanisms that transcended the activities of local, related kinship groups.

Agricultural intensification, local exchanges or redistributions, and the introduction of technological changes are all features of emergent states that are responsive to internal pressures ("integrative features," social scientists call them). Centralized political systems not only can offer their subjects protection from military threats; they also can coordinate and organize large numbers of people cutting across tribal or geographic divisions to provide access to resources.

In addition, states can establish the social stability that local leaders lack the power to provide. As a population expands in a finite territory with limited agrarian potential, internal conflicts over matters such as land and water usage become increasingly difficult for village or even tribal leaders to resolve. A centralized judicial system, enforceable by the greater authority of a royal official, becomes necessary to deal with incidents that
A plan of the northern pillared building at Megiddo. The white lines indicate buildings originally dated to Solomon’s reign but now assigned to the ninth century. The dark lines underneath show remains from a tenth-century building complex.

A need for centralized organization grew out of another feature of the technoenvironmental setting of the emerging monarchy, particular to the eastern Mediterranean in the early Iron Age. The very name Iron Age points to the issue. Although archaeologists and historians have long dated the inception of the Iron Age in Palestine to around 1200 BCE, that date does not mark a significant transition from bronze to iron as the dominant metal used for tools and weapons. For reasons that historians of technology do not yet fully understand, the copper and tin needed for the production of bronze implements were disrupted at the end of the Late Bronze Age. International trade, essential to the distribution of the raw materials and finished products of bronze-producing metallurgy, was severely limited during the early centuries of the Iron Age. Iron ore was likewise scarce. New procedures for smelting iron, in which carbon was introduced to produce a metal stronger and more durable than bronze, did emerge with the advent of the Iron Age. Yet these techniques were not widely used for everyday purposes until the tenth century, partly because of a lag in the diffusion of the new technology and partly because trade disruptions precluded the wide availability of ores.
The population expansion in Iron IIA in the Palestinian highlands increased the demand for agricultural implements. Iron by then was preferred, especially for plow tips: its greater durability made it better suited to the rockier soils of the marginal lands settled in the out-migrations and population shifts of the late eleventh and tenth centuries. Although Palestine has iron ore deposits, most are of poor quality and were never mined in antiquity. Only the organizational and distributional potential of centralized government could ensure security to the trade networks through which raw materials flowed and the population centers where the specialists who produced agricultural tools lived.

Population increase, shifting areas of settlement, and new technologies thus became intersecting variables creating the need for international trade and occupational specialization, features widely associated with state systems. Along with integrative and military functions, the emergent Israelite state provided necessary access to technologies and raw materials critical for the growing population in diverse highland environments.

Material Features of the Early State in Israel

A chief characteristic of a monarchic system is a territorial base that transcends traditional, older, and prior territorial segments or regions. The biblical texts’ recounting of the military exploits and political actions of the first three kings, however stylized or legendary the accounts, reveals the core area in which Saul rose to power. The nucleus of Saul’s territory, whether a chiefdom or an inchoate state, was his own tribe of Benjamin. His son Ishbaal, whose brief reign overlaps with David’s, appoints Benjaminites as his servants (see 2 Sam. 2.15, 25, 31). It is noteworthy that Ishbaal claims to rule not only over Benjamin but also over other areas: Ephraim, Gilead, the Jezreel, and perhaps Asher (2 Sam. 2.9). The biblical assertion that Saul ruled “over all Israel” may be an editorial exaggeration, but Saul’s early military success would have gradually rallied an expanding group of followers and created an area of control beyond Benjamin. Saul is portrayed as a charismatic military leader in the tradition of the preceding judges, and his continued feats on the battlefield were of just the sort to lead to an expanded sphere of control.

David’s political and military achievements apparently created a still larger territorial entity. Clearly his own tribal base in Judah, indicated by the Judean origins of the folk traditions attached to him, figured prominently in David’s rise to power. In the early years of his reign he had sovereignty over Judah alone (see 2 Sam. 5.5). David made his capital for over seven years at Hebron, a well-situated site in the Judean hills. From there he expanded his influence over all of the southern hill country and adjacent Shephelah, the northern Negeb, and the eastern Judean wilderness. (This territory, larger than the tribe of Judah itself, ultimately encompassed the ideal or maximum boundaries
of the southern kingdom of Judah after the later dissolution of the United Monarchy.) Expanding to the north and east, David incorporated into his realm the Benjaminite, Ephraimite, and other areas of Saul’s territory, as well as Galilee and parts of Transjordan.

One other expansion of the Judean core of tenth-century Israel is significant. At the southern periphery of Judah and of the kingdom lay the northern Negeb or Beer-sheba basin, where settlements had existed prior to early Israel and the United Monarchy and continued afterward. In the early monarchy, however, numerous settlements penetrated into the Negeb highlands to the southwest: most are stone fortresses or towers with domestic structures and animal pens scattered in the vicinity. The pottery at these sites indicates that they were occupied for a limited period, from the end of the eleventh century at the earliest to their destruction or abandonment at about the time of Shishak’s
march through the Negeb in 925 BCE. These sites, in other words, are chronologically congruent with the reigns of David and especially Solomon.

These Negeb settlements have other interesting features. The dwelling types, and even some of the towers themselves, resemble the domestic structures of tenth-century sites in Israelite territory. Similarly, a large percentage of the pottery forms are the same as those found in villages to the north. Finally, the settlements typically are in areas of limited water sources and without soils suitable for subsistence farming. Taken together, these factors indicate that the western Negeb settlements were outposts of the early kingdom, initiated and supported by the state, and populated by groups sent southward by state authorities to represent state interests. Although agricultural and pastoral activities are evident in the archaeological remains of these sites, their inhabitants could not have survived without external support.

Just what were the interests of the state in populating this barren region? Because about 80 percent of the fortresses and dwellings were built on high ridges commanding panoramic views, they obviously helped protect the southern borders of the monarchy. The Philistines at that time had extended their settlements southward along the farthest western area of the Negeb highlands. Egypt's gradually increasing interest in regaining control of Palestine, culminating in the Shishak invasion, likewise points to the Israelite need for military protection at the southwestern limits of its territory. In addition, by the Solomonic period, Israel had developed an international trade with an important southern component so that the Negeb outposts also served as way stations along a route to the Red Sea and thence to East Africa and South Arabia. These frontier settlements thus supported several geopolitical and economic interests of the early monarchy.

Aside from archaeological data, researchers usually reconstruct the full extent of the Davidic domain with such sources as the census list of 2 Samuel 24 and the list of Levitical cities in Judges 21. Important as these lists may be, however, they are incomplete and resist exact dating. Nonetheless, the strong tradition of direct Davidic rule over all the tribal groups means that biblical information about tribal boundaries can be used to determine the extent of the Davidic kingdom as well as that of Solomon, the heir to an established and extensive territorial base. Traditional premonarchic tribal regions are generally equated with the territory of the Davidic-Solomonic state.

The supranational boundaries of the early monarchy are less clear. Biblical sources claim conquests of Moab, Edom, and Ammon (including the land of Geshur) across the Jordan; and David is said to have extended Israelite dominion over parts of the Aramean territories as far as Damascus. Parts of Philistia were reportedly captured or reclaimed, and Negeb peoples such as the Amalekites were subdued. Israelite domination over these extra-Israelite lands has often been considered part of the nationalist exaggeration of the biblical sources, which tend to aggrandize David and Solomon. Still, the idea of a quasi-imperial sprawl by the early monarchy cannot easily be rejected. The
A drawing of a deep bowl, or krater, from tenth-century Megiddo; the exterior of the vessel is on the left, and a section through the vessel on the right. It has a hand-burnished red slip typical of mid-to-late tenth-century pottery at Israelite sites in Palestine. The appearance of the distinctive red burnishing by the time of Solomon, if not already during David’s reign, may have resulted from Israelite contact with Arameans, whose pottery provides a possible antecedent for the technique.

political weakness of the power centers surrounding Palestine at this time makes such a scenario possible, as do other economic and diplomatic features of the early kingship.

Leaving aside for a moment the matter of imperial control, one can see within the traditional territorial borders of the new state aspects of material culture that reflect political unity. Tenth-century ceramic vessels exhibit considerable homogeneity throughout the land. In contrast to the preceding period, with its distinct local pottery traditions, and also to the succeeding period, in which pottery forms and wares diverge into northern and southern groups, the ceramic assemblages of the early monarchical period show many similar features. Sites of varying sizes—urban centers and more remote villages—seem to share a common ceramic idiom, at least by the mid-tenth century. The variety of new ceramic forms and features is impressive, particularly in comparison to the previous period. Despite the general difficulty of closely dating Bronze and Iron Age archaeological materials, archaeologists have been able to identify the pottery of the early monarchical era because of the ubiquitous appearance of a characteristic ware—red slip with a rough burnish applied by hand—on a variety of vessels. Careful statistical and stratigraphic analysis of these red burnished sherds has given them unusually precise chronological parameters. Emerging about 950 BCE, this pottery can justifiably be called “Solomonic ware.” Furthermore, the unburnished red-slip wares that precede them can perhaps be assigned to the Davidic period.

The relative uniformity of the ceramic repertoires of the Iron IIA period can best be explained by increase of intersite contacts effected by a centralized government. To foster exchanges, to shift labor forces, to monitor revenues, and to establish communication with local clients and leaders, a state system needs to maintain roadways and contacts with all parts of its domain. We can see this by carefully examining the distribution of pottery types in a small region of southern Palestine bordering on Philistia. A group of sites with similar ceramic horizons lies along a reconstructible Israelite trading loop; but the nearby site of Ashdod, which remained a Philistine outpost in this period, clearly lay beyond the borders of an emerging distinctively Israelite material culture.

Secure exchange routes within a territorial state are an important determinative factor in the diffusion of common pottery types within its borders. Ethnographic evi-
dence suggests that under such conditions common wares can easily be transported, usually by itinerant traders using pack animals, to markets 250 kilometers (155 miles) or more from the production site. Such a radius corresponds strikingly with the distance between the traditional northern and southern borders of Israel—245 kilometers (152 miles) from Dan in the north to Beer-sheba in the south (see 1 Sam. 3.20; 2 Sam. 3.10; 24.2; etc.). Ceramic similarity clearly requires favorable conditions for interregional travel and trade; it also can be affected by the relocation of village potters. The increases in Iron IIA population already mentioned induced out-migration from existing villages and the establishment of new ones. Village pottery traditions thus migrated to new locations along with the shifting population.

Burial practices reveal another trend toward homogeneity. The preceding Iron I period yields relatively little evidence, partly reflecting low population density and partly because making more permanent burial sites requires expenditures of time and resources perhaps unavailable to the premonarchic highlanders. Those few known examples tend to be the single interment cist graves known from Late Bronze coastal or Canaanite sites, although a few cave tombs also appear. Cave tombs are natural caves, sometimes enlarged or enhanced by hewing out receptacles for bodies. Such tombs tend to be used over long periods of time, the desiccated skeletal remains being heaped in a central repository to make room for fresh burials. The bench tomb, found in the highlands throughout the Iron Age beginning in the tenth century BCE, is an artificially constructed version of the cave tomb. A cavity is hewn out of rock outcroppings or cliffs, benches are carved along its sides to receive corpses, and a pit is dug in the center to receive bones from old burials. The grave goods also show a uniformity that mirrors the pattern of ceramics at that time. In contrast to the limited pottery repertoire of Iron I burials, Iron IIA tombs show a marked increase in the number of pottery forms and also of imported wares. Not surprisingly the latter are Cypro-Phoenician vessels, the major forms of foreign ceramics in habitation sites.

These bench tombs and their cave tomb antecedents were family burial sites, reused over generations by the members of a single family group or of related ones. The tombs contain the remains of males and females of all ages, with no differentiation by gender or age in the treatment of skeletons. The tomb group as a whole, however, represents families that had amassed some wealth. Carving out a bench tomb and depositing grave goods required resources above the subsistence level. In addition, the known tombs, even assuming that many are as yet undiscovered, could not account for the burials of the entire population. Poorer folk were laid to rest in simple pit graves with few or no grave goods, and no traces now survive.

Architectural remains of the early monarchical era show a similar trend toward innovation and uniformity. Important new building techniques and structures can be dated to the Iron IIA period, especially in its latter stages during Solomon’s reign.
According to 1 Kings 9.15–20, Solomon amassed labor forces "to build the house of the LORD and his own house, the Millo and the wall of Jerusalem, Hazor, Megiddo, Gezer . . ., Lower Beth-horon, Baalah, Tamar in the wilderness, within the land, as well as all of Solomon's storage cities, the cities for his chariots, the cities for his cavalry, and whatever Solomon desired to build, in Jerusalem, in Lebanon, and in all the land of his dominion." Besides the capital, Jerusalem, this text mentions six cities as the focus of Solomonic regional urbanization, of which only the first three have been located with certainty. Excavations at those sites—Gezer, Megiddo, and Hazor—have provided a wealth of information about the public architecture of the early monarchy.

Anthropological assessments of the material features of monarchic rule stress that the erection of structures serving regional and national needs, rather than simply domestic or local ones, are part of emerging state systems. Fortifications and other large public buildings require expenditures of capital and labor beyond the resources of smaller-scale societies. Such projects have important economic and political functions, as well as less tangible symbolic and psychological ones. They contribute to the royal administration of national territory, while also signifying the power of the king. Urban development at Gezer, Megiddo, and Hazor thus constitutes archaeological data reflecting royal administration.

A striking uniformity in public architecture appears at Gezer, Megiddo, and Hazor in the early monarchy. The dating and interpretation of the public structures at these three sites are still debated among archaeologists, but attributing them to the period of Solomon enjoys wide support. Fortification walls in the Iron Age were of two types: the solid wall, usually 2.5 to 4.5 meters (8–15 feet) thick, and the casemate wall. The latter consisted of two parallel walls, the inner usually less substantial than the outer, which averaged 1 to 1.5 meters (3–4.5 feet) wide, and the distance between the two walls varying between 1.5 and 4 meters (4.5–13 feet). The two walls are linked by cross-walls; the rooms thus formed in the wall could be used for storage. Sometimes casemates form part of the adjacent houses, suggesting that this type arose when the outer walls of a series of houses were packed tightly around the perimeter of a site, forming a defensive structure. Whatever their origin, casemate walls became rare after the tenth century. Their nearly simultaneous appearance at Gezer, Hazor, and probably Megiddo can be linked to Solomonic building activity, as can their presence at other urban sites newly emerging or reemerging on the Palestinian landscape in the tenth century.

The similarity in casemate wall construction of the second half of the tenth century is also evident in the gateways associated with those walls. The typical city gate consisted of four to six chambers, two or three on each side of the opening and projecting inward from the line of the wall. Gezer, Megiddo, and Hazor all feature six-chambered gates that are close enough in size and proportion to indicate a common architectural plan, with variations for local conditions. The façades of all three gates included projecting
towers, and the width of the central passage was exactly the same—4.20 meters (13 feet 10 inches)—at each site. The gates of the major urban sites of the tenth century were constructed with evenly dressed stone blocks known as ashlars. More costly than the roughly trimmed field stones used for most buildings of the period, these blocks occur in formal buildings—palaces and shrines—at sites that, by virtue of their strategic locations, also served as regional royal cities. The formal architectural style of these buildings often included the earliest use of a particular kind of capital, called proto-Ionic (or proto-Aeolic) because it seems to be the prototype of the double volute Ionic capital of classical Greek architecture. Its curved volutes have their origin in the palm tree motif ubiquitous in ancient Near Eastern art. More than thirty-five such capitals have been discovered in Palestine, all at six or seven urban centers. The earliest two come from tenth-century Megiddo.

The high quality and uniformity of these features of the monumental architecture of the tenth century represent a building style that may have been designed in the United Monarchy by an unknown royal architect. It became popular thereafter in both kingdoms of the divided monarchy, as well as at neighboring Phoenician and Philistine sites. Some architectural historians suggest an Israelite origin for these fine Iron Age construction techniques and embellishments; others point to precursors in eastern Mediterranean culture at the end of the Late Bronze Age. Whatever their origin, their presence
Six-chambered tenth-century gate at Gezer. This view, looking out from the city, shows the three guardrooms on each side and the wide drainage channel (which would have been covered) running down the center.

in the fortifications and palaces of regional centers is evidence of how the centralized government housed and protected the officials who carried out state policies.

Another kind of large building at several urban centers provides further evidence of state economic and political policies. These large rectangular structures, as big as 11 × 22 meters (35 feet 9 inches × 71 feet 6 inches), are subdivided into three internal longitudinal sections by two rows of internal columns running the length of the building. The prominence of the columns led archaeologists to call them “pillared buildings,” a fortunate designation in light of a controversy over their function: were they barracks, stables, or storehouses? Whatever their function, their origin in tenth-century royal cities can be related to political centralization—to the stationing of cavalry units in strategic cities (see 1 Kings 9.19), to the provisioning of officials loyal to the crown, or to the storage of materials being exchanged on the trade routes of the early state.

The urban architecture of Iron IIA was distinctive, as were the cities themselves. The preceding Iron I period saw deurbanization throughout Palestine. The rise of a state system in the tenth century BCE coincided with an urban revival within the boundaries of the Israelite national territory. Most of the new urban centers were built on the sites of the old Bronze Age cities, although a few represent the continuation of Iron I village sites. The Iron II cities in some ways continue the Bronze Age urban traditions in their
layout and location. But differences in size and in internal building types are indicative of a nation-state, rather than of the autonomous city-states of the Bronze Age.

As a whole, the Iron IIA cities—even major royal centers such as Gezer, Hazor, and Megiddo—are smaller than their Bronze Age precursors. Other cities were even smaller, with differing layouts and building types, and often they lacked fortifications or other prominent public buildings. With their dwellings crowded together in irregular fashion, many were villages grown large. Thus they differ in character from most Bronze Age urban sites, which were relatively independent political units, each featuring buildings that served the economic, military, royal, religious, and residential functions of a self-governing entity. Iron IIA cities, smaller and less complex, were part of a centralized state, with many governing functions reserved to the capital city or regional centers. The presence of a national state effected a new mode of urban existence.

One other feature of the royal cities mentioned in 1 Kings 9 is salient. The three cities that have been only tentatively identified seem to be located at strategic locations: Beth-horon, commanding the major access to Jerusalem from the north; and Baalath and Tamar, probably situated at the southern and southeastern borders of the kingdom. The three known sites mentioned in 1 Kings 9 are especially well placed. Gezer occupied one of the most important crossroads in ancient Palestine, guarding the place where the ascent to Jerusalem and other highland sites branches off from the major north-south coastal route, the “Way of the Sea.” Thus it protected southern trade routes and was also critical to the defense of Israel’s southwestern border, on the edge of lands still controlled by Philistines or sought by Egypt. Megiddo had a similar strategic importance because of its location near the intersection of the “Way of the Sea” with routes through the Jezreel Valley toward the east. Finally, Hazor commanded a strategic position at the junction of the main north-south highland route, connecting northern Palestine with the Phoenician coast and with the east-west highway extending toward Damascus.
One of two large pillared buildings at Megiddo. Some archaeologists interpret them as stables, with two rows of columns marking the center of a room and the spaces on either side used for tethering horses. Others identify this building and similar ones at other sites as storehouses. Buildings with both functions would be expected in a royal city. The structure shown here probably dates to the ninth century BCE, but the line of flat stones just to the left of the right line of columns may indicate an earlier, tenth-century pillared building.

It is no coincidence that these three cities occupied the three main intersections of the historic trading routes of the eastern Mediterranean. In addition to serving as regional centers, they were fortified and equipped with the administrative machinery and appropriate large-scale buildings to secure international trade in the Solomonic period. Whether this trade had already begun in Davidic times is difficult to ascertain. Most likely, foreign conquests and tribute provided the luxury items and other materials not available locally for the newly formed state and its bureaucrats from the beginning of the monarchy. Still, the cessation of warfare during Solomonic rule meant an increase in international trade connections during the middle to late tenth century. The brief flowering of central Negeb highland settlements in that period belongs to the same picture of commercial internationalism.

Other material remains also give evidence of a flourishing foreign trade. Imported wares, absent from the limited ceramic assemblages of the Iron I period, begin to appear in large quantities in the tenth century. Most prominent of these is the so-called Cypro-Phoenician ware, a designation for fine or luxury vessels usually covered with a red slip and decorated with black concentric circles. Cypro-Phoenician ceramic vessels from
abroad fed into an internal distribution network comprehensive enough to ensure their wide availability. The prosperous trading cities of the Phoenician coast, the source of these wares, also provided materials and technological expertise for building projects associated with Solomonic if not Davidic rule (see 2 Sam. 5.11; 1 Kings 5.1-12; see also 1 Chron. 22.3-4).

Iron objects, also indicative of international trade, appear in significant numbers for the first time in the tenth century. Indeed, twice as many iron artifacts have been recovered from Iron IIA contexts as from Iron I sites. Only in the tenth century did iron begin to play a significant role in political, economic, and military aspects of Israelite life. Its greatly increased use in weaponry, in tools for expanded agricultural activity, and in prestige items met various needs of the early monarchy.

The availability of iron, Phoenician pottery, and other imported goods depended for the most part on overland trade routes secured by the regional royal cities and the southern Negeb outposts. But maritime activity played its role in early monarchical international trade. The Philistine coastal city at Tell Qasile, probably destroyed by Davidic forces, became an Israelite port city, as did other contemporary sites on the Mediterranean. One of them, Tel Dor at the foot of Mount Carmel, was a Phoenician colony in the eleventh century. By the late eleventh century and then in the tenth, it became Israel’s leading harbor town, facilitating trade with Phoenicia and Cyprus. Other sea trade toward the south is known only from texts, notably the claim that Solomon built a fleet of ships to sail south from Ezion-geber at the Red Sea to acquire precious items, such as the highly valued incense, spices, rare woods, and gemstones of South Arabia and East Africa (see 1 Kings 9.26-28; 10.11-13). Archival records of Assyrian trade and its commodities from periods both earlier and later than the tenth century attest to the long history of trade in these items. Monarchic Israel had every reason to participate in that trade by southern sea routes connecting with overland caravans.

A major impetus for seeking secure routes and a lucrative international trade stemmed from the special needs and strategies of the state system’s urban nerve center, its capital. Saul is said to have ruled from Gibeath in Benjamin, although the biblical texts associating him with that site (probably Tell el-Ful just north of Jerusalem) are beset with difficulties. David first established his power base at Hebron but ultimately moved it to the city forever associated with his name: Jerusalem, the core of which was known as “the city of David” (2 Sam. 5.7). Whether David acquired Jerusalem by conquering its Jebusite inhabitants or through negotiation with them is uncertain. But the strategic brilliance in establishing a capital city outside the traditional areas of any existing tribal groups is clear: Jerusalem and its public buildings were a unifying factor in the early monarchy.

Archaeological evidence for the royal and administrative capital of the new monarchy is disconcertingly poor, especially in comparison with the recovery of so much
from the regional centers of Solomon's day. After more than a century and a half of archaeological excavation of the city of David, virtually no structural remains of the tenth century can be identified securely. Even the monumental "stepped stone structure," for decades thought to be part of Davidic construction activity, has recently been dated to the end of the Late Bronze Age (although it is likely to have been reused during the Iron IIA period as a retaining wall for the royal precincts built then). The same is true for "Warren's Shaft," a subterranean water channel at first identified with the "water shaft" mentioned in 2 Samuel 5.8 in connection with the Davidic capture of Jerusalem; some archaeologists now date it later than Iron IIA. Only fragmentary walls and scattered artifacts, none of which elicit images of the monumentality and grandeur of what David and Solomon are said to have constructed in Jerusalem (2 Sam. 5.9; 2 Kings 5-7), incontrovertibly belong to the period of the early monarchy.
Yet the biblical record of monumental architecture in Jerusalem is not fictitious, and the discrepancy between textual records and material remains should not be used to discredit the former. The very importance of the city and its public buildings led to the obliteration of the earliest Israelite structures. For thousands of years successive rebuildings, many of which sank foundations down to bedrock, have disturbed earlier remains. The sanctity of the temple-palace precinct especially attracted continual construction activity. Indigenous kings as well as the foreign imperial powers that controlled the city often tore down and built anew its most important buildings. That three prebiblical religious traditions—Judaism, Christianity, and Islam—have vied for position at sacred locales, putting many sites off-limits for excavation, has further contributed to the archaeological nightmare.

Jerusalem’s ancient conquerors, moreover, routinely destroyed the public structures of the enemy and carried off as spoils its wealth (see 2 Kings 25.8–17). Because public buildings symbolized the state, demolishing or taking possession of them invariably followed a conquest. Even if one could excavate under the present-day shrines and holy places, some right over the sites of ancient ones, few if any coherent traces of the monumental architecture of the tenth century would turn up.

A different kind of archaeological data, however, underscores Jerusalem’s pivotal role. Surveys in the eastern Judean hill country, in addition to showing the increased settlement density of the Iron IIA period, also indicate that these settlements belonged to a more extensive territorial unit. The arrangement of sites on the tenth-century
landscape points to a center—Jerusalem—outside the region. This recent interpretation of settlement patterns provides some assurance that the biblical texts’ depiction of Jerusalem as national center is rooted in reality.

Finally, we can test details recorded in the biblical description of the two major buildings in the capital—the Temple and the adjacent palace—against what we know of construction technology, architectural styles, and artistic motifs of the tenth century BCE. All have parallels in structures and artifacts discovered at ancient Egyptian, Phoenician, Syrian, Assyrian, Canaanite, and Hittite sites. The royal palace described in 1 Kings 7.1–11 had at least five units, the largest of which was called the House of the Forest of Lebanon because of its extensive use of cedar beams and pillars imported from Lebanon. Another unit, the Hall of Pillars, with its colonnaded entryway and its access to other units of the palace complex, may have resembled the Near Eastern bit-hilani structures. Most of the parallels, however, postdate the tenth century, a “dark age” in art and architecture because of the decline of the historic centers of political power in that period. This leaves Israel, with its reported construction of an extraordinary temple-palace complex in Jerusalem, as a trendsetter in the material world of its day. Ancient Israel is best known in postbiblical religious tradition for its spiritual and literary contributions, for its wisdom documents and prophetic calls for justice. But for one brief period in the millennium or so of its history it may have taken the lead in artistic creativity.

Sociopolitical Features of the Early Monarchy

The military, techno-environmental, and demographic factors leading to state formation in early monarchical Israel, along with the spread of new settlements and the proliferation of public works, inevitably meant changes in the patterns of local leadership and in the relatively equal access to resources characteristic of the preceding Iron I period. Village, clan, or tribal elders lacked the supratribal power necessary to establish and equip a successful army, to move goods and people, and to embark on the monumental construction projects necessary for the administrative structures of the emergent state’s extended territory. The archaeological record leaves no direct trace of the different levels of human activity and status connected with new sociopolitical arrangements. Thus scattered clues in the biblical narrative are important, as are social-science models, if used cautiously.

Most of the scarce biblical information about the earliest decades of the monarchy concerns military operations. We learn that Saul created a standing army (1 Sam. 13.2) under his direct command, but presumably with high-ranking officers in addition to his own son Jonathan and his cousin Abner (1 Sam. 14.50). He also seems to have appointed a priestly officer (1 Sam. 14.3, 18), a supervisor for his staff (1 Sam. 21.9),
and someone to be in charge of his pasturages (1 Sam. 21.7). These textual references
to administrative positions indicate a small nucleus of state officials. With a relatively
tiny capital at Gibeah and a focus on warfare, there would have been little time, need,
or resources for complex organizational development. But Saul’s military successes, and
then David’s, ultimately did necessitate organizational complexity. At the same time,
victory in warfare, with spoils and tribute, provided an economic base for specialists
and workers in the overlapping domains of judicial, religious, commercial, diplomatic,
and constructional activities.

As might be expected for a king who ruled longer than Saul and whose reign eventually
saw the cessation of conflict, David expanded and systematized his predecessor’s
rudimentary administrative structures. The most direct evidence for the organization of
the new state under David and then Solomon comes from three lists of high officials
given in 2 Samuel and 1 Kings. (See table 5.2 for the positions listed, in the order given
in the texts.) The second of the two listings for David, presumably dating later in his
reign than the first, indicates the adjustments he made as he gained experience in royal
office. The most significant are a doubling of military officials; a shift from David’s sons
to Ira of the post of a palace or Jerusalem priestly officer, the second priestly official in
both lists; and the addition of an overseer for the labor forces.

The double set of military officers—one commanding the army, presumably an
Israelite muster, and the other in charge of the Cherethites and Pelethites, two foreign
mercenary units—reflects the importance of the fundamental source of royal power:
the coercive strength of the military. The two types of military forces can be related to
the king’s efforts to maintain his troops’ allegiance. The mercenaries, sustained and
supported away from home by the crown, served the king directly and were inherently
well controlled by their commander. A standing army is another story. The books of
Samuel mention the king distributing spoils of war (1 Sam. 22.7; 30.21–25; see also 1
Sam. 17.25), an act meant to help secure the army’s loyalty. Another important aspect
of the army and its faithfulness is that its leadership core consisted, for Saul, of fellow
Benjaminites (1 Sam. 13.2; 22.7), and for David, fellow Judeans (1 Sam. 22.1–2). Like-
wise, Judeans in general, and not just those who served as soldiers, benefited materially
from the successes of their kinsman David (1 Sam. 30.26–30; see also 2 Sam. 19.42;
20.2). Although David was commander in chief, he appointed “cabinet-level” chiefs of
staff to maintain tight control of his military power base.

The double set of priestly administrators reflects another crucial aspect of royal
control. Royal rule depended in part on priestly groups stationed at shrines throughout
the kingdom. Their appointment, perhaps accompanied by personal land grants, was
from the crown and thus ensured loyalty to the throne. With the royal and ritual gov-
ernments inextricably linked, priestly officials had more to do than simply perform ritual
acts. Their business also included communications, adjudications, and the collection of
Table 5.2 Officers under David and Solomon

<table>
<thead>
<tr>
<th>2 Samuel 8.16–18</th>
<th>2 Samuel 20.23–26</th>
<th>1 Kings 4.1–6</th>
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<td>(David)</td>
<td>(Solomon)</td>
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<tr>
<td>Over the army</td>
<td>Over the army of Israel</td>
<td>Priest</td>
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<tr>
<td>Recorder</td>
<td>Over the Cherethites and Pelethites</td>
<td>Secretaries</td>
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<tr>
<td>Priests</td>
<td>Over the forced labor</td>
<td>Recorder</td>
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<tr>
<td>Secretary</td>
<td>Recorder</td>
<td>Over the army</td>
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<tr>
<td>Over the Cherethites and Pelethites</td>
<td>Secretary</td>
<td>Priests</td>
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<tr>
<td>Priests (David’s sons)</td>
<td>Priests</td>
<td>Over the officials</td>
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<td>David’s priest (Ira)</td>
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<td>Over the forced labor</td>
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revenues (in the form of offerings), although these functions may have overlapped with traditional procedures under the control of village and tribal elders. The network of priestly officials was closely linked to the redistribution of goods and thus deserved high-level government supervision.

Finally, the second Davidic list of officials contains an officer not found on the first list: a labor supervisor. Military success brought spoils of war, which filled the royal and priestly coffers (see especially 2 Sam. 8.7–12 and 12.30, and also 1 Sam. 15.9 and 27.9) and secured the loyalty of the army and key officials; and it also brought war captives into the kingdom. According to the narratives, foreign servants came from Ammon, Moab, and Edom, as well as from the various Aramean cities that David encountered in his campaigns to the northeast (2 Sam. 8.2–14; 12.31). These captives constituted a workforce, with their own chief administrator, for the building projects initiated by David (2 Sam. 5.9, 11; 12.31; see also 1 Chron. 22.2). The massive public works of the early monarchy are attributed to Solomon and were certainly completed during his reign. Yet some biblical texts suggest that Davidic military operations brought two important resources: capital, from spoils and tribute; and labor, from war captives. The local economy alone could not have supported such projects without severe deprivations.
to the indigenous subsistence farmers, nor would local residents endure the hardship of construction-gang work with much enthusiasm. Thus the wealth and labor acquired through war provided the human and fiscal resources for erecting the nation-state’s material structures. It would be a stretch to claim imperial control in the tenth century for the Jerusalem-based monarchy. Yet the small states or city-states between Palestine and Assyria, which normally paid tribute to one or another of the Mesopotamian states or to Egypt, could well have directed such payments to Jerusalem during the ascendancy of Davidic rule and the weakness of the traditional powers.

The monumental building projects of the early monarchy were crucial to the new regime. Such projects enhanced the image and status of the ruler and his bureaucracy. They won support from the newly appointed officials, or clients, whose loyalty depended on getting their share in the riches and on their access to the lifestyle of the royal court. Finally, monumental structures functioned as visual propaganda, announcing to neighbors that Israel had the military might to secure the resources to build them—and thus to demand the continued flow of tribute to the new capital. In such ways, monumental building projects, by integrating resources and labor, signified the emergence of a state system. At the same time they signaled the state’s coercive potential.

Other than the lists of David’s cabinet in 2 Samuel 8 and 20, little can be gleaned from available sources about the administrative structure of the kingdom. The governing class—courtiers, officials, generals, wealthy merchants and landowners, priestly leaders—constituted only a tiny fraction of the total population. The biblical texts concerning the monarchy contain a strong tradition of the elders and “all the people” having a voice in governance, suggesting that the Israelite monarchy was not a strongly authoritarian regime—not an “oriental despotism” such as some social scientists have modeled. Rather, it was more a participatory monarchy, with many royal decisions presumably both limited and directed by consultation with wider popular interests.

The advent of Solomonic rule, not surprisingly, brought in its wake a more elaborate set of bureaucratic functions. The passages in 1 Kings 4.7–19 and 27–28 describing the twelve officials “who provided food for the king and his household” (each for one month of the year) indicate new administrative hierarchies. This list of officers and their regions partly approximates existing tribal units but in other places diverges from them. Indeed, the list is full of places and names that resist conclusive identification. The known places also are irregularly scattered, and there are overlaps. Thus it is unlikely that, in establishing this set of officials, Solomon was setting up new administrative districts in order to break down existing tribal boundaries and thus tribal loyalties. It is more useful to focus on the functions of the officials in the list.

The twelve officials provisioned the royal establishment, and they supplied fodder for the royal horses. These officers may have served as a rudimentary tax-coll ecting organization, each charged with collecting in his district sufficient foodstuffs for the
court and its steeds. But at least some taxation was channeled through the priestly hierarchies. Another possibility for these officials and the strange topography of their bailiwicks is that they managed crown properties or plantations—lands confiscated or captured by David from pockets of non-Israelite settlements. This explanation accounts for the striking absence of an official in Judah. The New Revised Standard Version, with several Greek manuscripts, supplies "of Judah" at the end of 1 Kings 4.19; but the Hebrew omits reference to Judah. Presumably, no royal estates in Judah were meant to supply provisions for the court. This fits David's policy of favoring his own tribe with the fruits—lands as well as goods—of his military accomplishments.

The Solomonic "cabinet" list in 1 Kings 4.1–6 for the most part retains the officers established by David. The few modifications reflect the changing organization of the early state. To begin with, there are now two "secretaries"—officials perhaps charged with record keeping and/or diplomatic correspondence, which increased significantly in Solomon's reign. The role of the military is reduced: the chief army officer no longer comes first, and an officer over mercenary forces has been dropped. Apparently Solomon, while holding a considerable supply of arms and chariots along with a standing army, did not wage wars. Rather, he maintained control through diplomacy over the territories conquered or forced to pay tribute by David's war efforts. His legendary coterie of wives and concubines, criticized by the DH (which records their presence in Jerusalem), represents liaisons with tributary states secured through marriage or concubinage (1 Kings 11.1–8).

That such "foreign affairs," which maintained a flow of goods to the capital (1 Kings 4.21), resulted from his diplomatic skill is suggested by Solomon's association with wisdom and wisdom literature. The narrative of his legendary relationship with the queen of Sheba (1 Kings 10.1–10) builds on his fame as a wisdom figure. In addition, the DH reports a special source, the Book of the Acts of Solomon, for the Solomonic segment of the Samuel-Kings account of the monarchy. This is the only such source cited for a single king; such a work is not even mentioned for David. The use of a special source is indicated by the way 1 Kings 3–11 constitutes a highly structured and self-contained work, unified by the themes of wealth, honor, and wisdom. That source provided information about "the acts of Solomon, all that he did as well as his wisdom" (1 Kings 11.41). Solomon's reputation for wisdom is an aspect of the internationalism of his reign. He succeeded in maintaining Davidic holdings not by battle but by persuasive speech, backed by a well-stocked arsenal and the reputation of his father's brilliant military leadership.

Other changes in the list of Solomon's cabinet indicate a growing bureaucracy. An added official "in charge of the palace" was perhaps the majordomo overseeing the elaborate palace complex, now visited by many foreign emissaries as well as by local officials. The person designated to serve "over the officials" was another new cabinet
officer, appointed to coordinate the twelve officials charged with supplying provisions for the court on a monthly basis. Finally, the priestly representation on the cabinet expands, as one might expect in a state erecting a major temple building; there is now a third priestly officer, the “king’s friend,” who perhaps integrated the sacral and secular functions of the Temple institution with those of the royal administration.

An officer in charge of the labor forces remains on the list, as the need to oversee the workers in building projects, begun by David, continued and expanded during Solomon’s rule. The question is, who were the laborers? Davidic claims to have secured prisoners of war for laborers appear likely. A similar claim is made for Solomon—he conscripted a levy of “forced labor out of all Israel” (1 Kings 5.13), a workforce that, according to 1 Kings 9.20–22, consisted only of non-Israelites still remaining within national territories. This claim seems dubious because of counterclaims in 1 Kings 11.28 and 12.10–11 about Solomonic conscription of Israelites for work gangs. Those texts, however, form part of DH’s rationale for the breakup of the United Monarchy, so that Solomon’s maintenance of a foreign rather than a domestic labor force remains likely. Even the famous protest (1 Sam. 8.11–17) against a state system attributed to Samuel stops short of warning the people that they would be conscripted into labor gangs; they would serve in the military and in service professions but their servants (presumably nonnatives) would work on state projects.

Sacral-Royal Ideologies of the Monarchic State

The ability of a national ruler to exercise power over a large group of people—over kinship groups with which he has little or no connection—was facilitated by military successes, by favorable redistribution policies (2 Sam. 6.18–19), and by securing loyal subjects and staff through both those means. All these processes are related to or contingent upon an ideological component of royal rule. A king’s power ultimately rested on and was legitimized by a series of symbolic acts, attitudes, icons, and structures connecting the king with the deity and human kingship with divine rule. Ancient Israel clearly shared in this fundamental aspect of the construction of kingship, both in its general features and in its specifically Near Eastern manifestations. The king in Israel was accepted because he was perceived as appointed by Yahweh; and Yahweh’s character in turn was increasingly and richly expressed by the metaphor of divine kingship.

The conceptualization of the right of a king to rule over his subjects appears, for example, in the use of anointing as part of the ritual of accession to the throne. Anointing a king to office is a religious rather than a secular act throughout the ancient Near East, as elsewhere. Samuel pours oil on Saul’s head, but Yahweh is attributed with anointing him ruler over Israel (1 Sam. 10.1). The elders make David king at Hebron by anointing him because Yahweh instructed that he thus be made ruler over Israel (2 Sam. 5.2–3;
see also Ps. 89.20). And the priest Zadok anoints Solomon, with the prayer that Yahweh ordain his rule (1 Kings 1.35–39). Royal as well as priestly recipients ofunction are designated “Yahweh’s anointed” (for example, 1 Sam. 16.6), never “Israel’s anointed.” The ceremony of anointing was a sign of divine election and legitimated the king’s right to rule.

Another aspect of Near Eastern kingship ideology that finds its counterpart in ancient Israel also emphasizes the divine-human connection: the king is said to be the “son of Yahweh.” This appears in the adoption formula of 2 Samuel 7.14, where God says of Solomon: “I will be a father to him, and he shall be a son to me.” In several psalms (Pss. 2.7; 89.26–27; and perhaps 110.3) the Israelite king, probably David, is presented as God’s (firstborn) son. These texts are all difficult to date and may not come from the period of the early monarchy. Yet the wide occurrence of “son of god/goddess” as a royal title in the ancient Near East makes it likely that this familiar way of expressing divine sanction for a human ruler was part of the ideology accompanying the establishment of kingship in Israel. The use of son-of-god terminology, however, does not necessarily mean that the king himself was considered divine. Near Eastern sources vary in this respect, with Egyptian rulers claiming actual divinity but Semitic ones, Israel included, using the concept metaphorically to connote divine sanction for dynastic power.

These aspects of royal ideology are recovered mainly from Near Eastern and biblical texts. Yet the most important representations of royal-sacral ideology were communicated visually, through crowns (2 Sam. 1.10; 2 Kings 11.12; see also Ps. 132.17–18), scepters, garments, and thrones (2 Sam. 14.9; 1 Kings 2.12). These symbols of royal power are also accoutrements of divine rule in Near Eastern iconography; indeed, deities are signified in art by their distinctive headgear, clothing, and insignia of office. In Israel, with its aniconographic stance precluding images of God, the throne especially served as a visible sign of Yahweh. The many enthronement and other royal psalms conveyed the idea of Yahweh’s royal power (Pss. 47.8; 89.14; 93.1; etc.), as did the references to God enthroned on cherubim (Pss. 80.1; 99.1; Isa. 37.16). The ark of Yahweh (or of the covenant, or of God) with the attached cherubim was conceptualized as Yahweh’s throne (1 Sam. 4.4; 2 Sam. 6.2). Just as God ruled from a throne in a heavenly abode, so divine presence and power emanated from an earthly structure—a temple. The ark was placed within the Temple as the locus of Yahweh’s unseen reality. The Temple building itself served many of the integrative functions of an emerging nation-state, and it was also the primary visual representation of the divine election and sanction of the king who built it and of his dynastic successors. Royal authority compelling people to act against individual or kinship group interests was powerfully legitimized as God’s will as represented by God’s earthly dwelling in the capital city.
The idea of constructing the Temple in Jerusalem probably originated with David. The various stages of temple building are well known from other ancient Near Eastern states, and David seems to have carried out most of them. The explanation of the DH about David's failure to complete the project—1 Kings 5.3 attributes it to his preoccupation with military operations—probably has validity. At the same time, the census attempted by David (2 Sam. 24), perhaps related to the need to secure revenues for construction projects, coincided with one of the era's periodic and deadly outbreaks of pestilential disease. Such a trauma, understood as a sign of divine disfavor, would have sufficed to keep David from temple building. Instead, he is said to have brought the major icon of the premonarchic era—the ark of Yahweh—to Jerusalem (2 Sam. 6.17) and to have constructed the future Temple's altar on the very site where the Temple would stand (2 Sam. 24.25; 1 Chron. 22.1). Whatever David's role in initiating the process of building and dedicating a temple, it was Solomon who completed it.

If the ark was a national or Israelite symbol of divine presence, effective in communicating to the people of the realm that God favored the king and his bureaucracy, the Temple was essential for projecting that message internationally. Israelite forces achieved military dominance over neighboring states or areas; the legitimization of that political dominion was then made known through the Temple to the tribute-bearing envoys and other representatives of non-Israelite polities who came to Jerusalem. The newly established capital in Jerusalem could not effectively serve its diplomatic, imperialistic, and national functions without the visual sign of Yahweh's sanction of the monarchy.

The artistic and architectural features of the Solomonic Temple are known principally from 1 Kings 5–7. According to that detailed description, the resplendent tripartite building and its accoutrements contained elements recognizable in the Phoenician, Egyptian, Canaanite, Aramean, and Neo-Hittite artistic vernacular of the Iron II period. Representatives of all the foreign peoples either dominated by the early monarchy or with which it had established at least parity, as well as Israelite pilgrims and tribal officials visiting Jerusalem, would see the Temple as a symbol of the Israelite god's presence and power. The Temple's architectural and artistic conventions thus formed a visual idiom meaningful to the widest audience.

Two gigantic pillars stood at the entrance to the Temple, each 23 or more cubits (over 10 meters [33 feet]) high and bearing the enigmatic names Jachin and Boaz. As freestanding columns, they flanked the building's forecourt (NRSV "vestibule"), just as pillars marked the monumental gateways of sacred precincts throughout the ancient Near East. Carved reliefs of such gateways show that the completion of a temple was marked by a grand procession and celebration, which brought the statue of the realm's
A reconstruction of the First Temple in Jerusalem. Based on the description in 1 Kings 6–8 (par. 2 Chron. 2–4), the structure would have been about 32 meters (105 feet) long, 10.7 meters (35 feet) wide, and 15.8 meters (52 feet) high.

chief god into the temple. The 1 Kings 8 account of bringing the ark into the Jerusalem Temple depicts just such a significant religio-political act: installing a deity into a new abode. The highly visible pillars—the only elaborately decorated elements in the otherwise stark and plain exterior of the Temple—thereafter communicated the legitimizing presence of Yahweh to all onlookers.

The interior of the Temple in Jerusalem, like most other such buildings in the ancient Near East, was not a place of public worship. Rather it was the dwelling place of God’s unseen presence, entered regularly by just a few senior priestly officials. The size of the Temple building, considerably smaller than the adjacent palace in the royal-sacral precinct of Jerusalem, thus does not mean that it was simply a royal chapel nor that God’s house was less important than the king’s house. The palace complex was inhabited by scores of people and was the major government building; its interior space needs were considerably greater than that of a temple that was home to a single deity. Yet the Temple had important exterior space—courtyards for sacrificing and where pilgrims could gather. In addition, the Temple interior was flanked by an extensive, three-storied series of side chambers, all contained within the exterior walls of the building, that served as storage rooms for the valuable items of tribute acquired by David and Solomon (see 1 Kings 7.51), as well as for items received as offerings. Befitting its role as a national treasury, the building itself in architectural plan was fortresslike in its exterior appearance—looming high above its platform and surrounding courts. While its interior space was smaller than that of the palace complex, its main hall, lacking interior columns, was as large as such a space could be; and the building as a whole was larger than any other known sacral structure of its time in the Levant. Jerusalem thus became the core of a royal Zion theology heralding Yahweh’s choice of the city as the seat of dynastic rule and concomitant divine presence.
Change and Continuity in the Period of State Formation

The monumentality and grandeur of the Jerusalem Temple did not mean that it replaced local shrines. The diverse expressions of religious life in villages and cities distant from the capital continued, and local priestly families remained important in various aspects of community life. Regional centers of worship from the tenth century have been located, for example, at Megiddo and at Taanach, each with its own repertoire of vessels and ritual objects, not all compatible with Jerusalem ideology; later Deuteronomic and prophetic tirades against such local shrines provide further evidence. The continuing existence of these religious centers is just one dimension of the complex dynamics of the transition to statehood in ancient Israel. The emergence of the state did not obliterate other existing features of Israelite culture, and not everyone was caught up in the political, religious, and economic culture of a dynastic state.

The persistence of strong kinship-based culture in monarchical Israel is apparent in the Bible’s continued attention to tribal identities and territories. Indeed, tribal ideology colors the stories and narratives of Israel’s premonarchic period, materials that apparently took shape under the monarchy. While tribal structures and values may be at odds with those of a state, they can also be complementary and supportive of the state’s stability, as ethnographic evidence shows. This is particularly true when tribal solidarity, manifest in grassroots support for local lineage heads, is transferred to the crown, as in the Judean segment of the premonarchic tribal units. Supratribal administrative organs diminish aspects of tribal influence and power; but in smaller villages and settlements, and among those distant from the central or regional authorities, group identity and loyalty normally abides in the kinship and clan units that constitute the tribe.

Legal cases, for example, tend to be decided at the lowest available authority level. Family households resolve the simplest disputes. As societies become larger and more complex, the family locus of managing conflict is complemented by the formation of
lineage judicial authorities—the elders. When disputes cross lineage lines, clan or tribal leaders conduct legal proceedings. The problems of premonarchic Israel that led to state formation included those requiring supratribal authority to deal with disputes. In biblical texts associating the king with justice, David holds a paradigmatic role. The connection of monarch with judicial authority represents general social stability under a state system. In terms of everyday adjudication, the king acts as a kind of highest court of appeals—the court of last resort. The incident in 2 Samuel 15.1–6 seems to represent a rival's distortion of David's success in settling claims (see also 1 Kings 3.16–28, where Solomon's adjudication is linked to his wisdom). Yet royal or national-level adjudication was the exception rather than the rule; the absence of a cabinet-level judicial officer from the Davidic and Solomonic lists is significant in this regard.

The sociopolitical shift involved in Israelite state formation did not mean organizational discontinuity. Many elements of pre-state society were surely left intact for a long time after the emergence of a new political structure and its accompanying ideologies. Nor did the new administrative apparatus entail the dissolution of prior ones; the state added layers of sociopolitical organization to existing ones. The successful functioning of the state system thus depended on the continued operation of kinship structures, and state and tribe were not in constant and inevitable tension.

Yet the Bible does express reservations about centralized monarchic government. Most noteworthy are the antimonarchic passages of 1 Samuel (8.4–28 and 10.17–19; see also 1 Kings 12.1–4 and the "law of the king" in Deut. 17.18–22), in which Samuel warns the people about negative aspects of a state system. The dating of these texts is unresolved, although the weight of the evidence seems to preclude an authentic eleventh-century speech of Samuel. State systems are usually not contested by a groundswell of public complaint against monarchic hierarchies, policies, conscription, or even taxes. Rather, they break down as the result of jealousies among leadership factions over the perquisites of being at the top of a distribution system that clearly advantages the king and his courtiers. In this regard, the legendary accounts of usurpers and of succession struggles in the books of Samuel and also in Kings reveal the true nature of the opposition: to the privileges of individual kings and their followers, not to kingship itself. From the outset the monarchy was meant to be dynastic. David was in fact a wildly successful usurper, however the later pro-Davidic narrative of the DH justifies his replacement of Saul's line. Having established a loyal patronage among Judeans, the army, and a priestly faction, David was well situated to move into the position of God's chosen one once Saul had died. Yet his sons struggled against each other to achieve their father's vaunted power, and Solomon's heir was opposed and ultimately rejected by a northerner.

Those who claimed the throne often argued that they simply represented a constituency from among the people. In fact, they hoped to win for themselves the benefits of
life in the palace. Judeans, favored by the crown, had no problems with royal power. But northern leaders grumbled that the wealth of the capital did not sufficiently extend to them. During David’s reign and for much of Solomon’s, the flow of spoil and tribute meant that the tax burden for the royal building projects was minimal or perhaps even nonexistent, if David’s failure to complete a census is any indication. Similarly, the use of Israelites in forced labor crews was never an issue, at least while the supply of prisoners of war and their offspring was maintained (1 Kings 9.20–22).

Another dichotomy in Israelite society was in some respects more important than the tribe-state or kinship-kingship one. Near Eastern kingship was overwhelmingly an urban phenomenon. The urbanization reflected in David’s development of Jerusalem and in the Solomonic program of establishing regional centers, and perhaps storage and chariot cities (1 Kings 9.19), was epitomized by the lifestyle in the capital. However exaggerated it may be in the biblical account, the ruling urban elite of Jerusalem enjoyed the material benefits accruing to the leaders of a state system.

That lifestyle, and the visible differentials of wealth, had little effect on the rural villages under the early monarchy. The ideology of the Bible claims a national unity that was unlikely as yet to have existed, socially or economically. In this sense, modern occidental ideas of a nation-state prevent us from understanding that the early state in Israel had more in common with the Bronze Age traditions of city-states, writ large, than with a state composed of a citizenry all directly affected by and identifying with the state. At least during the period of the United Monarchy, when state expenses were met from extranational sources, the royal house did not reshape existing economic patterns nor fund its projects with surpluses extracted from the farmers. Indeed, Solomon’s budgetary excesses were resolved by ceding property to the Phoenicians rather than by securing funds internally (1 Kings 9.11–14; see also 1 Kings 5.11). Conversely, the flow of goods and imports to the capital had little impact outside the temple–palace complex; they reinforced and legitimized royal rule but hardly percolated into the countryside.

The tenth century saw the recovery of tribal lands lost to Philistines, the capture or incorporation of nontribal enclaves still surviving in tribal territories, the development of regional centers, and the establishment of trade routes. The different ecological niches of the country could thus be exploited more advantageously, with less risk to the individual farm family, to support the burgeoning population spread out in new settlements across the land. Most of that population lived in agrarian villages, not in cities. Even Jerusalem in this period was a relatively tiny city with a small population, consisting mostly of government officials and servitors with their families. With exceptions such as crown lands serving as royal plantations, the tenth-century economy was based in the family. Each household remained a discrete production unit, functioning in and around residences identified as the typical pillared (three- or four-room) house of
A Cypro-Phoenician juglet. This vessel (ca. 13 centimeters [5 inches] high), from a cemetery at Tell el-Ajul, south-west of Gaza, is an example of the imported pottery that begins to appear in Israel in significant numbers during the tenth century BCE. Most of such well-made, carefully decorated vessels were made in Cyprus and exported throughout the eastern Mediterranean during the Iron II-III periods.

Israelite settlements throughout the Iron Age. Each household was relatively self-sufficient, producing and processing its own food and clothing except for some agricultural products acquired in exchange for what specialists such as metallurgists provided. The royal hierarchies of Jerusalem, and later those of the other developing urban sites, had no counterparts in village life. Even in the larger villages, household buildings were strikingly uniform in size. (See figure on p. 234.) There may well have been wealth differentials, expressed in greater access to luxury goods rather than in increased house size, but differences in wealth are not the same as a class system. Whatever status accrued to lineage or clan leaders in the segmentary society that preceded the monarchy continued, and such status was distinct from class hierarchies.

The continuation of agrarian village life, relatively untouched in any negative ways by the tenth-century monarchy, had implications for gender relations. In the pre-state period senior males and females in the family households stood in relative parity with respect to subsistence specialization, control of family resources, and authority over the younger generation and other household dependents. This parity continued into the tenth century. In the kinship-based configurations that characterized village settlements, females enjoyed a status that was related more to the prestige of their household than to their gender. Only to the extent that traditional kinship patterns were disrupted by the new state would female household authority have been reduced—especially in urban settings, where emerging hierarchies inevitably meant the increasing subordination of women. The relative authority of women tends to decline with the rise of state institutions, although some women (such as queens) exercise social power through their class position.
Although the relatively distinct urban and rural spheres meant that women in agrarian households continued to have authoritative roles, the emergence of a state system set in motion other dynamics that ultimately lowered female status. With a male dynastic figure in place, and with permanent male-headed government offices established, public office and accomplishment were represented almost exclusively by men. Great symbolic value rests in this formal association between males and political power, an association that inevitably disadvantages women. Furthermore, Yahweh became the ultimate symbol of Israelite national identity; and Yahweh's royal image was built on metaphors drawn from the male domains of military and political power. The accompanying emphasis on the kingship of God eventually obscured in the state ideology female aspects of divine power, although village communities as well as some portions of the urban population retained more diverse divine imagery, including goddess worship, until the demise of the monarchy.

Conclusion

The early Iron Age village communities would not have survived without the protective and integrative function afforded by the emergent state. At least in the tenth century BCE, villagers do not seem to have suffered from the changes wrought by the superimposition of an urban-based state system over the existing territorial lineages. The flow of goods and servitors into the capital as the result of the military genius of David and the diplomatic sagacity of Solomon precluded the exploitation of the agrarian population. It is no wonder, then, that these first two members of the Davidic dynasty achieve great elaboration and respect in the legendary accounts of the early monarchy in the Bible. The Israelite people as a whole were well served by the establishment of a monarchy in its early stages, for it brought widespread social, economic, and political stability.

The need for historical myths and heroes is characteristic of every national culture; and such myths and heroes invariably arise from the uncertainties and insecurities of its beginning stages. The exceptional actions of individuals, in this case the first three biblical kings, were expanded as symbols of the processes that successfully resolved the difficulties surrounding the emergence of the new culture, Israel's early monarchy.

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The list below contains works in biblical studies relevant to the early monarchy. This chapter, however, draws extensively on the works of social and political anthropologists, including Robert L. Carneiro, Henri J. M. Claessen, Ronald Cohen, Timothy K. Earle, Morton H. Fried, Susan M. Kus, Herbert S. Lewis, Christopher S. Peebles, Barbara J. Price, Elman R. Service, and Henry T.
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CHAPTER SIX

A Land Divided
Judah and Israel from the Death of Solomon to the Fall of Samaria

EDWARD F. CAMPBELL JR.

Solomon died in 928 BCE, amid severe strains in Israel's body politic and on the international scene. Almost immediately, his state was split into two unequal parts, to be centered on Samaria in the north and Jerusalem in the south. Two hundred years later, Assyria would put an end to the era that had started with Solomon's death, destroying Samaria's society and infrastructure and so threatening Jerusalem that its life could never again be the same. This troubled era is the focus of this chapter.

The two political entities, self-designated as "Israel" and "Judah," rubbed against one another at a boundary in the tribal territory of Benjamin, only 15 kilometers (10 miles) north of Jerusalem. Beginning there, the boundary curved south and east, encompassing within Israel all the fertile Jordan Valley. To the west the line ran to the Mediterranean, meeting the boundary of Philistia as it neared the coast. Israel held the coast from the Mount Carmel peninsula past Dor to Joppa, between Phoenicia and Philistia. At times the Israel-Judah borderline was contested, but mostly it just existed and was probably quite permeable. To judge from the earlier history of the land and from settlement patterns, the boundary followed a line of social and cultural fracture of long duration. In the fourteenth-century Amarna period, two city-states had flanked it, Shechem in the central hill country and Jerusalem. Ancient settlements known from archaeological surveys are more numerous from Bethel to Jerusalem and around Shechem; a strip of land from Ramallah to the Valley of Lubbun between these two clusters...
had few ancient sites. When they were strong, the two kingdoms together controlled the same territory as had the Davidic-Solomonic empire, but in times of weakness they both contracted drastically.

Even when strong, Israel was separated from the Mediterranean by the extended strip of the Phoenician coast, though generally relations between Israel and the Phoenicians were established by treaty and remained stable. To the north and east of Israel lay the Aramean states of modern Syria, notably the kingdoms centered on Hamath and Damascus. Israel’s conflicts were mostly with Damascus, which almost constantly contested its control of northern Transjordan. Much of the time, Israelite rule extended from the regions of Gilead and Bashan southward to Moab—as far as the Arnon River, which reaches the Dead Sea halfway down its eastern shoreline. Whenever Moab submitted to Israel, Israel’s influence reached farther south and encountered Edom near the south end of the Dead Sea. Ammon, lying between Israelite land and the desert to the east, played a minor role during the period of the Divided Monarchy.

Judah, by contrast, was effectively landlocked. To its south in the forbidding territory of the northern Negeb, reaching down to the tip of the Red Sea at Elath, it vied with Edom. When strong, Judah held the copper and iron resources of the Arabah, and it exported and imported through Elath. Its core territory, though, was a rough rectangle lying between the boundary with Israel in the north and Beer-sheba and Arad to the south—about 80 kilometers (50 miles) north-south and, from Philistia to the Dead Sea, hardly 60 kilometers (38 miles) east-west.

When rulers of the north and south could cooperate and were strong in relation to their neighbors, they controlled the trade routes through the region, both north-south and east-west. Israel had better rainfall and contained the fertile valleys of Jezreel and the Jordan, but Judah held the key to the mineral resources in the south and to the port that gave access to Africa and the Arabian Peninsula. Controlling as they did the land bridge between Eurasia and Africa, both constituted crucial interests for Egypt and Mesopotamia.

The character of the land had an important role in determining the internal well-being of the people and in shaping their relations with neighboring nations. From the boundary south to Jerusalem and past it to the Bethlehem-Helbron region, Judah’s land was hilly and cut by extended valleys. Average rainfall diminishes significantly from north to south, and agricultural potential diminishes with it. South of Bethlehem and Hebron stretches even more arid territory, extending to a line from Gaza on the Mediterranean southeast to Beer-sheba and east to Arad, thence to the Dead Sea at a point opposite the south point of the Lisan peninsula, some three-quarters of the way down the Dead Sea coast. With Beer-sheba begins the Negeb, unsuitable for permanent settlement except around oases (Kadesh-barnea, for example), unless specific measures were taken to provision outposts and fortresses.
In Israel, the territory of Ephraim and Manasseh constituted the central highlands, limestone hills with thin soil cover surrounding upland valleys of quite fertile soil. The hills receive enough rain to sustain grain crops and fruit trees, although rainfall amounts vary from year to year and water was (and is) always a matter of concern. Springs, some of them very abundant, flow from the tilted limestone layering of the hills and provide sufficient water for settlements. This central highland region extends to the Jezreel Valley, which angles from the northeast slopes of Mount Carmel southeast to Beth-shan near the Jordan. The valleys were kept free of settlement and covered with agricultural parcels; the villages and towns lay on the low flanks of the hills, while agricultural terracing extended on the adjacent slopes around and above the villages. Terraces represented in some sense discretionary land—expandable, capable of supporting grain crops, olive and fig trees, and vineyards. Creating terraces, however, was slow work and required patience for the soil to become viable; terraces were no answer to emergencies, such as drought.

The ancient historians of Israel reflect, mostly indirectly, a good deal about these enduring conditions. Their focus, however, is on the course of political history. One of them, the author of the Deuteronomic History (designated “DH” by modern scholars), recounted the story in the books of Kings. The DH was probably first compiled in the eighth century BCE, given definitive form under Josiah in the late seventh century, and augmented in the exile. The other ancient historian, now known as the “Chronicler,” composed an edition of the books of Chronicles in the late sixth century that was greatly augmented in subsequent periods.

Both histories saw the division of the monarchy in 928 as a critically important event. The DH used the north’s experience as an object lesson for king and people in the southern capital, Jerusalem, during the time of Assyrian control—indeed, turning his history into a manifesto for reform under Judah’s kings Hezekiah and Josiah. The Chronicler, however, barely noticed events in the north except where they impinged upon Judah, instead selecting mostly Judean vignettes and shaping them into a picture of how Judah should govern itself after the return from exile in Babylon.

Both historians had sources. The DH made reference to “the Book of the Annals of the Kings of Israel” or “Annals of the Kings of Judah.” The Chronicler used the DH and in addition cited “records” of prophets, such as Nathan, Shemaiah, and Iddo. These “records” consisted of traditional lore and stories, notably about the interaction of kings and prophets. Both historians selected radically, citing their sources as though anyone interested could readily consult them.

The historians composed their accounts late in the course of the story of ancient Israel, and they made the perspective of their own times plain for all to see. Prior to their particular outlooks, though, lies another perspective question: What were the social and political commitments that sustained earliest Israel’s sense of the meaning of life? Few matters are more deeply contested in biblical interpretation.
This chapter’s fundamental assumption is that a widely shared ideology lay deep within the ethos of the people called Israel—one that honored a national deity named Yahweh, who offered and guided the destiny and vocation of his people and who willed an essentially egalitarian social community. If not explicitly articulated in terms of “covenant,” this ideology was effectively covenantal. Based in divine gift, human gratitude, and mutual trust, the covenant demanded exclusive loyalty to the deity and human responsibility in communal relations. In such a perspective, government and the practice of community life mattered deeply. So did the conduct of relations with other nations. There could be differences over how leadership should be passed down and over what constituted appropriate loyalty and obedience to the state, but norms of justice and responsibility prevailed. Nor were these norms the exclusive possession of an elite and imposed on the populace. This was a shared ideology, exercising wide influence in the land, in both the north and the south. One carrier was the prophet, institutionalized in those circles of followers who arose to spread his message; another carrier was the amorphous entity called the “people of the land” and the elders of the towns and villages.

Dealing with Sources

As noted earlier, both the DH and Chronicler depended on source material. A few examples may help give a sense both of the character of these sources and of the way historians worked to highlight the ideologies they wished to convey.

Example 1. First Kings 12.1–16 (see also 2 Chron. 10.1–16) tells of an assembly at Shechem at which Rehoboam, Solomon’s son, was to be made king by “all Israel.” Jeroboam had heard about the assembly and thereupon returned from Egypt, where he had fled when Solomon tried to kill him for rebellion (1 Kings 11.26–28, 40). Jeroboam and the assembly challenged Rehoboam to reduce Solomon’s burden of service; after consultation, Rehoboam chose instead to add to it. That was the breaking point, and “all Israel” ended the parley with the poetically structured proclamation:

What share do we have in David?
We have no inheritance in the son of Jesse.
To your tents, O Israel!
Look now to your own house, O David.

(1 Kings 12.16)

The cry appeals to the theme of resistance to monarchy expressed in many passages in 1 Samuel, and recalls the ancient ideal of autonomy and freedom from exploitation expressed in Israel’s early self-coverations.

This conflict of perceptions about proper royal conduct must lie at the base of the disruption of the United Monarchy. But 1 Kings 12 is not a report; it is a well-told story. Ten of its twenty verses tell of Rehoboam’s advisors, the older ones from Solomon’s
entourage who counsel reducing the burden, and Rehoboam’s young cronies who urge turning up the heat. This ironically comic diversion recalls a frequent motif in the DH; watch out whose advice you follow (note Ahithophel and Hushai in 2 Sam. 17, and 1 Kings 12.28). The drama is protracted by the use of a retarding device: having Rehoboam take three days to decide.

Second, the DH editor in verse 15 connects Rehoboam’s unwise decision to the prophet Ahijah’s divine designation of Jeroboam to receive ten tribes as a kingdom (1 Kings 11.29–39). Thus God fulfills the punishment promised in response to Solomon’s idolatry. This prophetic theme of injustice and its consequences is a strong DH concern.

Third, there is a question about Jeroboam’s participation in the assembly. The traditional Hebrew text of verse 2 says “Jeroboam stayed in Egypt,” not that he returned; this is inconsistent with verses 3 and 12, where Jeroboam is included in the assembly’s encounter with Rehoboam, and verse 20 indicates that Jeroboam was summoned to the assembly only after Rehoboam’s folly. The Chronicler’s parallel in 2 Chronicles 10.2 has “Jeroboam returned” and omits the note about Jeroboam’s being summoned and crowned, thus resolving the problem.

Moreover, another stream of tradition, the ancient translation of the Hebrew scriptures into Greek known as the Septuagint, has a twenty-six-verse elaboration after 1 Kings 12.25. This addition provides details about Jeroboam: he had begun an insurrection against Solomon; he returned at Solomon’s death and fortified his hometown; he had already received the ill omen of his own failure (found in the traditional Hebrew text in chap. 14); it was he who initiated the assembly at Shechem.

Thus we see in these passages a number of elements. There is a story based on a historical event; there has been editorial work on this material emphasizing that a prophetic promise must be fulfilled; and there is a mix of competing textual traditions about Jeroboam’s part in the assembly. Out of such confusing material the modern historian coaxes data.

**Example 2.** First Kings 20 and 22 tell of three conflicts between Israelite kings (with a Judean cohort in 22) and Ben-hadad of Damascus. In the traditional Hebrew text of 1 Kings 20 the Israelite king is named “Ahab” in verses 2, 13, and 14, but eleven other places in the chapter speak only of “the king of Israel”; other ancient manuscript traditions give Ahab’s name at other places as well. First Kings 22.1–38 names the Israelite king Ahab only in verse 20, going on to tell of his death in battle. Verses 39–40 are not part of the narrative; they contain the DH editor’s concluding formula, “Now the rest of the acts of Ahab . . .” and speak of Ahab “sleeping with his ancestors,” an expression used to signify a natural death.

The circumstances portrayed in the biblical text do not fit Ahab at all well. Israel’s military strength seems puny compared to what a text from Shalmaneser III reports Ahab as having contributed at the battle of Qarqar in 853 BCE: a force of two thousand
Three joined fragments of the stela found at Dan, memorializing the victories of an Aramean king (probably Hazael) over, among others, the kings of Israel and Judah in the mid-ninth century BCE.

chariots and ten thousand infantry. The Syrians' explanation in 20.23–25 of why they lost the first battle but will win the second—that they will engage Israel not in the hills but in the plains—implies that their advantage lies with chariots whereas Israel's does not.

A number of historians advocate relocating the three battles in these two chapters into the time of Jehoash or Joash a half century later, after Jehu had ended the Omri-Ahab dynasty and when Israel was less able to cope with the Arameans of Damascus.

These two chapters are narratives about prophets. They address the question of what it means to be a prophet who brings a message to a capable and self-confident court inattentive to God's directives. The emphasis in both chapters is on the conduct proper for any and all kings. Again, a modern historian must assess their historical value in the light of such considerations.

Example 3. In the summers of 1993 and 1994, three chunks of a basalt stela bearing portions of thirteen lines of Aramaic text came to light, incorporated into the ninth/eighth-century BCE fortification wall at the city of Dan. The arrangement of the fragments as shown in the photograph is nearly certain. The text's content, as well as the ways in which the letters are formed, date it to the ninth century (recently published claims that it is a forgery are untenable). It celebrates victories of an Aramean king over
many opponents, among them a king of Israel and a king of the “house of David.” The two pieces to the left of the bigger chunk contain the end of Jehoram’s name as king of Israel and the beginning of Ahaziah’s name as king of Judah. That points to 842 BCE, when Ahaziah (who reigned only that single year) overlapped with Jehoram (Joram; 851–842). Clear indications in the early part of the text suggest the Aramean king’s identity: Hazael (a usurper, even though he refers to his predecessor as his “father”) gained the throne of Damascus in 842. Thus the stela recounts Hazael’s side of the battle mentioned in 2 Kings 8.25–29 and 2 Chronicles 22.5–9; it also makes plain that later in his reign Hazael could take Dan and there erect a celebrative stela. This is only implied by 2 Kings 13.3–5, 22.

The year 842 coincides with Jehu’s purge of the Omri-Ahab dynasty (see below). According to the stela, the Aramean king killed Ahaziah of Judah and apparently also Jehoram of Israel. This conflicts with the account in 2 Kings 9, where Jehu is reported to have killed both kings: Jehoram, recovering from wounds suffered in conflict with Hazael in 9.15, goes out to meet Jehu, who dispatches him, and Ahaziah, visiting Jehoram, flees but is shot down (see also 2 Chron. 22.5–9). The inscription shows that Syria held Dan at least briefly in the ninth century. But the stela’s shattered condition and its reuse as building stone attests to the Israelites’ recovery of Dan, unceremoniously nullifying an Aramean monument.

Example 4. Excavations at Samaria produced over a hundred ostraca (inked notes on sherds) dating probably from the first part of Jeroboam II’s reign (roughly 770 BCE). The notations on each contain all or part of a range of information: a date referring to the king’s reign, a place of origin, one or more personal names associated with a product, and the nature of the product (wine or oil). They probably record shipments to be credited to the account of persons resident at the capital. These are not receipts, but notes for a catalogue of incoming supplies.

These notations serve as the raw material for reconstructing life at the capital. Fine commodities are coming in charged to the credit of people who now live in the capital but obtain their produce from their country holdings—they are absentee landlords, or at least offspring of families holding property elsewhere. The commodities are luxury items, not basic provisions. The occupants of the capital complex are, then, functionaries who have come to live there at the behest of the king. It may be that they are provisioned from their own estates. Or, alternatively, the provisions may be imported from the towns and country districts, forming a semicircle with a radius of 15 kilometers (9 miles) to the south of Samaria, which had been laid out as royal lands by the king. From these records scholars have reconstructed a roster of the names of Samaria residents. These names furnish significant historical evidence. A large minority of them are compounded from the divine name Baal, but the majority are Yahweh-compound names. Thus the
population was religiously cosmopolitan, confirming biblical indications of the kind of court the Israelite kings assembled in Samaria.

The Samaria ostraca give us a snapshot of social history. Since they date only a generation or so before Amos and Hosea, they tell us something about these prophets’ audience.

Having looked at these instances of the kind of sources historians must interpret, we can return to the sequence of events.

**Division and Conflict**

The Shechem assembly marked the collapse of the United Monarchy. According to 1 Kings 12.17–20, Rehoboam sent his supervisor of forced labor, Adoram, on a mission to enforce royal control over the north, but Adoram was stoned to death and Israel’s unrest turned into open rebellion. Rehoboam retained control over the tribal territories of Judah and Benjamin, the latter being a narrow strip stretching hardly 15 kilometers (9 miles) north to south and 40 kilometers (25 miles) east to west, just north of Jerusalem. Jeroboam, meanwhile, asserted his rule in the north from points that had defined the Late Bronze Age city-state of Shechem, straddling the boundary between the tribal territories of Ephraim and Manasseh; he “built” (that is, fortified) first the city of Shechem and then Penuel, across the Jordan from the opening of the Wadi el-Farah, which leads down from the Shechem region to the river.

Jeroboam’s control north of the central hill country, extending into the Galilean hills, receives virtually no attention in the biblical record. Only one detail stands out: he established as sanctuary centers Dan at the northernmost limit of the land and Bethel on the border between Ephraim and Benjamin. Dan lies about 135 kilometers (85 miles) from Bethel, but it is only 29 kilometers (18 miles—a day’s trek) from Bethel to Shechem.

It is plausible that, as 1 Kings 12.28 has it, Jeroboam needed to provide alternatives to worship in Jerusalem. The iconography of the sanctuaries at Bethel and Dan consisted of a gilded bull calf forming a throne or pedestal for God. The biblical account relates that Jeroboam established a priesthood for these sanctuaries, choosing his priests from among the people rather than from Levites (who alone, according to the DH, would have been legitimate). Moreover, Jeroboam is said to have appointed an autumn feast day “on the fifteenth day of the eighth month,” a month out of synchronism with the festal schedule in Jerusalem (1 Kings 8.2). Jeroboam also established “high places,” a term that for the DH symbolizes apostasy on the part of Israelite as well as Judean kings, and rejection of which is the ultimate criterion of remaining faithful.

These details were supplied by the DH but omitted by the Chronicler, who presumed
The platform of the sanctuary complex (or "high place") at Tel Dan, in its final phase in the mid-eighth century BCE. Originally constructed by Jeroboam I (928–907), it was rebuilt by Ahab (873–852) and Jeroboam II (788–747).

at least some of them in 2 Chronicles 11.13–17 and 13.8–10. Both streams of historical interpretation denigrate the northern religious establishment for introducing idolatry and violating the appropriate priesthood.

From a more neutral point of view, Jeroboam probably intended to employ earlier iconography of Yahweh drawn from that of El; El as a designation for the god of Israel was doubtless current in the north—hence the validity of using the name Isra-El for the northern political entity. Jeroboam’s move, then, was not idolatrous or even newly syncretistic, but probably invoked ancient Israelite traditions, including a legitimate enlistment of priests from among the people. Frank Cross has proposed that Bethel and Dan served a compromise agenda. Jeroboam, he surmises, reestablished the Bethel sanctuary as the locus of Aaronite priestly family hegemony, and Dan (Judg. 18.30) for priests of the Moses line—the two families whom David had placed in Jerusalem (2 Sam. 8.15). In short, Jeroboam’s moves were calculated but (from a non-Jerusalem perspective) legitimate. Only from the perspectives of the DH and Chronicles were they idolatrous.

At Bethel, archaeology has provided no information on the Jeroboam sanctuary. At Dan, however, Avraham Biran’s excavations have recovered an elevated platform showing at least two phases of development. The core of the platform, some 19 meters (62 feet) long by about 9 meters (29 feet 6 inches) wide and constructed in ashlar masonry, belonged to the Jeroboam era, and was destroyed in the early ninth century BCE. With it went a 5 meters × 6 meters (16 feet 6 inches × 19 feet 9 inches) altar, a plastered
pool, and an oil press—an appropriate feature of a sanctuary, since fine oil was needed for religious observance. It is unclear whether a masonry superstructure rose above this platform, or a structure of less permanent material; conceivably what sat on the platform conformed to the tabernacle, not the Solomonic Temple, in contrast to the Jerusalem religious establishment but in accord with “Moses” standards.

From 928 to roughly 882, a conflict raged between the two divisions of the land, both of which also faced an external threat. Rehoboam had returned to Judah; and although the DH had him assemble a vast army (1 Kings 12.21–24) which was deflected from its purpose on orders from Yahweh, the DH offers no detail of battles between north and south. The Chronicler presents one theologically rationalized battle account in 2 Chronicles 13.13–21 involving Jeroboam and Rehoboam’s son and successor, Abijah (Abijam), emphasizing the religiously valid south over the invalid north and claiming that Bethel was taken. Such an assertion is hard to credit as historical.

What is reported by both historians is the campaign of Pharaoh Shishak (Shoshenq I) of the Egyptian Dynasty 22 (1 Kings 14.25–28; 2 Chron. 12.2–12). The campaign took the form of a lightning raid that ranged through both north and south. The degree of devastation is hard to assess, either from biblical indications or Shishak’s own depiction at Karnak; he claimed to have taken over 150 locales, though whether by destroying them or receiving their capitulation is not clear. The Chronicler reports Rehoboam’s capitulation of Jerusalem. Archaeology shows that a number of sites in the central Negeb highlands, which Solomon had established as fortresses, were put out of commission. Towns all along the coastal route show signs of having been attacked, and Megiddo, in the pass through the Carmel range, suffered extensive damage; Shishak left a victory stela there. An Egyptian foray into the central hills attacked Shechem and other upland locales, though the Bible says nothing of how this affected Jeroboam. It would seem that Shishak raided the north as a show of strength but let it go at that, or at least could not follow up any advantage he had gained.

The Egyptian raid came in the fifth year of the Divided Monarchy, according to the Bible. What relation the raid bore to the loss of Solomon’s empire holdings cannot be said, but apparently the division of Israel from Judah cost the divided monarchies any grip on the entities surrounding them. Philistia (1 Kings 15.27), Ammon (by inference), Moab (to judge from the Mesha inscription, see below), and perhaps Edom all seem to have broken loose from Israel and Judah. One indicator of the loss of control is the report in 2 Chronicles 11.5–12 of the fifteen towns Rehoboam fortified in an arc around Jerusalem, none farther from the capital than Lachish (about 43 kilometers [27 miles]) or Adoraim (about 35 kilometers [22 miles]). Israel and Judah had become minor players within the larger international scene.

The DH and the Chronicler agree in assigning twenty-two years of reign to Jeroboam and seventeen to Rehoboam. But with that begins a problem of keeping clear the
chronology. Two systems are available: either numbers of years for each king’s reign, such as could be derived from annals; or synchronisms between kings, for which parallels are harder to find. Data of both types are distributed throughout 1 Kings 14–22 and 2 Chronicles 12–18, which carry events down to the death of Ahab. The difficulty is that although the synchronisms work out, the years from the division to Ahab’s death, synchronized with Jehoshaphat’s third year (1 Kings 22.12, though Ahab is not named), add up to eighty-three or eighty-four years. That would put Ahab’s death in 844 BCE—more than a decade after the date suggested in Assyrian records. By the Assyrian reckoning, Jehu took the throne in 842, and there remain still two Israelite kings, Ahaziah and Jehoram, with nine years assigned to them, to fit in between Ahab’s death and Jehu’s rise. Even if an earlier starting date is chosen, usually 931 BCE, the regnal years do not add up. Students of chronology have tried to resolve the difficulty by assuming coregencies and varying dating systems, but no completely satisfactory solution has ever been worked out. Apparently neither the DH nor the Chronicler thought it necessary to clear up the problem.

The period from Jeroboam through Elah in the north (some forty-six years, 928–882) and from Rehoboam to the end of Asa’s reign in Judah (about sixty-one years, 928–867) receives little attention from the DH and only a little more from the Chronicler. Jeroboam’s son Nadab reigned for something under two years and was assassinated by Baasha, from the territory of Issachar, just north of the central hills on the other side of the Jezreel Valley. This was the first of three violent upheavals within a quarter century in the north, and it signals the region’s characteristic attitude toward the crown. In the south, which followed the dynastic principle of succession and where violent usurpation usually occurred within the Davidic family, Rehoboam was succeeded by Abijah for three years and then by Asa, Abijah’s son, for a forty-one-year reign. The DH and the Chronicler part company on the events they narrate, DH focusing on the north and the Chronicler on the south.

Baasha’s reign occurred within the span of Asa’s much longer one. Both sources report a struggle over the boundary between the two nations, and both introduce King Ben-hadad of Damascus (1 Kings 15.16–22; 2 Chron. 16.1–6). Baasha pushed down to Ramah in Benjamin first, but Asa persuaded Ben-hadad to break a previous alliance with Baasha and press his rival on the north; this diversion worked, so that Asa could move the boundary a few kilometers north of Ramah, to Mizpah and Geba, where it apparently remained for as long as the two kingdoms survived. The appearance on the scene of Ben-hadad meant the temporary loss of much of the far north of Israel, including Dan. The latter’s destruction appears to have terminated the first phase of the Dan sanctuary. The date would have been in the decade prior to 882, although on this matter the Chronicler (2 Chron. 16.1) and the DH (1 Kings 16.5–8) flatly disagree. Syria has now become a part of the story for the northern kingdom.
Asa receives high marks from the DH, but in very general terms (1 Kings 15.9–15). The Chronicler fills out the story with a description of his religious reforms and of the peace over which he reigned, combined with narratives about prophets (Azariah ben-Oded in 2 Chron. 15.1–7; Hanani “the seer” in 16.7–10) and an account of an otherwise unattested combat with “Zerah the Ethiopian,” which has fabulous elements to it but certainly enhances Asa’s stature. It is noteworthy that archaeological work in Judah has found little to distinguish ninth-century remains from those of the eighth, and thus to illumine events told by the Chronicler for this stretch of time.

The first phase of the lives of the two divided nations ends with the assassination of Baasha’s son Elah, who reigned less than two years, and the concluding years of Asa. While short on political detail, the brief portrayals in the biblical histories display the ideologies at work as the two kingdoms go their separate ways.

The first pointer to the distinction in ideologies between Israel and Judah is the role of Shechem in the story of the division. This city, which in the seventeenth and sixteenth centuries BCE contained the largest Canaanite temple structure preserved from ancient Palestine, played a powerful role in Israel’s memory. Successive phases of the old sanctuary lasted down to about 1150 BCE. Traditions about crucial events from the days of the tribal confederation cluster about Shechem: the covenant ceremony in Joshua 24; the story in Judges 9 of Abimelech’s attempt to reestablish a Canaanite city-state entity there, with oath taking at the temple of El/Baal of the Covenant; the directive to Moses in Deuteronomy 27.4 to place the stones with the terms of the covenant at an altar on Mount Ebal, just above Shechem, and the fulfillment of this directive by Joshua (Josh. 8.30–35); and the cursing and blessing ritual of Deuteronomy 11.26–32 (see also 27.11–26). In the traditions of Israel’s forebears, Abraham, Jacob, and Joseph all find their way to Shechem. Narratives about Abraham (Gen. 12.6–7) and Jacob (Gen. 33.18–20 with 35.1–4) both involve sacred sites there.

So deeply does the theme of covenant at Shechem pervade the book of Deuteronomy and the work of the DH that a modern historian must offer a judgment about the heritage of the Deuteronomic tradition and its part in shaping the royal ideologies of Israel and Judah, as well as in forming the prophets’ perspective and in creating the expectations of the people who called themselves Israel.

Virtually all scholars agree that the book of Deuteronomy—or at least a good part of it (chapters 5–26 and 28 are often nominated)—was the scroll found in the Temple when Josiah was carrying out his reforms in the last quarter of the seventh century BCE. Its concerns, however, do not suggest that it was a Jerusalem-oriented document. It focuses primarily on the Levites from the countryside. It is full of attention to the Mosaic covenant at Horeb, and it speaks of a prophet like Moses. Its theological perspective emphasizes worship at a central location where Yahweh has placed the “name” that gives people access to the divine. But Deuteronomy never designates that central location.
as Jerusalem. On the matter of how Israel is to be governed, it carries an ideology at odds with that of Jerusalem. In only one passage does it discuss kingship (Deut. 17.14–20), and there its tone evinces opposition to the way Solomon conducted his reign.

All these indicators suggest that Deuteronomy originated outside Jerusalem—among Levites of the "Moses" rather than the "Aaron" leaning, steeped in the ancient Exodus-Sinai covenantal tradition, suspicious of many of the accommodations that monarchy entailed. Levites were distributed throughout the land. Joshua 21 lists the Levitical cities, a list that antedates the United Monarchy, although it was augmented and schematized under David and probably subsequently revised. The geographical listing implies differences in perspective among Levitical groups, related to their family connection.

Shechem stands out both as a Levitical city and as a "city of refuge" (Josh. 21.20–21; 20.9), with a family connection to the Kohathites among the Levites. It is quite plausible that Levites at Shechem leaned toward the Moses perspective, which had been nurtured at an ancient sanctuary with covenantal ties. Such is the perspective reflected in 1 Kings 12—dubious of monarchy at least in its Davidic-Solomonic manifestation, and egalitarian in social perspective. At Shechem Jeroboam began his reign. But here Jeroboam finally did not stay, probably because of the accommodations he felt he needed to make in maintaining his style of monarchy. He moved his capital to Tirzah (1 Kings 14.17; 15.21, 33), and placed his sanctuaries at Bethel and Dan.

Shechem emerges, then, as a candidate for the place of origin and maintenance of early Deuteronomic thought. A modern historian must resort to indirect reasoning to reach this conclusion: both the DH and the Chronicler display a powerful Jerusalem bias, and they obviously adapt ancient traditions in validating Jerusalem and the Davidic line. Fortunately, the DH especially chose the path of adaptation, not fabrication, and so left the footprints of Shechemite/Levitical perspective to be discerned in his finished product.

The pathway of "proto-Deuteronomy," northern and Levitical in perspective, moves on through the ninth and eighth centuries BCE (Hos. 6.9). It is carried south to Jerusalem by Levite refugees fleeing from the fall of Samaria in 722. What was by then a "book" went underground after the time of Hezekiah, reemerging with Josiah's reform and thereafter guiding and disciplining the work of the historian who composed the DH.

A second pointer to ideological distinctions between north and south, related to the Shechem covenantal one, is the attitude toward kingship characteristic of the north. In 1951, the historian Albrecht Alt contrasted a "dynastic" style in the south and a "charismatic" style in the north, at least until the Omri dynasty came to the throne. We now must give nuance to this contrast. In the northern kingdom Jeroboam's son Nadab succeeded his father to the throne, and although a number of disruptions occurred (beginning with Baasha), the expectation of dynastic succession applied. The story of
the north is filled with indications of God’s displeasure with various kings’ actions, often expressed by prophetic figures; sometimes these prophets help stimulate the removal of kings—note Ahijah’s interventions with both Jeroboam and Baasha. But it is not the case that each king is installed solely on the basis of popular acclamation and divine approbation, with no expectation of dynastic succession; sons can and do succeed fathers. Furthermore, repeated indications of accommodation to pragmatic considerations filter through the DH’s account. Jeroboam emerges as both a good leader and a failed one; so will Omri and Ahab. No northern king will receive the DH’s blanket approval, but there are indications that many in the north considered dynastic kingship valid. Standards had to do with religious compromise and with whether the king cared for the poor and the needy, the widow and the orphan.

There was, then, a continuum of ideology about kingship. The Deuteronomy tradition sketched above was one articulation, dubious about kingship, with the passage about kings in 17.14–20 as a grudging concession (unless it is a late addition tailored to the reign of Josiah, which would leave “original” Deuteronomy silent on the issue of monarchy). Others in the north emphasized the validity of a kingship that practiced righteousness, placing beside the king the equally potent institution of the prophet as an established office in the ideology of governance. Theologically, this view was wedded to the claim that God, who desired a righteous realm, would intervene to promote peace and justice.

An expression of this assertion of God’s freedom, only slightly different from that of the Deuteronomic stream, may be the northern stream of tradition about Israel’s origin. This strain is known in literary analysis as E, the work of the “Elohist.” Although it is difficult to isolate E in Genesis and Exodus, and it may not be present at all in Leviticus and Numbers, it emphasizes the themes of righteousness and accountability. The Elohist history strives to protect God’s transcendence and freedom to act; it features prophetic persons and prophetic action; it emphasizes the fear of God (Hebrew ’elohim) as motive for vocation and living; and it can condone rebellion if a leader’s behavior demands it. It presents stories of the north, enhancing the portrayal of Jacob and featuring Joseph and his sons Ephraim and Manasseh, and it gives particular attention to the founding of religious centers of the north, notably Shechem and Bethel.

As with proto-Deuteronomy, E’s origins and agenda glimmer dimly through the dominant Jerusalem perspective. Was the Elohist work a stream of tradition independent of J, the Yahwist stream, which supported the Solomonic monarchy? Most scholars have seen it that way. But recently Robert Coote has proposed instead that E is a statement of Jeroboam’s political ideology, composed under the aegis of his court and consisting of an augmentation of J, turning it toward support for the northern style of monarchy. Coote’s view has the virtue of accounting for E’s qualified approval of a certain governance style, and it gives E a time, a place, and a purpose. But the more widely held
end of town from a storage complex with a granary, on a terrace at the east; this suggests that Hazor was both a military strong point and a store-city for agricultural supplies, either for military or for public consumption.

A more spectacular find at Hazor is the elaborate shaft and tunnel cut deep into the mound’s interior, which gave access to the water table beneath. The work attests to the builders’ technical knowledge of hydrology, as well as to their sensible recognition that it is safer to protect the city by not opening a tunnel to an outside spring and thereby giving an enemy possible access (recall David’s capture of Jerusalem in 2 Sam. 5:8). Presumably much of the workforce that built Hazor lived in the houses and thrived in the shops that fill the rest of the hilltop, a total space of roughly 6.5 hectares (16 acres) with a population of perhaps 1,500.

At Megiddo the Iron Age stratigraphy is disputed, but a majority of scholars still tend to assign the origin of Stratum IVa to Ahab, including the laying out of huge areas as chariot parks adjacent to pillared buildings identified as stables for the horses. Another large amount of space within the massively fortified city was given to the water system, which in this case involved a tunnel leading outside the fortifications to the spring. A major public building at the east edge of town has been proposed as a palace, although it does not occupy the usually favored location—upwind, at the west edge of town. Megiddo does not manifest changes in layout during the ninth and eighth centuries BCE as Samaria and Hazor do; its Stratum IVa plan persists until the end of the Divided Monarchy.

Tirzah shows similar continuity throughout the ninth and eighth centuries, although there is tantalizing evidence of an unfinished phase of building (Stratum VIIc) that might belong to the rapid series of events in the transition from Baasha’s dynasty to Omri. The next phase (Stratum VIIId) is a well-planned city; Ahab may have been its founder.

Ahab, then, was a builder, and, to judge from Megiddo and Hazor, part of what he built was military. The most explicit indication of his military strength comes from the report of a crucial battle to which the Bible makes no reference, the battle of Qarqar in 853 BCE. Information about it comes from Assyrian sources. Assyria had begun looking westward, seeking control of trade routes to the Mediterranean, under Ashurnasirpal, who ruled Assyria from near the beginning of Omri’s reign through much of Ahab’s. Successor to Ashurnasirpal was Shalmaneser III, who came to Assyria’s throne about 858 BCE. Early in his reign, he began to threaten northern Syria. In his sixth year, according to the boastful “Monolith Inscription” on which are recorded his early successes, he campaigned westward across the upper Euphrates, past Aleppo (which capitulated) into the Syrian state of Hamath along the east side of the Orontes River, well north of Damascus. At Qarqar on that river, which his inscription designates the royal city of Hamath’s ruler, Irhuleni, he met a coalition of forces from twelve locales that included Hamath, Damascus under Hadadezer, and Israel under Ahab. Ahab’s force
consisted of 10,000 men and 2,000 chariots, outnumbering the 1,910 chariots supplied by all the other allies together and equaling what Shalmaneser himself threw into the battle. The Assyrian king claims to have utterly devastated his foes and captured all their chariots, cavalry, and horses—but seems himself to have stopped at Qarqar. The clash may indeed have stalled Assyrian moves westward for a time, since Shalmaneser waited four years before returning. Three further campaigns in 849, 848, and 845 are known from more formulaic records, which name the two Syrian kings and in one case speak of the twelve-king coalition. All the attacks stall in the Orontes Valley. No Israelite presence is mentioned in these accounts.

Military forces mean many men and the disruption of many families. Building enterprises imply many workers, mostly men. Both may have meant income or largesse for Israelite families, but both would have exacted hardships. In an economy based on agriculture carried out by extended families on patrimonial holdings, and on cottage industries in homes and local shops, how were human resources deployed? The Bible provides little direct information, but analogies from social and cultural anthropology cast some light. Family property rights passed from father to son (or occasionally to daughter). While high infant mortality and somewhat restricted birthrates may have prevented rapid population growth, some families found themselves with too many heirs for the system of land inheritance within the family to sustain. A family with several sons would have had to parcel out small holdings, eventually resulting in tiny, irreducible
plots. In the monarchic period, no new land could be added to a family's holdings by "pushing back the frontier," and apparently new acquisitions by military conquest became crown property. The army, then, was probably made up of younger sons of families that could no longer divide their land. The priesthood, too, may have been drawn from this resource, and it may also have supplied the workforce that built Ahab's cities. We cannot know whether and to what extent this process would have begun to cause the typical Israelite family hardship; presumably things went well most of the time, but prospects for economic and social difficulties loomed.

Against this background, let us try to understand the biblical depiction of the Omri-Ahab dynasty. In it the kings are not at the fore; it is the prophets who dominate the scene. The material in DH begins with a diplomatic marriage between Ahab and the daughter of King Ethbaal of Sidon. Her name is Jezebel. Apparently in accord with this alliance, Ahab is reported to have placed an altar and a temple for Baal worship in Samaria, together with an asherah—a pillar representing the tree sacred to the goddess Asherah, a consort of Baal. Jezebel was the patron of this establishment, Ahab the accomplice.

Onto this scene came Elijah and the divine decision to bring drought upon the land. A series of wondrous stories about the prophet's care of the poor widow of Zarephath removes him from contact with the king as the drought unfolds and famine strikes the land. Meanwhile it is noted that Jezebel has been killing off Yahweh's prophets. Elijah reappears to tell Ahab that the drought will end, but in doing so he puts the blame for the drought on Ahab's worship of the Baals. Since Baal is, among other things, deity of
fertility and storm, irony pervades the unfolding drama. There ensues the mighty contest on Mount Carmel, with Elijah standing alone “against the four hundred fifty prophets of Baal and the four hundred prophets of Asherah, who eat at Jezebel’s table” (1 Kings 18.19). The immediately succeeding chapter then shows Elijah’s flight to Mount Horeb, where his success as the lone faithful Yahwist on Mount Carmel reverses into his desolate sense of failure at the place where he will meet his divine recommission:

Go, return on your way to the wilderness of Damascus; when you arrive, you shall anoint Hazael as king over Aram. Also you shall anoint Jehu son of Nimshi as king over Israel; and you shall anoint Elisha son of Shaphat of Abel-meholah as prophet in your place. And whoever escapes from the sword of Hazael, Jehu shall kill; and whoever escapes from the sword of Jehu, Elisha shall kill. Yet I will leave seven thousand in Israel, all the knees that have not bowed to Baal, and every mouth that has not kissed him. (1 Kings 19.15–18)

The DH and the Chronicler present the prophets as wonder-workers. In these accounts the prophets are shown as occupying a particular office and playing an accepted role in the public life of ancient Israel and Judah, including the life of the general populace. Being confronted with prophets surprises neither king nor people. In the stories of prophets whom the DH sets in the ninth-century BCE, notably Elijah, Elisha, and Micaiah, these men appear as lone actors—especially in conflicts with other prophetic figures saying the opposite. It is inappropriate to describe prophets as isolated eccentrics and malcontents operating as free agents. Rather, they are part of a social phenomenon, the bands and groups of prophets, such as those whom Jezebel tries to kill off as well as those who eat at her table. Even the seven thousand who have not bowed the knee to Baal appear as a part of a support system, about whom Elijah has perhaps forgotten. Regularly, Elijah and Elisha use members of their prophetic groups as agents to carry out their prophetic tasks.

Individually or in groups, the prophets’ allegiance is to the will of Israel’s deity, to whom they have access when the deity wishes. Their visits force decision upon their audience: Is this person a true spokesperson for deity, or a fake? There is no way to avoid the recognition that the ancient historians, DH and the Chronicler, take prophets and their role as part of historical reality, whether what they have to say is palatable or not.

Were prophets agents of revolution? Ahijah commissioned both Jeroboam and Baasha to rebel against existing authority. Omri received no such prophetic warrant, but Jehu did. Yet the prophet is not pictured as a revolutionary. At most, the prophet speaks for a combination of divine displeasure and human disillusionment. No complete contrast separates the prophets’ commissionings of Jeroboam, Baasha, and Jehu from the commissioning of Omri by a popular movement of the army. At the Shechem assembly,
Jeroboam’s divine commissioning by Ahijah is wedded to the human circumstance of outcry against unjust rule. Both sets of circumstances reveal the central issue of good governance and the pursuit of justice for people, a check upon royal prerogative. And good governance fundamentally means the practice of loyalty to God.

The prophetic story in 1 Kings 21 stands out. Ahab has a palace in a town called Jezreel (see 1 Kings 18.45–46), lying at the edge of the valley of the same name some 50 kilometers (30 miles) north of Samaria. (The spot is prominent enough in the biblical record to have suggested to some scholars that it was the second capital of the country during the Omri dynasty, perhaps the one where Ahab expressed his loyalty to Israel’s deity through a shrine, while Samaria served as the seat of Baal worship.) At Jezreel, Ahab had a family holding.

Naboth also held property in Jezreel, a vineyard that Ahab wanted in exchange. The scenario is based on a patrimonial land tenure system. Naboth’s response to Ahab expresses it: this land is inalienable, ancestral. Naboth holds the upper hand, and the king knows it; kings in Israel are bound by the same system as everyone else. Queen Jezebel, however, has a different perspective: “Are you the king of Israel or not?” Using the royal seal, Jezebel then contrives Naboth’s downfall and death, and the king takes the land he wanted. Perhaps Ahab and Naboth were related, and Ahab became heir as next in line; or perhaps an otherwise unknown practice allowed the crown to confiscate land owned by a convicted criminal.

Ahab goes to take possession, and Elijah is there to greet him. The end of the dynasty is announced, on the pattern that had ended Jeroboam’s and Baasha’s dynasties, but because Ahab humbles himself, the divine decision is deferred until Ahab’s son’s days. But Jezebel, and Ahab through her, will be used by the DH as the symbolic violator of norms.

Other episodes in the cycle of stories about Elijah and Elisha provide information that we cannot take as a record of political history, but which does presume social custom and thus yields insight into social history. An instance comes from 2 Kings 8.1–6. Elisha has lodged with a family in Shunem in the Jezreel Valley; in a story in 2 Kings 4.8–37, he has brought the family’s dead son back to life. In that story, the woman of the household, pictured as wealthy, is clearly the active agent, and her husband an aging foil. In 8.1–6, the same woman has been told by Elisha to resettle in Philistia because of an impending seven-year famine in Israel. Upon her return, she appeals to the king for the return of her house and land, and he sends an official to see that she gets her holdings back, together with the revenue her fields yielded to whoever took them over in her absence. The glimpse here of a system of redress, and the fact that women held property and maintained usufruct, are factors in Israelite social practice that do not appear clearly if one takes as guides the collections of law preserved in Exodus, Leviticus, and Deuteronomy. In the common life of Israel, custom and system delivered justice,
in this case apparently for a now-widowed person. And the prophetic role includes seeing that such justice is done.

Obscure events of the year 843/842 BCE brought the Omri-Ahab dynasty to an end. According to the Assyrian evidence, Hadadezer has been the king in Damascus; Shalmaneser's inscriptions record him as an opponent in battles on the Orontes between 853 and 845. Another Shalmaneser text reports that he defeated Hadadezer and that Hadadezer died; Hazael, a usurper, took the throne. The text seems to connect the death and the usurpation but says nothing about a murder.

The DH's selection of materials about relations with Syria during Ahab's reign (1 Kings 20; 22; 2 Kings 6.24–7.20) speaks instead of a Ben-hadad, king of Aram (chapter 22 gives the Syrian king only his title, no name). The series culminates in 2 Kings 8.7–15, which reports a visit of Elisha to Damascus during an illness of
Ben-hadad. Hazael, in attendance upon Ben-hadad, goes to meet Elisha, and Elisha tells Hazael he will be king of Aram. Hazael thereupon smothers his master and becomes his successor.

As we have already noted, there is legitimate reason to doubt the names of the participants in the stories of Israelite-Syrian battles in 1 Kings 20 and 22 and to suspect that the events belong to a later period. The episode in 2 Kings 6–7 has similar problems: Ben-hadad appears in 6.24, but otherwise no royal figure in the chapter is named. The assertion that Hazael killed Ben-hadad in 2 Kings 8.15 is plain, however, so the discrepancy in the Assyrian and biblical evidence remains.

Proposals to resolve the discrepancy abound. One is to assume that Hadadezer and Ben-hadad are names for the same person, the latter perhaps a typical Syrian throne name. Both sources would then be accurate. A more elaborate theory is that since Shalmaneser’s words are ambiguous about a murder and supplanting by Hazael, there was a son of Hadadezer named Ben-hadad, “Ben-hadad II,” who reigned for two or three years after Hadadezer’s death and before Hazael’s usurpation. A third proposal is to claim that Ben-hadad’s name is a late addition to the 2 Kings 8 depiction of the death of the king of Aram, which originally had Hadadezer or gave no king’s name; thus the biblical account would now be in error. The upshot is that there is a Ben-hadad of Damascus who reigns throughout the early ninth century, then Hadadezer whom Shalmaneser encountered at Qarqar, contemporary with much of Ahab’s reign, possibly a Ben-hadad II for a couple of years, and finally Hazael.

The DH gives the overall impression of protracted strife between Israel and the Syrian state of Damascus, with periods of cooperation interspersed (note the three-year respite in 1 Kings 22.1). The alliance for the battle at Qarqar would be one such interlude. The short story of Naaman, the Syrian army commander with leprosy whom Elisha treats with the medicine of the waters of the Jordan (2 Kings 5), suggests both conflict—an Israelite slave girl in Naaman’s house—and benign interaction. And whatever decision scholars may reach about the historical settings of the battles in 1 Kings 20 and 22, the account in 20.31–34 speaks of the relationship between the Israelite king and the Syrian king as one of “brotherhood”—that is, treaty-connection—and the placement of bazaars in Damascus and Samaria means reciprocal commercial activity. Less certain is the frequent proposal that ninth-century destruction levels at Dan or Hazor or Shechem result from Syrian military incursions.

The stela from Dan is a case in point. Hazael has clashed with Jehoram of Israel and Ahaziah of Judah in 843 BCE, according to 2 Kings 8.28–29. These two met their deaths either at the hands of Jehu (9.14–28) or at the hands of Hazael himself (the stela, if correctly read). Both the stela and the DH, with the Chronicler in substantial agreement (2 Chron. 22), picture the period leading up to 842 as a time of cooperation between Judah and Israel.
Few sources outside the Bible say much about Judah in the ninth century BCE. No Judean king figures in the Assyrian records, and the Dan stela is the only nonbiblical evidence about relations between Judah and Israel. This led a few historians to wonder whether a Davidic royal establishment and a “covenant with David” might be a fiction, retrojected into the past from Josiah’s time or even from the time of the Babylonian exile—that is, from the late seventh or sixth centuries BCE. But this hypothesis has been destroyed by the discovery of the Dan stela, with its inescapable reference to the “house of David.”

At Arad, guarding the Judean southern frontier, 25 kilometers (15 miles) west of the Dead Sea, the date of the Solomonic fortress (Stratum XI) has been disputed and may belong to the early ninth century BCE. Beer-sheba, west of Arad in the central northern Negeb, was a fortified Judean town substantially to the south of Rehoboam’s string of frontier fortifications, suggesting that Asa’s or Jehoshaphat’s control extended farther to the south than had Rehoboam’s.

Asa’s long reign (roughly 908–867 BCE) extended into the opening years of the Omri dynasty, but it was his son Jehoshaphat who ruled Judah throughout Ahab’s reign. The DH ushers Jehoshaphat onto the scene in 1 Kings 15.24, in Asa’s death notice; it includes him in the Micaiah story and the battle to recover Ramoth-gilead of 1 Kings 22.1–28; and then it gives a brief summation of his reign in 1 Kings 22.41–50. As with Asa, the Chronicler presents significantly more about Jehoshaphat, while giving alternative angles on two of the features the DH had included. The Chronicler criticizes Jehoshaphat for his participation with Israel’s king in the Ramoth-gilead battle (2 Chron. 19.1–3), and his narrative about a maritime venture of Jehoshaphat and Ahaziah, son of Ahab, differs strikingly from the DH’s account.

This maritime venture involved an effort to build and deploy a mercantile fleet at Ezion-geber, the port at the northern tip of the Red Sea. In 1 Kings 22.47–49, the information is as follows:

There was no king in Edom; a deputy was king. Jehoshaphat made ships of the Tarshish type to go to Ophir for gold; but they did not go, for the ships were wrecked at Ezion-geber. Then Ahaziah son of Ahab said to Jehoshaphat, “Let my servants go with your servants in the ships,” but Jehoshaphat was not willing.

The Chronicler has it this way:

After this King Jehoshaphat of Judah joined with King Ahaziah of Israel who did wickedly. He joined him in building ships to go to Tarshish; they built the ships in Ezion-geber. Then Eliezer son of Dodavahu of Mareshah prophesied against Jehoshaphat, saying, “Because you have joined with Ahaziah, the LORD will destroy what you have made.” And the ships were wrecked and were not able to go to Tarshish. (2 Chron. 20.35–37)
Manifestly the Chronicler opposed Judean alliances with kings of Israel; the story is retold to make the maritime venture a disapproved cooperative one, and it implies that Israel took the initiative, perhaps already having access to Ezion-geber.

The brief notices about this venture suggest that if Judah and Israel could cooperate, working out (by either treaty or submission) arrangements with Phoenicia to the north and Edom to the south, then they could develop on the land bridge from the Mediterranean to the Red Sea a lucrative and mutually beneficial commercial program. The note from 1 Kings 22.47 affirms Edom’s compliance, forced or otherwise. The northern end of the trade route was secure with Ahab’s relationship to Sidon and Tyre.

Probably the commercial program worked. Current understanding of the archaeological sequence at Tell el-Kheleifeh confirms its identification as the site of Ezion-geber. It still supports Nelson Glueck’s original assignment of a stratum to the first half of the ninth century BCE—Jehoshaphat’s time. But the only notice about its role as a factor in the economic life of Judah at this time has to do with the wreck of the fleet, apparently before it ever set sail. And for the Chronicler the story provides an object lesson in Jehoshaphat’s wickedness.

Ingredients such as these two “reversals” of DH materials have led historians to question whether the Chronicler can be trusted for historical information. But a strong theme in the Chronicler’s account commends itself as historical: the twin efforts at administering justice and instructing in just practice. Jehoshaphat’s name, probably a throne name, means “Yahweh has judged,” or better, “Yahweh has seen to justice.” In 2 Chronicles 17.7–9 and 19.4–11, Jehoshaphat is reported to have dispatched officials and Levitical educators throughout Judah. They had “the book of the law of the LORD with them,” which sounds like an anachronism consistent with the time of Ezra and Nehemiah, but their task was to inculcate justice in the land and to deal with cases in Judah’s fortified cities. Reference is also made to a Judean “court of appeals” in Jerusalem. Consistent administration of law under the royal aegis is plausible enough and may even have been an improvement on local administration. What such efforts to ensure justice would have run up against is perhaps best seen from Ruth 4. Here, a complex set of issues involving land ownership, land transfer, inheritance, and marriage are interwoven in a case requiring the elders of the town and two disputants to work out a satisfactory resolution. Another instance, with a far less benign outcome, forms part of the drama in the Naboth vineyard story, where a trumped-up charge brings down a local notable. There is good reason to credit the tradition of judicial reform under Jehoshaphat, and to connect it with the introduction (or reinstitution) of a district system in Judah suggested by Joshua 15.21–62 and in Benjamin in Joshua 18.21–28. Solomon had districted the north, but there has been no report of a similar administrative move in the south. Jehoshaphat’s construction of store-cities and fortresses (2 Chron. 17.12) would have been part of such an administrative reform.
Jehoshaphat's military development, as reported (with improbably large numbers) in 2 Chronicles 17.14–19 clashes with the presumed weakness depicted in 20.5–30. Given Ahab's control over Moab and probably Ammon to its north, victory over these neighboring states and even over Edom strains credulity.

One crucial feature of the relations between Israel and Judah, at least by the end of Ahab's and Jehoshaphat's reigns, does stand out: apparently the two arranged the marriage of Ahab's daughter Athaliah to Jehoshaphat's son Jehoram (2 Kings 8.18)—a potent signal of cooperation between the realms.

The kings who succeeded Jehoshaphat and Ahab would reign only about eight years in each kingdom. Here again, problems arise with the number of years assigned to each. In Israel, Ahab's successors were his sons Ahaziah (parts of two years) and Jehoram (roughly seven, though the DH gives him twelve). In Judah, Jehoram son of Jehoshaphat reigned for seven-plus years and Jehoram's son Ahaziah for less than a year. The duplication of the name Jehoram, even if in reverse order, is startling and has led to speculation that the kingdoms were really under one rule, but Athaliah's position is evidence enough of close association.

Each of the short-term successions faced an international problem. Ahab's death seems to have given King Mesha of Moab an opportunity to try to end his subservience to Israel. Notice of this is given in the first verse of 2 Kings, and a remarkable story in 3.5–27 follows it up. Ostensibly, it is another in the series of prophetic stories, in this case involving Elisha, set in the context of a battle plan bringing together Israelite, Judean, and Edomite forces to crush Moab's rebellion. The prophet promises success, and a ruse leads to an ambush of the Moabite army. But the final verse of the account has the Moabite king sacrifice his son on the wall at Kir-hareseth, his last remaining stronghold. Then "great wrath came upon Israel, so they withdrew from him and returned to their own land" (3.27). Whose wrath? Yahweh's? The Moabite deity Chemosh's? Whatever is meant, this account is the only one available to correlate with the words on the Moabite Stone:

Omri, king of Israel, humbled Moab many days because Chemosh was angry at his land. And his son succeeded him, and he also said, "I too will humble Moab." During my days he said this, but I have triumphed over him and over his house, and Israel has perished forever.

Moab had released itself from Israel's dominance.

For Judah, it was Edom that worked free, during Jehoram's reign (2 Kings 8.20–22). It was the two rulers in alliance who are reported to have tried to resist Hazael, in the clash at Ramoth-gilead where Jehoram of Israel was badly wounded (8.28–30). Into all this rode Jehu.
The triumphal inscription of King Mesha of Moab, carved into the "Moabite Stone" found at Dhiban, which details his victory over Israel in the mid-eighth century BCE. This magnificent basalt stela was over 1 meter (3.5 feet) high, and is the most important surviving text in the Moabite language. The fragments have been reconstructed into the whole on the basis of the copy made more than 125 years ago, when the stone was intact.

Jehu's Legacy

Two of the nine chapters the DH devotes to the next 120 years of history concern themselves with the Jehu purge, and a third is given over to Athaliah's brief queenship in Judah. Then the DH skips rapidly through events of the Jehu dynasty. This was the
longest-reigning dynasty, at just about a century, that Israel would ever have—roughly from 842 to 745—and through the fateful final decades of Israel’s life as a nation. By contrast, the Chronicler gives four verses to the Jehu purge and presents episodic coverage of the period’s events in Judah in seven chapters. Complicating historical reconstruction is the fact that the regnal spans given for Judah’s five rulers for this 100-year period add up to 144 years.

On the other hand, the literary portrayal of the period is enriched by three collections of material belonging to the genre of books named for prophets—Amos, Hosea, and Isaiah of Jerusalem. These books present not only the prophets’ words but also minimal accounts of their adventures.

Jehu’s move had been commissioned through prophetic word, presented to Elijah but carried out by Elisha. It commenced at the military post in Ramoth-gilead, where Jehu was holding council with his top army command. Israelite presence at Ramoth-gilead presumes an advance position in the to-and-fro conflict with Damascus. Once again, a military leader was selected, and Jehu is given a two-generation patronymic, son of Jehoshaphat, son of Nimshi (see 2 Chron. 22.7)—which may indicate only that he was “somebody,” though his status is not made clear. The emphasis on prophetic designation is unusual in the DH, since the outcome is disastrous for Israel and Judah, and it does not take a prophet or a DH editorial comment to make that apparent.

Jehu was proclaimed king by his army colleagues and at once set out for Jezreel, where King Jehoram was recuperating. It was a mark of disenchantment with the old regime that the messengers who were sent to meet Jehu as he approached joined his cause. In quick order, Jehoram of Israel, Ahaziah of Judah, Queen Jezebel, and finally seventy sons of Ahab in Samaria were wiped out. In reporting the demise of the seventy, the DH offers a sardonic explanation. Jehu gives an intentionally ambiguous order—“bring me the heads of the royal house” (2 Kings 10.6; my translation)—which the people of Samaria dutifully obey by decapitating the victims. This allows Jehu to absolve himself of complicity in the massacre of the king’s family, but the report goes on to tell of the sweeping removal of Ahab’s entire government: priests, friends, leaders, cronies—together with the whole religious establishment dedicated to the worship of Baal. The Baal temple was turned into a latrine. Moreover, Jehu’s force encountered kin of Ahaziah of Judah en route to Samaria, whom Jehu instructed to “take alive.” The report is that all forty-two were slaughtered—a curious account, which again implies that Jehu’s intent and the sequel are out of accord (2 Kings 10.12–14).

As for the effects of Jehu’s purge, the evidence comes in from all directions. Jehu had killed Ahaziah of Judah, leaving Athaliah, Ahab’s daughter, a path to the Judean throne, which she quickly secured by wiping out the rest of Ahab’s family. Any rapport between Israel and Judah ended. The slaughter of Jezebel must have meant the end of association with Phoenicia. Stresses had already developed with Damascus, as the
A panel from the “Black Obelisk” of the Assyrian king Shalmaneser III. The prostrate figure is designated “Yuw,” son of Omri, identified with Jehu, king of Israel (842–814 BCE). This is the earliest contemporary representation of an Israelite monarch.

Dan stela makes plain, and now they escalated; the DH mentions this in an expanded summation of Jehu’s reign in 1 Kings 10.32–33, reporting Hazael’s capture of all the Transjordanian holdings of Israel from Gilead to the Arnon River (Ammon and Moab).

In 841 BCE by Assyrian reckoning, and hence very soon after Jehu’s purge, Shalmaneser III campaigned westward again. He left an account of his successes on the Black Obelisk, depicting Jehu groveling before him and recording the tribute he exacted: “Tribute of Jehu, son of Omri: silver, gold, a golden bowl, a golden beaker, pitchers of gold, lead, staves for the hand of the king, javelins. . . .”

The economic impact of closing off the flow of commerce over the Palestinian land bridge from Phoenicia to the Red Sea can only be guessed. Most farmers and herders, probably 85 percent of the population, would have hardly noticed. Their lot was largely fixed, except that they could elect to turn some of their terraced strips and even valley floors to the raising of surplus olives and grapes if there were consumers with resources to make it worthwhile doing so—and if it seemed worth the risk of turning away from grain staples. Given the uncertainty of sufficient rain from one year to the next, they probably stayed with their survival base, although some would have taken the risk of growing for profit. Presumably, a merchant and commercial element developed, when there was peace along the line of commercial flow. They would have been the ones to feel hardest the impact of choking off trade, as would the royal court, their consumers.

Archaeology indicates that iron smelting and forging to produce agricultural tools was done locally, but the iron ore sources were in the south, on both sides of the Dead Sea and on down into the Arabah. These sources were inaccessible without an entente with Edom and (for Israel) passage through Judah. The importing of more exotic commodities (such as spices, incense, and gold) would have stopped. If the absence of such luxury (and ritual) items marks an economic downturn, both Israel and Judah would
have suffered from it during the Jehu aftermath. The DH and the Chronicler gave only
the barest of hints about these matters. Prophetic writings and archaeological artifacts
point out social and economic conditions more explicitly.

The biblical historians treat Athaliah’s reign in Jerusalem sparsely, but the story of
court intrigue dominates what we hear. A sister of Ahaziah and daughter of Jehoram—
that is, a woman specifically identified as being in the direct line of the Davidic mon-
archy—Jehosheba (in Chronicles Jehoshabeath) by name, was able to hide one surviving
son of Ahaziah, Jehoash, within the royal palace for six years. A priest named Jehoida,
whom the Chronicler identifies as Jehosheba’s husband, engineered this seven-year-old’s
placement on the throne. The ceremony and the language marking that placement recall
themes both of a royal covenant with the Davidic line and a covenant between deity
and community based in the commitments associated with Sinai (compare 2 Kings 23
and the activity of Josiah).

Especially important in this narrative is the appearance of a segment of the popu-
lation designated “the people of the land” (2 Kings 11.14, 18, 20) who ratified and
rejoiced over what had happened. This societal ingredient was important to the DH’s
account of reform and the implementation of traditional values throughout the re-
mainder of the Judean monarchy. These people were some sort of landed gentry, a
group with tangible political influence. Given what has been said about land tenure and
patrimony, they were probably heads of households with landholdings who retained
political influence, the younger sons serving in the military and the priesthood. Some
such interlock between the people and the monarchy would mean that this was a popular
movement, not merely the activity of a small elite, but for such an interpretation much
depends on the degree to which land tenure had moved out of the hands of the many
and into those of a few. The narrative in 2 Kings 11.4–21 seems to be depicting a popular
overthrow of the current rule.

Note that the queen could assert control, and note further that the story does not
suggest her gender being the primary factor in DH’s negative judgment on her reign.
Instead the focus falls on the existence of a temple to Baal in Jerusalem—the first
reference to such an institution there—implying that the fault lay in Athaliah’s mem-
bership in the Omri–Ahab line, sharing its religious perspective. When the clash came
that ended her reign, she could cry “Treason!” (2 Kings 11:14). Implicitly her rule is
conceded by the DH to have been considered legitimate at least by parts of the Jerusalem
establishment. The story provides a rare glimpse of the people and institutions of Ju-
dah—a cycle of guards captured by military leaders which went on and off duty on the
Sabbath; a priest of Yahweh’s Temple who could bring to bear sanction and equipage;
a pillar that emblemized royal designation and/or authority; a group called the Caritites
who formed a kind of praetorian guard; the action of the “people of the land.” For the
DH to narrate so much about the Judean monarchs is unusual. The chapter is a unique
House 1727 at Shechem, from the eighth century BCE. The photograph shows part of the remains of the ground floor, with cobbled side rooms around a central court with a huge hearth positioned in it; the scale on the hearth measures 2 meters (6.5 feet). The plan shows the full extent of the first floor, with the second floor reconstructed in part from the evidence of collapsed flooring and ceiling debris over the central room of the first floor. There may also have been a partial third story or "upper room."

resource for institutional history. The Chronicler's account of the incident presents other details, including replacing the cycle of military with Levites from throughout Judah and designating the participants as "the whole assembly." These are hints of other ideologies at work, but they still indicate a popular movement.

The result of the intrigue was the ascendency of Jehoash (Joash) for a forty-year reign. We need to adjust this span because it is a round number and because the time
frame for the Jehu dynasty must, as previously noted, be compressed; 836 to 798 BCE is a sensible proposal. The DH approved Jehoash because Jehoida was his mentor (the Chronicler augmented this motif), but he still did not meet the DH's ultimate test: the removal of the high places. DH focused on the repair of the Temple and the noteworthy claim that, once started, the repairs were carried out with integrity. What that signals in the way of a restoration of popular consciousness hints at recovery of political and social will. If so, it did not last. Disenchantment with Jehoash set in by the end of his reign, and he was assassinated by his own servants—no talk here of a popular movement—with his son Amaziah succeeding him.

At this point the DH notes that "Hazael set his face to go up against Jerusalem" (2 Kings 12.17). This isolated bit of information, and Jehoash's response—to buy Hazael off with gifts—is paralleled by the report that Jehoahaz king of Israel, Jehu's son and successor after a twenty-eight-year reign, also had to deal with Hazael (2 Kings 13.3) and indeed did so for his whole reign (13.22). Hazael, then, had a long reign, from about 842 to almost 800 BCE. The mention of the threat to Jerusalem places Hazael at Gath in Philistine territory; unencumbered by any constraint from an Assyria that was now tied up with concerns closer to home, he had both Israel and Judah at his mercy. According to 2 Kings 13.7, Jehoahaz was left with a symbolic parade guard of fifty horsemen, ten chariots, and ten thousand foot soldiers (perhaps to be read as ten contingents from various households, or about a hundred men).

This is the period to which many authorities now assign the narratives of encounters with Syria contained in 1 Kings 20 and 22 (see above). In any case, the depiction of the two small kingdoms incapable of coping with Syria applies to the second half of the ninth century BCE. The diversion in 2 Kings 13.14–19 to the report of Elisha's death, which includes Elisha's instruction to King Jehoash about victories over Syria (Aram) but portrays an omen of an insufficient three victories instead of the needful five or six, coheres with this hypothetical proposal as well. Three successful clashes with Syria were not enough.

One side or the other of the year 800 BCE, Assyria's return to the scene had a direct impact on Syria's power. By that time, Adad-nirari III was on the Assyrian throne and was old enough to begin anew the drive to the west. Probably in 796, but perhaps even earlier, he crushed Damascus and defeated Hazael's son, Ben-hadad (the third ruler of that name, if the Syrian succession has been correctly reconstructed here). Adad-nirari received tribute from Israel as well, according to his "summarizing inscription" on the Tell er-Rimah stela; but Syria's threat had been reduced, and Damascus and Hamath apparently returned to fighting one another. The note in 2 Kings 13.25, that Jehoahaz's son Jehoash recovered territory from Ben-hadad, fits with all this. The most plausible meaning of 2 Kings 13.5, according to which "the LORD gave Israel a savior," is that Adad-nirari was perceived as the hidden agent of divine relief.
The stela of the Assyrian king Adad-nirari III (811–783 BCE) from Tell er-Rimah in Iraq, mentioning tribute paid by Jehoash, king of Israel. Among the divine symbols behind the king is the winged sun disk of the god Ashur. The monument was erected by a local governor; when he later fell out of favor, the lines dealing with him were chiseled out. (Height: 1.3 meters [4.3 feet]; width at base: 0.69 meters [2.25 feet].)

Relief from external danger there may have been, but conflict resumed between Judah and Israel. Amaziah had succeeded Jehoash (Joash) of Judah; Jehoash (Joash) had succeeded Jehoahaz of Israel. The DH reports briefly a Judean defeat of Edom, followed by a clash with Jehoash of Israel, brazenly invited by Amaziah but disastrous for him. Jehoash captured Amaziah at Beth-shemesh west of Jerusalem, advanced to his capital and broke down a segment of the city wall, pillaged the Temple, took hostages—and departed. Then, for the third time in as many reigns, the Judean monarch was assassinated, to be succeeded by a son. With Amaziah, as for his father, Jehoash, the ancient historians give no reason for the conspiracies that removed them. Meanwhile, in Israel, Jehoash’s reign completed its course very soon after Amaziah’s death. It had been rough-
ly sixty years since Jehu's purge. To the ancient historians it had been an undistinguished time. Except for Elisha's final intervention with Jehoash of Israel and a note from the Chronicler about a confrontation between a prophet and Amaziah over the Edomite venture, the historians gave their accounts without including the prophetic voice.

In the course of the second decade of the eighth century BCE, around 788 for Jeroboam ben-Joash (perhaps a throne name recalling the first Jeroboam, who was ben-Nebat) and 785 for Azariah/Uzziah, the fortunes of Israel and Judah took a turn for the better. Both reigns were lengthy; the DH gives Jeroboam II forty-one years and Azariah/Uzziah fifty-two. But neither historian dwelt on their accomplishments. Jeroboam II is the subject of seven verses in the DH, and he does not appear in the narrative account of the Chronicler at all. One interesting fact does appear in 1 Chronicles 5:17: "All of these [the tribal family of Gad in Transjordan] were enrolled by genealogies in the days of King Jotham of Judah, and in the days of King Jeroboam of Israel." Jotham was Azariah's successor, and most chronological reconstructions place his reign after the end of Jeroboam's. The text does not have to mean that they overlapped. More important is the suggestion that a census of at least the Transjordan population was carried out in the mid-eighth century, because a census is taken for tax and/or military purposes. Jeroboam may have conscripted for military action; military might, and "how he fought," are features of the DH's summation in 2 Kings 14.28-29. The collocation of the two kings' names may hint at cooperation between Israel and Judah.

The seven verses in 2 Kings 14.23-29 about Jeroboam II are tantalizing, their wording unusual. The DH gave him the usual negative assessment of failing to depart from the ways of the northern kings since his distant predecessor of the same name. Then:

He restored the border of Israel from Lebo-hamath ["the access to Hamath"] as far as the Sea of the Arabah, according to the word of the L ORD, the God of Israel, which he spoke by his servant Jonah son of Amittai, the prophet, who was from Gath-hepher. For the L ORD saw that the distress of Israel was very bitter; there was no one left, bond or free, and no one to help Israel. But the L ORD had not said that he would blot out the name of Israel from under heaven, so he saved them by the hand of Jeroboam son of Joash.

The restoration of the territorial boundaries reached to the ideal northern extent of the land promised to Israel in Numbers 34.7-9 and implicitly attained by Solomon (1 Kings 8.65). To the south, it reached to the east coast of the Dead Sea, the limit sometimes attained by the kingdom of Israel. Confirmation that Jeroboam actually held all this territory derives from the sarcastic words in Amos 6.13-14. There the prophet scoffs at people's rejoicing over victories in Transjordan, at "Lo-debar" ("no-thing") and Kar-naim ("horns")—actual locations in Gilead and Bashan mentioned with fair frequency in the Bible, but here with their names bearing double meanings along the lines of
“not-much” and “two horns of pushing people around—big deal!” Amos then threatens the arrival of a nation that “shall oppress you from Lebo-hamath to the Wadi Arabah”—the same spread of territory that Jeroboam had reclaimed.

The DH’s passage about Jeroboam goes on to speak of lamentable conditions in Israel (a motif unique to this passage) and portrays the attention of the national deity to the bitterness of life. What “no one left, bond or free” suggests can only be imagined. The verb *to save* (the Hebrew root is the one used about the relief provided by Adad-nirari III, the “savior” of 2 Kings 13.5) expresses both the need and the relief under Jeroboam. Jonah, known otherwise only from the comic prophetic legend that bears his name, was the prophetic announcer. The highly theological assessment in 14.26–27 combines with the cry and the hope of Amos and Hosea.

The DH also claims that Jeroboam “recovered for Israel Damascus and Hamath, which had belonged to Judah.” The first clause is best understood as recovery of commercial access and treaty relationship with the two Syrian states. The second claim, about Judah, remains puzzling.

Azariah/Uzziah (it is not clear which was the throne name and which the given name) also receives seven verses from the DH, but the only historical information we have about him concerns his illness, a skin disease that caused his quarantine in a separate house and led to his son Jotham becoming regent. The Chronicler gives the disease an etiology—it is punishment for his participation in illegitimate rituals—but also offers political information. Uzziah, he says, rebuilt Eloth (Elath), the Red Sea port; he defeated the Philistines; he secured the Negeb; he received tribute from the Ammonites; and he fortified Jerusalem and armed it with new military machinery.

Together, Israel and Judah had reestablished circumstances that would let commerce flow and employ many people and their skills, bringing a time of prosperity. Archaeological evidence throws light on the scene. Deep in the Negeb, the oasis of Kadesh-barnea, 80 kilometers (50 miles) south-southwest of Beer-sheba, lay along the road from Elath to Gaza, a key trade route. Destroyed by Shishak in the late tenth century, it reemerged as a fortress around 800 BCE, whether at the instigation of Uzziah or one of his predecessors cannot be determined. The fortress measures 60 meters by 40 meters (200 feet by 130 feet) with salients at the corners and midway along each side of a ramparted wall 4 meters (13 feet) thick. Fifty kilometers (30 miles) south and east, not far off the Gaza-Elath road, lay another rectangular structure that may have been a fortress or a rest stop, at a site called Kuntillet Ajrud, excavated in the mid-1970s. Efforts have been made to determine, from the kinds of pottery found, who would have lived at these outposts. Kadesh shows “Negebite” pottery styles otherwise thought to be from local dwellers in the wilderness, combined with Judean styles; Ajrud has none of the local Negebite styles, but combines Judean styles with styles identified as Israelite. Ten-
A drawing of one of the graffiti on a storage jar from Kuntillet Ajrud in the northern Sinai, dating to the eighth century BCE. The inscription mentions a blessing "by Yahweh of Samaria and his asherah," perhaps depicted as the two central figures. Adapted with permission from a drawing by Zeev Meshel.

Tentatively, this is another indication of Judean-Israelite cooperation, as well as of the use of local populations as part of military garrisons.

From Ajrud comes evidence of the religious life of the time, in the form of ink graffiti on the doorjamb and painted drawings with graffiti on walls and Judean-style storage vessels. Some inscriptions are blessing formulas invoking the god of Israel. One noteworthy graffito runs across the headdress of a crowned, dwarfish, bovine-headed figure standing in front of another such figure; adjacent to the upper right is a seated female playing a lyre. Interpretation of all the ingredients is difficult. The forward crowned figure clearly has a penis with testicles or a tail, while the one behind him has indications of breasts but no penis or tail, despite earlier reconstructions that supplied her with what looks like a penis. The two then may be a male deity and his consort. The text, probably added subsequently, identifies them as "Yahweh of Samaria and his asherah." The seated lyre player may also be a depiction of the goddess Asherah, drawn by still another hand. Very likely the whole collection indicates a mixture of religious motifs, pointing to Canaanite worship and to a linking of Yahweh with the goddess Asherah. What "his asherah" means is uncertain, because in the Semitic languages a possessive suffix is not added to a personal name. All in all, a picture emerges of mixed religious piety, something of a kind that official religious policy, not to mention the "true" prophets of Yahweh, would have abhorred. The reference to Yahweh of Samaria and the spelling of Yahwistic names in the blessing formulas again point to northern participation in trade activity and possibly defense deep in Judean territory.

With Jeroboam's reign in the north, there emerge the earliest of the "writing" prophets, those for whom books of their sayings were gathered by their followers and edited into a tradition of their words and work. Hosea was a native northerner, whereas Amos's home was in Judah. Both aim what they have to say at the population of the
One of the ostraca from Samaria. These brief inscriptions were a temporary record of shipments of expensive wine and olive oil; in the second line, this text names “Shemida [šemī(y)a)]dā[,]” one of the individuals occurring most frequently in the collection.

north, designated as Ephraim by Hosea. For Amos it is seldom possible to tell when he is addressing Israel as a state and when as the whole people of God, but some of his words name Samaria, while other passages are directed to Bethel. Aid in sensing the targets of their vehement critique comes from archaeological evidence, including the Samaria ostraca and the Samaria ivories, from analogies of other developed agrarian societies provided by comparative sociology, but most of all directly from their pungent words and symbolic actions.

The Samaria ostraca sketch a picture of a capital peopled by the king’s retinue and mulcting the neighboring countryside. The locations mentioned in the ostraca suggest that the region from Samaria southward to Mount Gerizim, above the city of Shechem, was the main source of supply for the capital; other regions probably supplied royal and military centers at cities such as Megiddo, Aphek, Hazor, Bethel, and Dan, along with lesser centers like Shechem and Tirzah.

Amos’s prophecy stressed social injustice. His main target was the families living in Samaria, whom he portrayed as wallowing in luxury and leisure at the expense of the populace in the towns and villages of the countryside, and probably even those living around the citadel of the capital itself. Those exploited in this way are designated not only the “poor” and the “needy,” but also “the righteous” (2.6; 4.1; 5.11–12). Amos, from the village of Tekoa south of Bethlehem, himself a landed person with social standing (according to his answer to the priest at Bethel who challenges his credentials [7.1]), was indignant at economic and social conditions in the north. But since his tradition was doubtless carried south and augmented after Samaria fell, his critique must have fit conditions there as well.

The proposal of sociologists that Israelite society in the time of Jeroboam II and his successors be analyzed as an “advanced agrarian society” is convincing. The principle
of patrimonial inheritance had largely given way to a system in which gifts (prebends) of land from the throne had produced estates held by people who lived most of the time at the court. As part of the same development, lands in the hands of common folk were acquired by the large landholders when small landholders could no longer survive economically. A system of “rent capitalism” is likely to have come into play whereby the landed peasantry had to sell land in bad seasons in order to buy seed to plant what land they retained, and a cycle began that ended in peasantry operating as tenant farmers, owing their livelihood to their patrons. An economic elite came to possess most of the land; more and more people became landless. In the midst would have been people of commerce, who traded in necessities like tools and seed, as well as in luxury items.

One of the symbols for the life of luxury is the use of carved ivory, either as furniture inlay (“beds of ivory” in Amos 6.4) or as figures carved in the round. The impressive collection of ivory pieces found at Samaria, all belonging to the eighth-century BCE layers of the “ivory house,” illustrates this aesthetic dimension of life at the capital. The style of carving is a thorough mixture of Egyptian, Phoenician, and Syrian motifs, in some cases involving inset lapis lazuli imported from Egypt. The ivory probably came from the elephants indigenous to the river valleys of Syria. No more graphic indication can be cited of the cosmopolitan influences at play among the wealthy of Samaria. While
few motifs can be specifically connected to Baal iconography, the worship of Baal at the capital is best illustrated by the proportion of Baal-compounded names in the Samaria ostraca.

Amos and Hosea are better seen not as themselves downtrodden and thus protesting "from below," but as informed and empathic observers from the ranks of the well-to-do, indignant at the effects of the unfolding social and economic structure. Amos is appalled by unfair trade practices (2.6), by fines imposed on and levies taken from the indigent (2.8, 11), by the violation of the rights to adjudication for those who protest and the bearing of false witness (5.10). Corollary to these injustices are the lavish expenditures at the court or among the gentility: houses of hewn stone, summer homes, overstocked pantries, and the high living that goes with the binge of overindulgence translated "revelry" (6.4–7)—a social and religious ritual (in Hebrew, marzeah) that appears in texts from the second millennium BCE to the Byzantine period.

Exploitation of the righteous was interwoven with religious injustice, combining hollow if punctilious practice (4.4–5) with the likelihood that participation in worship, a valued aspect of all Israelite life, was denied the poor because they had no time or resources. For Hosea the dimension of worship was paramount; unjust practices combined with a lying interpretation of tradition and of worship. Hosea laid the practice of injustice and of disillusionment at the door of the priests (Hos. 4.4–10; 5.1–2; 6.9). An unholy alliance of king and religion, resulting in a violation of the ideology of northern kingship and worship, will result in the rejection of the calf of Samaria (8.5). Hosea's words and agenda accord with those of Deuteronomy and of E.

While Amos and Hosea were excoriating royal, priestly, and judicial leadership, they laid equal responsibility on the people. Recalling the standards of social justice claimed as foundational for the people Israel, both appeal to the norms and terminology of the Sinai covenant (Hos. 4.1–3; 8.1–3; Amos 3.1–2). Amos in particular, in the litany that critiqued the nations with whom Israel and Judah have been involved in foreign relations across the centuries (1.3–2.3), invoked a theme of desired covenantal peace among the nations—also an ingredient in the ancient hopes of Israel. These indications of the wider pertinence of the prophetic message suggest that the audience of Amos and Hosea extended outward throughout the land. The message may have been carried by their followers. We must not assume that the prophets were heard by very few and dismissed as disgruntled killjoys.

What was the common lot of people in the towns and villages away from the capital and the cities of royal patronage? Tirzah and Shechem are towns near Samaria, which at this time probably did not fall under the direct aegis of the court. At Shechem in Stratum VII, the layer that ended with the Assyrian destruction of 724–722, a well-preserved "four-room" house and its surroundings have been excavated. This typical architectural plan involves a central room entered at one end, with rooms along the
other three sides; the side chambers can be subdivided into various combinations. A hundred or more examples of the layout have been found from Hazor to Beer-sheba, at Mizpah, Tirzah, Tell Qasile, and across the Jordan River—in short, in virtually every excavated Iron Age town.

The Shechem house had two full stories and probably an upper partial story. On the ground floor, in addition to cobbled rooms housing the family’s donkeys and perhaps their fatted calves, were rooms for their provender as well as for food and fuel storage. The central room contained at first a food-processing (grapes? olives?) or dyeing installation, later supplanted by a huge hearth for some such industry as the preparation of lime. The family practiced diverse agriculture and cottage industries.

At a secondary construction stage, rooms were added along one side wall, probably to accommodate an expanding family. The addition encroached upon a spacious yard next to the house where bread was baked, but where there was also space for recreation. Another similar house lay across the yard, perhaps combining with the first one to make up a family compound.

This complex was sited near the western perimeter of town, near what is likely to have been one of the town gates. In construction and in extent of surroundings, it contrasts with contemporary housing closer to the center of town—more closely compacted, and farther from the gate where business was transacted and justice administered. A similar pattern has been noted at Tirzah. An interesting question is whether this indication of relatively small social distinction means social stratification, and whether people such as those who lived in House 1727 at Shechem or the “good” homes in Tirzah had the discretionary resources and power sufficient to engage in the unjust practices Amos denounced.

Assyria and the End of Israel

Close to the year 745 BCE, Jeroboam II in the north and Uzziah in the south reached the end of their reigns. In that year Tiglath-pileser III, referred to as “Pul” in the Bible, entered upon his reign over Assyria. From as early as about 738, Tiglath-pileser’s tribute lists give the name of a ruler of Syria, which equates with Rezin of the Bible. In the south, Egypt was experiencing a period of internal strife; one power center was at Sais in the delta, whose ruler Tefnakht is probably the king called “So” in 2 Kings 17.4. Israel and Judah were in the midst of a brewing storm.

Turmoil in Samaria must have arisen over how to participate in the constantly changing power game. Six kings sat on the throne of Israel between 747 and 722, only three of them for any length of time and none for over a decade. Precise chronological details are elusive; for example, the twenty years assigned Pekah cannot be squared with Assyrian information. The sequence: Jeroboam’s son Zechariah lasted six months, struck
down by the usurper Shallum, who lasted one month. Menahem ousted Shallum and reigned close to ten years; Menahem’s son Pekahiah succeeded him, only to be overthrown by a military captain named Pekah. (Pekah and Pekahiah are forms of the same name; did Pekah assume his predecessor’s throne name?) Hoshea killed Pekah and reigned for nine years, to the fall of Samaria.

Things were more stable in the south; Jotham, regent for Uzziah, continued on the throne until about 735 BCE and was succeeded by his son Ahaz, who held the throne until about 715. (There is controversy about the chronology; Ahaz’s reign may have fallen a decade earlier, and Hezekiah may have begun his reign about 727 to 725—no synchronisms for this period help resolve the question.)

Tiglath-pileser III ruled Assyria from 745 to 727. He campaigned westward repeatedly during that time. Assyrian policy of conquest took one of three tacks, all of them ruthless. Frequently the policy worked on a three-stage progression: seek voluntary submission of local rulers; conquer by force if voluntary submission does not happen; punish any recalcitrance or rebellion by taking over governmental control and deporting local leadership, while substituting populations drawn from other locales. Menahem voluntarily submitted and sent tribute to Tiglath-pileser, as at this stage did Tubail (or Hiram—Assyrian annals and inscriptions differ on the name) king of Tyre and Rezin of Damascus in 738/737.

The account in 2 Kings 15.19–21 indicates the economic impact. Menahem’s tribute was 1,000 talents (a talent was roughly 50 kilograms [110 pounds]) of silver, which “he exacted from Israel, that is, from all the wealthy” at the rate of 50 shekels a head. Since 50 (or perhaps 60) shekels is a mina and there are 60 minas in a talent, this computes to at least 60,000 people who had to contribute. If we take Jeremiah 32.9 as the guide, 50 shekels was three times what Jeremiah had to pay for his family’s field in Anathoth—no paltry amount. That 60,000 people could be thought of as “wealthy” in Israel raises its own set of issues. If it means there were that many landholders in mid-eighth-century BCE Israel, we must be cautious in estimating the proportion of “wealthy” to “poor and needy.” What is more likely is that everybody (“Israel” in 2 Kings 15.20) was reckoned “wealthy” for the purposes of exaction, an economic hardship disastrous for those on the margin. That alone would have created popular opposition, which doubtless played its part in Pekah’s conspiracy against Menahem’s son Pekahiah.

Tiglath-pileser enlisted voluntary submission, or compelled it, in the west until about 738 BCE, and contended with threats to his north and east for three to four years after that. Assyrian public records combine with biblical accounts to portray what happened between 735 and 732. Rezin assembled a rebellious coalition including Pekah of Israel, and sought to involve Judah. The DH places their first efforts at the end of Jotham’s reign (2 Kings 15.37), but the pressure came when Ahaz had succeeded Jotham
during 735 (16.5–9). The coalition attacked Jerusalem, probably in 734, but Ahaz took the course of sending an advance tribute to Tiglath-pileser, requesting him to intervene.

Tiglath-pileser probably never intended otherwise. In 734 he campaigned across the middle of Syria to the Phoenician coast, conquering city after city from Byblos southward and ending by securing the frontier city of Gaza and the boundary with Egypt. That in itself may have been enough to frighten the Syrian-Israelite coalition into pulling back from Jerusalem. The Chronicler presents an alternative picture, claiming that Syria and Pekah separately wrought havoc in Judah, but that Ahaz’s invitation to Assyria was occasioned by attacks from Edom in the south and Philistia on the west. Whatever the precise course of events in Judah, Tiglath-pileser’s annals combine with 2 Kings 16.9 to report fighting with Syria in 733 and 732, ending with the fall of Damascus and the death of Rezin.

For Pekah, the end came at this time also. Hoshea killed him and silenced the anti-Assyrian voice in Samaria. Meanwhile, Tiglath-pileser applied the third stage of Assyrian policy to the entire north of Israel’s territory, turning them into the Assyrian provinces of Megiddo, Dor, and Gilead (2 Kings 15.29) and deporting their populations. Hoshea was left with the central hill country, over which the Assyrian king claimed to have appointed him.

The impact on Judah, notably on Ahaz and his “pro-Assyrian” circle, was brought home to Jerusalem by Isaiah. Isaiah is presented in the book named for him as a figure of prominence in Jerusalem. As with other prophets, he has a following (8.16) and enjoys customary access to the king. The book’s superscription, and the retrospective in chapter 6 of his inaugural prophetic vision, date his first activities to the end of the reign of Uzziah; but narrative encounters show him at work with Ahaz and then, after a gap of time, with Hezekiah. The account of his confrontation of Ahaz served as the gathering point for chapters 7–11.

With “the house of David” (7.2) quaking before the threat of the alliance of Pekah and Rezin, Isaiah realized that he was divinely commissioned to confront King Ahaz. Isaiah bore a message and a symbolic act, the latter taking the form of Isaiah’s son Shear-jashub, whose name has a deliberately ambiguous meaning: “a remnant shall return/ only a remnant shall return,” both a threat and a promise. Isaiah’s message: the conspiracy being developed by Rezin and Pekah will not succeed; neither fear nor resist it. If you want reassurance that this is so, ask for a sign—and if you are too pious to ask for a sign, you will get it anyway. A son has already been conceived by one known to us both (the queen? the prophet’s wife?) whose name is the assurance, Immanu-el, “El is with us.” By the time that child has been weaned, the threat of the Syro-Ephraimitic conspiracy will have been put down by Assyria.

Isaiah’s message would have amounted to counsel not to take such measures as
sending to Assyria for help. As noted above, Assyria would probably have come to punish rebels anyway, and to set the boundary with Egypt. The rest of the collection in Isaiah 7–11 is a rich amalgam of prophetic interpretation of what went on from 732 to 722 and a projection of the prophet’s commitment to the political control of Israel’s deity, even over Assyria itself. To unravel the dates of the various oracles in this portion of the book would be futile, but one point is inescapable: what is about to happen, or has happened, to Samaria is a direct lesson to the kings of Judah. Failure to heed the lesson brings disaster on Judah as well. Accounts of the progression of disaster in the north serve as warnings to Judah (9.8–10.4). Portrayals of what a truly faithful king and kingdom would look like are positioned to fortify warning with hope (9.2–7; 11.1–9). Interwoven with all this we hear the prophet’s personal frustration as warnings go unheeded—hence his decision to lapse, with his disciples, into silence and waiting (8.16). Whether or not the prophetic counsel worked to change the policy of Judah’s king Ahaz, the option proclaimed by the prophet and cherished by those who thought like him is as much a part of Judah’s history as is the reality of what the pro-Assyrian party opted to do.

The conspiracy did fail, and within a decade the axe fell on Samaria. For a while, into the reign of Shalmaneser V (727–722 BCE), Hoshea paid tribute to Assyria. But at some point Hoshea sensed an opening and sought help from the Saite dynasty of Egypt (2 Kings 17.4). The move cost him his throne and his people their land. The rebellious act brought Shalmaneser roaring back to the west to besiege Samaria. For over two years, Samaria held out, while Assyria ravaged the countryside. Then, in 722, the city fell—probably to Shalmaneser, although neither the DH nor the Assyrian record is quite clear on the agent of destruction and deportation. Shalmaneser’s successor Sargon II claims credit in his own inscriptions, and possibly a sequence of events unfolded complex enough to involve several stages of conquest. The DH here reaches one of its climactic points, and pauses to draw the lessons in 2 Kings 17.7–18. A second historian in the Deuteronomic tradition added verses 19–20 to bring the point to bear upon Judah. Then, in verses 21–23, the first DH summarizes the whole: from Jeroboam I to Hoshea, the course of events had been developing disastrously, never reversing Jeroboam’s religious sin, and, though challenged by prophetic voices, had finally led to exile.

The epitaph of the northern kingdom was augmented by the remarkable portrayal in 2 Kings 17.24–33, which depicts the Assyrian policy of population exchange and provides a valuable vignette of religious phenomenology. The new populations did not know the governing religious reality of the territory and needed instruction from the indigenous priesthood. A knowledgeable priest, who had been taken into captivity, was sent back to live at Bethel. “He taught them how they should worship the LORD.” The result for the DH was built-in syncretistic religion as a way of life.

The year 722 BCE brought an era to an end. Judah stood in suspended animation,
A seal found in House 1727 at Shechem, amid the debris caused by the city’s destruction by the Assyrians in 724 BCE. Made of marble, the seal is approximately 3 centimeters (1.2 inches) high and is pierced for a string so that it could be worn around the neck. Of Assyrian manufacture, it shows a worshipper on the right before a deity, with an altar between them. At the top center is a star, a divine symbol, and on the left is the seven-star constellation known as the Pleiades.

awaiting what Assyria would have in store for it. Israel was in ruins, its leadership deported and its remaining population left to the agonies of deprivation and of occupation by people alien to their ways. Sargon’s accounts speak of either 27,280 or 27,290 exiles and of the capture of chariots (50 in one inscription, 200 in another). He also claims to have rebuilt Samaria “better than it was before.” The archaeological evidence suggests the devastation: at Tirzah, Shechem, and Samaria the wreckage speaks eloquently, emblemized by the fine Assyrian seal found in the collapsed ruins of House 1727 at Shechem. The silence of the written sources for what followed in the north is deafening. The consequences for Judah become the story of the next chapter of this volume.

It was just two centuries from Rehoboam’s action at Shechem to the fall of Samaria. A monarchic experiment under David and Solomon had envisioned a realm of peace and prosperity stretching from Dan to Beer-sheba, in harmony with surrounding peoples. The Deuteronomic Historian portrays the division of this unity with deep sadness, a tone of bewilderment. The fault lies with the people’s unfaithfulness to a deity who sought justice and peace. Israel bears the brunt of the critique, while Judah bears its share. The Chronicler, giving more attention to Judean failures, clings to hope in the Davidic promise, but shares the sadness.

The events alone, even without the prophets’ yearnings and the editors’ evaluations, convey a sense of lost opportunity. Justice and rectitude might have prevailed. More perhaps than is usually recognized, the ways in which the division of the monarchy is presented in the Bible and even in the annals of other nations of the period—the Moabite Stone, the Assyrian inscriptions, the Dan stela—inform the reflections of historians of other eras and places as they ponder the human pilgrimage.
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