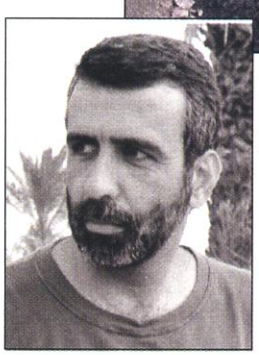
The Two Tels: Armageddon For Biblical Archaeology?

A proposed revision of the dating of remains in Israel challenges the Bible's depiction of a powerful state ruled by Kings David and Solomon

TEL MEGIDDO AND TEL REHOV—Archaeologist David Ussishkin pauses on the path near the top of a sprawling mound overlooking the green fields of Israel's Jezreel Valley. It is just after 9:00 a.m., but the summer heat is already blistering. Beneath Ussishkin's feet lies a layer cake of consecutive settlement levels dating back more than 6000 years. During the Bronze and Iron Ages, which in the Levant stretched roughly from 3300 B.C. to 600 B.C., this artificial hill was the site of Megiddo, a city occupied successively by Egyptians, Canaanites, Israelites, Assyrians, and Persians. According to the Bible, Megiddo was one of the northern strongholds of the Israelite king Solomon and will be the site of the final battle between God and his enemies when time comes to an end—Armageddon is derived from the Hebrew "Mount of Megiddo."

Just off the path stands a massive stone gate that once marked the entrance to the city. A sign placed in front of it by Israeli tourist authorities reads "Solomonic gate, 970–930 B.C." Ussishkin looks at it and laughs. "This is nonsense, utter nonsense," he tells a visitor. "The gate is from 200 years later. Solomon must be turning in his grave." For the past several years, Ussishkin, along with fellow Tel Aviv University archaeologist Israel Finkelstein and Near Eastern historian Baruch Halpern of Pennsylvania State University, University Park, has been co-directing an extensive dig at Megiddo. And some of the findings have set off a battle among archaeologists working in Israel. At issue is whether the biblical picture of a major Israelite state in Palestine, founded by King David and greatly expanded by Solomon, reflects the historical reality of Israelite settlement in this region.

Finkelstein, in particular, has concluded that the conventional dating of certain occupation levels at Megiddo is incorrect. He argues that levels previously dated to the 10th century B.C., when many biblical scholars and archaeologists assume that David and Solomon ruled, should be moved later, to the 9th century B.C. This adjustment, which some archaeologists have dubbed the "Finkelstein correction," would imply that massive fortifications and stone palaces at Megiddo previously attributed to Solomon's reign might really have been the work of a later ruler, such as the 9th century's King Ahab. David and Solomon may have simply been tribal chiefs from early- or pre-kingdom days whose reputations were greatly aggrandized by the biblical authors, who wrote their texts hundreds of years after the events they describe; or they may never have existed at all, as suggested by some scholars called the "biblical minimalists" (see p. 29).



New chronology? Israel Finkelstein says this stone gate at Megiddo is not old enough to be Solomonic.

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The debate, which touches on the politically sensitive issue of Jewish roots in Palestine, has been followed with keen interest by archaeologists and other scholars who work in the region. So far, Finkelstein—along with Ussishkin, who agrees with him on many points but reserves judgment on others—appears to be in the minority. One leading opponent of the Finkelstein correction is archaeologist Amihai Mazar at Hebrew University in Jerusalem, who is leading excavations at Tel Rehov, south of the Sea of Galilee, that he believes contradict Finkelstein's thesis. At times the controversy has become very heated. "For archaeologists working in the biblical era, the issues are central to how one views this period," says archaeologist Steven Rosen of the Ben-Gurion University in Beersheva. "And for the public interested in biblical archaeology, it affects central matters of faith." One archaeologist recently charged in the press that Finkelstein was providing a "fig leaf to the anti-Semites" by downgrading David and Solomon. And Finkelstein, in a debate with Mazar over the issue in the journal *Levant*, accused Mazar of harboring a "sentimental, somewhat romantic approach to the archaeology of the Iron Age."

The controversy swirls around complex and often esoteric archaeological issues involving pottery, stratigraphic analysis, and the correlation of burned occupation levels with historical events such as the sacking of cities in ancient Palestine by Egyptians and Assyrians. The problem arises from the fact that for roughly 450 years, during which the two Israelite kingdoms of Israel and Judah were supposedly in their glory days, archaeologists in Palestine have no firm chronological guideposts. This period is anchored at either end by two firmly dated events: a battle fought in 1175 B.C. between the Egyptians and Mediterranean raiders called the Sea Peoples during the reign of Ramses III, recorded in detailed Egyptian inscriptions that are also linked to many historical and astronomical events; and detailed records left by the Assyrians—chronologically anchored to an eclipse in 763 B.C.—which recount campaigns against the Israelites and other inhabitants of Palestine in the late 8th century B.C.

There was, however, one well-dated event in the region during this period: Egyptian Pharaoh Shoshenq I's invasion of Palestine, reckoned from Egyptian records at about 926 B.C.. Yet this event, which the Bible says took place 5 years after Solomon's death, has been of limited help, because archaeologists do not always agree about which of the numerous destruction levels at Megiddo and the other cities Shoshenq attacked were his doing.

Hence, the most common method archaeologists use to date strata in this period is by the pottery they contain, an approach Finkelstein thinks needs adjustment. In particular, Finkelstein contests the traditional view that shortly after their 1175 B.C. battle with Ramses III, one group of the Sea Peoples, the Philistines, quickly settled on and near the coast of present-day Israel (*Science*, 2 July, p. 36) and began manufacturing a characteristic style of pottery called monochrome. The presence of this pottery has been taken as a marker for remains from the 12th century B.C., while a later style of Philistine pottery, called bichrome, is usually

attributed to the 11th century.

Finkelstein argues, based on his reinterpretation of Egyptian inscriptions and other evidence, that the Sea Peoples did not begin settling down until 40 or more years after the 1175 B.C. battle. This shift, he says, would mean that the conventionally accepted dating of the monochrome and bichrome pottery puts it too early. One of his key arguments is the absence of monochrome pottery in excavations of Egyptian settlements that remained in Palestine after 1175 B.C. Given the promiscuous nature of pottery exchanges between settlements in the Near East, Finkelstein contends that it is inconceivable that these cities—some just a handful of kilometers from known Philistine settlements—would not have traded with them. As a result, Finkelstein says, the key Philistine sites used for dating the monochrome pottery could not have been established until after Egyptian domination in Palestine totally collapsed in the late 12th century B.C..

And this redating of the monochrome pottery, Finkelstein concludes, shifts the chronological guideposts, pushing the long-lived bichrome style—which replaced the monochrome pottery—into the late 11th and much of the 10th century B.C., and archaeological strata and pottery conventionally dated to the 10th century—the supposed era of David and Solomon—down into the 9th century B.C. As additional support for this idea, both Finkelstein and Ussishkin have concluded from a reanalysis of the stratigraphy of the stone gate at Megiddo, which earlier excavators had identified as Solomonic, that even under the conventional chronology it was built a century later. The Finkelstein correction would make it yet another 100 years later still.

Finally, Finkelstein and Ussishkin cite recent excavations in Jerusalem that have failed to find any evidence of large-scale building in the 10th century B.C.—despite the Bible's account that David established his capital there and that Solomon built an enormous temple in the city. "There is a very big problem for the traditional [dating] in Jerusalem," says archaeologist Gideon Avni of the Israel Antiquities Authority. "We have very minimal remains from both the 10th and 9th centuries B.C."

But many other archaeologists believe that Finkelstein has not proven his case for altering the conventional chronology. For example, Seymour Gitin, director of the W. F. Albright Institute of Archaeological Research in Jerusalem, contests Finkelstein's assumption that pottery was necessarily exchanged between neighboring contemporaneous sites. Gitin, who co-directed excavations at the Philistine site of Ekron, says that no monochrome pottery has been found at Gezer, a nearby Canaanite city widely agreed to have existed at the same time. "Not one shard representing early Philistine culture has been found at Gezer," Gitin says. "How do you explain that?"

And William Dever, an archaeologist at the University of Arizona in Tucson, who excavated Gezer—and unearthed a stone gate of similar design to that found at Megiddo, which he has dated to the 10th century based on the conventional pottery scheme—says that Finkelstein is "way out on a limb" with his chronological correction. "If anyone can prove to me this material is all 9th century B.C. and no Solomon ever lived, I don't care. But proof please, gentlemen, proof please!"

Old chronology. Amihai Mazar says the stratigraphy at Rehov upholds the conventional dating.

Dever adds that Finkelstein has given short shrift to the circumstantial evidence left by the invasion of Shoshenq I in about 926 B.C., which he believes supports the conventional view. Egyptian inscriptions list more than 100 cities that Shoshenq supposedly conquered—including Megiddo and Gezer. Excavations of more than 25 sites on the list have identified destruction layers that many archaeologists attribute to Shoshenq's invasion. Moreover, there is a characteristic difference in pottery styles—a shift from a hand-burnished to a wheel-burnished finish—in settlements built before and after these destruction layers. Dever and other archaeologists believe this hand-burnished pottery provides a chronological marker for the 10th century B.C. Finkelstein, on the other hand, disagrees, arguing that many of the destruction layers usually attributed to Shoshenq should be blamed on later 9th century B.C. invaders.

Mazar says that his ongoing excavations at Tel Rehov, another site on Shoshenq's list, support the conventional dating scheme. Although radiocarbon dating of the Iron Age period can be treacherous, due to the wide margins of error involved, short-lived grains of wheat, barley, and other plants can often be dated with reasonable accuracy. At Tel Rehov there is a major destruction layer associated with hand-burnished pottery. Radiocarbon dating of charred grains from this layer, which Mazar believes corresponds to the Shoshenq invasion, gave dates ranging from about 916 to 832 B.C. The older end of this range, at least, correlates reasonably well with the timing of Shoshenq's raid, although the later date would not. But radiocarbon dates from the beam of an elm tree used in the construction of this occupation level came in at 1120 to 990 B.C. This means, Mazar told *Science*, that even if Shoshenq did not destroy this settlement, it was constructed no later than the 10th century B.C., and the hand-burnished pottery found with it is rightly "diagnostic" of the pre-Shoshenq period.

"I have no doubt that the description of David and Solomon in the Bible is to a large extent exaggerated," says Mazar. "But this doesn't mean you have to cancel David and Solomon as historical figures." Finkelstein agrees that even if his hypothesis is correct, it "does not mean that David and Solomon did not exist." On the other hand, he adds, the nature of their realm "was very different" from that assumed by many archaeologists and biblical scholars. Rather than making up a full-blown state, he believes, the early Israelites may have formed a much smaller political entity and been restricted to a much smaller territory than indicated in the Bible. The biblical writers "told the story the way they wanted to tell it," says Finkelstein. But if his correction is right, he concludes, "you would have to write a new history of the Levant, of Israel, and of the Eastern Mediterranean in the Iron Age."

—MICHAEL BALTER

CREDITS: (TOP TO BOTTOM) A. MAZAR/THE HEBREW UNIVERSITY OF JERUSALEM; GABI LARON/THE HEBREW UNIVERSITY OF JERUSALEM