PERCHED ON A NARROW AND WINDSWEPT hillside and remote from a major trade route, the Jerusalem of 3 millennia ago was ignored by Mesopotamian archives and rated only a brief mention in Egyptian chronicles. And despite a century and a half of excavations, archaeologists have yet to uncover incontrovertible evidence of the impressive capital described in biblical texts from which King David and his son Solomon presided over a wealthy empire from the Nile to the Euphrates.

Now, new excavation of a massive building in Jerusalem has intensified an acrimonious debate among archaeologists and biblical scholars over how to date and interpret finds from that early era. The excavating team, led by archaeologist Eilat Mazar of Hebrew University in Jerusalem, contends that the discovery bolsters the traditional view that a powerful Jewish king reigned from a substantial city around 1000 B.C.E. “The news is that this huge construction was not built by ancient Canaanites,” she says, referring to the people who lived in the region before the Jews. And she goes a step further, arguing that the site is probably that of David’s palace. Mazar says she will soon publish new radiocarbon dates to back up her claim. But other archaeologists are hesitant to assign the building’s identity, and some question the dating. The city was “a typical highland village” until a century or so later, says Tel Aviv University archaeologist Israel Finkelstein, whose critique of ancient Jerusalem’s influence has made him a target of scholarly ire (see sidebar, p. 591). That would make the biblical accounts wildly exaggerated, at best.

Academic spats about the dating of Iron Age cooking pots are not uncommon, but this one spills over into political and religious disputes as well. “You have similar situations throughout the ancient Near East, but they don’t create the same level of emotion,” says Lawson Younger, an epigrapher at Trinity International University in Deerfield, Illinois. Many nationalist Israelis and devout Christians are eager to prove the accuracy of the stories about David and Solomon, whereas some Palestinians suspect that Jewish-funded excavations aim at legitimizing Israeli control of a city that to Muslims is second only to Mecca.

The tension over Jerusalem’s past was evident at recent meetings at Brown University and in Washington, D.C., where participants argued—sometimes loudly and angrily—about dating pottery shards, the influence of Jerusalem 3000 years ago, and the politics of funding digs. Resolving the contentious matter ultimately depends on refined dating techniques and a wider array of artifacts and sites. “What took place in the 9th and 10th centuries B.C.E. all depends on who you talk to,” says Anson Rainey, a Tel Aviv University archaeologist. “It’s all up in the air.”
merchants and armies passed to the west, hugging the flat and well-watered Mediterranean coast (see map, p. 590). Deep in the hills between the Judean desert and the coast, Jerusalem is much younger than other sites in the region such as Megiddo or Jericho. Likely named for a Syrian god, the town is mentioned as early as the 19th century B.C.E. in Egyptian writings. Excavations show that 5 centuries later the site was fortified by a people called the Jebusites, who are associated with the Hittites of Anatolia.

According to biblical texts, Jewish tribes began to infiltrate the region by that time, setting up the southern kingdom of Judea and the northern kingdom of Israel and finally conquering independent Jerusalem under King David around what textual scholars estimate was the year 1000 B.C.E. David united the two kingdoms, and the Old Testament relates that his son Solomon turned the town into a showplace of the united monarchy, building several lavish buildings in Jerusalem and nearby cities. His empire collapsed shortly after his death, however, and the two kingdoms split. Jerusalem remained the capital of Judea for another 4 centuries but was destroyed by Babylon’s King Nebuchadnezzar, who took many Jews into captivity.

There is, however, no direct archaeological evidence for the existence of the brief united monarchy and its empire. Decades of excavations in the City of David—located just south of the later city and just below what Muslims call the Harim al-Sharif and Jews dub the Temple Mount—provide an intriguing glimpse into the ancient town. But the data are difficult to interpret. “Jerusalem is not a simple archaeological site,” explains Amihai Mazar, an archaeologist at Hebrew University. Stone was quarried and reused over millennia, erosion has taken a toll on the steep hillsides, and excavations since the 1800s have sometimes added to the confusion. And some of ancient Jerusalem is off-limits to archaeology because of political and religious sensitivities.

Now Eilat Mazar—a cousin to Amihai Mazar in the intimate world of Israeli archaeology—has wrapped up her second season of digging at what she argues is likely David’s palace. She announced her initial finds last year, making headlines around the world. In 2005, her team started digging at the top of a large stepped-stone structure located at the narrowest point of the hill that makes up the City of David. That structure, an impressive 37 meters high, is made up of stone terraces that many archaeologists date to the 12th century B.C.E., prior to the arrival of the Jews.

Mazar, whose work is largely funded by a Jewish-American investment banker, has uncovered a large building on top of the structure, and she believes both structures were erected at the same time. “It’s very clear this is one huge construction,” she says. Her current excavation shows a build-Solomon, whereas others question whether the complex can ever be accurately dated, given its poor state of preservation. “The building is in bad shape, and so far she has not found a floor,” notes Gabriel Barkai, an archaeologist at Bar-Ilan University in Ramat Gan who recently visited the site. That means “we have to rely on a chronologica sandwich,” adds Amihai Mazar, who also is familiar with the dig.

Time troubles

The key, then, is dating the elaborate pottery on the top and the coarse pottery on the bottom of that sandwich. And that is no easy matter, because no Jerusalem samples were radiocarbon-dated prior to Mazar’s recent finds. Earlier archaeologists had not bothered to gather organic samples because radiocarbon dates for historical time periods were imprecise, with error bars of 1 or 2 centuries. Newer calibrations can sometimes pinpoint dates to within 50 years (Science, 15 September 2006, p. 1560), but it has taken time to adopt them. “Using radiocarbon in historical times is quite a young subject,” Amihai Mazar says. As a result, archaeologists here have dated sites based solely on pottery styles.

Eilat Mazar dates the complex to about 1000 B.C.E., a date based both on new radiocarbon data as well as her interpretation of the pottery found at the site. Although many others see the plain ware as typical of the early Iron Age—that is, around the 12th century B.C.E.—she believes it was used in Jebusite Jerusalem right up to the time of the Jews’ arrival. Mazar has also taken three new radiocarbon samples of bone and olive pits from under the building—the first samples in Jerusalem to be subjected to radiocarbon dating. These were associated with the plain pottery, and they date from 1050 B.C.E. to 1000 B.C.E., give or take a half-century—just prior to the time of David, she says. She also found a fourth sample at a later level associated with more elaborate pottery with Phoenician and Cypriot influence, in what appears to be an addition to the building. That material, which she believes was used by the early Jews in Jerusalem, dates to between 1050 B.C.E. and 780 B.C.E., with
All in the Family

As a young archaeologist digging in the City of David, an ancient site just south of walled Jerusalem, Eilat Mazar unearthed huge pottery vessels buried just before Nebuchadnezzar, the king of Babylon, destroyed Jerusalem 2500 years ago. The pots were stamped with ancient Hebrew writing—and she could read it. The moment crystallized her sense of belonging to the contested city. "This was my language, not some foreign tongue, and it speaks to who I am today and where I was born," Mazar says.

Today, at 50, Hebrew University archaeologist Mazar is wrapping up a second season uncovering what could be the most significant archaeological find in Jerusalem's history: the palace of the king who, according to biblical texts, united the ancient Israelites (see main text). For her, excavating in Jerusalem is more than a purely scientific endeavor; it is also a family affair, heavily steeped in the complex history, politics, and religion of the place.

Mazar grew up in a secular home which nonetheless included innumerable editions of the Bible and commentaries on it. She still prizes the Bible once owned by her grandfather, Benjamin Mazar, a renowned archaeologist and Polish emigrant. "He was my main teacher relative to thinking and methodology, and how to combine historical sources with archaeology," she says. Mazar's attachment to those sources is legendary; she is fond of saying that she digs with one hand while holding the Bible in the other. But she insists her attachment is purely scholarly: "I've never felt a religious connection to my work."

The connection, however, is deeply felt. She was outraged in 2000 when she learned of building activities on the Temple Mount, an important site that is called the Harim al-Sharif by Muslims, who have controlled it for most of the last millennium. Mazar formed a committee to protest destruction of antiquities on the site but was disappointed when Israeli authorities took little action. She adds that her protest is not religious or political: "Islamic monuments are being destroyed too. This is a site important to the world's cultural heritage."

But some Palestinians find that hard to square with Israel's own policy about excavations. Hamed Salem, a Birzeit University archaeologist who lives near Mazar's current dig, explains that "the Palestinian view is that this dig is illegal" because the territory is considered occupied by the Israelis under international law. "Archaeology is supposed to be neutral," says Salem. "The conclusions which come out of this excavation will not be on a purely scientific basis."

And a few Israeli archaeologists fear that her funding, which comes through Jerusalem's Shalem Center, a Jewish research institute, creates at least the appearance of a nationalist rather than purely scientific endeavor.

Mazar, however, insists that she is not digging to prove anyone's preconceived notions. "I'm trying my best," she says, "to keep an open mind." —A.L.
And other archaeologists note that the lack of evidence for neighboring villages could be due to their establishment on exposed bedrock, leaving few traces behind.

When pressed, however, Jerusalem archaeologists admit that their dating remains maddeningly imprecise. “We don’t have firm dates until we get to [Assyrian King] Sennacherib in 701 B.C.E.,” says Rainey. “The question is whether radiocarbon dating can solve anything.” Barkai is deeply skeptical. “Given the margin of error, radiocarbon allows everyone to argue the position they already hold,” he says. “Carbon-14 is like a prostitute.” But others acknowledge that resolving the conflict ultimately depends on more samples to provide absolute dating—which means firmly anchoring the pottery to radiocarbon dates. “There is no other way,” says Ayelet Gilboa, a Haifa University archaeologist who is part of the radiocarbon team.

Amid the dispute, which at times appears bitter and deeply personal, there are signs of a convergence. “We all agree Jerusalem was not a major city, it was a small town,” says Amihai Mazar. Adds Herschel Shanks, editor of Biblical Archaeological Review: “It wasn’t this big wonderful thing … but a capital of a small number of researchers who dispute the way archaeologists date their finds in the area around Jerusalem (see main text). If these scholarly renegades are correct, then the military exploits of Joshua, the brave deeds of David, and the wisdom of Solomon may be no more historical than the medieval tales of King Arthur. Finkelstein says he wants to bring modern techniques to a rather fusty field that in his view depends too heavily on biblical texts—but his critics suspect his real goal is to grab the media spotlight.

Finkelstein insists he didn’t go looking for trouble. He recalls a “perfectly normal” childhood in which he pestered his parents to take him to archaeological sites. And until the 1980s, he published papers backing the conventional archaeological chronology. He used pottery to date sites and assumed that the biblical texts provided a good road map for excavators. But that changed in the early 1990s, when Palestinian uprisings forced him to give up digs in the highlands north of Jerusalem. He moved to the lowland city of Megiddo, 150 kilometers north. Named as the New Testament site of Armageddon, the ancient town was the home of an impressive gate and palace long considered Solomonitic.

At Megiddo, Finkelstein sensed something fundamental was wrong with the dating, so he plunged into carbon-14 sample gathering, which at the time was rarely used at historical sites. “Radiocarbon opened the way to put ourselves on solid ground, free of all these arguments about the Bible,” he says. At about the same time, a team of researchers from several Israeli universities independently began to conduct carbon-14 analyses. They say they have good—although not conclusive—evidence that the conventional dating in the north of Israel is off by a century. That would mean the Megiddo structures were built after Solomon—and after the biblical unified kingdom—by local rulers.

The radiocarbon data fueled Finkelstein’s interest in, and suspicions of, the biblical accounts. After in-depth study, he says he decided that much of what was written about the era of David and Solomon was done long after the fact for political purposes. That conclusion led him to question archaeological work in Jerusalem, where he has never excavated. And it also created a political and religious as well as an academic firestorm.

In the wake of the Holocaust, Israeli leaders, although secular, drew on the stories of fierce fighters and wise kings to create what Finkelstein calls “the myth of the new Jew, the fighting Jew.” His critics—at meetings, in books, and in newspapers—railed against him as irresponsible and sensationalistic. “He’s a radical, politically and otherwise,” says William Dever, an archaeologist emeritus at the University of Arizona, Tucson. Dever has worked in Israel for 50 years and has known Finkelstein since he was a high school student. “Even then, he was insufferable,” Dever maintains. “For him, this is a kind of game and an ego trip. … He has become too outrageous.”

Jane Cahill, an archaeologist associated with Hebrew University, agrees that Finkelstein “requires his detractors to carry the burden of proof” and that he “resorts to bellicose rhetoric.” Finkelstein dismisses the criticism as the last gasp of a conservative establishment that is suspicious of new techniques, fears undercutting the Bible, and is jealous of someone who works well with the media; Finkelstein is a frequent television commentator, and his book sales are brisk. But he admits that he can come across as something of a bully. “I have a big mouth, and I know how to protect myself—I’m streetwise.”

But even Finkelstein feels the heat sometimes. At a recent conference in Washington, D.C., he purposely avoided a session on 10th century B.C.E. Jerusalem. “It’s not good for my health,” he explained with a hint of embarrassment. “I have daughters, and I have to try to survive.”