

A solid tenet of archaeology is that civilization first sprang to life in the cities of southern Mesopotamia. But was there a parallel—or even earlier—development of urban culture to the north?

## North Versus South, Mesopotamian Style

**HAMOUKAR, SYRIA**—They attacked from the south, flinging oval-shaped, clay bullets over the earthen walls with slingshots. After a fierce struggle, the invaders stormed the battered ramparts and set fire to the buildings. Those inhabitants of this northern Mesopotamian settlement who still survived fled, leaving behind a smoking ruin. “This was ‘Shock and Awe’ of the 4th millennium B.C.,” says Clemens Reichel, a University of Chicago archaeologist and co-director of the dig here; his team collected an astonishing 1200 small clay spheres and 120 softball-sized balls at the site last fall. After the violent confrontation 5500 years ago, pottery and other clues hint that southerners took over this site a few kilometers from the modern-day Iraqi border.

Other scholars are skeptical that Reichel’s evidence can back up this detailed battle scenario, and some even dismiss the claim that the clay balls were weapons. But there is little doubt that the settlement fell under southern influence. And the eclipse of Hamoukar and other nearby sites in the same period seems to mark an end to an emerging urban culture that existed at least as early as the one in southern Mesopotamia, say Reichel and a growing number of archaeologists. History may belong to the victors, but if Reichel’s view is correct, it would upend the long-held assumption that civilization began first in the marshes where the Euphrates and Tigris rivers flow into the Persian Gulf.

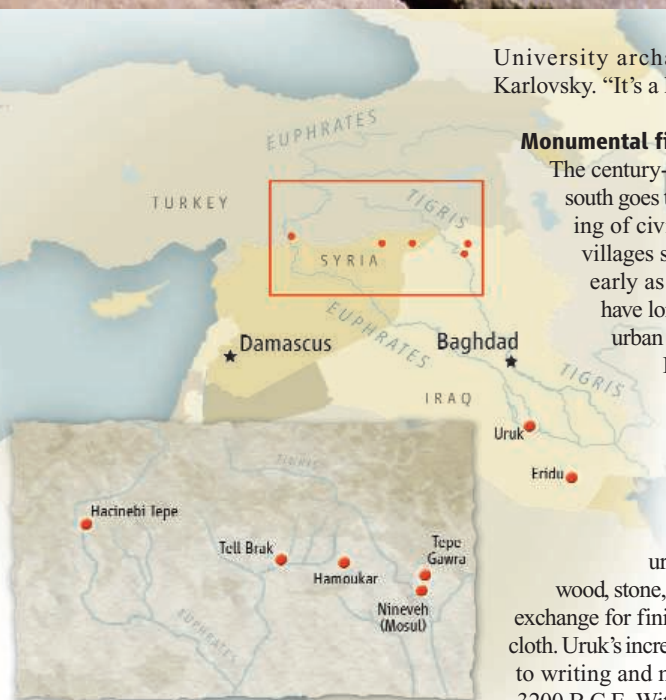
As archaeologists flock to sites in Syria (see sidebar, p. 1459), they are finding large settlements with monumental architecture and long-distance trade at the same time as the first stirrings of city life appear in southern Mesopotamia. “The possibility exists that the south was the periphery,” says Harvard

University archaeologist Carl Lamberg-Karlovsky. “It’s a heresy.”

### Monumental finds

The century-old doctrine of the dominant south goes to the heart of our understanding of civilization’s origins. Although villages sprang up in the Near East as early as 10,000 B.C.E., researchers have long thought that truly complex urban areas first evolved in southern Mesopotamia in the mid- and late 4th millennium B.C.E. People from the preeminent southern city of Uruk expanded north and east after 3500 B.C.E., bringing with them the trappings of urban life, possibly in a quest for wood, stone, and other natural resources in exchange for finished goods such as grain and cloth. Uruk’s increasingly complex economy led to writing and monumental architecture by 3200 B.C.E. Within centuries, other complex societies with similar traits appeared from the Nile to the Indus.

But a handful of excavations in what is now northwestern Iraq, southeastern Turkey, and northeastern Syria haven’t borne out the story of the south’s preeminence. For example, at Turkey’s Hacinebi Tepe, archaeologists in the mid-1990s uncovered a 3-meter-wide wall





**Down under.** This deep trench at Tell Brak reveals monumental architecture from 4000 B.C.E.

around a central precinct dated to approximately 4000 B.C.E., along with stamp seals and sealings and infant burials with silver and copper jewelry—all signs of an entrenched hierarchy. Earlier excavators at Tepe Gawra in northern Iraq uncovered substantial homes dating back to the mid-6th millennium B.C.E.; at Tell es-Sawwan, also in northern Iraq, they found a defensive wall and moat from that era. Although a far cry from urbanism, these finds surprised archaeologists, because they predate the Uruk expansion.

More dramatic evidence with the hallmarks of urbanism is now coming out of northern Mesopotamian sites in Syria as archaeologists uncover surprising sophistication in very old layers. That apparently indigenous culture challenges fundamental ideas about how the first cities began. Rather than a dominant south bringing civilization to the primitive north, some combination of cooperation and competition between the two areas may have intensified urban evolution.

Some of the most important evidence of an early complex culture in northern Mesopotamia comes from Tell Brak, a massive mound just west of Hamoukar that rises 40 meters above the flat Mesopotamian plain. Settled as early as 6000 B.C.E., Brak's towering height is the result of thousands of years of building and rebuilding mud-brick houses, temples, and palaces in the same spot. The mound is so steep that local children hop on pieces of cardboard and ride screaming to the bottom. Previous excavations revealed that residents had built an impressive temple with hundreds of mysterious small figurines with pronounced eyes, dubbed eye idols, which are not found in the south. That temple was dated to about 3000 B.C.E. when found in the 1930s. But in the late 1990s, Cambridge University archaeologist Joan Oates (see sidebar, p. 1460) and her late husband David determined that the temple and idols were in fact 5 centuries older—from before southerners exerted control over the north.

The Oateses also began digging deeply into one side of the mound during the 1990s, exposing additional layers that predate the long reach of the powerful southern city of Uruk. Access to such levels is rare, particularly in the south, where later buildings often make it difficult to access earlier periods. But at Brak, Oates has successfully uncovered a large building with a massive basalt block at the entrance, dating to about 4000 B.C.E. That's a surprise, because most researchers assumed that monumental buildings first arose in southern cities such as Eridu and Uruk.

At Brak, Oates leads the way into the deep cut in the mound, with sheer cliffs of



**Mound builders.** Tell Brak looms above the Mesopotamian plain.

## Syria's Open Door: Will It Last?

**DAMASCUS**—In spring and fall, the narrow hallway on the second floor on the back side of Syria's National Museum becomes an archaeological Grand Central Station, a peculiarly Eastern mix of frenetic activity and bureaucratic ennui. European and American excavators wander in and out of the small, high-ceilinged offices, patiently seeking permits, dropping off boxes of artifacts, or submitting reports. Bored young employees push paper and chat while their harried managers dart back and forth for meetings at the nearby Ministry of Culture.

During these busy seasons, Syria turns into what the country's chief of antiquities Bassam Jamous calls "one vast archaeological academy." More than 140 foreign and domestic teams are at work here—a far cry from the half-dozen or so expeditions of a half-century ago—and the boom is educating a rising generation of Syrian researchers.

Long an archaeological backwater, Syria is now at the center of critical debates on the origin of urbanism (see main text) and the role of trade, religion, and empire in shaping early civilization. That limelight is due in part to turbulent Middle East politics and in part to changing archaeological mores among other nations. Iraq and Iran are largely off-limits to Western scientists, strife in Israel and the Palestinian territories poses hazards, Jordan has limited sites, and Turkey and Egypt are restricting new dig permits. So Syria's rich heritage, relative domestic calm, and typically open attitude toward foreigners make it a welcome destination for many Near Eastern archaeologists. And as the researchers have come, they are making spectacular finds.

Roughly the size of North Dakota, Syria contains more than 5000 documented sites that span thousands of years of history. At Tell Sabi Abyad in the north, Peter Akkerman of Amsterdam's Rijkmuseum spearheads work at an 8500-year-old village, home to some of the oldest pottery to date in the Near East. Paolo Matthiae of the University of Rome continues digging at Ebla in western Syria; the city was conquered and burned in approximately 2200 B.C.E., fortunately baking more than 15,000 cuneiform tablets that provide rich insight into life in the 3rd millennium B.C.E. Yale University's project at Tell Leilan in the east, led by Harvey Weiss, kicked off the debate in the 1990s about the role of climate change in the ancient world. And British, U.S., and French digs at Dura-Europos on the middle Euphrates have uncovered one of the world's oldest churches as well as synagogues at this eastern limit of the Roman Empire.

But Syria's open door could swing shut. Michel Al-Maqdissi, director of excavations at the department, insists on more surveys and less digging, and he is reluctant to approve new excavations along the border with war-torn Iraq. He and Bassam also want archaeologists to spend more time and money on conserving sites that might draw tourists. Meanwhile, mounting tensions with the West following last year's assassination of a former Lebanese leader, plus stricter U.S. sanctions, make for a potentially volatile situation. For now, however, Syria's archaeological riches are helping to remake our understanding of civilization's start. The discoveries bode well for archaeology's future in this land set amid one of the world's most ancient—and tumultuous—neighborhoods.

—A.L.

## At Home on a No-Frills Tell

**TELL BRAK, SYRIA**—Most 70-somethings quietly retire. But not archaeologist Joan Oates. Oates, who leads one of Syria's longest-standing and most productive excavations, is only now, as she nears 78, hitting her research stride. After raising three children while assisting her late husband David Oates with excavations during the past half-century, she is now returning to her original interest in the era prior to the invention of writing. Her ongoing dig of a 6000-year-old settlement is radically reshaping our understanding of early urbanism (see main text).

Oates is the prickly doyenne of Near Eastern archaeology, a dedicated excavator well into her third decade at the massive mound of Tell Brak, which dominates the Syrian plain. That effort, which she took over after the death of her husband in 2004, is now paying off. "Brak is an unusually large and early site, and we're getting not only a very good record of a major tell but also an understanding of what is happening in the region," says Tony Wilkinson, a landscape archaeologist at Durham University in the United Kingdom who has worked with Oates. "Joan has enabled that."

Oates has patiently waited for decades to return to her interest in prehistoric archaeology. After abandoning a major in chemistry while studying at Syracuse University in New York in the 1940s, she focused on archaeology. Armed with a Fulbright scholarship to the University of Cambridge, the young American worked for a time on early human shelters in what is now Israel before moving to Iraq to work on her Ph.D. on the period before Mesopotamian cities began to flourish. There she met her future husband, as well as British archaeologist Max Mallowan and his author-wife Agatha Christie, who took her under their wing.

In the 1950s and 1960s, the Oateses excavated at the Assyrian capital of Nimrud with Mallowan and then at Tell al Rimah just to the north—much later periods than those of Oates's original interest. "I was a dutiful wife and did what was dictated by what David was doing," she says. "I handled a lot of the records—drawing, writing, photographing." At Nimrud, the Oateses found and cataloged a famed collection of delicate ivories from the

**In her element.** After a half-century in the Near East, Joan Oates is now pursuing her first love, the roots of civilization.



1st millennium B.C.E., and at Tell al Rimah, they uncovered surprisingly sophisticated architecture in the little-known period at the start of the 2nd millennium B.C.E. Whatever Oates says, colleagues insist that she was always far more than a dutiful wife; she evolved into a leading expert in Near Eastern ceramics and was instrumental in analyzing discoveries and publishing the results.

During a tumultuous era of Iraqi revolutions and Arab-Israeli wars, she also raised three children, partly in Baghdad, partly in London, and partly at excavations. David began work at Tell Brak in 1976, and Joan followed 2 years later. In 1981, she became intrigued with one area of the massive mound, which she believed could hide very early material. "I just kept bullying him," she says, "arguing that the whole of the 4th millennium [B.C.E.] could be opened up." With limited funds and other projects, David demurred. Finally, a decade later, he relented, and she has since focused her work at that spot.

When David died, Oates assumed his mantle, along with the lifetime excavation permit granted by the Syrian authorities. Life at Tell Brak was and remains notoriously no-frills. Beds are rough cots in canvas tents, the lab is a two-room mud-brick house, and the food is basic; sardines and rice are typical fare. During a recent powerful thunderstorm, Oates's heavy tent collapsed on top of her. Undaunted, she retreated to the lab to work.

Oates has a reputation for maintaining strict control over a dig, eschewing change, and keeping a close eye on the dig purse, in contrast to the more relaxed and egalitarian approaches favored by other excavation chiefs. "She's a tough woman, and you don't want to cross her," says one archaeologist who knows her well. Nevertheless, no one disputes that Oates has given several generations of students lessons in scientific rigor. "I keep people on their toes," she says.

But despite her rough edges, Oates has learned how to win the respect of Syrian colleagues. "She knows that the only way to get access is to build good relationships with the local authorities and to be humble, helpful, and nice," says Salam Al-Quntar, a Syrian archaeologist who works at Brak. "That's her strategy, and it works."

Although Oates intends to relinquish day-to-day control over the excavation in the coming season, she can't see herself abandoning field life altogether. "Creeping up to 80, I could put my feet up a bit," she says. "But I don't think I will so long as I can keep both feet on the ground."

—A.L.

mud rising as high as 10 meters on three sides. "This is a monumental building, suggesting a relatively complex society and an organized administration at the end of the 5th millennium," she says, gesturing at the low mud-brick walls. A few centuries later, the people of Brak built a hall near the same site, 4 meters by more than 15 meters, along with a number of large ovens too big for any but communal use.

While Oates excavates in the central mound, archaeologist Henry Wright of the University of Michigan, Ann Arbor, is gathering evidence of settlement patterns in the suburbs during the same period. First, Wright and his team obtained old satellite images taken by spy satellites during the Cold War as well as civilian Landsat pictures. More recent images are confounded by development, which is crowding in on Brak. Farmers have graded nearby grazing

lands with heavy equipment to grow cotton, which requires deep plowing and large amounts of water—a deadly combination for fragile mud-brick sites. New houses and industry also creep closer to the site every year, and a wealthy landowner recently used a bulldozer to flatten a small mound just a few hundred meters from the central mound.

After examining the satellite images, Wright's team could comb the site more effi-



ciently on foot for traces of settlements. Combined, the data provide a window into a long-vanished landscape shaped by the ancient residents. Based on surveys from 2003 through 2005, Wright and his crew of techie grad students concluded that in the late 5th millennium B.C.E., 115 sites clustered within a 15-kilometer radius of Brak—a number Wright calls “astounding.” The central mound itself included more than 40 hectares, and 100 hectares if suburban sprawl is included, he adds. At least seven of the sites in the immediate vicinity are larger than villages.

Although not all the settlements likely existed at the same time, Wright’s figures impress even skeptics. “It’s bloody big—bigger than people like me thought were possible at that early time,” says anthropologist Guillermo Algaze of the University of California, San Diego, a champion of the view that southern Mesopotamia held sway over its neighbors. The new data make Brak roughly as large as Uruk in the mid-4th millennium and significantly larger than Eridu, a major southern Mesopotamian city that may have covered 10 hectares and was home to a series of early temples. Brak may have boasted a population of some 20,000, says Wright.

“There is good evidence that you have urbanism and specialized production at Brak by the middle of the 4th millennium B.C.,” he says. His work has also provided evidence of workshops devoted to ceramics and perhaps metal and stone.

Moreover, the pattern of settlement differs significantly from the dense cores of cities and evenly distributed villages and towns typical of the south. The Brak settlement resembles Mayan sites, Wright says, with large patches of empty land presumably dedicated to agriculture or animal grazing. “One suspects these were gardens, or places for nomadic relatives to camp, or spaces to separate people who didn’t trust one another,” he adds.

#### Site of the Kissing Bears

Some 80 kilometers away at Hamoukar, archaeologists are finding other kinds of evidence that point to a complex northern society before 3500 B.C.E. Within sight of the Iraqi border, Hamoukar is a low mound on a vast plain. A steep trench dug down one side by University of Chicago archaeologist McGuire Gibson starting in 1999 revealed a 3-meter-wide city wall which could date from as early as the first half of the 4th millennium B.C.E., before Uruk dominated the region. In recent years, Reichel and Syria’s Salam al-Quntar (see sidebar, p. 1462), who succeeded Gibson as Hamoukar co-directors, focused on a site on the other side of the mound that includes a symmetrical building with a courtyard, storage areas, and living space.



**Heading for the ‘burbs.** Henry Wright, with local friends, sets out to survey the outskirts of Tell Brak.

Because of erosion, the team did not have to dig far to expose the low remaining mud-brick walls dating from the mid-4th millennium B.C.E., filled with local pre-Uruk pottery and built of bricks that don’t match the typical size used in the south in that era. Also uncovered were remains of seals, used to signify ownership of jars, baskets, and storerooms. The seals carry motifs of kissing bears and lions, similar to those found at Brak and at sites in nearby Turkey but stylistically distinct from southern

seals in the same period. The excavation also revealed a series of large ovens and grinding stones that Reichel says are evidence of bread production for more than single households. Eye idols similar to ones found at Brak have been uncovered as well. Reichel says that the seals, pottery, and brick styles reveal “no signs of political or economic domination by the south.”

But Hamoukar’s location and ancient prosperity puzzles archaeologists. There is no major river, and the land, located on the edge of rain-fed agriculture, is not exceptionally fertile. The answer may lie a short walk south of the main mound in an area of low hills 280 hectares square, with pottery dating from the late 5th to early 4th millennium. Called Al Fukhar, or pottery mound, by locals, the area is even today chockfull of obsidian blades, both finished and unfinished. The obsidian comes from Turkey and was widely used in the Near East before the advent of metal blades. Some scholars assume the spot was used by passing nomads in the 4th millennium B.C.E. But al-Quntar last year excavated three 10-meter-by-10-meter squares and found a clay floor with large storage jars, a sign of permanent settlement in that period, suggesting that trade may have fueled Hamoukar’s rise.

The evidence from sites such as Hamoukar and Brak make the existence of social complexity in the north prior to the Uruk expansion “unassailable,” says Gil Stein, director of Chicago’s Oriental Institute and chief of the Hacinebi dig. Even former skeptics such as Algaze—who now says he was “entirely incorrect” about the dominance of southern influence—say they are convinced. “If you landed in



**Bombarded?** Chicago’s Karen Terras sorts clay balls, possible weapons from Hamoukar.





**Getting dirty.** Salam Al-Quntar revels in fieldwork and has little patience with bureaucracy.

## A Rising Star in the Trenches

Thirty-two-year-old Salam al-Quntar discovered her first potsherds as a young child playing in the ancient olive groves surrounding her grandfather's house, which was made in part with recycled Roman stones. Today, al-Quntar is co-director of the key Hamoukar dig, where excavators are uncovering dramatic evidence of early urbanism in northern Mesopotamia (see main text).

She is also a startlingly outspoken female scientist in this predominantly Muslim country. Busy working on her Ph.D. to synthesize controversial finds at both Hamoukar and nearby Tell Brak, she splits her time among those two sites, Cambridge, Damascus, and her hometown of Suweida in southern Syria. "Her heart is really beating with archaeology, and she is uncompromising and very passionate," says Clemens Reichel, a University of Chicago archaeologist and the other co-director at Hamoukar.

A daughter of two teachers and a member of the minority Druze ethnic group, al-Quntar chose archaeology at the university because, as she admits with typical forthrightness, "my grades were not good enough" for economics. Upon graduating, she struggled to find a job for 2 years, until her family's connections landed her a position at the museum in Suweida, famed for its 4th century C.E. Roman mosaics. She watched, outraged, as local authorities built an underpass that destroyed ancient parts of the city. But she also frequented a French archaeological expedition in the area and honed her excavation skills with American and German teams

a spaceship at the start of the 4th millennium B.C., you would probably not be able to tell which would take off—northern or southern Mesopotamia," he says.

To many, the evidence suggests that northern and southern societies were distinct. Settlement patterns were different: In the south, settlements tended to be concentrated on high mounds, in part because of the danger of flooding. Southerners developed complex irrigation systems, whereas northerners generally could count on enough rain to rely on dry farming. Culturally, the eye idols found at Brak and Hamoukar hint at a religious tradition quite different from that of the south, with famed gods such as Enlil and Inanna. The very reason for the founding of cities may be different. In the south, the confluence of rivers on the flat plain spawned intensive agriculture and extensive urbanism. In contrast, fewer sites appear in the north. Places such as Hamoukar are difficult to irrigate but sit astride natural trade routes between the south and Turkey's mineral-rich mountains to the northwest. "It may be the oldest story in the world," says Reichel of the growth of Hamoukar. "Someone figured out how to make a buck."

### The end of the experiment

Not all scholars are ready to concede an autonomous development in the north, however. Gibson—who dug for decades at the

Sumerian city of Nippur in the south of Iraq—argues that places such as Hamoukar and Brak got their initial push during the Ubaid



**Bear pair.** A stamp seal with kissing bears, dated to 3500 B.C.E., has a distinctly northern feel.

period in the 6th millennium B.C.E., when a common pottery and artifacts likely centered on southern Mesopotamia turn up throughout the Middle East, including the north. Oates and others counter that the Ubaid culture had long passed in the north when sites such as Brak began to flourish.

One problem in resolving the matter is limited evidence from the south prior to the 4th millennium B.C.E., both because of a previous lack of interest and the difficulty in excavating deep levels in the alluvium. For Gibson, the Ubaid is the next frontier in understanding the advent of

complex society, but its heartland in Iraq remains off-limits to archaeologists for the foreseeable future. A meeting this spring at the University of Durham in the United Kingdom devoted solely to the Ubaid—the first in nearly 20 years—is a sign of growing interest in that period.

In the meantime, Stein wants to see more supporting evidence to prove that the north had its own indigenous tradition. "If this is urbanism, it seems to come out of nowhere and then disappear—a failed experiment," he says. Whatever the race between north and south, agrees Algaze, "by the end of the 4th millennium B.C.E., the competition is over."

Sometime after 3500 B.C.E., Uruk colonists arrived at sites such as Brak and Hamoukar. But just how northern society fell is a source of dispute.

Reichel contends that it was a violent transition at Hamoukar, but several scholars, such as Yale University archaeologist Harvey Weiss, say that Reichel's so-called bullets are actually clay blanks used for sealings. Reichel counters that the balls are similar to those flung today by local shepherd boys at Hamoukar, and the squashed ends of some—what he calls "Hershey's Kisses"—show that they were smashed against hard surfaces. The balls are associated with a layer of ash, which indicates a catastrophic fire, and Uruk-style pottery on top of that layer shows the arrival of people either from the south or influenced by its culture. Other scholars, however, say that the violence may have been the result of a nomadic attack.

elsewhere in the country. "Other people prefer to sit in their offices and stay beautiful," she says. "But I enjoy being out, and I never feel embarrassed walking around in dirty clothes."

Few Western students could boast such intensive field experience, but further study abroad, vital to advancement, at first proved elusive for al-Quntar. Her scholarship application to a German university was turned down, leaving her dejected. "I needed encouragement," she says. "I didn't know the system and wasn't sure I was qualified."

Shortly afterward, she met Augusta McMahon of the University of Cambridge, who was digging at the prehistoric northeastern site of Chagar Bazar. With McMahon's encouragement, and the active help of McMahon's mentor Joan Oates, also of Cambridge, al-Quntar won a scholarship to Liverpool University in the United Kingdom to get her master's degree. "I was afraid to apply to Cambridge; I wasn't sure they would accept me," she recalls. Then, again with the help of the old-girls' network, al-Quntar gained a place at Cambridge to work on her Ph.D., with McMahon as her immediate supervisor and Oates as a senior adviser. Last year, al-Quntar took over as co-director of the Hamoukar expedition, while also working at nearby Tell Brak under Oates's direction.

Oates praises al-Quntar's excavation skills as well as her drive and calls her a rising star in Syrian archaeology. "She is a very ambitious person who knows a lot," adds Reichel. Her ability to wear down bureaucratic intransigence complements her commitment to fieldwork, he says.

Al-Quntar's gender does create obstacles not typically encountered by foreign female scientists. For example, one young male Syrian excavator

worked without complaint for a Western female archaeologist and acknowledges al-Quntar's expertise, yet he told *Science*, "I could never take orders from a woman." Al-Quntar can be demanding and outspoken to the point of brashness, a quality that rubs some who work with her the wrong way. That assertiveness, she says, stems from years of accepting quietly whatever work the Syrian department of archaeology offered. "It was difficult at the beginning, and I wasn't allowed to say what I can say now," she recalls.

If she ever pulled punches, she doesn't now, bluntly criticizing Syrian archaeology—an unusual act in a country where dissent is typically muffled. She charges that the low pay for archaeologists coupled with a frustrating bureaucracy make it difficult for homegrown researchers. "It is a struggle; you have to be a fighter to do archaeology here," she says.

Al-Quntar is fired up about shifting the traditional focus of Near Eastern archaeology on the elite to aspects of everyday life. "It is more interesting to know how ordinary people lived and how they operated economically," she adds. "It's not all about palaces and temples."

Although satisfied that there are more women now in the field, she complains that "people still think it is strange for us to get dirty and be exposed to the sun." Overcoming the distaste of what some see as menial labor in a still largely rural culture is critical for the advancement of Syrian archaeology for both genders. Too many of the three dozen Syrians now studying abroad lack field experience, says al-Quntar, adding with her characteristic bluntness: "That's shameful."

—A.L.

And many still maintain that the Uruk expansion was a gradual acculturation based on trading rather than military aggression.

Yet there is evidence of burning in at least one area at Brak at roughly the same time as Hamoukar, says Geoff Emberling, a University

of Chicago archaeologist who was field director there until 2004. Uruk pottery thereafter appears at Brak, which also shrank in size and importance. In one room, Emberling adds, excavators found a pile of 40 fist-sized clay balls—possibly an unused ammunition dump.

On the site of Brak's old temple, the new inhabitants built a temple in the southern style of Uruk with its characteristic decorations of conical clay cones. "People didn't just move in; they took ideological control," says Emberling.

Whatever the trigger, the evolution of an indigenous urban society in northern Mesopotamia ground quickly to a halt, while southern Mesopotamia continued its evolution into the world's first literate society with large cities and a complex religious and political elite. Algaze speculates that the flat plain and myriad waterways of southern Iraq made transportation easier, giving that region the edge. And whereas many cities sprang up in the south, perhaps spurring competition and accelerating the development of technologies and trade, the north had only a few scattered urban areas that proved easy to dominate.

The Syrian finds are prompting researchers to rethink civilization's beginnings. Could the north have led the way in urbanism, passing its knowledge on to southerners? Algaze suggests that "parallel clusters" of urban growth could spur each other on, through cooperation and competition. Could the near-simultaneous bubbling of ideas about writing, monumental architecture, and trade in Egypt and Mesopotamia—and later along the Indus River—have fed one another? Such an approach could enable archaeologists to move beyond sterile questions about who was first and instead explore the complicated ingredients required for civilization to coalesce.

—ANDREW LAWLER



**Burned out?** Clay balls and signs of fire at these Hamoukar buildings hint at a violent end.

CREDIT: HAMOUKAR EXPEDITION/ORIENTAL INSTITUTE/UNIVERSITY OF CHICAGO