

The Everlasting City

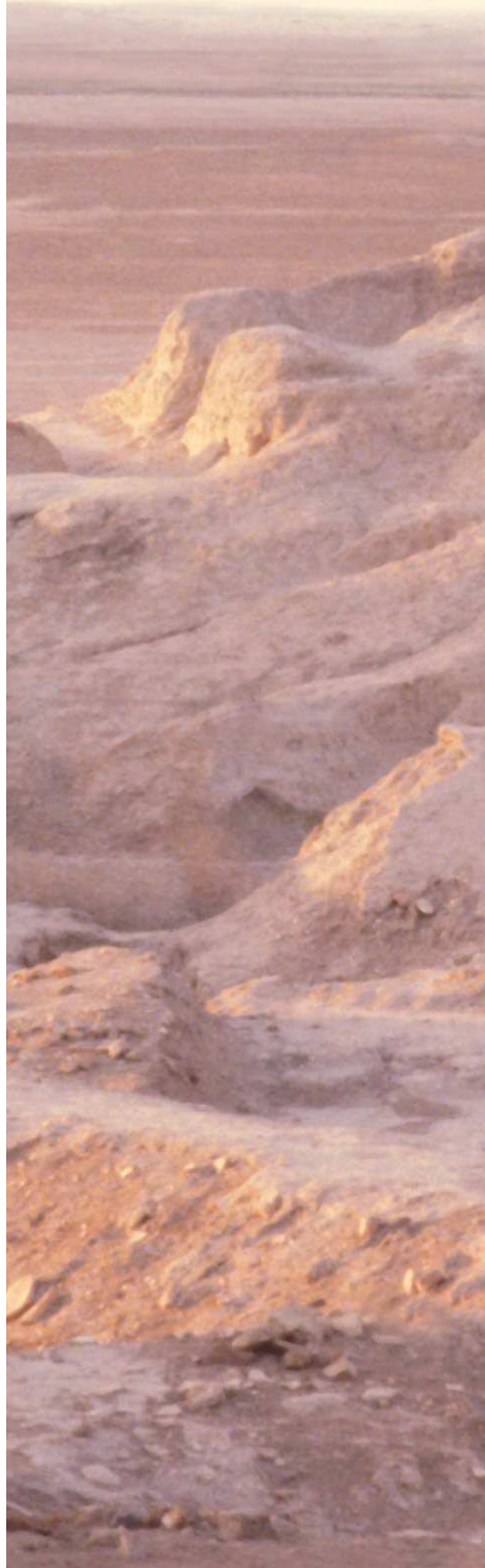
Using information gathered from a century of excavation, combined with modern noninvasive techniques, a new picture emerges of how a settlement of a few reed huts evolved into the powerful city-state that helped set in motion the urban revolution

by ANDREW LAWLER

VIEWED FROM ABOVE, the landscape is a study in the tans and light browns of harsh desert. On the ground, it's equally bleak. Summer temperatures sometimes surpass 120 degrees, and powerful sandstorms can suddenly turn a pale-blue sky the shade of dry earth. The nearest river, in this part of southeastern Iraq, the Euphrates, flows more than 20 miles to the west, and the Persian Gulf lies 150 miles to the south. This waterless terrain seems an unlikely place to build a hut, much less the world's most enduring metropolis. But 7,000 years ago, the landscape was completely different. At that time, this was a lush inland delta fed by the river, with reed houses clustered on the few bits of high ground. Within a thousand years, inhabitants of these fast-growing villages were building an urban space filled with temples and other public buildings on two of the most prominent rises. And a thousand years after that, this was the largest city on Earth.

Today it is hard to imagine, but the city that the ancient inhabitants called Uruk grew out of rich marshland that provided not only transportation, but also food—including birds and fish and fodder for livestock—and an abundance of building materials. Over time, the inhabitants enlarged the small rises above the marsh into substantial mounds safe from flooding to protect their homes and livestock, and made narrow channels through the marshland. As water levels

The desert landscape of Iraq was millennia ago, a lush, verdant valley and home to Uruk, once the world's largest city.





dropped and the Persian Gulf receded due to natural climate change, residents transformed those channels, at the start of the third millennium B.C., into a network of canals crisscrossing the city that enabled Uruk's inhabitants to move large quantities of goods cheaply and easily. Small boats navigated these man-made waterways, carrying piles of freshly bundled bright-green reeds, noisy sheep, and huge storage jars filled with barley and beer. Fishermen hawked their catches from reed rafts. On the docks alongside the mighty Euphrates, workers loaded larger ships with local textiles ready for export to distant lands and traders emerged from the holds of newly arrived vessels with cargoes of precious stones and ores mined from remote mountains. Among the closely packed mudbrick houses, verdant gardens and date palms provided fresh food and welcome shade.

Looming over the busy scene were the two high mounds, Kullaba and Eanna, dominating the otherwise flat plain. While these likely began as two separate villages, at some point they became the center of a single expanding settlement. With each new generation of temples, palaces, and other administrative buildings, the mounds grew higher, and the life-giving Euphrates continued to pulse through the city. At Uruk's peak, in about 2900 B.C., more than 50,000 people crowded into almost two-and-a-half square miles. Though that equates to the population of a modest American town such as Oak Park, Illinois, it was several times greater than any other city of its day. And no other metropolis surpassed that until Babylon expanded two millennia later.

Much of what we now take for granted about city life—the crowded streets, spacious public buildings filled with written records, busy markets selling exotic goods, and peaceful parks—took shape here. Some of the earliest attempts at organized taxation, mass production of goods, sustained international commerce, large-scale public art—as well as the systematic exploitation of women and slaves—can be traced to Uruk. There is little doubt that the earliest system of writing matured here. Uruk was also the setting for the world's oldest surviving epic, dating from the third millennium B.C. This tale centered on the city's god-king Gilgamesh, who is also mentioned as a ruler in



Uruk's reach was international in scope. This terracotta relief shows the city's king, Gilgamesh, and his companion Enkidu killing Humbaba, the guardian of the forest, in what is now Lebanon.



historical records. There is even intriguing evidence that this was the site of the earliest attempt at creating a royal palace, and perhaps even an initial effort to separate church from state.

ON AND OFF FOR the last 100 years, archaeologists have been piecing together the story of this remarkable city. Yet even though no other urban center on Earth thrived for so long, Uruk remains obscure in comparison with other Mesopotamian centers, such as Ur and Babylon. That is in part because, despite being one of the world's



Excavations spanning a century, seen in a 1929 or 1930 photo (above) and in a more recent one, from 1989 (left), have been conducted at Uruk by the German Archaeological Institute.

most important archaeological sites, it is also one of the most challenging to access and understand. “I was unable even to make an attempt to reach the remarkable ruins,” complained Henry Austen Layard, an early-nineteenth-century British explorer who came to the region. Warring tribes at the time of his visit made the site, located between Baghdad and Basra on the vast Mesopotamian plain, inaccessible. And though now locked in desert as a result of shifting rivers, recent drought, and irrigation schemes, the region not so long ago was a treacherous land of trackless marsh that would have been familiar to Uruk’s earliest inhabitants. “The greater part of the country below ancient Babylon has now been for centuries one great swamp,” Layard added.

The first Westerner to excavate Uruk was Layard’s contemporary, British geologist William Loftus, who worked there briefly in 1850 and then again in 1853. Loftus believed he had found Ur of the Chaldees, hailed as Abraham’s home in the Bible. But his investors were not impressed, so he abandoned Uruk. He died on his return home, never knowing that he had discovered the fabled home of Gilgamesh.



Reed huts like this one, still common in southern Iraq, likely are similar to the first dwellings in Uruk. Later inhabitants built mudbrick homes as the city’s population swelled in the late 4th and early 3rd millennia b.c.

On the eve of World War I, German excavators began work on the site and found clay tablets confirming that Warka, the modern Arabic name for the site, was indeed ancient Uruk. Throughout the twentieth century, though, expeditions were stymied by climate, politics, and the city’s remote location. “It is no easy matter to get an excavation going in Iraq,” said Wilhelm Koenig, an Austrian member of one of the Uruk teams in the 1930s. Nevertheless, between 1912 and 1989, teams from the German Archaeological Institute worked in Uruk, focusing on the high mounds that were always at the heart of the city.

Even when possible, however, traditional excavation work has not been easy. “Uruk is a singular place, and there are no unambiguous clues,” says Hans Nissen of the German Archaeological Institute, who worked there in the 1960s and has pored over the earliest written texts produced there. The site is an immense historical blender. Pottery sherds, typically used to date a particular level, can prove misleading, explains Nissen, since they were frequently reused as fill. Over millennia, kings and conquerors demolished older buildings and repurposed materials, altered streets, rerouted canals, and built and rebuilt walls and gates. Early excavators employing hundreds of workers often unknowingly destroyed evidence, such as delicate seals, plant remains, and animal bones. Yet, Kullaba and Eanna revealed standing remains and thousands of artifacts illuminating the life of Uruk’s elite. “Uruk transformed the Near East,” says Gil Stein, director of the Oriental Institute of the University of Chicago. But why the settlement emerged as such an important center in its day remained the biggest mystery of all. Millennia of building and rebuilding hid the earliest periods, and the Euphrates meanwhile was dropping tons of sediment over the site as it shifted its course. The recent decades of upheaval in modern Iraq have forced archaeologists out of their trenches. In the 1990s, excavations were disrupted by sanctions and rebel-



Artifacts from the 4th millennium B.C. city, clockwise from top left: A cylinder seal and its modern impression depict a priest-king surrounded by a herd of feeding cows, symbols of the goddess Eanna; an alabaster cult vessel known as the “Warka Vase”; and well-preserved examples of some of the world’s first mass-produced pottery.



lions, and later by the U.S.-led 2003 invasion that made the site off-limits to Western archaeologists.

As a result, researchers have turned to photographs collected by spy satellites in the 1950s and 1960s, before large-scale irrigation projects dramatically altered the landscape. They are also examining newer high-resolution images from satellites and aircraft to seek out subtle changes in the landscape largely invisible on the ground. A magnetometer survey conducted across the site in the early 1980s and then in 2001 and 2002, along with cores taken around Uruk at that time, has provided crucial data as well, says Margarete van Ess, who now leads the Uruk effort from the Berlin office of the German Archaeological Institute. What is emerging from more than a century of evidence is a dramatic new picture of how the city evolved from two modest villages into the political and economic powerhouse of the urban revolution.

DURING 39 FIELD SEASONS, the German teams sought to uncover not just buildings and artifacts, but also evidence of Uruk’s religious and political systems, hierarchies, and relations with the world beyond its walls. In Kullaba, under a later Assyrian temple dating to the eighth century B.C., archaeologists found an enormous terrace with the remains of a 5,000-year-old temple coated in gypsum plaster. The temple once sat on a platform towering 60 feet above the city. Now protected by a cover of sand, the structure is the only surviving example of an ancient Sumerian temple, and a predecessor to the huge stepped pyramids that came to domi-

nate Mesopotamian cities for thousands of years. Next to this temple, the excavators found another built of limestone, a rare material in this city of mudbrick that lies on a stoneless plain. Later inscriptions show that the area was dedicated to the sky god Anu, though the identity of its original deity is unknown.

The other mound, however, is clearly associated with Eanna, the goddess of love and war, known in later times as Inanna, Ishtar, and Venus. Like Prometheus, the Greek stealer of fire, she brought the secrets of heaven to humanity, says ancient Near Eastern scholar Annette Zgoll of the University of Göttingen. “Through Eanna, the temple of Uruk is the center of the world,” she explains. Decades of work on this district revealed an elaborate set of buildings dating from at least the late fourth millennium B.C. These included a courtyard and temple decorated in a mosaic of small clay cones with painted ends that were placed in walls as elaborate decoration. A half-dozen other halls were crowded on the mound, one of which was a limestone structure that appeared to sit above an even older sanctuary. Excavations at Eanna, inside what were administrative buildings likely associated with the temple, also produced the world’s oldest texts, written on clay tablets in an early version of cuneiform—the wedge-shaped writing system used throughout the Near East for millennia. This early or proto-cuneiform has proved difficult to decipher, but seems to be concerned mostly with counting temple supplies. The continuity of the Eanna temple complex is astonishing. Yale University Assyriologist Eckart Frahm notes that for nearly 3,000 years, scribes at the temple continued to write the same



Colorful mosaic cones decorate the wall (top) of a 5,000-year-old temple southeast of the Eanna district of Uruk in a photo taken on-site in 1931 or 1932. A reconstruction of a similar mosaic wall (above) can be seen at the Pergamon Museum in Berlin.

sort of administrative documents in the same cuneiform script. “When compared to the Eanna temple, even the Vatican looks like an almost ephemeral institution,” he says.

Archaeologists long considered Eanna to be a district of priests, and Uruk a city dominated by religion. But one enormous and enigmatic central building dated to about 3200 B.C. might be the world’s first proto-palace. Pascal Butterlin of Paris’ Sorbonne University suggests that this rectangular structure has many of the hallmarks of a place where different classes of people gather, and where particular groups are restricted to particular spaces, a hint of what might be called court etiquette. “There are what appear to be a series of reception halls,” Butterlin notes, “and the layout is similar to the palaces in succeeding millennia in the area.” This assertion challenges more than the interpretation of the use of a single building. It also calls into question the nature of the world’s first city-state. Was it ruled by a theocratic elite, or did a king and high priest or priestess share power and keep one another in check? Scholars have seen Uruk’s many temples as a sign of the former, but Butterlin is skeptical. “We were misled

by the idea of a priest-king,” he says, a conception popular in the twentieth century when political leaders such as Hitler, Stalin, and Mao took on almost cultic roles. Butterlin instead envisions Uruk in the late fourth millennium B.C. as the capital of an enormous area with ties to distant lands. He believes the city had a pragmatic political elite closely tied to the cults, but that operated outside a strictly religious sphere. Ricardo Eichmann, a scholar with the German Archaeological Institute, finds Butterlin’s theory intriguing, but says that the building lacks the usual detritus of everyday living one might find in the home of a king or a nascent court. “In palaces we often find beer containers under the stairs and sheep bones on the floor,” says Eichmann.

BY THE LATE FOURTH MILLENNIUM B.C., Uruk was not just a city. It was at the center of an international trading system that delivered stone and metals not found on the Mesopotamian plain to the docks of the Euphrates. And Uruk-style objects have been found as far west as the Mediterranean and as far east as Pakistan. This has prompted some archaeologists in recent decades to suggest that Uruk was the capital of a proto-colonial empire that exploited the natural resources of its less developed neighbors, through force or economic muscle. However, recent excavations outside Iraq suggest a more layered picture. Given the difficulties of moving armies long distances in this period, it is likely that Uruk obtained goods largely by diplomacy and trade, rather than by conquering foreign peoples. There were, however, some far-flung colonies. For example, Gil Stein excavated a small mound in southeastern Turkey, some 750 miles northwest of Uruk, called Hacinebi. This prosperous settlement dates to the fourth millennium B.C. and traded in copper, obsidian, and shells. Dating from around 3300 B.C., distinctly Uruk-style artifacts such as the clay wall cones, baked-clay sickles for harvesting grain, and certain types of stone tools and pots have been found in one section of the town. This colony of Uruk settlers seems to have lived and traded peacefully for some three centuries with no sign of conflict.

There are, however, hints that Uruk’s influence was not all benign. Archaeologists have found that the settlement of Hamoukar in eastern Syria went up in flames, possibly during an armed conflict with an unknown enemy in the fourth millennium B.C. And Tell Brak, a massive site in Syria that may have rivaled Uruk in size and sophistication in the middle of the fourth millennium B.C., shows evidence of a steep decline at the same time that Uruk-style artifacts begin to appear at the site. Some scholars believe that Uruk, or its allies, may have been involved in the collapse of the rising proto-cities of northern Mesopotamia.



Many of Uruk’s cuneiform tablets written over several millennia concern temple supplies. This example, dating from about 3000 B.C., lists 58 pigs.

Uruk's regional influence began to wane at the end of the fourth millennium B.C., though it achieved its peak in sophistication and population around 2900 B.C. Then a slow decline set in. Other cities in the area, such as Ur and Nippur, challenged it for dominance, and in about 2200 B.C., the powerful Akkadians from central Iraq incorporated Uruk into their empire. Next the city-state of Ur assumed control over Uruk. Sometime after 2000 B.C., the Euphrates appears to have swung away from Uruk for some time (all large alluvial rivers alter their courses periodically as they seek the most direct route to the sea). Without a river, Uruk was, during some periods, left high and dry, though it never seems to have been completely abandoned.

Throughout the millennia, the city remained an important religious center celebrating Eanna, the Queen of Heaven. Later Mesopotamian kings would periodically rebuild the ruined temples as proof of their devotion to the goddess and respect for the ancient metropolis. To these rulers, it still had cachet. "There are cities that are more than their populations and buildings, such as Jerusalem, Damascus, Rome, Baghdad, and Cairo," says Zgoll. "And Uruk is more than just a city." After Alexander the Great's army conquered the area in the fourth century B.C., Uruk was, along with Babylon, a center of worship, learning, and astronomical observation that was used throughout the Near East for horoscopes and divination. But by then, the city was half the size that it had been during its heyday.

The final blow came not from the shifting Euphrates, but



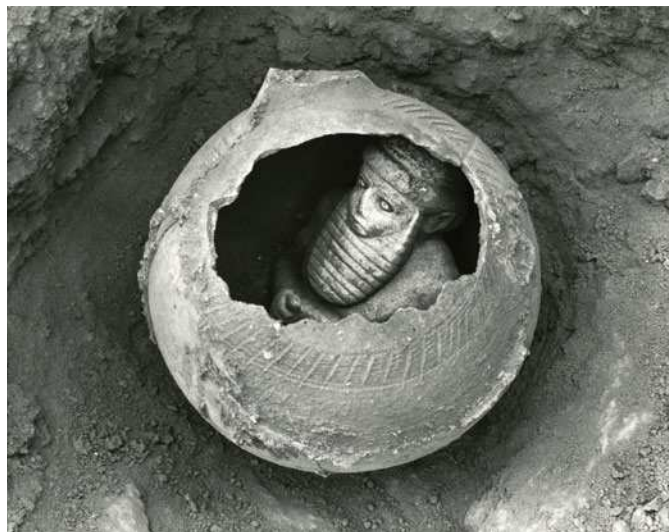
A 3rd-2nd century B.C. Seleucid temple to Anu, the god of the sky, seen above in a recent digital reconstruction, dominated the Kullaba district of Uruk long after the city's political and economic importance had waned.

from a new rising power in the east. The Parthians swept out of today's Iran in 141 B.C. and pushed out the Seleucid Greeks who had long controlled the region. A small community continued to inhabit the site until the fourth century A.D., and by the time the followers of Mohammad arrived in the seventh century, the last residents were dying off. After a history spanning some five millennia, Uruk lay deserted by both the Euphrates and the priests who had maintained its power and prominence for so long.

In summer 2013, Jennifer Pournelle, an archaeologist at the University of South Carolina, visited Iraq for a second research season. She is part of a new generation once forced to make due with air and satellite images of the area, but who now can take cores and samples to understand how climate change and shifting river systems impacted early Sumerian civilization. And van Ess, of the German Archaeological Institute, is hopeful that as the security problems in Iraq ease, Western excavators will be able to come back to test out their new ideas about Uruk's rise from marshland settlement to the world's longest running urban experiment. Van Ess wants to resume the magnetometer survey that is only partially complete, do more to conserve ruins exposed to the punishing desert sun and wind, and conduct a detailed survey of the ancient city's suburbs. "We know virtually nothing about what lies outside the center," she says. She is well prepared for the next campaign: "Don't worry, my desk drawers are filled with plans." ■

Andrew Lawler is a contributing editor at ARCHAEOLOGY.

The exhibition Uruk: 5,000 Years of the Megacity is on display at the Pergamon Museum in Berlin until September 8, 2013.



A 4th-millennium B.C. statuette of a high priest was found intact inside the vessel in which it was buried.