Our latest campaign at Nippur, the 18th Season, began with my arrival in Baghdad on December 27, 1988, and ended when I left Iraq on March 22, 1989. Since 1972 the Nippur Expedition has been engaged in a program of archaeological and environmental research intended to elucidate the history of the city through time, its growth and decline, areas with specific functions, the relationship between the sacred and secular, and the ecological system of which Nippur was a part.

In carrying out this program, we have investigated a number of areas on the West Mound, working in houses of the Ur III (c. 2100 B.C.), Old Babylonian (c. 1750 B.C.), and Kassite (c. 1250 B.C.) periods, as well as the 7th century B.C. In Area WA, we touched upon a sequence of temples that may rival in importance the Inanna Temple excavated at Nippur during the 1950s and '60s. We have also established the correct orientation of the Kassite city map on a clay tablet that was found at the site in the 1890s, and we have made major discoveries about the city walls on both the West and East Mounds. In all this work, and in a reinvestigation of the strata on Tablet Hill, we have been assembling a new stylistic sequence of pottery that corrects and enlarges previous ones.

**Excavations in Area WG.** It was our intention in this season to excavate systematically, for the first time, the latest levels of occupation at Nippur. This operation in Area WG, on the top of the mound overlooking Area WA from the west, was aimed primarily at demonstrating the transition from pre-Islamic to Islamic Nippur. This critical juncture in history (A.D. 637) has not been adequately exposed archaeologically in Iraq or elsewhere. In establishing the archaeological assemblages on both sides of that transition, we would also be adding the late Parthian, Sasanian, and first few centuries of the Islamic period to our ceramic sequence.

The WG operation, our largest excavation this season, was under the supervision of James A. Armstrong, with the assistance of Lorraine Brochu. Located on the site of the first camp of the University of Pennsylvania's expedition of 1888-1900, WG was wind-swept, dusty, and cold: Our Level
I consisted of the remnants of Pennsylvania’s reed-huts, which had been burned by local people in a dispute at the end of the first season, April 18, 1889. These remains consisted of the bottom few centimeters of burnt reeds set in trenches cut into an ancient, eroded stratum datable by coins and pottery to the early Abbasid period (c. A.D. 800). Artifacts from Pennsylvania’s sojourn were very few, consisting mainly of bits of glass bottles, twine, and one piece of a wrapper from photographic plates. I doubt that the scarcity of artifacts was the result of the old expedition’s neatness. More likely, the camp was thoroughly scavenged by the local people for any usable item.

Level II of WG consisted of the impressive mudbrick foundations of a very large house of the early Abbasid period (A.D. 800), again datable by a coin. The Islamic coins were read by Dr. Nahidh Abdul Razzaq Daftar, of the University of Baghdad, whose help we gratefully acknowledge.

Level III proved to be better preserved, with a few centimeters of mudbrick house walls resting on mudbrick foundations. Although lacking coins, this level had pottery which enabled us to assign a date in the Early Islamic period (A.D. 637-750). Of great importance here was the finding of six whole or fragmentary pottery incantation bowls, buried upside-down, under the floors of a courtyard (Loci 14, 30) and a room (Locus 54). These bowls, written in the Syriac or Mandaic scripts of Aramaic, were expected in this operation. The Pennsylvania excavators had recovered dozens of bowls of this kind nearby and had even said that they were found under floors of houses that could be dated by “Kufic coins,” i.e., what we call Early Islamic. Never before, however, had these bowls been dug and recorded as precisely as we did. They have usually been called “Sasanian incantation bowls” and may have been initiated in that period, but our work clearly shows that they were a feature of the Early Islamic period as well. Dr. Erica Hunter, a Fellow of the British School of Archaeology in Baghdad, came to the site for a few days to read the bowls, and will publish them shortly.
Levels IV and V were Sasanian in date (A.D. 224-637) but had only a few insubstantial walls.

Level VI was our lowest stratum and consisted of a mudbrick house with very deep foundations. In the foundation fill were a number of burials, including some in ceramic coffins shaped like slippers. These coffins and the other artifacts of this level were easily recognizable as Parthian. The date of this particular house was also secured by the finding of coins minted late in the period (c. A.D. 200). The pottery was very similar to that found at the Parthian Fortress (9th-10th Seasons, 1964-67) built around and on top of Nippur's zigurrat at about A.D. 100. But, there were features of shape and technology in the WG pottery that indicated a later date than the Fortress. Our work this year thus allows us to extend the Parthian assemblage about a hundred years later than could be established at the Fortress. The pottery and other artifacts from WG require additional analysis, but preliminary study indicates that the transition from the pre-Islamic to the Islamic period is evidenced in our finds. As expected, there is considerable continuity of artifact types from the earlier to the later period, but we think that comparison of the relative popularity of items, as well as changes in diet patterns, allow us to pinpoint the archaeological stratum at which this important historical shift took place.

Excavation of Pit WF. In addition to working on the transition from the pre-Islamic to the Islamic, we intended to investigate, by means of deep pit WF at the southern end of Area WA, another important transition—the one from the Early Dynastic to the Akkadian period (c. 2350 B.C.). This was a time of extraordinary change in early Mesopotamian history, as the Akkadian king Sargon created the first effective empire out of the kingdoms of Mesopotamia, and parts of Iran and Syria. This transition and, in fact, the entire Akkadian period, have been neglected archaeologically. In the past, even when levels with this critical material have been excavated, the results have been rendered unclear by mistaken interpretation.

Operation WF was under the supervision of Augusta McMahon. The pit was located very close to the place, now completely filled in and invisible, where we had sunk another stratigraphic pit (WA50c) in the 11th Season, 1972-73. We placed WF in this location because in WA50c we had reached Akkadian levels and thought that Early Dynastic material lay directly below, but we could not go deeper at that time.

The stratigraphy of WF bears similarities to that in WA50c, but there is much more intact stratigraphy in our new operation. As in
There were about three meters of trash in a pit dug and filled during the Seleucid period (c. 200 B.C.). As before, we encountered mudbrick walls datable to the Neo-Babylonian and Achaemenid periods (c. 612-331 B.C.) in places where the Seleucid pit did not cut so deeply. But below these levels were some unexpected walls and burials of the 6th-8th centuries, B.C., with well-made glazed pottery. In the next level down, one wall and several graves could be assigned to the Kassite period (c. 1250 B.C.). The gap in time from the 8th to the 13th century reflects one of the times in Nippur's history when the city was very severely reduced in size, and maybe even abandoned for some time. Another gap in occupation, which we have demonstrated in a number of excavations at Nippur in the past seventeen years, is represented just below the Kassite level in WF. Walls datable to the Isin-Larsa period (c. 2000 B.C.) rest directly under the Kassite level. When we suggested in the early 1970s that there was a gap in occupation at Nippur from about 1800 to approximately 1400 B.C., it was difficult for some scholars to accept. Now, however, with growing evidence of similar abandonments at other Mesopotamian sites, it is clear that there was a major regional collapse in Babylonia, probably connected with an environmental change, shortly after the reign of Hammurabi.

Below the Isin-Larsa level, we found walls of a house built of plano-convex mudbricks, that is unbaked bricks with a flat bottom and a rounded top. A decade ago, bricks of this type would have been taken as a sign that the building was Early Dynastic in date (2900-2350 B.C.). We have shown in previous seasons, however, that this kind of brick lasted into and through the Akkadian Period (2350-2100 B.C.). The plano-convex walls in this level of WF, however, are even later, dating to the Ur III period (c. 2100 B.C.) according to the pottery, baked clay figurines, and other artifacts associated with them. Thus the use of plano-convex bricks is proven to last longer than was thought.

The Ur III walls rested directly on Akkadian plano-convex mudbrick walls, which had the same plan as the Ur III ones. We exposed only a small room and part of a courtyard, presumably bordered by an outside space, so we cannot speak of a real building plan yet. But the identity of the plan thus far excavated shows continuity not only of bricks but probably of building use. At this point, we can already suggest that the building was a house, presumably of a high-status family. Although we do not have enough of the plan of the building exposed to use that as a criterion for its function, we do have burials under floors, a fairly certain indication of domestic character. The high status of the occupants is indicated both by the quality and diversity of artifacts, includ-
ing more than twenty metal objects in the Akkadian level.

The Akkadian walls stood more than two meters high and involved several rebuildings. On one floor in the room, we found four unbaked clay tablets with lists of items and men’s names written in Akkadian. On this same floor was a glass bead, bluish-green and yellow in color. In the court, outside the room, and one floor higher, was another glass bead, olive green and white. We were fortunate to have with us on the site Dr. Pamela Vandiver, a specialist in glass, glaze, ceramics, and other man-made materials. She immediately identified the beads as glass and subsequently carried out a set of technical analyses on them in the Smithsonian Institution. These beads are the earliest known, well-excavated, fully-documented items of glass thus far found anywhere. Other glass of Akkadian date has been reported, but the dating of the findspot has sometimes been questioned, and most of the objects have disappeared or cannot now been located in museum collections. A report on the beads, coauthored by Dr. Vandiver, Augusta McMahon, and me, is already in press.

The graves encountered in the upper strata of WF slowed down the excavation a great deal. Therefore, by the end of the season, we had not been able to clear the Akkadian level away in order to descend into the Early Dynastic strata. However, we are confident that we reached material of the Early Dynastic period below the room, in a forty centimeter stratum that ran below the walls of the Akkadian building. We were also below the Akkadian level in the court. On the last day of digging, in order to add more Early Dynastic pottery for analysis, we marked out two one-meter squares in the bottom of the excavation, one under the room, the other under the court. In both pits we began almost immediately to encounter whole pottery vessels. Soon after, in the pit below the court, we found the tops of copper or bronze vessels. We had come down on graves in both places, and the copper/bronze vessels in one grave marked it as important. We spent the rest of the day clearing the graves and mapping and recovering the objects. The burial in the pit below the room was a shallow one, with an infant skeleton; on initial analysis, we date it by the pottery to Early Dynastic III.

The second grave, found in the court, was of an adult whose skeleton had turned almost completely into powder. There were ten pottery vessels, including one jar that had in it the remains of a reed encased in a copper sieve, meant to separate liquid from debris; I think this devise was used for drinking beer. The
Cylinder seal of clear, whitish stone, with impression rolled with it, showing conflict between heroes and animals. Akkadian period (c. 2300 B.C.). The official seal of LUGAL.DUR, the scribe.

copper or bronze vessels numbered six, including a bucket with a handle. At the neck of the skeleton, we found a gold band. Above the head was a copper pin. We discovered at the shoulder a magnificent green stone cylinder seal with a presentation scene, easily recognizable as Akkadian in style and date. It had probably been on a wooden-shafted pin that had held the cloak together. At the waist were an axe, a spear head, two more pins, and another extraordinary Akkadian cylinder seal. The second seal, of rock crystal or quartz, had a scene of heroes fighting animals.

The two seals had identical inscriptions, establishing the identity of the skeleton as LUGAL.DUR, the Scribe. This man, judging by the richness of his grave and the magnificence of the two seals, must have been an important official in the service of the Akkadian king. The scene of heroes fighting animals is a common one in Akkadian seals and is now recognized as the motif on official, governmental seals of the period. Few seals of this type have been cut with the expertise evident in this seal.

The other seal (see page 16) is equally well executed, and even more interesting in its design. I take this to be LUGAL.DUR’s personal seal, the one he used in his own business dealings. There may be some significance in the fact that this personal seal was found at the shoulder, while the official seal was at the waist, perhaps attached by a cord to a belt, or contained in some kind of bag. But there are too few other examples of well-recorded, published graves of the Akkadian period to determine if personal seals were always worn on the upper body and official seals were worn at the waist.

The design of the personal seal falls within the category of presentation scenes, that is,
one in which a human being is led by a deity or deities (all of whom have horned crowns) into the presence of a seated god. It is assumed that the god leading the human being is the personal god of the seal-owner. In this instance, the human being stands at the left, next to the inscription that identifies him, with his left hand raised in greeting or prayer. He is preceded by a storm god, presumably Adad, who stands on the back of a mythological creature, which breathes fire. Between two mountains is another god, holding a crescent-shaped axe and wearing a crescent on his horns. This is one of the very rare depictions of the moon god, Nanna/Sin. The seated god holds a mace in his hand and is accompanied by a horned animal. On the top of one of the mountains is a standard, set on hoofed animal feet, and surmounted by a macehead. Hanging on the shaft of the standard is an object that I interpret as a sandal. This standard must be related to the seated god and should give us a clue to his identity, but representations of a god with this standard are very rare in ancient Mesopotamian iconography. The sandal must refer to a particular incident in the mythology of the seated god, but there is no known document that deals with it. Further study may allow us to suggest an identity for the god.

**Future plan to excavate temples and house in Area WA.** It is clear from the two stratigraphic pits (WA50c, WF) that we have reached Akkadian levels on the West Mound, where extraordinary finds await us. But, these levels are about ten meters (more than thirty feet) below the present surface in the bottom of Area WA. We intend to expand and deepen Area WF at the same time we expose the stack of temples that we know lies under the main part of WA. The sand that halted our work in WA in 1973 has now moved off the site and we will be able to operate effectively on a large scale.

In 1972 and 1973, we excavated several rooms in one corner of the Neo-Babylonian version of the WA temple. We sank pits to investigate parts of rooms in four earlier versions of the building. In the next five years we expect to completely unearth these and even earlier levels of this major temple, which cannot be identified as yet. By expanding WF and examining the successive layers of private houses there, we should be able to relate activities and persons in the houses with those in the temples. A correlated program of excavation in houses and neighboring temples has not been attempted by the Oriental Institute in Iraq since the 1930s, although the excavation of the Inanna Temple and houses on Tablet Hill in the 1950s and 1960s approached this objective. In those days the questions we are now asking about the social and economic role of temples within the city and the state and ecological relationships were not being considered. We think we will have substantial new information that will allow innovative interpretations of such issues as a result of our forthcoming seasons.

**Preliminary mapping at Umm al-Hafriyat.** During February several members of the expedition staff, including Pamela Vandiver, the ceramic specialist, spent two days at Umm al-Hafriyat, the interesting industrial town that we excavated east of Nippur in 1977. We were there to pinpoint and date the more than 400 pottery kilns that are scattered across and around the site. We did this work as a preliminary to a future season at the site, aimed at elucidating pottery-making technol-
Cylinder seal of green stone, with impression rolled with it. Akkadian period (c. 2300 B.C.). The personal seal of LUGAL.DUR, the scribe.

ogy. We were able to map the kilns in only two days because we were working with a Lietz-Sokkisha Total Station, an advanced kind of surveying instrument that incorporates laser and computer technology. The equipment was leased from the Kara Company, Lyons, Illinois. The Total Station, when added to the computers and printer, which previously we had been able to utilize only partially, comprised a full range of modern data-recording that has not been possible before at our site or any other in Iraq. Due to the far-sightedness of Dr. Moayyad Sa'id Damirchi, the Director of Antiquities, expeditions are now being encouraged to use such equipment. We are currently seeking funds to purchase the Total Station and additional computer equipment and programs, all of which will be available for the use of all Oriental Institute expeditions.

• Status report on publication. I take pleasure in reporting that James A. Armstrong has completed his doctoral dissertation, based on our excavations in the early 1st millennium levels at Nippur. His study, which makes extraordinarily important changes in the stratigraphy of Nippur and in cultural-historical interpretations, will be published in a year or two. Richard L. Zettler has recently finished a manuscript on the Kassite buildings in Area WC, which is now being edited. It should appear within a year. I am currently restructuring an overlarge manuscript on several seasons of work to create separate volumes for easier and faster publication. The first, on the city wall, should be given to the editors in a few months. Judith A. Franke’s report on Area WB, in which she analyzes an Old Babylonian house of bakers through the fifty years of its existence, is being revised after initial editing. These monographs are the end result of years of research by former students who had access to and responsibility for specific bodies of material at Nippur. In all cases, the individuals took newly excavated material and used it to reassess material from older excavations at Nippur and elsewhere. In this process, which still continues, Nippur serves as a training ground for excavators and as a source for data that can be used by students and associated staff for innovative dissertations and publications.
STAFF AND FUNDING. The staff for the season included the author as director; James A. Armstrong as associate Director and archaeologist; Abbas Fadh1 as representative of the Department of Antiquities; John C. Sanders as architect; Peggy Sanders as artist, photographer, and assistant to the architect; Augusta McMahon as archaeologist; Lorraine Brochu as archaeologist and registrar; Robert D. Biggs as epigrapher; Krzysztof Edward Ciuk as Sasanian/Islamic pottery specialist, working in association with Edward J. Keall; and Margaret Brandt as environmental specialist.

Pamela Vandiver, research scientist from the Smithsonian's Conservation Analytical Laboratory, joined us for two weeks in late February. During the season, we hired up to twenty-seven workmen, who were under the supervision of the foreman, Khalaf Bedawi.

I must acknowledge, once again, the continuing support of the Friends of Nippur. We were able to accomplish a good deal more work, despite rising costs, because their donations were more generous than ever. We owe a special debt of gratitude to Mary Jo Khuri and Janet Helman, who saw to it that the Friends of Nippur newsletters were reproduced and sent out.

For this season, we were the recipients of a sizable grant from the National Geographic Society (No. 3961-88), for which we are most grateful.