

IRANIAN PREHISTORIC PROJECT

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The last two decades of archaeological investigation in the ancient Near East have witnessed the discovery of an increasing number of year-round occupied large sites with no evidence of farming and animal husbandry, as well as sites with evidence of domesticated cereals and/or animals in regions not suspected to be the locus of the domestication of wheat, barley, sheep, and goats. As a result, it is becoming apparent that the prevailing paradigm of the Hilly Flanks of the Fertile Crescent can no longer explain the processes of domestication of animals and plants and the adoption of sedentary village life in the ancient Near East. Combined recent archaeological and climatological evidence, as well as improved techniques in ^{14}C dating, offer a new framework within which processes of domestication of wild species of animals and cereals and sedentarization of human communities in the Near East may be interpreted to include “anomalies” not fitting in the prevailing paradigm. The excavation of Chogha Bonut was undertaken in part to test the validity of the new emerging picture of the Neolithic Revolution in the Near East.

The process of momentous discoveries of the beginning of village life in lowland Susiana was interrupted in 1978. The Oriental Institute excavations at Chogha Mish (recently published by the Oriental Institute Publications Office, OIP 101) provided a long uninterrupted sequence of prehistoric Susiana, as well as evidence of cultures much earlier than what had been known, pushing back the date of human occupation



Figure 1. Expedition staff members: (from left to right) Hamidreza Tabrizian, Ebrahim (village boy), Abbas Moqadam, Farhad Jafary, Hasan Rezvani, Behrouz Omrani, Gabriel Nokandeh, Qoli (village boy), Messrs. Faroukh-Ahmadi and Kargar are absent

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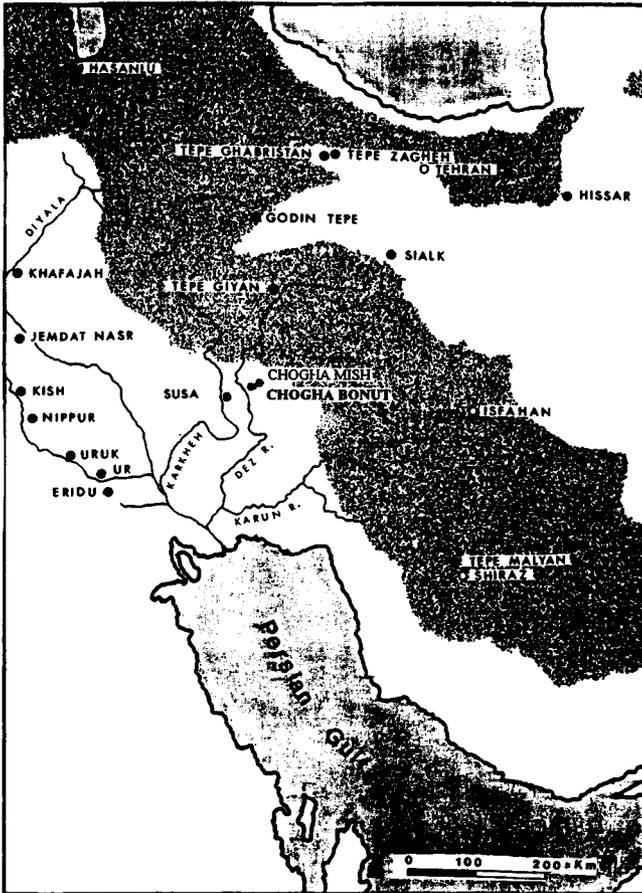


Figure 2. Map of southwestern Iran showing the location of Chogha Bonut

of the plain for at least one millennium. Professor Helene Kantor and Pinhas Delougaz' excavations at Chogha Mish, the largest early fifth millennium site in lowland Susiana, added the Archaic period to the already well-established Susiana prehistoric sequence. The sophistication of the artifacts and architecture of even the earliest phase of the Archaic period showed that there must have been a stage of cultural development antecedent to the successful adaptation of village life in southwestern Iran, but surveys and excavations had failed to reveal such a phase in that region. As is common in the field of archaeology, it was not until 1976 that evidence for an earlier, formative stage of the Archaic Susiana period was accidentally discovered. In that year, news of the destruction of a small mound some six km to the west of Chogha Mish reached Helene Kantor, who at that time was working at Chogha Mish. The destruction of the site was stopped and two seasons of salvage excavations were carried out under Kantor's supervision. That site was Chogha Bonut, which was destined to make a major contribution to the prehistoric sequence of Susiana, thereby increasing our knowledge about the formative stages of the initial village life in southwestern Iran. With the kind and enthusiastic support of Mr. Seraj al-Din Kazerouni, the Director of the Iranian Cultural Heritage Organization (CHO), and his Research Deputy, Mr. Jalil Golshan, I was able to obtain a permit to excavate Chogha Bonut on behalf of the Oriental Institute and the Cultural Heritage Organization in September and October 1996. To accommodate the Cultural Heritage Organization's desire for training students of archaeology and some of its representatives, we did not hire local workers, save for a few occasions. I had with me Messrs. Gabriel Nokandeh, Abbas Moqadam, Hamidreza Tabrizian, and Farhad Jafary, four talented and enthusiastic graduate students of archaeology at Tehran University. The Cultural Heritage Organization's representatives were Messrs. Hasan Rezvani, Bahman Kargar,

Behrouz Omrani, and Farukh-Ahmadi (fig. 1). I owe a debt of gratitude to all of these individuals, particularly Mr. Rezvani, a seasoned archaeologist, for the smooth operation of the dig. From Kantor's report, I knew Chogha Bonut displayed what she called "Formative" stage of the lowland Susiana phase, and that the site may contain an even earlier aceramic phase of the initial colonization of Susiana in the eighth millennium BC.

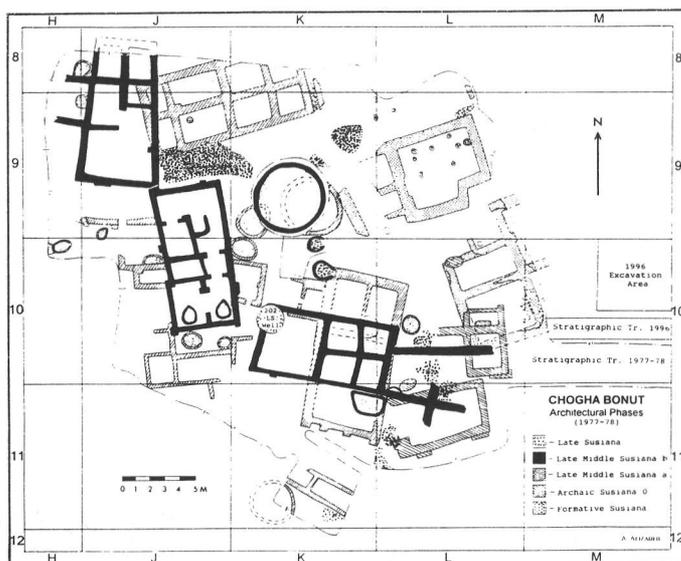


Figure 3. Plan of various architectural phases at Chogha Bonut

The excavation was conducted with the hope of substantiating Kantor's claim and thereby to increase our understanding of the processes of the initial colonization of lowland Susiana.

Chogha Bonut is probably the oldest lowland village in southwestern Iran (fig. 2). It is a small mound; in its truncated and artificially rounded state, it has a diameter of ca. 50 m and is 5 m high. Chogha Bonut was first occupied sometime in the second half of the eighth millennium BC, before the invention of pottery. The site continued to be occupied for much of the seventh millennium BC, until the beginning of the Archaic 1 period (the earliest period attested at Chogha Mish, some 6 km to the east), when it was deserted for at least one millennium. Then, sometime in

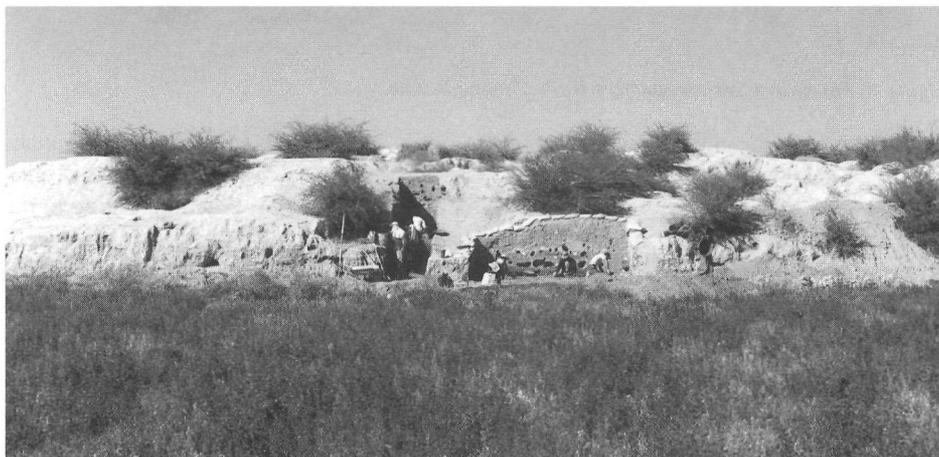


Figure 4. Chogha Bonut, excavation at square M10 and the stratigraphic trench, looking west

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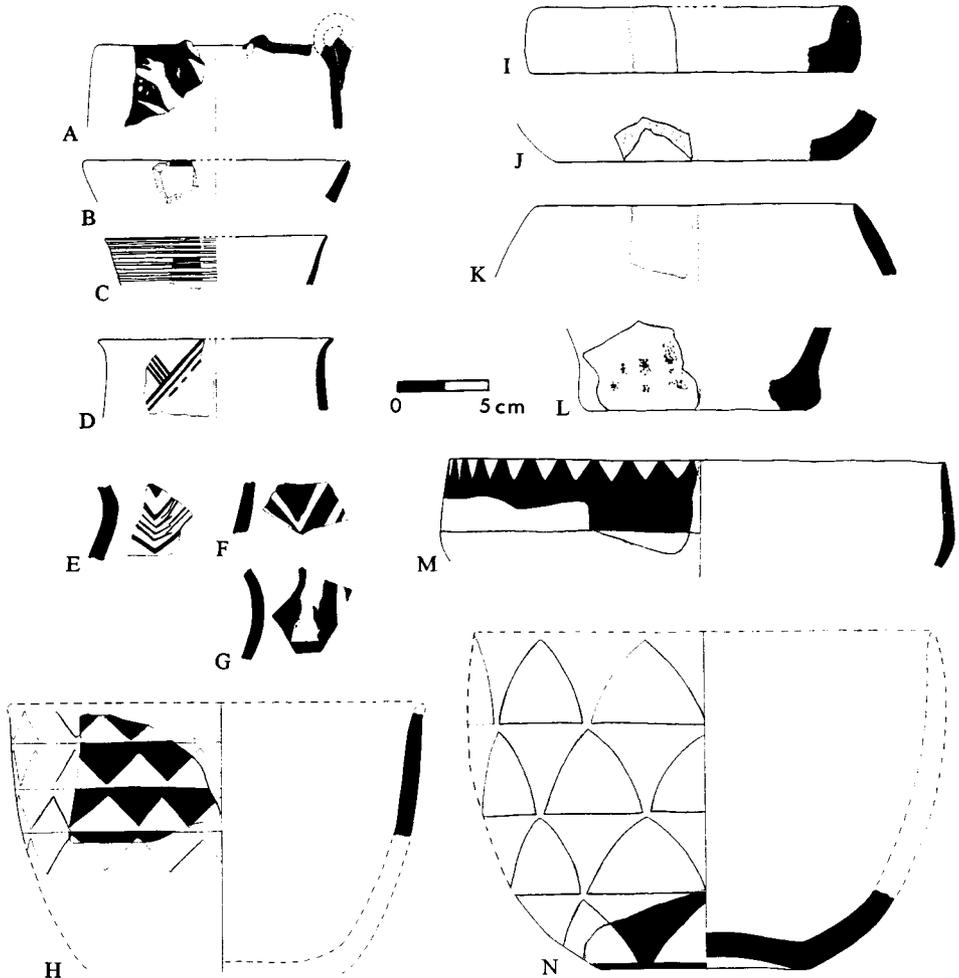


Figure 5. Formative Susiana pottery from Chogha Bonut

the fifth millennium (Late Middle Susiana), it was reoccupied and remained inhabited into the early fourth millennium (Late Susiana 2), when it was deserted once again. Salvage excavations in 1977/78 uncovered a series of buildings dating to the Late Middle Susiana and Formative Susiana periods (fig. 3). Save for a deep well, architectural remains of the Late Susiana period were destroyed by a bulldozer. Two phases of architecture represent the Middle Susiana period; the pottery from these phases, however, falls within the range of the Late Middle Susiana (fig. 7: D–F). An erosion level, 20–80 cm thick, separates the remains of the Middle Susiana period from those of the Formative and aceramic. Except for Ali Kosh, located in the Deh Luran Plain north of Susiana, all early Neolithic aceramic sites in Iran are located in the Zagros Mountains. These early aceramic sites are informative about the begin-

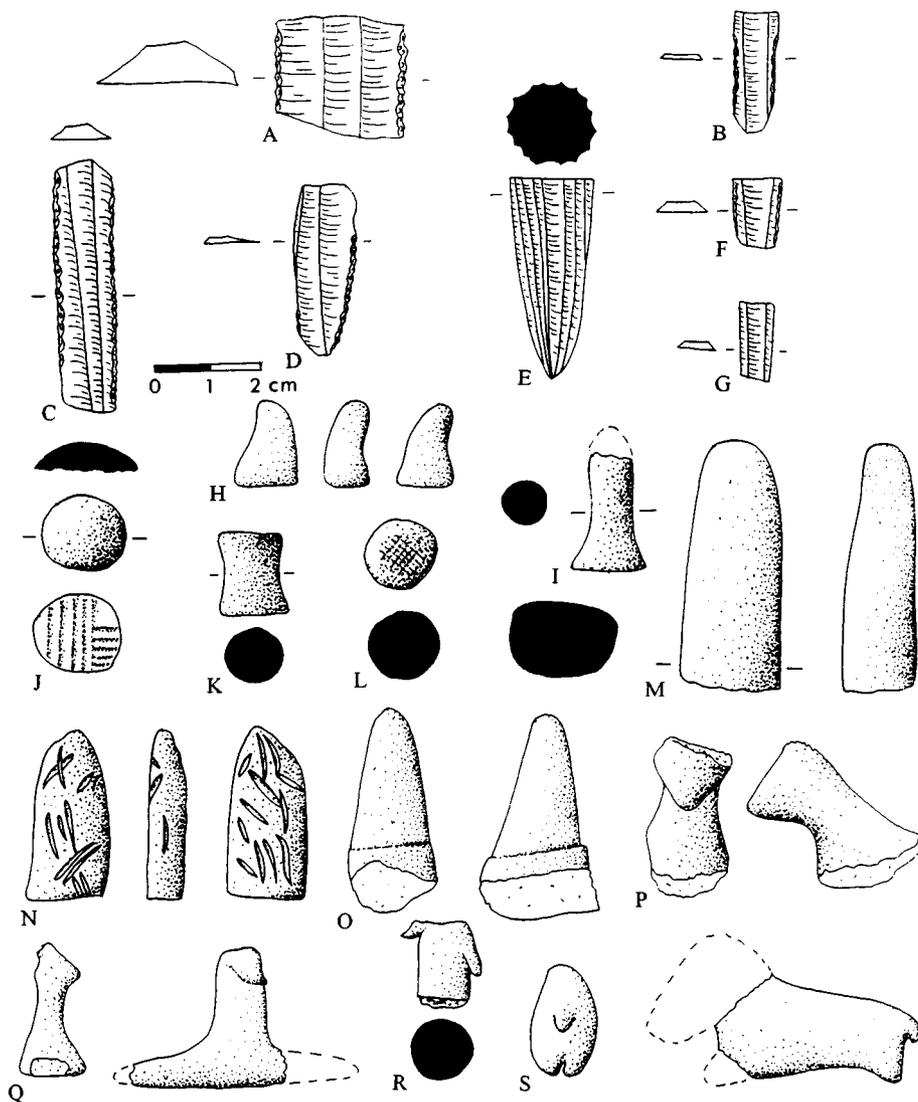


Figure 6. Various small objects and flint blades and cores from Chogha Bonut

ning of village life in southwestern Iran, but, unlike Chogha Bonut, almost all of these villages were in the natural habitat of the early domesticates and were occupied after the domestication of some species of cereals and animals had already been well under way. Some scholars believe that southwestern Iran, particularly the highland, was cold, dry, and mostly uninhabited between 11000 to 9000 BC, and that the domestication of animals and particularly cereals took place not in the mid-altitude of the Zagros Mountains but in the oases in the Levant, Jordan, and Syria. When this sudden spell of cold and dry weather (known as the Younger Dryas pe-

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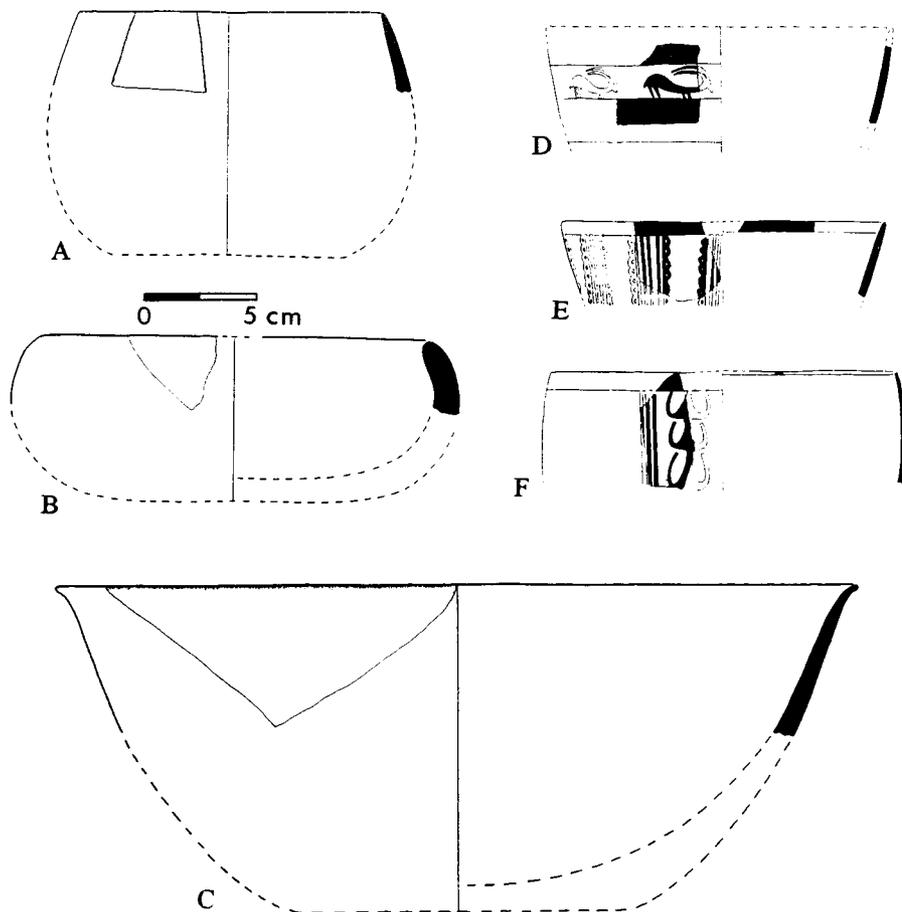


Figure 7. Aceramic Phase stone vessels (A-C) and Late Middle Susiana pottery vessels (D-F) from Chogha Bonu

riod, ca. 11,000–10,000 BP) gradually came to an end by 8000 BC, the uninhabited regions of the Near East were colonized by groups of people who already were practicing a mixed economy of food producing and food gathering. If this were the case, one would expect to find such sites in warmer areas, more suitable for practicing agriculture in lower rather than higher altitudes. Chogha Bonu with its reported aceramic deposit was an ideal site to investigate this problem. Our special interest in Chogha Bonu was its aceramic deposit, which would make it unique among the early sites in large alluvial plains in Iran. Since the Archaic and later periods were known from Chogha Mish and Tuleii, a small site northwest of Chogha Mish, we were eager to reach the basal levels during our excavations. This proved to be a difficult task; Chogha Bonu has been bulldozed and churned up twice. In addition, two seasons of excavation by Kantor had produced a large amount of debris that had

been dumped over the slopes of the mound, but its exact location was unknown to us. Finally, eighteen years of rain and trampling by farmers, pastoralists, and their animals made it difficult to distinguish, without excavation, the disturbed and undisturbed areas of the mound.

At the base of the mound, we tested three areas and decided that the eastern sector of the mound, with its numerous ashy lenses visible right above the surrounding plain, would be the best spot to reach the lowest levels. In our 5 × 5 m trench area we reached undisturbed layers after removing about one meter of bulldozed debris (figs. 3–4). From the beginning we encountered aceramic layers accumulated in an area that seemed to have been an open court. Here we found successive surfaces with layers of alternating ash and clay. These surfaces were furnished primarily with roughly round- and oval-shaped hearths, and most contained fire-cracked rocks, very typical of the fire pits of the early Neolithic period. We found no solid architecture, but the presence of fragments of straw-tempered mudbrick indicated to us that mudbrick architecture existed elsewhere in the mound. We excavated this area to virgin soil that was only about 80 cm below modern surface. Samples of organic ash from this basal deposit and from a hearth about 1 m above virgin soil were analyzed by Beta Analytic Inc., of Miami, Florida, and yielded calibrated dates of 7295 BC and 7040–7005 BC (Beta-104552 and Beta-104555).

Since we opened our trench at the lowest possible slope of the mound, it could not give us a profile of the stratigraphy of Chogha Bonut from the aceramic phase to the end of the Formative Susiana period. To develop this profile, we opened a stratigraphic trench one meter south of our main trench and excavated it to virgin soil (figs. 3–4). It was here that we found several classes of pottery not previously known in Susiana. The earliest pottery is a soft, straw-tempered, straw face ware most certainly of the initial stage of pottery manufacture in lowland Susiana (fig. 5: I–K). Some examples bear traces of fugitive paint of probably red ochre (fig. 5: L). An early class of pottery includes straw-tempered vessels of simple shapes and decorated with crude streaks of red-maroon that, judging by the existing finger impressions, seem to have been applied to the vessel using bare fingers (fig. 5: A, G). A later class of pottery, known also from the Deh Luran Plain, is highly burnished and has a cream slip with primarily superimposed deep red/maroon triangles as decoration (fig. 5: H, N). The most numerous artifacts at Bonut, as was expected, were flint tools and stone objects. The lithic industry at Bonut is advanced (fig. 6: A–G) and the presence of various high-quality flint cores, not found locally, indicates some sort of regional exchange. No obsidian was found in the aceramic layers. Although we did not find complete stone vessels and bracelets, the fragments we found illustrate the skill and sophistication of the early inhabitants of the Susiana Plain (fig. 7: A–C). Numerous clay objects with either mat or cloth impression on one side indicate the use of clay tokens/sealing at this early stage of Susiana cultural development (fig. 6: H, J–L). A number of clay and stone figurines were found throughout the sequence (fig. 6: I, M–S). The typical T-shaped figurines (fig. 6: Q) were limited to the upper levels of the aceramic deposit and continued into the ceramic phase. Crudely shaped clay zoomorphic figurines were found throughout the basal levels of the aceramic phase (fig. 6: P, S). The rarity of stone mortars and large stone tools may be an accident of discovery since the area of excavation was rather small.

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Our most precious and potentially more informative materials are the bones and carbonized seeds that we collected from every layer and feature. The bones were never in good condition and were often covered with a thick layer of salt crystals. The fauna samples are being analyzed by Professor Richard Redding of the University of Michigan. We retrieved the seeds by dry sieving at the site and flotation in the camp. The floral samples were analyzed by Dr. Naomi Miller of the Museum Applied Science Center for Archaeology (MASCA). According to Dr. Miller, the types represent a small range; most of the material comes from cereals, primarily barley (*Hordeum vulgare*) and emmer wheat (*Triticum dicoccum*). Einkorn (*T. monococcum*), bread/hard wheat (*T. aestivum/durum*), and lentil (*Lens*) are also present. Seeds from several wild and weedy taxa, notably leguminous types, grasses, and a few others were found in the samples. Soil samples for phytolith analysis are currently being tested and studied by Dr. Arlene Miller-Rosen; once the analysis is completed, we may know more about the wild plants and cultigens that existed in prehistoric Susiana. Once all of the results are in, we may be able to open a new chapter in the cultural evolution of southwestern Iran and shed more light on the processes of domestication of plants and animals and the place of lowland Susiana in the cultural development of the early Neolithic of the ancient Near East.
