## **EXCAVATIONS AT CHOGA MAMI, IRAQ**

Report by the Director of the British School of Archaeology in Iraq, Dr. David Oates, on work partially sponsored and supported by the Oriental Institute

The excavations at Choga Mami, east of Baghdad and not far from the Iranian border, were begun in December, 1967, and were finished in February, 1968. The surviving occupation levels at Choga Mami, as far down as we have excavated, represent a large village or small town of the Samarra period (ca. 5000 B.C.). A very extensive collection of surface material has not produced anything that is certainly earlier, although there are some Jarmo flints and pottery (ca. 6750 B.C.) on nearby mounds. On the other hand there was evidently later occupation, the evidence for which has been lost by erosion. The latest level of which vestiges remain yielded pottery of transitional Samarra/Hajji Muhammad (ca. 4900-4300 B.C.) type. Sunk through this, from an even higher occupation level that has totally disappeared, was a well containing sherds of late Halaf (ca. 5200 B.C.) polychrome pottery of the best Arpachiyah type, together with other hitherto unknown but approximately contemporary material, probably of Iranian origin. Elsewhere on the mound another late well produced Hajji Muhammad and later 'Ubaid (ca. 3500 B.C.) types, and a large pit contained a consistent range of Early Dynastic material, probably ED I-II (2900-2600 B.C.).

One important aspect of the site, therefore, is the evidence that it yields for chronological relationships between North and South Mesopotamian cultures, at least in the area of Mandali, and for connections with Iran. Our first impression of this evidence is that the culture represented by Samarra pottery is, at least at Choga Mami, quite distinct from Hassuna (ca. 5600 B.C.). We found no Hassuna pottery, and it is rare at the closely comparable site of Tell es-Sawwan near Samarra. It seems that Hassuna is essentially a culture of the rain-fed northern plain of Mesopotamia, while Samarra flourished in central Mesopotamia on the fringes of the alluvium.

Our Samarra material also showed relationships with the true southern cultures of the Eridu (ca. 5300-5000 B.C.) /Hajji Muhammad/Ubaid sequence. One sherd of early Eridu ware (Eridu XVII) was stratified in a Samarra level and, as we have noted, our latest surviving occupation level produced pottery which appears to be transitional between Samarra and Hajji Muhammad. True Hajji Muhammad and 'Ubaid came later, in levels that have now been eroded, as did late Halaf material. Unfortunately, these two groups of material, though homogeneous in themselves, cannot be chronologically related to one another since they derive from the fill of later wells.

A most important piece of evidence bearing on the relation between Samarra and the southern cultures is the discovery in true Samarra context of a series of broken terra-cotta female figurines with heads rendered in a naturalistic manner, but with an elongated profile and hair style which in its most pronounced form is an obvious lineal antecedent of the 'Ubaid "lizard-headed" figurines from Ur. We would therefore suggest as a working hypothesis that the prosperous Samarra settlement at Choga Mami represents an intermediate stage between the early rain-fed agriculture of the northern plain, as typified by Hassuna, and the full efflorescence of the 'Ubaid economy in the south, which must have been based on large-scale irrigation.

This observation accords with others that we have made. In cutting a section against the north side of the mound we identified a series of water channels, the latest of which is modern, while others are clearly of Samarra date. Some if not all of these ancient channels can be almost certainly identified as artificial irrigation ditches, since they apparently run well above ancient plain level. We cannot yet certainly identify the canal from which these channels were fed. But we have observed and followed a marked depression that approaches the site from the direction of Mandali. At the point where this depression cuts through high ground just southeast of Choga Mami its sides are lined with what appear to be artificial spoil banks. Along its course are sites of all periods, including Samarra and Hajji Muhammad, and we think it probable that it marks the line of a canal bringing water from the point where the Mandali river, the Gangir, debouches from the Iranian foothills into the plain. It is unlikely to be a natural watercourse, since it runs from southeast to northwest, almost parallel with the first ridge of foothills, cutting across the natural gullies that descend from the ridge toward the southwest.

It is worthy of note that this area around Choga Mami, where we postulate irrigation in the Samarra period, would have been particularly suitable for an early canal system, since it lies in a triangle between two rivers, the Gangir and the Ab-i-Naft, of which the former provides a head of water and the latter, at a lower level, a natural drainage outlet. It is in fact the lower Tigris-Euphrates basin in miniature, with the problems of drainage and stagnation virtually eliminated by the more rapid drop in land levels owing to its position on the outer slope of the foothills. Complementary evidence of climatic and ecological conditions at the time of the settlement was obtained by the collection of animal bones totaling more than 1000 identifiable specimens and seed and grain samples from different levels.

With the exception of a puzzling tower-like structure of Late Samarra date on the north edge of the mound, the buildings were remarkably uniform in plan. The tower needs further study, but there is as yet no evidence that it formed part of a town wall; it is more likely to have been a watch-tower, perhaps at one of the entrances to the settlement, for immediately beside it we found the top of an ascending ramp. The standard house type within the settlement consisted of two or three rows of small rooms, of regular layout, with external buttresses corresponding with the internal partition walls and at the corners. The largest measured some 10 x 7 meters overall and contained twelve rooms in three rows. One of the most interesting features of the houses was the way in which they were built directly on top of, or in some cases within, the walls of their predecessors in earlier levels. The most

probable motive for this strict adherence to earlier boundaries would seem to lie in the existence of continuing and rigidly observed property rights. Moreover we think that we have detected in the area so far exposed, larger buttressed walls which did not form part of any particular structure, though smaller buildings were often backed against them. These look like the boundary walls of larger units, perhaps comparable with the modern bayt in the sense of an extended household.

To sum up, we think that we have obtained significant evidence bearing on the cultural connections of an important Samarra settlement, and also the outline of an equally valuable picture of its economy, against the background of the contemporary climate and ecology of the region.