

New research challenges previous knowledge about the origins of urbanization

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Map locating Tell Brak. Photo by Jason Ur

Ancient cities arose not by decree from a centralized political power, as was previously widely believed, but as the outgrowth of decisions made by smaller groups or individuals, according to a new study from researchers at Harvard University, the University of Cambridge, and the University of Edinburgh.

Published in the Aug. 31st *Science*, the research was led by Jason Ur, assistant professor of anthropology in the Faculty of Arts and Sciences at Harvard University, with Philip Karsgaard of the University of Edinburgh, and Joan Oates of the McDonald Institute for Archaeological Research of the University of Cambridge.

"The results of our work show that the existing models for the origins of



ancient cities may in fact be flawed," says Ur. "Urbanism does not appear to have originated with a single, powerful ruler or political entity. Instead, it was the organic outgrowth of many groups coming together."

To understand patterns of population growth in the earliest urban areas, archaeologists surveyed the spatial distribution of artifacts at Tell Brak, located in northern Mesopotamia, in what is today northern Iraq and northeastern Syria. The researchers' work was based on observation of surface objects at the site, along with satellite imagery and Geographic Information Systems (GIS) spatial analysis. Surface artifacts included bits of broken pottery and other ancient garbage, which indicated to the archaeologists where the inhabitants of the city lived. In this survey, the patterns of distribution of these objects were examined over an 800 year period.

Excavation of Tell Brak has been conducted by researchers from the University of Cambridge since 1976. While archaeologists had been aware of the large scale of Tell Brak, they had previously concentrated on excavating and observing the more densely populated "central mound." This field survey has demonstrated that the city was much larger geographically than realized, and had also been populated by settlement clusters surrounding the "central mound."

According to the survey of distribution of artifacts, around 4200 BCE the "central mound" was suddenly surrounded by these clusters, suggesting immigration to the city. These clusters were separated from one another, indicating social distance among the groups, possibly because the social mechanisms that allow strangers to live together in an urban environment had not yet evolved. The patterns of settlement and distance from the "central mound" also signified autonomy from the political center of the city.

The theory of a singular leader as the catalyst for urbanization has been



widely supported in part because it is reinforced by the story of Gilgamesh, who "built" the city of Uruk. Uruk, located in what is today southern Iraq, had been considered the world's oldest city. The field survey, along with recent related excavation by the University of Cambridge has shown that the urban development of Tell Brak was concurrent, or may have been earlier, than the development of Uruk.

"Ours is a largely urban society, and the nascent urbanization of Tell Brak tells us about the formation of the very first cities in the world," says Ur.

Source: Harvard University

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