LANDSCAPE STUDIES IN UPPER MESOPOTAMIA

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At first sight the Jazira region of Upper Mesopotamia with its bare rolling uplands and semi-arid plains seems a bleak prospect for studies of the archaeological landscape. Although broken by numerous tells of ancient settlements the terrain is otherwise apparently featureless. It has therefore been my mission over the last decade or so to try to describe and to analyze this landscape in a manner that is useful not only to archaeologists but also to anyone interested in the ancient Near East.

The archaeological landscape of the Jazira can be broken down into the following basic components:

- (a) Archaeological sites, best represented by mounds or *tells*, but also present as low or flat scatters of occupation debris.
- (b) Extensive scatters of pottery, slag from kilns, and other debris that probably resulted from the use of trash and organic refuse hauled from neighboring settlements and applied to fields as fertilizer.
- (c) Linear hollows, soil marks, or vegetation lines that appear to represent the lines of ancient roads.

Together these give us the basic components of the ancient geography of an area: settlements, fields, and road systems. In addition, detailed surveys can reveal traces of pits for extracting soil for mudbrick, salt sources (again represented by pits), and where hard rock is exposed, wine presses and ancient quarries (for building stone). In drier parts of the Jazira, traces of canals become more evident. Therefore simply as a descriptive device, landscape archaeology is of considerable value.

My interest however extends beyond this, so that once the landscape has been described, my objective is to analyze it in a way that will throw light on the development of towns, how they were sustained by food production, to what extent there was interaction between them, and ultimately how and why they collapsed.

For decades archaeologists have concentrated their efforts on tells and either ignored or failed to notice the important lower towns. Hence it is often my first objective during fieldwork to define the size of the main site under investigation. This is best illustrated by the site of Titriş Höyük, currently being excavated by Guillermo Algaze, formerly of the Oriental Institute. The extent of settlement as it appeared at the end of the 1992 field season is shown in figure 1. The main tell or höyük is obvious, as are the shoulders to the east and west designated here the

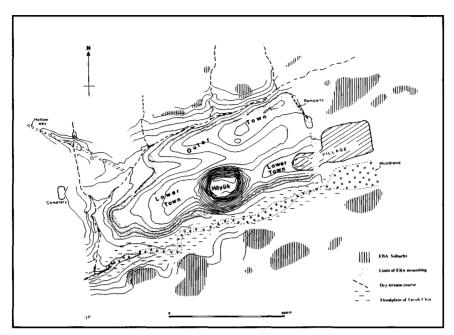


Figure 1. Map showing the main mound, lower town, outer town, and suburbs of Titriş Höyük

lower town. However, until the site was surveyed in 1984 by the Kurban Höyük team (from the Oriental Institute), the extensive outer town had gone unrecognized. In addition, much more detailed surveys conducted by the writer in 1991 and 1992 demonstrated the existence of extensive flat or virtually flat scatters of debris which represented outer "suburbs." All these components of the archaeological site were occupied around the mid-third millennium B.C. or slightly later (i.e., corresponding to Kurban Höyük period V, contemporaneous with the Akkadian period of southern Mesopotamia). Together, these cover a total of some 38 ha and were capable of accommodating some 3,000 to 8,000 people. In addition it is possible to recognize a hollow way road leading off to the northwest as well as the town's stone quarries (off map to north).

Unfortunately, we did not have access to aerial photographs for the work at Titriş, but if they were available, the richness of the archaeological landscape of this region would become readily apparent. The results of surveys conducted when the writer was employed by the British School of Archaeology in Iraq are shown in figures 2 and 3. These maps show general and detailed views of part of northern Iraq, with patterns of ancient hollow way routes radiating from numerous sites onto the surrounding plains. In addition, interrupted features that cross the terrain for many kilometers appear to form the remains of hollow ways, in this case probably representing former long-distance roads. The detailed map of the area around the massive 66 ha mound of Tell al-Hawa shows the hollows to the north of the site (to the south they appear to have been obscured by sedimentation from wadis) together with part of a longer inter-regional feature that ultimately led from the vicinity of Mosul (Nineveh) towards Syria and Anatolia (see A, B, E on fig. 3).

Whereas the Titris and Tell al-Hawa areas fall within the moist and intermediate steppes of Upper Mesopotamia, Tell es-Sweyhat lies at the very margin of viable rain-fed cultivation. This makes the area of considerable interest because it is vulnerable to climatic fluctuations that can result in runs of dry years. These in turn trigger famines that can perhaps ultimately result in the collapse of city states. Recent fieldwork by the Oriental Institute/University of Pennsylvania project (see Thomas Holland's article on Tell es-Sweyhat, below, pp. 63-70) has shown that this settlement, located 3 to 4 km from the Euphrates River in northern Syria, must have been surrounded by cultivated land that received considerable quantities of manure and refuse from the adjacent town. This activity resulted in the landscape becoming littered with a carpet of millions of potsherds that extended some 3 to 4 km from the main site. Such an area, if intensively cultivated with cereals, would have provided sufficient food to just, but only just, sustain a population of 3,000 to 4,000 people, which is the approximate estimated population of Sweyhat and its lower town combined. Other aspects of the landscape that flesh out the geographical context of this late third millennium B.C. town are linear hollows, again probably of ancient roads across the steppe, quarries for building stone, and wine presses. The last named, of probably late Roman/Byzantine date, were for processing grapes presumably grown on the adjacent flood plain. Together, the above features point to a prosperous land, well served by communications and agriculture within what is now a marginal semi-arid environment. Although there has not necessarily been a major climatic change during the last few thousand years, the field evidence does suggest that the area has become heavily degraded by human activities to a point where, although it is still possible

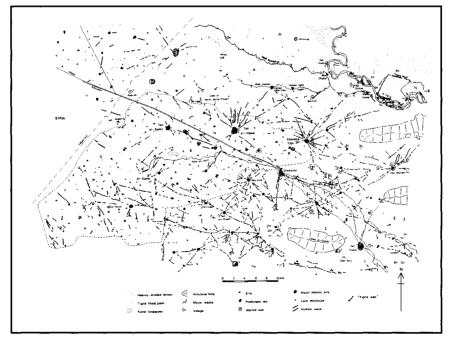


Figure 2. General landscape map of the northern Jazira, Iraq, showing inferred ancient route systems

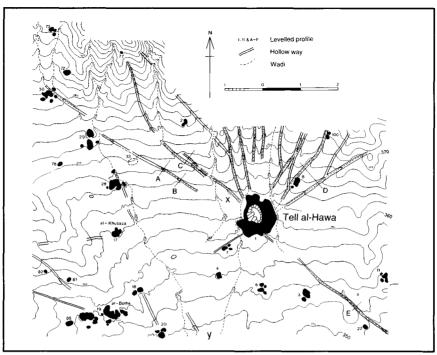


Figure 3. Detailed map showing the topography and linear hollows around Tell al-Hawa, the largest site in the northern Jazira

to farm, towns the size of Sweyhat probably cannot be sustained for long periods without some importation of food.

Related studies undertaken in the summer of 1992 in the nearby Balikh Valley are starting to reveal a similar pattern of route systems and cultivation in another area of marginal semi-arid steppe. This project, conducted by the Oriental Institute jointly with a team directed by Peter Akkermans of the National Museum at Leiden, Netherlands, is seeking to show how the ancient landscape has changed in response to changing patterns of human population, economics, and environment over the last 10,000 years. After only a brief field season in the summer of 1992, Clemens Reichel, graduate student in the Department of Near Eastern Languages and Civilizations, and myself were able to pinpoint areas of the landscape that had become buried by sedimentation (thereby obscuring archaeological remains), as well as a major late Roman or early Islamic irrigation system and a number of north-south hollow way routes. Although frequently little more than faint marks when viewed on the ground, on aerial photographs these features can be seen to run parallel to the Balikh River, presumably linking the ancient town of Ragga (Islamic al-Rafikah) with towns such as Harran in southern Turkey. One route even had a well-preserved early Islamic caravanserai or khan alongside. Ultimately it is hoped that this project will provide information to complement that gathered from around Tell es-Sweyhat, on the ancient limits of rain-fed cultivation. Such a result will be of interest not only to archaeologists but should also shed light on the ancient climate of the Jazira, a region that has hitherto failed to yield much data of value to palaeoclimatologists.