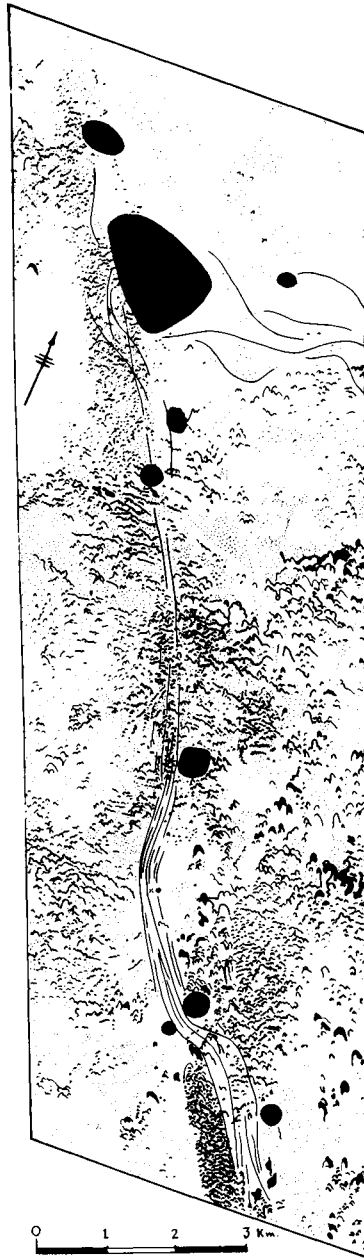


# Reconnaissance of Ancient Mesopotamian Settlement Patterns

*Robert McC. Adams*

The ancient towns and cities of southern Iraq were a shifting, sensitive point of convergence of many historical and natural forces. They increased in number and size under favorable, politically stable conditions, the balance of control tilting against the semi-sedentary or nomadic forces of the countryside. At such times a well-developed urban hierarchy appeared, with towns nested in clusters of surrounding villages and with successively larger cities in turn nested in clusters of villages and towns. At other times the urban population declined precipitately, dispersing into the countryside when silted canals, shifting river courses, or various forms of political and economic breakdown interrupted the food supply. Moreover, the initial growth of Sumerian urban civilization in the fourth millennium B.C. seems to have been accompanied by a rapid, perhaps compulsive drawing in of previously dispersed rural population groups. Thus, the study of ancient settlement patterns has proved a suggestive line of approach to some of the broader patterns of change and continuity in Mesopotamian civilization as a whole.

The Oriental Institute has been engaged in tracing these settlement patterns throughout southern Mesopotamia for more than two dec-



*The third millennium Euphrates  
at Adab and modern (about 1962)  
dune formations. Drawn by R.  
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ades, my own primary involvement in this project having begun in 1956. Work began in the northern part of the alluvial plain, the ancient region of Akkad, and then shifted eastward into the lower Diyala region. Subsequently attention was focussed on the extreme south, in the vicinity of the great ruined cities of Uruk and Ur. The current phase, now nearing completion, connects these separate undertakings and thus permits a first glimpse of the shifting settlements of southern Iraq as a whole, including the irrigation system which sustained them.

Aerial photographs are the indispensable tool of these studies, not only because much of the region is barren desert that remains unmapped but because there are immense resources of data in the photographs whose significance would never be apparent to an observer on the ground. Yet the photographs themselves, without the control of accompanying ground observation, provide only a confused tracery of criss-crossing canal and river patterns, interrupted by other discolorations that may be either anomalies of surface drainage or the remains of ancient settlements. The tasks of reconnaissance consist, then, of systematically covering and mapping a region from the aerial photographs, as reinterpreted from the study of the actual surface remains. Innumerable sherds of broken pottery constitute the primary tool of this part of the study, for they permit us to date not only the ancient settlements on which they occur but also the accompanying canal and river patterns.

One such pattern is illustrated in the accompanying tracing from several adjoining aerial photographs. It shows a major course of the ancient Euphrates running through country now heavily blanketed with dunes, together with settlements along its banks that were all flourishing at about 2000 B.C. The largest of these is ancient Adab, briefly excavated by a University of Chicago expedition at the beginning of this century. All the others, lost in the dunes, escaped notice until our reconnaissance this past winter and spring.

Desert regions, beyond the limits of modern cultivation, have proved the most rewarding for study. In the first place, they offer relatively unimpeded (which is not to say easy) access. Second, many ancient settlements are very low, virtually at plain level, and these are frequently very difficult to detect once they have been plowed over. Third, cultivation brings regular flooding with irrigation water, and the silt in the water rapidly elevates the land surface and actually buries many sites. And finally, desert regions are the locus of active wind erosion, as the dunes suggest. This has the opposite effect to alluvial

build-up, actively carving away the alluvial cover laid down through centuries of ancient agriculture and exposing still more ancient land surface for detailed study.

One important discovery of the past season of field work is a direct outcome of this erosive process. It has been possible to trace a meandering river course across the desert northeast of Nippur for about 35 miles, mapping the settlements that adjoined it and following its changes through time as the meanders cut away adjacent bank material and moved up- or downstream. Probably it was the major bed of the Euphrates prior to its abandonment in the middle of the fourth millennium B.C., providing us with an unparalleled glimpse of a segment of the Sumerian landscape at the time of the first creative impulses toward urbanism.

Another finding concerns the basic continuity of the canal pattern serving southern Mesopotamia. Four close-spaced, parallel channels have been traced through the Nippur region from the northwest, their banks closely lined with hundreds of sites dating from the fourth millennium and continuing, with many reconstructions and interruptions, well into the Islamic period. Yet adjoining regions, along the right bank of the Tigris and to the south of Nippur, seem to have been very lightly occupied except during portions of the last 2500 years or so. Some of these relatively empty areas seem to have served as gigantic drains, used for little more than uncontrolled flood runoff during the spring, and at other times as lands given over to grazing. In other words, the whole of the region between the Tigris and Euphrates was almost never continuously settled. Marked differences in the density of settlement, from region to region as well as from period to period, provide a new basis for scrutinizing both the continuity and the character of the ancient civilization.

Added to relatively brief earlier phases of field work in 1968 and 1973, about 1150 sites have been mapped and dated from their surface remains. All but about 50 of them were not known previously. Many are of very modest size and interest, of course, except for the settlement and irrigation patterns that they display in aggregate. But also included are a number of large and fairly important towns that have not been noted earlier. Unfortunately, no inscriptional material was found to permit any of them to be directly identified by its ancient name. Nevertheless, the very number of new settlements, and the precision with which they can now be located along particular water-courses, may in the end facilitate the identification of some of them.

Field work on this project has been supported by a grant from the National Science Foundation. Quarters and logistical support were

generously made available by Jürgen Schmidt and Nicholas Postgate, respectively the heads of the German and British archeological expeditions to Iraq. The cooperation in every way of Dr. Isa Salman, Iraq's Director General of Antiquities, and members of his staff also is gratefully acknowledged. Thanks are due in particular to Sayyid Abdul Qader al-Shaykhli, who accompanied me as a representative of the Inspectorate of Surveys during most of the occasionally arduous survey of a once fertile and prosperous but now harsh and desolate landscape.