

PAUL SOLOMONICA — IN MEMORIAM.

The Geological papers in this issue will shortly be published in full in the *Bulletin of the Research Council of Israel*, Volume 6.

# THE NEGEV IN PREHISTORIC TIMES

by M. STEKELIS

The author surveys the research done into the Prehistory of the Negev from Doughty and Abbé Richard up to the present, the results of which indicate the existence of settlement in the Negev throughout Prehistoric times. The number of sites found leads us to believe that the climate was damper than now, for the present rainfall could not have sufficed for the density of settlement found. Most of the prehistoric population of the Negev were occupied in herding and primitive agriculture and dwelt in temporary villages, leaving them annually for larger settlements of an urban nature. With the development of agriculture this tendency died out. It is difficult to differentiate between the various periods, particularly the Chalcolithic and the Early Bronze, owing to the homogeneity of the artifacts found; indeed the author concludes by saying that we are still only on the threshold of a full investigation of the prehistoric Negev.

# THE GEOGRAPHY OF THE NEGEV AND THE SOUTHERN BORDER OF SETTLEMENT IN ISRAEL

by D. H. K. AMIRAN

Four major geographical areas (Fig. 1, p. 109) can be distinguished in the Negev, viz. the Beersheba Basin (*ibid.*, No. 6) with its rich loess lands, the Negev highlands (No. 7) with their mountain chains and *makhteshim* (erosion craters, No. 1), the Middle Negev (No. 9) with extended plateaus, and the wild and multi-coloured mountains of Elath (No. 10). The climate of the Negev is characterized by an annual rainfall of less than 300 mm. and in the south even less, under 50 mm. (Fig. 2, p. 112). Furthermore, annual variations are very large. In consequence, there are wide differences in settlement between that part of the region which has a Mediterranean-type climate and the Central and Southern Negev with a desert climate. The Beersheba Basin in the Northern Negev is a transition zone in which the

border of settlement advances and recedes according to the colonizing capacities of the settlers. Today the area of settlement is being extended over the whole of the loess area with the help of irrigation on a national scale. The fertility of the loess may create in the Beersheba Basin one of the foremost agricultural areas of Israel. Settlement south of the loess area does not appear practicable at present.

## THE MEANDERS OF THE JORDAN

by I. SCHATTNER

The meandering course of the Jordan River from Lake Tiberias to the Dead Sea exhibits some peculiarities, which are mainly due to the kind of sediments into which it has cut its channel, and to the arid conditions in the Jordan Valley which affect to some degree the surface of these sediments. The Jordan is entrenched in the deposits of the Pleistocene "Jordan Lake": mainly marls of the Lisan Series. These are very poorly consolidated and easily eroded. Considerable additional load of a quality that promotes meandering is supplied to the river from the steep sides which confine its meander-belt. The mainly marly banks are subject to very intensive rainwash and gullyng on account of their great friability and lack of any vegetational cover. The aridity also promotes the formation of extensive cracks on the top of the cut-off banks, causing the slumping of considerable material into the river. The unfrequent but violent downpours cause the lubrication of the more clayey strata with consequent sliding down of substantial packets of material into the Jordan. The tributaries — most of them wadis carrying flood-water — slow down their flow considerably after reaching the flat floor of the Rift Valley, anastomise, and the material carried by them into the river again becomes a substantial addition to its fine-grained load.

Another important, although very sporadic, load-contributing factor is the relative frequency of earthquakes in the Rift Valley, to which must be attributed the cessation of the flow of the Jordan which has been recorded several times in the past.

This very abundant supply of material to be transported by the river, much larger — while more sporadic — than with any river of similar size and discharge in the humid zone, seems to be one the main factors for the intensive meandering of the Jordan notwithstanding its very considerable gradient and extremely ungraded longitudinal profile, abundant in nickpoints, with consequent miniature rapids.

The meanders of the Jordan belong, as to their individual form and their patterns, to the type of "inhibited" loops, especially in the northern part of the river course, where very angular asymmetric and complex multicurved bends separated by "reaches" prevail.

The meander belt and its very elaborate alluvio-morphological

apparatus in its present condition make evident the extreme immaturity of the river-valley proper, in which meander-belt and flood-plain are still very far from coinciding in their width and are thus indicative of a more recent origin than has been generally assumed.

## SEISMIC TIDAL WAVES (TSUNAMIS) IN THE EASTERN MEDITERRANEAN

by N. SHALEM

The tectonic structure of the Eastern Mediterranean coast makes for the regular occurrence of *tsunamis*. We have a substantial body of historical evidence, and repeated references are made to the seismic wave striking the coast, and to the damage caused along it. As a rule the ancients laid stress on the retreat of the sea, rather than the inundation of the land.

Descriptions of *tsunamis* go back as far as biblical and midrashic times, and come from in a variety of sources, both Hebrew and Gentile, and they bear witness to a major *tsunami* striking the coast in almost every generation. We have accounts of seismic tidal waves in the 13th., 8th., 6th., 2nd., and 1st. centuries B.C., and in the 2nd., 4th., 6th., 8th., 9th., 10th., 11th., 13th., 15th., 16th., 18th., 19th., and 20th. centuries A.D. More gentle *tsunamis* have doubtless occurred, but it is impossible to distinguish them from normal storms at sea without a more careful examination.

## RADIOACTIVE EXAMINATION OF ARCHAEOLOGICAL MATERIAL FROM ISRAEL

Published in *IEJ*, 6, 1956, pp. 112—114.

## TWO TOMBS IN JERUSALEM FROM THE PERIOD OF THE KINGS OF JUDAH

by RUTH AMIRAN

The two small tomb-groups published here, a long time after their discovery, command special interest for two reasons:

(a) They represent typical Judean pottery of the 8th and 7th centuries B.C. which are by no means abundant in the various excavations at Jerusalem.

(b) The discovery of both these tombs in the lower part of Mamilla Road makes it worth while to consider anew the bearing these tomb-groups have on a long-debated problems of Jerusalem topography, i. e. whether the city during this period was built on one or on two hills.

Together with a fresh consideration of the results of the excavations in the Citadel as well as certain topographical and historical arguments noted in the article, these tomb-groups add weight to the Two Hills theory.

## A NEW RECORD OF NEBUCHADREZZAR'S PALESTINIAN CAMPAIGNS

by A. MALAMIT

The author examines the recently published *Chaldaean Chronicles* by Wiseman and their bearing upon the history of Judah. The "Chronicle of the Years 608—606" aids in establishing the year 609 as the date of the battle of Megiddo. Concerning the "Chronicle of the Years 605—595", he author, *inter alia*, makes the following points: 1) Nebuchadrezzar's conquest of Ashkelon in his first year (Dec. 604) provides the historical background for the fast proclaimed in Judah in the ninth month of the fifth year of Jehoiakim (Jer. XXXVI, 9ff.) 2) The revolt of Jehoiakim against Babylonia is connected, possibly, with Nebuchadrezzar's unsuccessful campaign against Egypt in 601/600. 3) Nebuchadrezzar's conquest of Jerusalem in his 7th year explains Jer. LII, 28 concerning an earlier deportation of 3023 Jews, while the main deportation was carried out only in his 8th year. 4) The oracles of Jeremiah on Kedar and the kingdoms of Hazor, as well as on Elam (XLIX, 28—39), find support in the events assigned to the 6th, respectively 9th, year of Nebuchadrezzar.

The article appears in English in *IEJ* 6, 1956, pp. 246—256.

## MISCELLANEA

*H. Feuchtwanger* contributes a short note on a recently-found seventh century lamp, which is unusual in that its underside is decorated with *menoroth*, not unlike those at Beth Shearim. *J. W. Hirschberg* describes a visit to the synagogue (*tsela*) at Tzanakht, and comments on certain symbols used to decorate it. *S. Appelbaum*, *J. Kaplan* and *M. Avi-Yonah* give preliminary reports on the excavations at Kurnub (Mampsis), Jaffa and Caesarea respectively. These may be found in *IEJ* 6, 1956, pp. 259—263.

## REPORTS ON THE ACTIVITIES OF THE SOCIETY

Reports on the work done by the Society's branches in Holon, Beer-Sheba and Haifa.