

A New Interpretation of the Gezer Calendar

by H. TORCZYNER

The article deals with the following main difficulties in the proper interpretation of the Gezer Calendar:

1) Instead of 12 divisions of the regular, or occasional 13 divisions of a leap year, the Gezer Calendar mentions only eight agricultural labours assigned to certain months. The number twelve, or even thirteen months could be reached only on the assumption that the different spelling, *yrhw* in some cases, as against *yrh* in others, points to a plural, or dual form in these, but no such plural forms, differentiated by an additional *w*, are known or even possible in ancient Hebrew. For this difficulty the following solution is now proposed: As in other Semitic languages and in Hebrew itself, *h* before vowels sometimes was pronounced as *hw*, and thus the stat. cstr. plur., in Biblical spelling *yrhy*, was pronounced *yarh^hweⁱ*, and it is this plural form that is spelt *yrhw* in the calendar, while the stat. cstr. sg. was pronounced *yarh* and is spelt here *yrh*.

2) In l. 5 *yrh. qsrwkl* could mean neither "month of harvest of everything" (*yrh qsrw kl*) nor "month of harvesting and finishing" (*yrh qsr wkl*) as has been suggested. It actually means "month of harvest and measuring" (*wkl* in Biblical spelling = *wkyl*). The measuring of the harvest, referring especially to the meting out of labourers' wages, is connected with the harvest also in *Prov. XXII, 8*, where the same root *kyl* is used, and where we have to translate: He that soweth iniquity shall reap vanity: and the rod of his measure (lit. the rod he passes over [the measured harvest]) will mete him out (*y^akiloh*, instead of the *massoretic* vocalisation *yikleh*).

3) The term *zmr*, appearing in *Cant. II, 12* in the spelling *zmyr*, and used in the calendar (l. 6) for the spring or the beginning of the summer, means the hot months of Tammuz and Ab. The original meaning of *zamyr*, as that of *basyr*, is: *strong, hard*, and both words refer to the harvesting of fruit, growing on hard, strong stems, such as trees and vines, as contrasted to the weak stalks of grain and vegetables. The same meaning (as *basyr* and *zamyr*) is to be attached also to *zimrat ha-ares* in *Gen. XIII, 11*. In the Gezer Calendar the term

zmr refers to grape-harvesting proper, while in the Bible the word is used for the (beginning of) the summer as a whole: "The time of the summer has (just) arrived". In the same way in l. 7 *qs* (in biblical spelling *qys*) is used for harvesting figs at the end of the summer, while in the Bible it serves as a general term for the whole season.

An Archaic Remnant in Prophetic Literature

by MENAHEM DYMAN

The author recognizes in *Jer.* XLVIII three fragments (1-6; 16-24; 29-38) of an *elegy* on a destruction of Moab (which has its parallels in *Is.* XV; XVI, 6-12), and a fragment of a *triumphal song* (45-46; which has its parallel in *Num.* XXI, 27-30). The quotations are independent of each other, and are taken in either case from an ancient source. Various geographical and ethnographical indications lead the author to the conclusion that these two poetical works were composed *before* the Israelite conquest, and that they deal with a defeat by Moab at the hands of Sihon the Amorite. The fragments of the two works were remembered in the days of the First Temple, and the two prophets made use of them in order to emphasize their prophecies of doom.

'Arubotenu / 'Armenotenu

by S. E. LOEWENSTAMM

It has been suggested by H. L. Ginsberg [*JBL* LXII (1944), pp. 113 foll.] and by A. D. Singer [*BJPES* XI (1943/44), pp. 18 foll.] that the word *'armenotenu* in *Jer.* IX, 20 should be amended into *'arubotenu*. The writer attempts to refute the arguments advanced by the above mentioned scholars and to furnish proofs for the soundness of the *massoretic* text.

'Engines invented by cunning men'

by YIGA'EL SUKENIK

The author discusses the well-known passage in *II Chron.* XXVI, 15, which has been understood to describe engines for shooting arrows and throwing stones invented by Uzziah. Scholars have, therefore, been divided in their opinions. Some regarded Uzziah as the inventor of *ballistae* and catapults (cf. the latest advocate of this

theory L. Alexander, *The Classical Journal* XLI, No. 5, Feb. 5), while others, asserting that these could not have been invented at the time, deny the historical value of the whole passage. The author considers (a) that the passage states a historical fact, (b) that there were no catapults etc. in existence in the days of Uzziah. He solves this difficulty by suggesting that the term *hešbonot*, as well as that used by the LXX, refers in general to "artificer's constructions", and in this particular case to constructions providing additional security for soldiers shooting arrows or slinging stones. He proposes to recognize these constructions in the peculiar arrangements shown in Senaḥerib's relief representing the siege of Lachish (Fig. 1 on p. 23). These constructions enabled the slingers and bowmen to act boldly without exposing themselves to the enemy's missiles.

Olive-Oil Industry in Ancient Times

by N. WILBUSH

The author mentions the importance of the oil-producing industry in ancient Palestine and describes the methods of harvesting and pressing in use in antiquity, pressing over cups cut in the rock, boiling the olives in water, crushing in oil-mills and squeezing in pressing machines. The technical terms occurring in the *Mishnah* are listed and explained.

Kishon and Kishyôn

by N. ZIMBALIST

After a re-examination of the scriptural and topographical evidence for the location of the battle between the Israelites and Sisera, the author rejects the traditional identification of the Kishon of *Jud.* IV, 7 and 13 with the Nahr el-Muqatta°. He draws attention to the Wadi -l-Bira and to the existence of a Kishyôn in Issachar (*Jos.* XIX, 10; XXI, 28), possibly el-Khirba at the head of this Wadi. The site shows pottery of the Chalcolithic to Late Bronze Ages, as well as Hellenistic and Byzantine remains.

Varia Epigraphica Judaica IV*)

by M. SCHWABE

The ossuary published by V. Schultze [*ZDPV* IV (1881), S. 11]

*) See *BJPES* X, pp. 79-82.

is inscribed with the name Ζηναροῦτος in addition to the name Πώλλα. The gender and form of this name have not been elucidated by Schultze and others. It is the genitive of Ζηναροῦς, a female theophoric name, similar to the female names Τυχαροῦς, Ἀθηναροῦς, Ἐρμαροῦς. Jewish names with Ζηνο — occur many times. In this ossuary are mentioned two female members of the family, one name in the nominative, the other in the genitive case. There are several parallel cases on record.

Numismatic Section

B. Kirschner adds to his study of the "Umbrella coins" of Agrippa I (*BJPES* XI, p. 54) a reference to M. Narkiss' article on the same subject in the *Qobes JPES* II, pp. 199 foll.

Miscellanea

B. K. reviews Paul Romanoff's volume on *Jewish Symbols on Ancient Jewish Coins*; while K. S. Wallach gives a lengthy review of A. Schalit's *Introduction to the Antiquities of the Jews by Josephus* (LXXXVI pp.) prefaced to the latter's Hebrew translation of the first ten books of the *Antiquities of the Jews*. — A detailed report is given on the activities of the JPES during the year 1945/46 and the first third of the year 1946/47. — B. Maisler corrects in a short notice an erroneous view expressed by him in *BJPES* XII (1945/46), p. 101. Gibeon—Jerusalem in 2 *Chron.* I, 13 is not to be regarded as another instance of the class Ashteroth-Karnaim, Jazer of Gilead and the like, but is merely indicative of Solomon's departure from the High Place of Gibeon to *Jerusalem*.

courtyard paved with pebbles. Four ovens made of baked clay were found in this area. A wall separates the court from another rectangular space with two stones laid in its centre (columns bases?). A passage 2.50 m. long and 90 cm. wide leads from this space to one of the circles. Other means of access to the circles from the interior include another passage and steps (Fig. 1, on folded page).

A street 2.50 m. wide runs on the South and West sides of the building. It is paved with stone. At the North-West corner of the building the street bends eastwards with five steps descending to a lower level.

The north-eastern part of the Early-Bronze building was buried under the remains of a thermal establishment of the ordinary Roman type. It consists of a square hall (*frigidarium*) once paved with marble slabs. Traces of the slabs remaining on the plaster indicate the plan of the original paving. In the centre of the hall was a round pool, 2 m. in diameter. Around it are foundations of four L-shaped pillars, with smaller supports in between. Plastered benches run round the walls of the hall. The other part of the bath was an L-shaped hypocaust cellar with rows of brick pillars (*suspensurae*) 40 cm. apart, and arrangements for drawing the heated air upwards in pipes sunk in the walls and in hollow bricks (*tubuli*) lining the walls. A furnace heaped with ash was found in the NE corner of the cellar, and near it, on a higher level, an entrance passage. In the wall of the long arm of the L were two apsidal baths, the western with a brick-platform near by. The bath establishment received its water supply through a pipe enclosed in a stone and mortar channel and laid over the EB building. Evidence was found that the baths were remodelled at a later stage (Fig. 2, on p. 65). A fragmentary bilingual inscription was found in the ruins.

Adjoining the baths on the north were the remains of a fortress including two square towers, the intervening curtain wall and a gate.

The sequence of later settlements in this part of the tell seems to be: An Hellenistic occupation followed by a Roman fortress, then the baths in the Early Byzantine era, remodelled in the fifth or sixth century A. C. E., and finally a stage of Early Arab occupation.

Excavations at Beth Yerah

(Berl Kaznelson Memorial Excavations)

Second Preliminary Report

By M. STEKELIS and M. AVI-YONAH

The report sums up the end of the first season (already reported partly in *BJPES* XI, pp. 77-84) till May 1945 and that of the second season (December 1945—July 1946). In the South the stratification of levels established a sequence of four early strata (Beth-Yerah I-IV), followed by a gap, after which came three later levels (Beth-Yerah V-VII). The fortifications of the early settlements were revealed at the end of the trench and, by accidental erosion, in another spot slightly south of the trench.

Beth-Yerah I, the earliest level, showed no evidence of house building, but only excavated pit dwellings, of about 4 m. in diam. In one place a fire place was found and near it numerous potsherds and a heap of empty shells, evidence of some protohistoric repast. The pottery associated with this stratum dates it to the Upper Chalcolithic (grey and black burnished ware).

Beth-Yerah II (Early Bronze I). Accumulation in this stratum reached a depth of 1.50 m. In this stratum was found the earliest evidence of mud-brick construction. The buildings were of a very simple square type. With this is associated a city wall of mud bricks, 8 m. thick. The settlers dug a fosse 2 m. deep in virgin soil and built their wall in three parts: an upright wall in the centre with sloping additions on both sides. The bricks used measure 10 X 30 X 40 cms. and are laid in joined courses; a layer of pebbles was laid over the inner slope of the wall. The characteristic pottery of this level is the 'grain-wash' or 'band-slip' type.

Beth-Yerah III is a relatively short phase associated with Early Bronze II. Its characteristic constructions are built on foundations of basalt stones and beaten earth (20 cm.) followed by another course of basalt; or a basalt foundation of one course and a brick wall with single stones inserted between the bricks. There has been so far no evidence of fortifications in this stage. The characteristic pottery are stump-based jugs.

Beth-Yerah IV (Early Bronze III) is the longest of all phases of occupation; its accumulations reach 2 m. in depth. Its buildings were built in basalt or in brick on basalt foundations. This stage had a stone wall of basalt boulders, 4 m. thick and at present 2 m. high. A foundation trench 40 cm. deep was dug for it in the accumulated debris of the preceding stage (Beth Yerah III). A glacis of beaten earth

was added on the outside. This is the period of the 'Kh. Kerak ware'.

After Beth-Yerah IV follows a long gap. The tell was uninhabited till the Hellenistic period; the accumulation between the Early Bronze and Hellenistic levels is relatively shallow, such as may be expected from natural accumulation of soil. The Hellenistic level contained the remains of a street with several buildings along it, one of which was excavated completely. A still later phase suggests the remains of a Roman transitory camp. The Hellenistic remains included a tomb excavated in the glacis of the Beth Yerah IV stone wall.

The various levels so far described are separated by layers of water-worn gravel mixed with molluscan fauna and water-rolled potsherds. These layers of gravel are of varying thickness, 5-10 cm.; the thickest layer separates Beth-Yerah IV from the Hellenistic period. It has been suggested that these layers are evidence of repeated floodings, which in every instance put an end to a phase of settlement. The inhabitants returned, however, to the tell after every flood, until the longest and most persistent one, that is the one which followed Beth-Yerah IV, drove them from the tell, which remained abandoned till the Hellenistic period.

Another pit cut down to virgin soil (at 5.20 m.) was dug in the northern part of the tell. The findings confirmed the succession of layers established in the south. The two lowest levels contained evidence of jar burials of infants, associated with Chalcolithic remains.

In the north the original trench measured 50 m. X 10 m. Owing to the importance of the finds it was soon enlarged and in the end the excavations extended over an area of 2,475 sq. m.

The principal find in this area was a building of Early Bronze III (= Beth Yerah IV). It was a rectangular construction measuring 40 m. from E. to W. and 30 m. from N. to S. The whole formed a stone platform 10 m. wide, enclosing a series of courtyards and an inner hall (?). Its walls are built of 4-9 courses of basalt boulders, and are from 0.80 to 2 m. high. The stones formed the outer faces of the wall, which was filled with earth inside. A series of circles 7-9 m. in diameter, was sunk in the surface of the platform. Eight circles were found whole or in part and there is room for a ninth. The circles are paved inside just below the level of the platform, and contain each four projections about 2 m. long, advancing towards the centre of each circle, but not joining there. Each projection is formed by paving stones rising slightly above the surface of the pavement inside the circle.

The area enclosed by the wall was reached by a passage on the E. side, 7 m. wide. A small partition separated this passage from a