its floor. In this *kokh* and others were found dozens of lamps and many glass vessels. Two clay sarcophagi and two stone ossuaries, found in the fill of the standing pit, had been thrown out from the *kokhim* during the robbing which took place in antiquity.

The finds from the caves consist of pottery vessels, broken cooking pots, several hundred lamps and glass bottles and juglets. All date from the mid-first to the third centuries C.E.

(Communicated by Nurit Feig)

## Tel'Amal, 1985\*

An additional season of excavations was carried out at Tel 'Amal (Tell el-'Asi), map ref. 192 212, during May 1985; it was directed by Nurit Feig on behalf of the Department of Antiquities and Museums. Seven rock-hewn burial caves of the Middle Bronze Age I were discovered, all of the shaft type typical of the period. Each was entered by two or three steps. Most of the caves were damaged by mechanical equipment; however, the plan of six of them may be reconstructed as a single burial chamber sealed by a large stone. The seventh burial cave, almost completely preserved, was found in the northern part of the excavation area. It consists of an outer entrance chamber separated from an inner burial chamber by a stone wall. The finds include red-painted jugs, juglets and a Megiddo-type 'teapot'. All the vessels are red-slipped; some were decorated with white slip and red bands. Tel 'Amal was a major burial site from the MB I onwards, as were 'En ha-Nasiv and other sites in the Beth Shean valley. Some Iron Age vessels were discovered in the fill of the shafts; they belong to the settlement located on this slope, architectural remains of which were discovered in 1962-1963 and 1983-1984.

(Communicated by Nurit Feig)

## Tel Dor, 1985\*

The sixth season of excavations at Tel Dor, carried out in July-August 1985, was directed by E. Stern on behalf of the Institute of Archaeology of the Hebrew University of Jerusalem and the Israel Exploration Society, in cooperation with H.P. Goldfried of the State University of California, Sacramento, D. Stronach of the University of California at Berkeley and H.N. Richardson of Boston University. Renate Rosenthal-Heginbottom of the University of Göttingen, D.L. Christensen of the Graduate Theological Union and T.R. Hobbs of McMaster University also participated. Some 150 students and volunteers and nearly 40 staff members, mainly from Israel and the U.S.A., made up the workforce of the excavation.

This year, we continued our excavations in Areas Bl and B2 (the eastern gate area), and conducted some soundings in Area C. Area D, opened last season above the southern harbour, was greatly enlarged, and a new area, E, was begun on the west side of the mound.

Area B2 — Roman and Hellenistic remains (Pl. 15:C). This year, we extended the excavation 5 m. to the west and south, and continued to probe in the centre of the area, inside the gate. These probes, intended to investigate the Persian and Iron Age gatehouse, will be dealt with separately below.

The western extension of the area exposed more of the massive concrete foundations of the Roman public building, which is adjacent on the north to the main street leading from the gate to the temple area, and on the east to the first northsouth street. Although we have already excavated an area of over 17 by 15 m. of the building, we have not yet found its western or southern edges, and possess no clues as to its function. In the south-west corner of the excavated area, we found a pile of column drums and bases, probably dumped by stone robbers. There may be some evidence for a wide staircase leading from the street into the buildings or an entrance portico.

\* Cf. IEJ 33 (1983), p. 264.

\* Cf. IEJ 35 (1985), pp. 60-64.

Under the public building is a regular, ashlarbuilt Hellenistic residential insula. The excavation showed that this insula was in use well into the early Roman period, thus dating the construction of the monumental building to the end of the first century C.E. at the very earliest. No floor from this building has yet been found, so no *terminus post quem* is available for the end of use of this building.

East of this building is a fairly wide street, partially excavated last season; it opens into a wide open space extending over the remains of the Hellenistic wall and gate, nicknamed 'the gate piazza'. The street, which runs directly over the line of a Hellenistic street, initially had a flagstone pavement, with a drain running through the centre. It was repaved several times with crushed *kurkar* and/or cement.

On the other side of the street is a system of pools. This is connected to a stone and concrete mass that we assume is the end section of an aqueduct. We excavated under these pools, where we expected that the Hellenistic city-wall would be found. No trace of it has as yet appeared, however. Under the pools are some rooms, possibly dating from the late Hellenistic period, and directly under those is a mass of boulders probably part of the two-chamber gate or the stone offset-inset wall connected with it.

The only explanation we can offer for the absence of the city-wall is that either it was completely removed when the aqueduct and the adjacent pools were built, or that there was a drastic change in its orientation south of the city gate.

Area C. The stratification of the later fortification systems is clear: an unfortified Roman occupation level overflowed the tell and was built over the massive ashlar Hellenistic city-wall. Under that wall is an unfortified (or lightly fortified) intermediate late Persian-early Hellenistic stratum, in which the outside walls of the houses serve as the city-wall. In this season, we hoped to solve some unanswered problems. (A) What is the stratigraphical relation of the massive stone offset-inset wall excavated in Areas A and C1 and the thick mud-brick wall discovered in Area C? (B) What is the relation of both the above elements to the additional mudbrick wall, discovered accidentally last year when a tractor cut into the slope while removing the dumps? (C) What are the dates of these three systems? Specifically, we needed to know whether the stone offset-inset wall was built in the Iron Age II, the Assyrian period, or in the early Persian period. The answer to this question may clarify the character of the Assyrian occupation of the site.

The key to all these problems lies in understanding the relation of the above elements to a series of glacis surfaces, which could be seen clearly in the tractor-made section mentioned above. That the offset-inset wall was used in the Persian period was verified at each area excavated next to it. It is in fact labelled 'The Persian Town Wall' in our early publications. However, it seems, from examination of the pottery from the earliest whitewashed glacis surfaces attached to it, that the wall was actually built earlier than the Persian period.

Under the 'whitewash surfaces' is a glacis topped by a thick plaster pavement. This pavement stopped short of the stone wall, and is therefore earlier than it. It presumably corresponds to the mud-brick wall under it. In turn, it clearly seals the early mud-brick wall at the slope.

Area D. On the southern slope of the mound above the southern bay, the combined action of the sea and Garstang's excavation in the 1920s exposed the corner of a monumental building, preserved to a height of over 3 m. A. Raban started to excavate the seaward side of this structure.<sup>1</sup> He observed that the massive stone quay, visible underwater when the sea is calm, extends underneath this building. It was in order to reveal the nature of this building that we opened Area D2 last year. Only this season, however, did we uncover evidence which has a direct bearing on it.

Last year we discovered a Persian structure which we assumed to be a harbour storehouse, under a Roman street and an adjacent house. More of this building appeared as we enlarged the area this season. The building consists of a series

<sup>&</sup>lt;sup>1</sup> A. Raban: Recent Maritime Archaeological Research in Israel, *International Journal of Nautical Archaeology* 12 (1983), pp. 229-251.

of rooms, which faced an open courtyard or a street; their southern end had collapsed into the sea. Under this building two parallel walls, about 1 m. thick and built of large limestone boulders, run east-west along the slope of the mound. It is no clear whether the two walls were ever in use together, but the inner wall was certainly built later than the outer. No building adjoining either of these walls has so far been excavated.

Under these two late Iron Age phases (the later inner wall may actually be Persian) is the building whose remains can be seen in the section cut by the sea. In addition to the east-west wall partially cleared by Raban (wall H in his terminology), we uncovered the western wall of the building (Raban's wall M) and traced it as it goes perpendicularly into the mound for about 10 m., to the edge of the excavated area. The walls of the building are nearly 2 m. thick and are made of large limestone boulders. A tumble of mud bricks and masonry marks the collapse of the superstructure of the building on its floor, which dates from the Iron Age IIA. This is about 2 m. above the base of the walls as seen in the section, however, and it is perfectly possible that the building has additional, earlier floors. This would strengthen Raban's contention that it was built in the Iron Age I. If so, then it is certainly an architectural monument unique in this country.

In Area D1, separated from D2 by Garstang's trench of the 1920s, work was carried out for only three weeks, concentrated on enlarging the area south of the line of the Roman street, which bisects Areas D1 and D2. The upper strata are poorly preserved here, and houses dating from the early Hellenistic or late Persian periods were found just below topsoil.

Area B — the Iron Age gate. The excavation in the Cyclopean boulder four-chamber gatehouse, associated with a solid mud-brick wall, was limited this year to soundings in and about the two rear chambers (the north-western and the south-western). Both front chambers are inaccessible because the Hellenistic city-wall is built over them. The line dividing Area B1 from B2 is the axis of the road passing through the gate, so the northern half of the gatehouse is part of B1, while the southern half is in B2. For ease of reference the two halves are presented together separately from the rest of Area B1 and B2.

The excavation inside the north-western chamber revealed that most of the room has been disturbed by a large Persian pit containing many amphorae, some of them complete. We did manage to locate the inside line of the backmost pilaster of the gate, although most of the pilaster is buried under a massive Roman cement wall. When tracing this line it became clear that the outer north-west corner of the gatehouse is missing. It was probably destroyed by the digging of the large pit, just north of the back of the gate, which was full of late Iron Age pottery. In 1984 a stone shekel weight of a type well known in Judea and dated exclusively to the seventh-sixth centuries B.C.E., was found here. This pit is therefore later than the four-chamber gate. Unfortunately, its relation to the later twochamber gate is unclear, and the question of the latter's date (associated with the stone offset-inset wall - see Area C) cannot be solved with the data available in Area B.

The western half of the southern rear chamber was excavated in 1983. This year we removed some Persian construction, to enable the excavation of the eastern half of the same room, exposing the south-central pilaster. We also continued the excavation of two units opened in 1984 south of the gate, in order to find the full width of the southern wall of the gatehouse and to find out what lies to its south.

The stratigraphical sequence observed in 1983 was confirmed. There are two possible floor levels inside the chamber. One reaches the top of the 'sleeper' wall which separates the chamber from the main entrance, and one reaches the very bottom of this wall.

Under the gate is a residential structure, a corner of which, with pottery *in situ* on it, was excavated in 1983. The rest of the house, with its beautifully whitewashed floors, was excavated this season. One of the walls of this house was found with its plaster coating intact. The wall is built of small field stones, and the thick mud plaster is decorated with a 'mosaic' of seashells. The pottery in this house is tentatively dated to the tenth century B.C.E., which would give the gate itself a lifespan from the ninth (or perhaps late tenth) century B.C.E. to the Assyrian conquest in 732 B.C.E. (or thereabout).

Area B1. In previous seasons we have established

the Iron Age stratigraphic sequence of this area as follows: under the four-chamber gate and associated mud-brick wall (see above) is an Iron Age II street, running north-south with houses on either side. Below that is an Iron Age I stratum, divisible into two poorly preserved sub-phases, built mainly of mud brick.

Last season we dug two probes below these and reached a deep sand fill, capped with a thick coating of mud plaster. This season we tested the hypothesis that this plaster-coated fill is a Middle Bronze Age rampart fortification. Following the coating all over the excavation area, we established that it does indeed slope both inwards and outwards.

It is notable that no Bronze Age architecture was found associated with the rampart, and that the material immediately above it dates exclusively from the Iron Age. (We do have LB pottery elsewhere, and the ceramics recovered last season from inside the fill of the rampart all seem to date from the MB.) This phenomenon can be explained if the Bronze Age town (and perhaps also the very early Iron Age occupation) was deep inside the 'bowl' formed by the ramparts.

Only later, in the Iron Age I, did this 'bowl' fill up, so that houses had to be built on top of the ramparts. Of the two sub-phases in these houses, the higher, at least, seems to date to the early tenth-eleventh centuries B.C.E., according to the Cypriote pottery found in it. One piece of Mycenaean IIIc 'rough ware' (the so-called 'Sherdenu Ware' of 'Akko) was retrieved from below the lower of these phases, just above the coating of the rampart.

Area E. A new area was opened this season in the north-western corner of the mound, near its highest point. The first season of excavation was devoted to primary exploration of this region of the site. A T-shaped trench was cut, to sample both the summit of the mound and the two prominent 'steps' observed on the slope at this point.

The excavation at the summit of the mound revealed mainly Roman remains. Some nondescript and unassociated plaster floors seal the massive cement foundations of a large structure, which lies to the east of the excavated area. West of this building, the superstructure and floors of which were completely robbed, was part of a second much less monumental building. This house appears to be the latest phase of a Hellenistic ashlar structure (see below).

Under the Roman foundations, Hellenistic remains were found at every place in which we dug deep enough. The walls are ashlar built, in the method familiar from Area C and elsewhere. Especially intriguing is the corner of a building, uncovered in the south-eastern corner of the excavated area, which is constructed of ashlar headers of unusual size (about twice the standard size for residential houses, though not quite as large as those of the city-wall). This structure may be a public building, in which case it will be an important addition to our understanding of Hellenistic urban organization.

In the middle 'step' on the tell's slope, the Hellenistic strata lay directly beneath the surface soil, and underneath these some Persian phases were uncovered, which are as yet too scanty to present a coherent picture.

On the lowest 'step', under a thick layer of slope scree, were remains from the Iron Age. The thick boulder walls with traces of mud brick on top of them are similar to walls of the same general period in Area D. Excavation of this 'step' may enable a fairly wide exposure of Iron Age strata.

> (Communicated by Ephraim Stern and Ilan Sharon)

## Tel Miqne, 1985\*

The second major excavation season at Tel Miqne-Ekron was conducted from 23 June to 2 August 1985. The joint American / Israeli project was sponsored by the W.F. Albright Institute of Archaeological Research, the Institute of Archaeology of the Hebrew University, Boston College, Brown University and Southeastern Baptist Theological Seminary, with support from Aurora University, Baltimore Hebrew College, the Harvard Semitic Museum and the Israel Oil Industry Museum. The project is affiliated with the American Schools of Oriental Research and the Israel Exploration Society. The excavation

<sup>\*</sup> Cf. IEJ 35 (1985), pp. 67-71.