The Planning of the Middle Bronze Age Town at Achzib and its Defences

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In 1958–1964 an intensive survey of the plain of 'Akko was made, which revealed three distinct groups of Middle Bronze Age cities (Fig. 1). One group, to which Achzib and 'Akko belong,[1] was located, as were the dwellings of the tribe of Asher in the Early Iron Age, 'by the sea and its bays'.[2] The second group lies in the flat plain near important springs and road junctions. To this group belongs, among others, the enormous embankment at Kabri (Dhahrat et-Tell), which encloses three mounds, en-Nahr, et-Tell and Tell el-Qahwa, as well as Tell Kurdana farther south (Tel Aphek), which like Kabri has an acropolis and a large lower city. To the third group belong a great number of Middle Bronze Age sites, whose settlement pattern is not as obvious as that of the first two groups. The most prominent city of the third group is at Tel 'Avdon (Kh. 'Abda), in the foothills of Western Galilee, which is built on a hill-top, barring the entrance to the hill country and looking out into the plain. This levitical city of refuge, first built in the Middle Bronze Age, is positioned in relation to Achzib as Tel Bira (Tell Bir el-Gharbi) to 'Akko. Albright identified Tell Bir el-Gharbi with Reḥov,[3] which like 'Avdon is listed as a levitical city on the frontier of the territories of the tribe of Asher.[4] Thus three clearly defined patterns of urban settlement emerge for the Middle Bronze Age in the plain of 'Akko. However, only the first group along the coast has survived as harbours and cities up to modern times. It is noteworthy that 'Avdon and Tel Bira lost their importance as soon as they ceased to fulfill their military, political and economic functions at the end of the eighth century B.C. We are not concerned with the second group which was, for example at Kabri, of Early Bronze Age origin.

Achzib (Fig. 2) was built on the *kurkar* ridge which forms the coastline between 'Akko and Tyre. To the west of Achzib extends the Mediterranean Sea and the boundary to the north is the Khziv (Qurein) river estuary. To the south is the deep bed of the Shaḥal river. To the east a fosse was dug during the Middle Bronze Age, which joined the two river beds of the Khziv and the Shaḥal. Thus Middle Bronze Age

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1 The characteristic location of Phoenician maritime cities has long been noted. The Sidonians followed the proven pattern of site-selection set by their Canaanite predecessors.

2 Judg. 5:17 (author's translation).

3 W.F. Albright: Some Sites and Names in Western Galilee, *AASOR* 2–3 (1923), pp. 26–29.

4 B. Mazar: The Cities of the Priests and the Levites, Suppl. *VT* 7 (1959), p. 202.

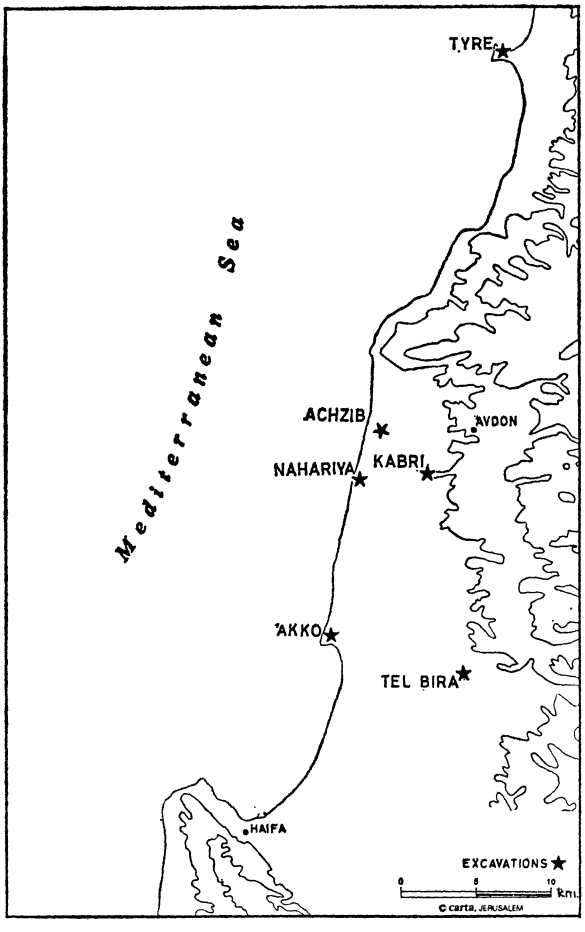

Fig. 1. Western Galilee.

Achzib was actually an island surrounded by water. The estuaries of the rivers probably served as anchorages. The sea front of Achzib is about 400 m. long from north to south, and the city extended from east to west for about 300 m. The Middle Bronze Age defences enclosed a city of about 70 dunam (17.5 acres). To this must be added an area of 50 dunam consisting of anchorages, located between the walls of the city and the mouths of the rivers. Of the total of 120 dunam, forty per cent of the defended area served the maritime needs of the city.

At the eastern edge of the plain, Middle Bronze Age 'Avdon perched on a hill-top, covering a little less than 25 dunam including the surrounding fortifications.[5] The

5 M.W. Prausnitz: Achzib and Avdon, *EI* 11 (1973), pp. 219–223 (Hebrew), pp. 29*–30* (English summary).

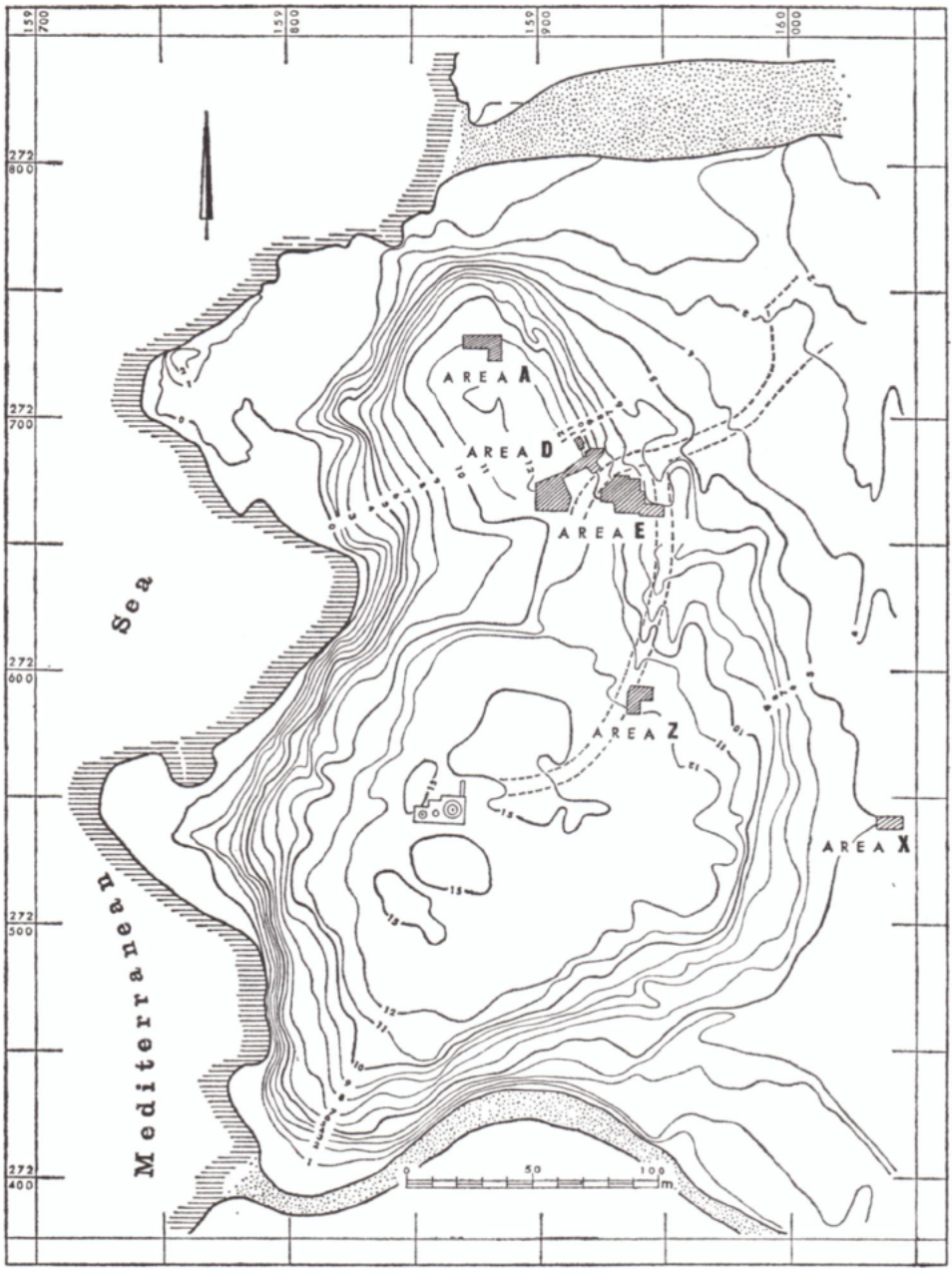

Fig. 2. Plan of the mound of Achzib. Dotted lines indicate dirt road leading to the summit.

mound of 'Akko provides a further comparison; it spread over an enclosed and defended area reckoned at 200 dunam, to which must be added the area of the inner harbour in the west, and also the vast anchorage provided by the Na'aman river, the ancient Belus.

In 1963 and 1964, excavations sponsored by the University of Rome and the Israel Department of Antiquities and Museums[6] were undertaken at the mound of Achzib, the former village of ez-Zib. An east-west trench 30 m. long — area D (Fig. 3)[7] — was dug through the fortifications. In the east the trench was begun where we assumed the upper, western bank of the fosse had been, that is to say, at a height of approximately 7.5 m. above sea-level.

At the western end of the trench, store-rooms and pits of the Early Iron Age were found cut into the eastern and inner side of the defences. In 1964 this section of the east-west cut was considerably enlarged towards the south, exposing an additional area of 225 sq. m. along the inner side of the defences. A sequence of public buildings dating from the beginning of the Early Iron Age to the Hellenistic period was revealed. Excavations were halted at the end of the 1964 campaign at a depth of 8.50 m. above sea-level. At this level fragmentary walls and particularly pits were found dug into a mass of tumbled or collapsed brick walls. According to our estimate, a further excavation 2 to 3 m. deep of occupational levels inside the defences is needed to reach bedrock and to probe the sequence of strata at Achzib in the Middle and Late Bronze Ages.[8]

In the east, at the foot of the defences and contiguous with the east-west cut, we investigated towards the south a further area (E) of about 400 sq. m., where we suspected that the course of the fortifications had been changed to permit an entry into the Middle Bronze Age city. The area had been destroyed and then rebuilt, and eventually in the Late Iron Age covered by buildings. Here, however, in 1963–1964 we reached virgin soil and the earliest traces of the fortifications. The stratification was as follows. Beneath stray finds on the surface and some remains of the Roman period, a complex of buildings and pits of the Persian period and the Late Iron Age was discovered. The Late Iron Age stratum was superimposed on important burials belonging to the Middle and Early Iron Age, the earliest dated to the eleventh century B.C.[9] The burials had been dug into debris from walls collapsed beyond

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[6] Three seasons of excavations at Achzib were planned but only two were undertaken. Many friends, students and colleagues from the Universities of Århus, Copenhagen, Dublin, London, Leeds, Rome and particularly from the Hebrew University, Jerusalem, helped to make the excavations a success. My thanks are due to Profs. A. Biran, B. Mazar and S. Moscati, who launched the project.

[7] The plans were prepared by S. Amit, S. Moshkovitz, M. Feist and L. Presen on behalf of the joint expedition.

[8] *IEJ* 15 (1965), pp. 256–257.

[9] My study on the cemeteries of Iron Age Achzib is in preparation.

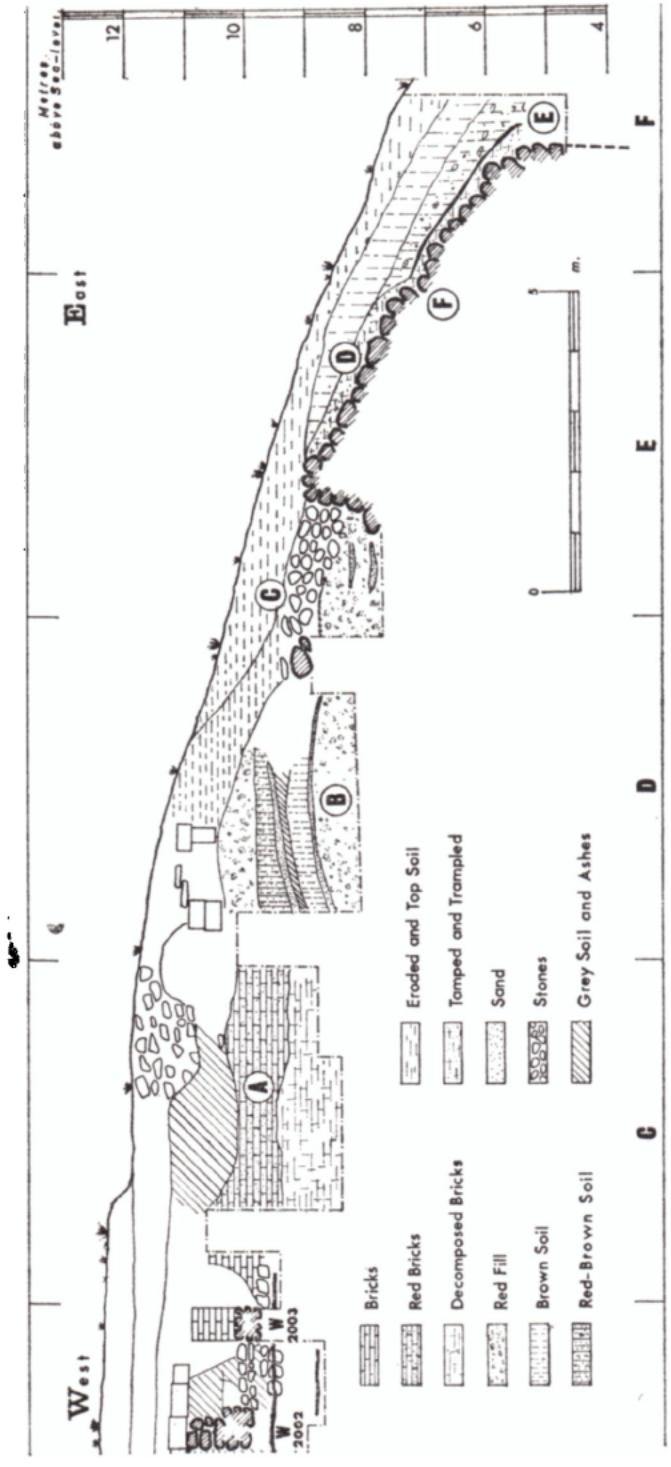

Fig. 3. East-west section, area D.

and east of the line of the Late Bronze Age fortifications. At this particular point, between the Late Bronze Age walls and the fosse, we suspected a second and outer line of defence which, we assumed, had screened access to the Middle Bronze Age city. This is still indicated today by the topography of the site, and the road leading to the centre of the former village of ez-Zib (see Fig. 2). At any rate, whatever fortifications were erected at this point in the Middle Bronze Age were apparently razed to the ground at the very end of the MB IIC — a date indicated by the Cypriote pottery found with this destruction layer. It is noteworthy that the pottery includes Cypriote Red-on-Black wares as well as bichrome pottery of a type practically identical with sherds found in the eastern part of Cyprus at Nitovikla.[10] This layer lay on top of a mass of decomposed bricks which produced no pottery except one or two sherds abraded beyond recognition. At about 5 m. above sea level we struck virgin soil. The study of the pottery from this area and the significant absence of fortifications later than the Middle Bronze Age, suggest considerable contraction and changes of the defence system after this period; however, only further excavations will enable us to clarify these changes.

A trench — area X — was also dug across the fosse east of the present-day road, at the point of ancient Achzib's farthest extent to the east. The silt in the fosse contained great quantities of pottery from the Late Iron Age and, of course, later periods. On investigation of adjacent stretches of the fosse it became clear that the fosse was completely silted up by the Late Iron Age, when the area east of Achzib's walls had been turned into a lower city. It should be stressed that up to now neither excavations nor landscaping have revealed any significant remains of the Early Bronze Age at Achzib, and it may therefore be assumed that the huge defence system of earthworks originated in the Middle Bronze Age. They form the most important aspect of the city and port planning at Achzib.

The defences in the east-west trench (area D) consist of (Fig. 3): A, the brick core; B, the glacis; C, the stone packing; D, the surface; E, the fosse; and F, the revetment. The fosse (E) apparently extended from the sweet-water spring (map ref. 160075 272750) south of the estuary of the Khziv (Qurein) river 400 m. south to the Shaḥal channel (map. ref. 160025 272350). At a height of 6 m. above sea-level the bank of the fosse descends nearly vertically into the fosse. At 5 m. above sea-level, wet, dark, muddy soil appeared. In the month of August, in the middle of the dry season, this clearly indicated that we were approaching the ground-water level. It would appear that the bottom of the fosse was at 2–3 m. above sea-level, making the fosse a little more than 4 m. deep. Even today there are sweet-water springs on both sides of the fosse, which enabled the builders to fill the excavated ditch with water and to use it as a reservoir. Again, we did not reach bedrock and cannot prove this hypothesis, though much evidence, e.g. the location of springs, the ground-water levels and borings, strongly supports it.

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10 Claire Epstein: *Palestinian Bichrome Ware*, Leiden, 1966, p. 129, Pl. XVI:10.

The revetment (F) (Pl. 24: A–B) consisted of a stone facing and battered wall built to support the fill of the earthen rampart. Built against the scarp, the upper part of the revetment was inclined at an angle of 30–35°. This angle of slope apparently continued up to the top of the rampart. At 7 m. above sea-level the slope of the revetment descended at an angle of about 55°, then turned nearly vertical (Pl. 24: B) at 6 m. above sea-level. The upper part of the revetment, from 9 m. to about 7.35 m. above sea-level, was found covered with hardened, or even trampled, soil (D), which must have been applied as a smooth surface after the revetment had been erected. Although it was not completely excavated at the lower end, the revetment was exposed to a height of 4.50 m. Assuming that bedrock lies at or below 4 m. above sea-level, Achzib's stone revetment stood about 5 m. high on a base 6 m. wide.

The rampart at Achzib is a sloping, tamped and smoothed earth wall (B) heaped against a brick wall or brick-built core (A). As shown in the section, it can be assumed that the smoothed slope above the scarp rose to at least 11 m. above sea-level at an angle of 30–35°; it probably rose to 12 m., thus reaching the eastern edge of the brick core (A) 13 m. west of the western bank of the fosse. The material used for the erection of this sloping rampart and/or glacis (B) was probably taken from the excavation of the fosse nearby. As far as we could establish in 1964, the earth glacis was built as follows (from the bottom): red fill; layer of dune-sand; brown soil; grey soil with ashes; layer of dune-sand; hardened red-brown soil; red fill. It seems more than probable that the deep red-brown soil found under the loose soil as well as the hardened, trampled soil on top of the stones of the revetment was part of the smoothed and plastered surface of the rampart up to its crest. It will be noticed that the 'sandwich' of earth layers bends towards the brick core (A) and levels towards the east, where it underlies the stone packing (C) to the top of the revetment. Thus a ledge was formed which may have been used for the erection of a 'parapet'.[11]

We believe that the 'brick core' could not have been part of a very large wall, for it is too wide at its base (nearly 6 m.) and, more significantly, its foundations are set too low in comparison with other contemporary rampart fortifications crowned by vertical city walls, for this core to be regarded as anything but the core of the earthwork defences. The trenching of this section was very hard work indeed. The bricks were decomposed at the edges but still solid and compact. As the bricks were of clay, they had withstood the great amount of rain and water which is common at Achzib in winter. At the present stage of investigation we cannot comment on the upper part of the rampart or the towers or walls which might have been erected on top of the rampart fortification. As has been said, the inner side of the defences revealed tumbled walls made of brick, which had collapsed in the Late Bronze Age and were then levelled by the builders of the houses of the earliest Iron Age stratum adjacent to the inner side of the crest of the rampart.

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11 Cf. Kathleen Kenyon: Excavations at Jericho, 1954, *PEQ* (1954), pp. 58–60, Fig. 5.

The Middle Bronze Age defence system as revealed, even after destructions and changes, is still one of imposing magnitude unparalleled by later building activities at Achzib. The base of the earthen embankment, core, earthen glacis, revetment and battered wall was, excluding the fosse, nearly 20 m. wide, probably reaching a height of 10 m. (13 m. or more above sea-level). At the same time it seems most reasonable to assume that the defences, including the above-mentioned core, earth glacis, revetment and fosse, were planned together and built within a relatively short time.[12] The obvious structural cohesion of the earthworks, proven by time and demonstrated in the section, plead for the quality of the planning and the quick execution of the operation. It would certainly seem that the excavation of the fosse, the building of the core and the erection of the earthen glacis must have been a simultaneous effort. The battered revetment may have been added later, though we have mounting evidence that the revetment was provided for in the original plan to counteract the lateral and downward thrust of the huge mass of earth and fill of the rampart fortification. The analysis of the pottery (see below, pp. 211–225) from the brick core and the stone packing lend strong support to our claim. When accurate sections of ramparts become available, our understanding of their structure and their differences in detail will increase. The differences in the structure of the other rampart fortifications are most probably due to local topographic features or to the incorporation of existing walls or defences of earlier cities. The absence of any previous settlement or city at Achzib lends the study of its Middle Bronze Age town plan and fortifications exceptional interest.[13]

Achzib, a harbour city, differs in many ways from inland cities. Though Middle Bronze Age Achzib was actually surrounded by the sea and the fosse-canal, the absence of a Middle Bronze Age wall to crown the rampart is striking. Thus, for the time being at least, we must classify Achzib's Middle Bronze Age defences with earthen embankments and city enclosures like those of the lower town at Hazor,[14] Tel Dan,[15] Tel Poleg[16] and the lower city at Kabri[17] in Israel. In Syria comparison

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12 A number of studies have been devoted to the purpose, dating and stages of rampart building; see, *inter alia*, G.R.H. Wright: Tell el-Yehūdīyah and the Glacis, *ZDPV* 84 (1968), pp. 10–11, 16–17; P.J. Parr: The Origin of the Rampart Fortifications of Middle Bronze Age Palestine and Cyprus, *ZDPV* 84 (1968), pp. 18–45; Y. Yadin: *Hazor: Schweich Lectures, 1970*, London, 1972, pp. 106–108.

13 The Middle Bronze Age fortifications of Achzib seem to support Yadin's suggestion (*op. cit.*, above, n. 12, p. 57) that the building of the glacis and rampart was a completely new phenomenon. It would seem that where no previous cities had existed, the builders were free to employ — without adaptations — their new concept of defensive architecture.

14 Yadin, *op. cit.* (above, n. 12), pp. 56–57.

15 *IEJ* 19 (1969), pp. 122, 240; A. Biran, in *All the Land of Naphtali*, Jerusalem, 1967, p. 31, Fig. 2 (Hebrew); idem, in *Encyclopedia of Archaeological Excavations in the Holy Land*, I, Jerusalem, 1975, pp. 314, 316, s.v. *Dan, Tel.*

16 R. Gophna: The Middle Bronze Age II Fortifications at Tel Poleg, *EI* 11 (1973), pp. 111–119 (Hebrew), p. 26* (English summary).

17 The lower city of Tel Kabri was found in 1958 and 1961 to be defended by an embankment

should be made with Carchemish,[18] Qaṭna,[19] Tell Mardikh,[20] and in Egypt with Tell el-Yehudiyeh.[21]

Tell ed-Dab'a, recently excavated,[22] has provided pottery of the so-called 'Hyksos' wares of the Middle Bronze Age of Palestine within a stratified Egyptian context. These pottery groups date the Hyksos expansion into Egypt to the very end of the 12th dynasty and well into the 13th dynasty. In the light of the Tell ed-Dab'a material, the absence of the later Tell el-Yehudiyeh wares from the Achzib ceramic repertoire is significant. The ubiquitous presence of the red-burnished wares at Achzib invites a comparison between Achzib's defences and Tell ed-Dab'a strata G–F, dated there to the end of the 12th dynasty of Egypt (eighteenth century B.C.).

The fact that coastal cities like Achzib and 'Akko appear as competitors of the big inland cities like Kabri and Kurdana, which subsequently lose their importance and dwindle to a fraction of their former size, testifies to the vigour of the new forces. Cypriote pottery was associated with local wares throughout Achzib's ancient history, indicating Achzib's lasting maritime and commercial position from the eighteenth century B.C. — the beginning of the MB IIB — onwards until it became known as the port of entry and border of Israel. The success of the city and port of Achzib illustrates new concepts in town planning in the eighteenth century B.C., a period of progress in urbanization, and technological and economic advance, on an unprecedented scale.[23]

consisting of an inner wall, a core, glacis and revetment of MB II date. A trial excavation of the embankment was begun in 1975.

18 C.L. Woolley: *Carchemish II*, London, 1921, pp. 42–43, Figs. 6–7.

19 R. du Mesnil du Buisson: *Le Site archéologique de Mishrifé-Qaṭna*, Paris, 1935, pp. 40–42, Pls. I–II.

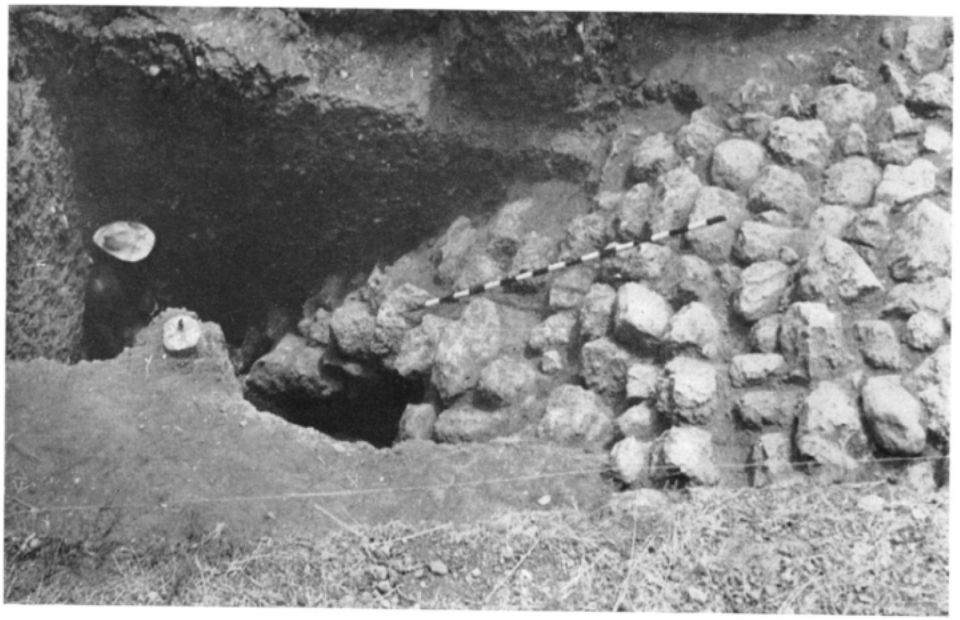
20 *Missione archeologica in Siria, scavi 1964*, Rome, 1965, p. 22, Fig. 2, Pls. III–IV; *Missione archeologica in Siria, scavi 1965*, Rome, 1966, pp. 24–27.

21 R. Flinders Petrie: *Hyksos and Israelite Cities*, London, 1906, pp. 3–10, Pls. II–IV.

22 M. Bietak: Österreichische Ausgrabungen auf Tell ed-Dab'a, *Mitteilungen des Deutschen Archäologischen Instituts, Kairo*, 26 (1970), pp. 18–24, 37–40.

23 B. Mazar: The Middle Bronze Age in Palestine, *IEJ* 18 (1968), pp. 71–77; G. Posener: Syria and Palestine during the Twelfth Dynasty, *Cambridge Ancient History*, I, part 2, Cambridge, 1971, pp. 540–558.

A: The revetment and rampart.



B: The revetment descending into the fosse.