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Chapter Author(s): Raphael Greenberg

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## CHAPTER 1

# THE FORMATION OF THE MOUND OF BET YERAḤ

RAPHAEL GREENBERG

### PHYSICAL SETTING

Tel Bet Yeraḥ (NIG 25370–25440/73530–73630; OIG 20370–20440/23530–23630) lies on the southwestern shore of Lake Kinneret (the Sea of Galilee), the largest body of sweet water in the Levant, and their fortunes have always been intimately linked. The Kinneret basin, part of the Dead Sea Rift (Jordan Valley), is 30 km long, has a maximum width of 15 km, and averages about 200 m below sea level. It is occupied by Lake Kinneret and lowlands to the northeast, west, and south (Fig. 1.1). The lake (modern water level approximately 212 m below sea level) is divided into two parts: the wider and deeper part in the north and the narrower, shallower southern lobe, which merges into the Kinrot Valley. Waters of the upper Jordan, Naḥal ‘Amud (Galilee), Naḥal Daliyot and Naḥal Samakh (Golan Plateau) flow into the Kinneret. Its water is significantly more saline than the Jordan River water entering the lake, due to the presence of saline springs located on active faults in and around it (Horowitz 2001:103). Although the southern part of the depression is not very active seismically (van Eck and Hofstetter 1990), recent work at Ohalo II indicates the presence of both ancient and recent fault lines adjacent to the mound (Fig. 1.2; Belitzky and Nadel 2002; Reshef et al. 2007). These may have a bearing on the origins of the hill of Bet Yeraḥ itself, well before the initiation of settlement there.

The basin is bordered on the west by Lower Galilee and on the east by the steep cliffs of the southern Golan (up to 500 m above the lake level; Figs. 1.1, 1.3). On the western, Galilee slopes, the late Miocene Bira Formation occurs, paraconformably overlain by the Pliocene/Miocene Gesher Formation (marl, oolitic limestone, gypsum, conglomerate, sandstone; Shaliv 1991; Aharon 1997). The Bira and Gesher Formations are paraconformably covered by the Pliocene Cover Basalt (basalt, basanite, and volcanoplastics; Aharon 1997).

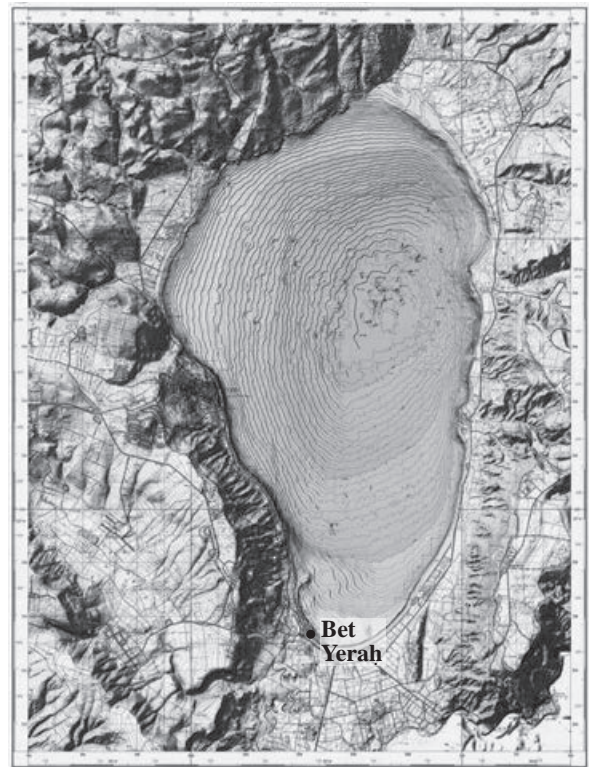


Fig. 1.1. The Kinneret basin (after Ben-Avraham et al. 1990).

Tel Bet Yeraḥ is located on a low hill that originally rose about 12 m above the ancient sea level, to an elevation of 200 m below sea level. Currently trapezoidal, about 1100 m long and 150–400 m wide with a total area of approximately 25 ha, it is clear that the mound was originally larger, and that a portion of it has eroded into Lake Kinneret (Figs. 1.4, 1.5). Extrapolating from a series of elevations at which bedrock was recorded in excavation, a low, 35–40 ha mound can be reconstructed (Fig. 1.6), dipping gently from north to south, where it merged into the valley floor (note the original Jordan River channel that borders the site on its western side). It has been suggested that the Kinneret shoreline has receded southward during the Holocene (Ben-Arieh

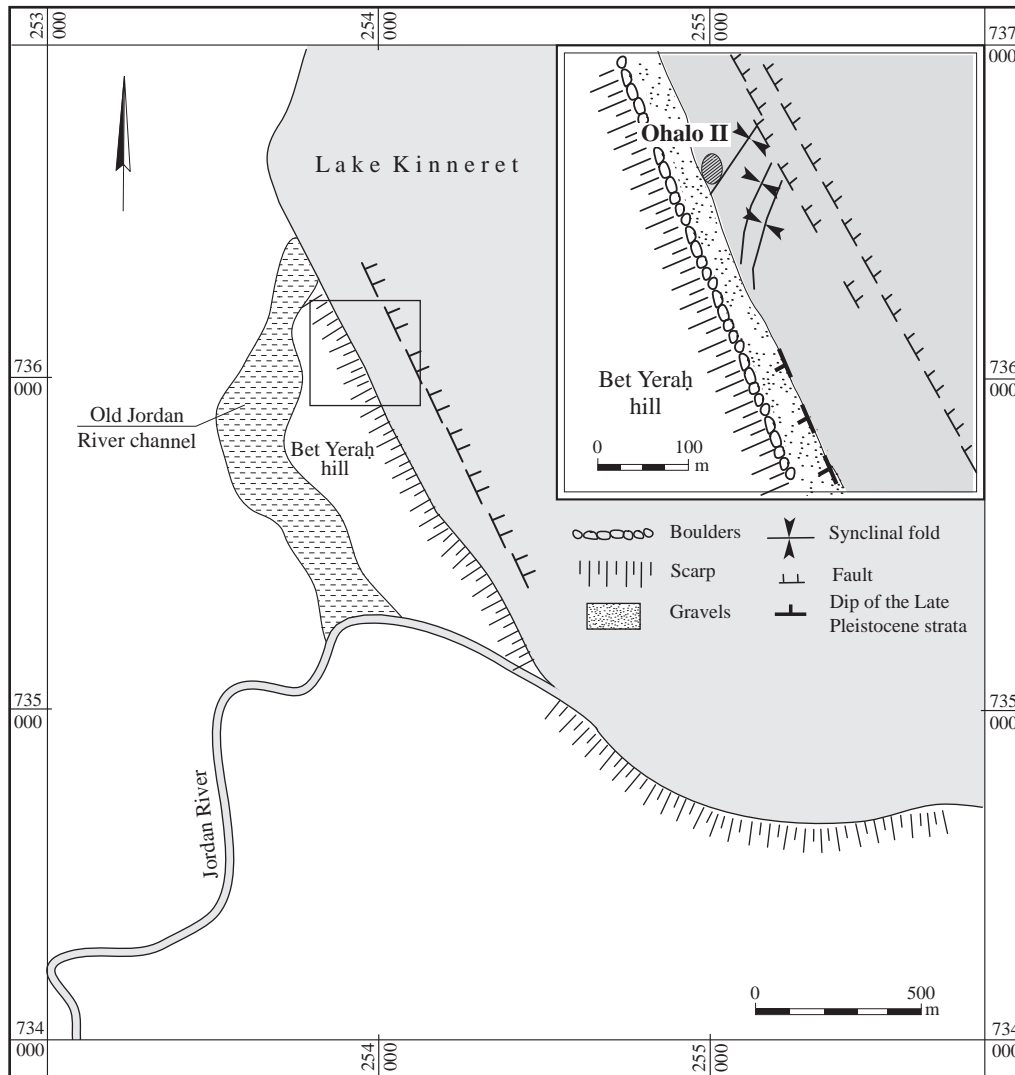


Fig. 1.2. Fault-lines observed near the site of Ohalo II at the foot of Tel Bet Yerah (after Belitsky and Nadel 2002).

1965). This would imply that the southern edge of the mound would have been more or less in line with the southernmost tip of the lake in antiquity.

The plain that extends south of the site (Kinrot Valley, *sensu stricto*) is covered by Quaternary alluvium. South of the mound there are small outcrops of the Pliocene-Pleistocene Gadot and Mishmar Ha-Yarden Formations consisting of conglomerate, sandstone, mudstone, and chalk. Northwest of Tel Bet Yerah (along the western shore of the lake) there are outcrops of Miocene Lower Basalt (basalt, basanite, and volcanoplastics) above the Bireh and Gesher Formations.

The hill of Bet Yerah itself consists of Lisan marl belonging to the Kinneret Formation, capped by

clayey-silty gray, occasionally hydromorphic valley rendzina soil (Ravikovitch 1969; Hazan et al. 2005). This lacustrine formation is composed of marl laminae overlying coarse clastic deposits and cross-deposited layers of coarse sand and shells. These are all products of the fluctuating levels of the Lisan lake, prior to 17,000 ybp, when the contours of Lake Kinneret were finally established. Holocene lake levels are estimated to have fluctuated between 204 and 214 m below sea level. The depositional history of Tel Bet Yerah can best be observed in the 8 m high scarp at the southeastern tip of the mound. Here, the mudbrick city wall marking the southern boundary of the site is visible in section, abutted by a massive fill of uncertain derivation and

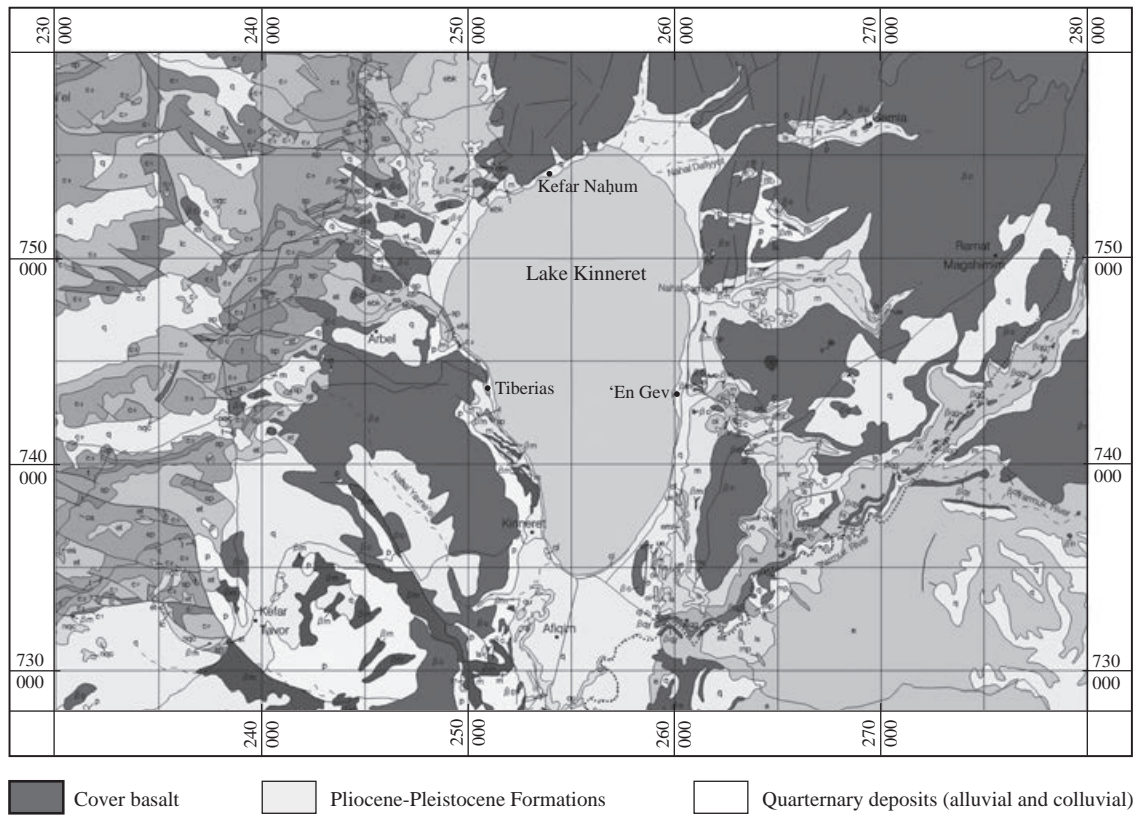


Fig. 1.3. Geological map of the Kinneret basin (after Sneh et al. 1998).



Fig. 1.4. Aerial view of Tel Bet Yerah, looking north, 1953 (Bar-Adon archive, Israel Antiquities Authority).

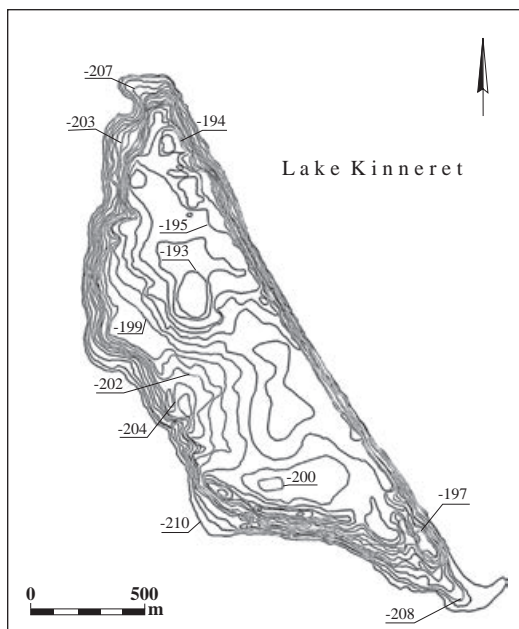


Fig. 1.5. Modern topography of Tel Bet Yerah, based on surveys of the 1940s and 1950s.

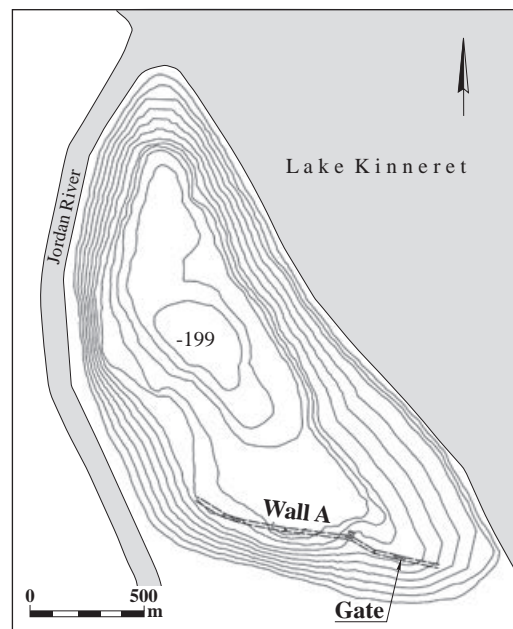


Fig. 1.6. Reconstructed topography of the natural mound, with line of Wall A (Period C) superimposed on it.

many layers of settlement (Figs. 1.7, 1.8). Optically Stimulated Luminescence dates obtained from the soil

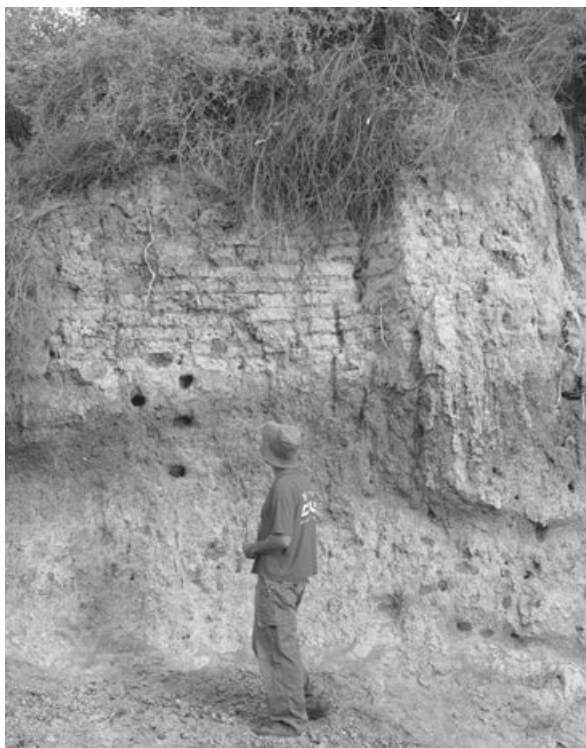


Fig. 1.7. Erosion at the southeastern tip of the mound: mudbricks of Wall A can be seen above the natural rendzina soil and marl. Square cavities mark OSL samples.

directly beneath the earliest anthropogenic deposits provide an age of 3990 to 3590 BCE (Ackerman et al. 2011). The existence of this scarp might be a product of the southward advance of the shore-line as the mound gradually became exposed to wave action, which can occasionally become quite vigorous on this side of the lake. Tectonic uplift cannot be ruled out as a factor in the erosion of the eastern side of the mound.

Tel Bet Yerah lies within the Irano-Turanian vegetation zone; the lake-shore supports a highly seasonal



Fig. 1.8. The eastern scarp: lower half composed of marl and rendzina, upper half of anthropogenic deposits.

littoral which served as breeding grounds for many varieties of fowl. It was composed largely of *Phragmites australis* (common reed), *Typha domingensis* (bulrush), and *Tamarix jordanis* (tamarisk), important resources for basketry and other artifacts, and *Pluchea dioscoridis* (Ploughman's spikenard, Marsh fleabane), a medicinal plant. The climate is semiarid, with a mean annual temperature of 20°C (12°C in January–33°C in August). Mean annual rainfall is approximately 400 mm.

### ECONOMIC CATCHMENT

The advantages of the geographic location of Tel Bet Yeraḥ at the northwestern edge of the Kinrot Valley at

the border with Lower Galilee, as well as its agricultural catchment, have long been recognized. The floor of the valley itself (Fig. 1.9) was settled and farmed in the Late Neolithic—witness the important sites of Sha'ar Ha-Golan (Garfinkel 2004) and Tel 'Ali (Garfinkel 1993); no evidence for pre-Early Bronze Age occupation has been discovered on the mound itself, though a handful of earlier artifacts, all found out of context, might have been scavenged in antiquity from one of the nearby Late Neolithic sites. In the Early Bronze Age, there appear to have been very few sites within the Kinrot Valley or along its edges, leaving Tel Bet Yeraḥ with sole claim to this agricultural breadbasket for the entire length of its existence.<sup>1</sup> Both Esse (1991:33) and Mazar (2001) have described the agricultural potential

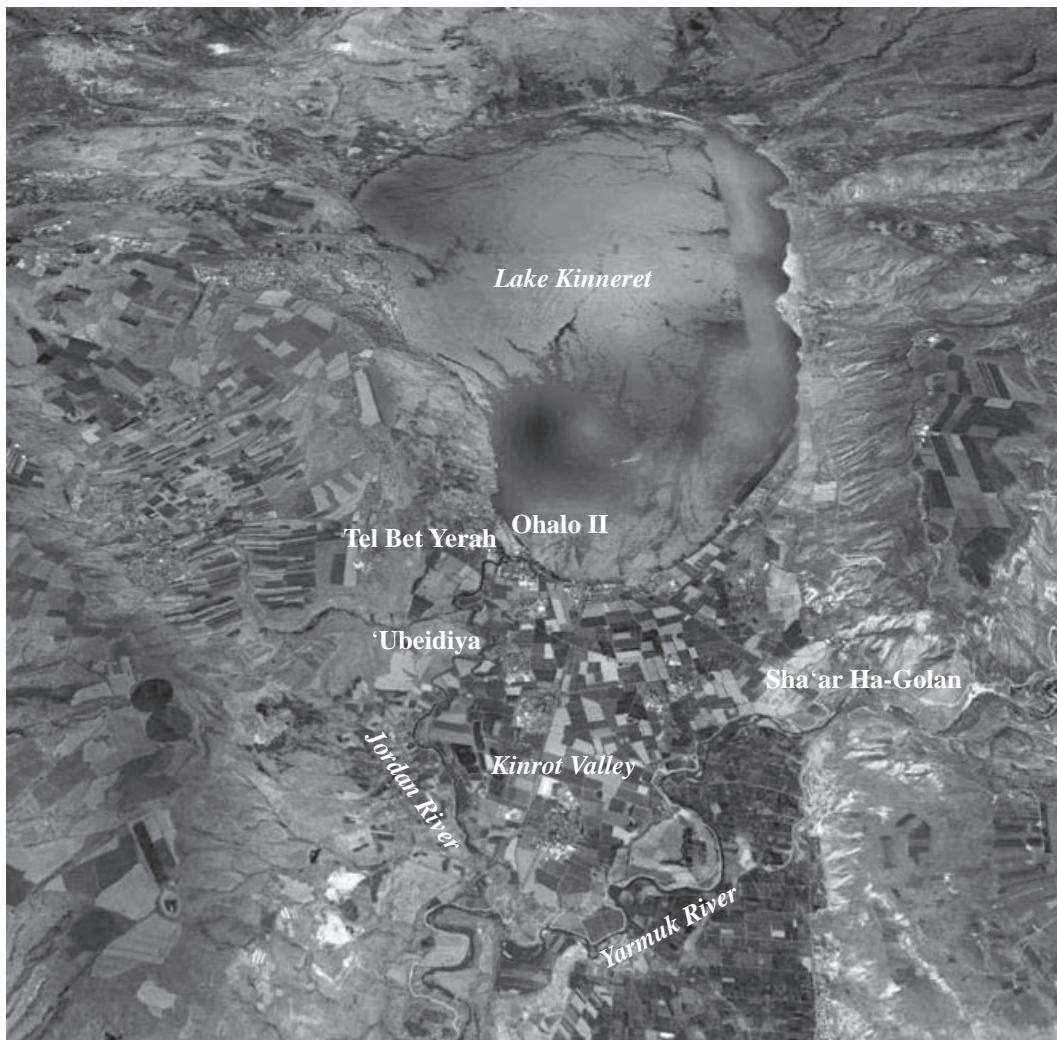


Fig. 1.9. Google Earth image of Kinrot Valley, with main prehistoric sites indicated (Image © 2012 Google; © 2012 GeoEye; © 2012 Digital Globe).

of the Tel Bet Yerah catchment: Esse noted that its location on the border between the Mediterranean and Irano-Turanian zones offered the site a flexible subsistence base. Mazar attempted a calculation of the agricultural potential of the Kinrot Valley in relation to the presumed storage capacity of the Bet Yerah 'Granary': Assuming that the entire 2700 ha plain was under cultivation by inhabitants of the town, there would have been a significant shortfall of grain production in relation to a plausible population of 4000 persons. Esse proposed that irrigation of the low-lying alluvial plain would have boosted yields significantly, at least in the short run. Both suggested that the inhabitants of Tel Bet Yerah could have utilized the hillslopes for horticulture and flock-raising and would have traded with highlanders for additional produce.

To their observations, we should add the following resources, all attested in the archaeological record:

*Lake Kinneret.* The lake and its shores were abundant with fish, mollusks (see Appendix II), crustaceans, and water-fowl, providing an important source of protein.<sup>2</sup>

*Sand, Mud, Clay, and Stone.* Lisan marl and rendzina soil were used for mudbrick and for pottery industries. Granulometric analyses of deteriorated mudbrick indicate a high silt and low clay content (Ackerman et al. 2011), suggesting pretreatment of brick material. The waste products of the same pretreatment (high clay, low silt) could have been used by local potters. Bira and Gesher Formation clays situated on the slopes to the north of the mound were also used in pottery production. Basalt stones from nearby hill slopes are the most common building material, next to mudbrick, whereas river cobbles were used in floors and walls. Flint cobbles provided a significant part of the materials used in local lithic production. Lakeshore sands and gravels were extensively used as surfacing and stabilizing fill in houses and streets.

## STRATIGRAPHY AND SITE FORMATION

The broad extent of archaeological soundings at Tel Bet Yerah permits us to reconstruct a relatively detailed history of settlement at the site. By tracking the extent of each phase of settlement, settlement history can be reconfigured as a history of site formation. Understanding the physical appearance of the site in each phase will contribute to a better grasp of the evolution of the site as a setting for village and town life.

The physical setting of Tel Bet Yerah has been described above. In the following description, the primary contributors to the evolving morphology of the site to be kept in mind are these:

*Building Materials.* Basalt, and occasionally limestone, were easily obtained from the nearby slopes and the riverbed. Mudbrick of various composition was obtained by quarrying in or near the site. The quarrying of clay for mudbrick may constitute a significant factor in the morphology of the site, particularly where large quantities are concerned (as in the construction of fortifications). Source materials may be extracted from a point in or near the site. They are deposited as mudbrick on the site, and are then subject to decomposition and deflation. The matrix of the Bet Yerah mudbricks was the soft Lisan marl upon which the site was built and the valley rendzina which forms on the marl.

*Building Practices.* Early Bronze Age floors were often somewhat sunken in relation to external ground level, often abutting the very base of the walls. While the use of mudbrick alone is widely attested in the earliest levels, stone foundations were used in EB I and became the norm for external walls of later periods. The use of leveled-off wall stubs for foundations of later levels is common at Tel Bet Yerah, beginning in Period C, creating a very dense stratigraphic sequence and resulting in a relatively slow pace of mound build-up.

*Erosion.* The soft marl matrix lends itself to rapid down cutting and destabilization. This was a significant factor in the creation of the lake scarp (see above) and in gullying on the mound both during the Early Bronze Age and since that time.

*Tectonic Activity.* There is archaeological evidence for wall and roof collapse in Early Bronze Age Tel Bet Yerah, probably due to earthquakes or tremors. These need not have been particularly violent in order to cause damage, in view of the building materials used.

## Period A

The earliest evidence for human presence on the mound comes in the form of stray finds ascribed a Neolithic date (e.g., below, Fig. 5.13). However, the first evidence for substantial occupation must be dated not before the earlier part of EB I. The most convincing

evidence for this Period A occupation has been found in Areas SA and GB in the northern part of the mound, near the summit of the original mound (Figs. 1.10, 1.11; see Foreword: Table 2). In Area SA, a 0.65 m deep layer comprising at least two phases of occupation was identified. While the lowermost occupation is characterized by pits, the upper layer seems to have included mudbrick construction, although the excavators noted only decayed brick material. Period A layers were excavated in all parts of Area GB, although their depth there is not recorded.

Further evidence for Period A occupation comes from some of the soundings conducted by the Delougaz (Oriental Institute) expeditions in 1952–1953 and 1963–1964 (see Foreword: Plan 1, Table 1). As these

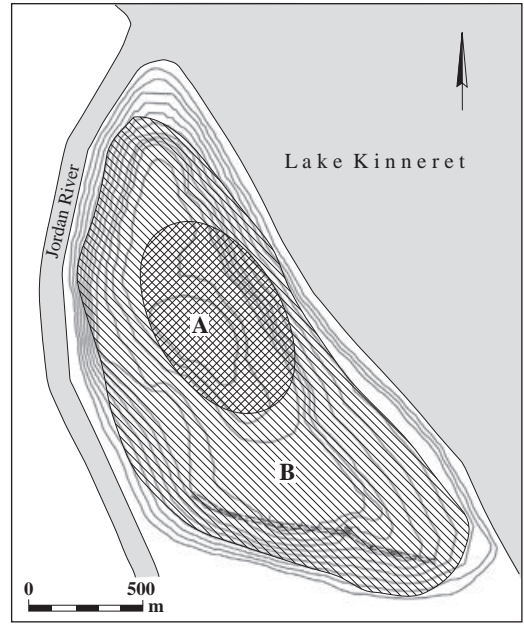
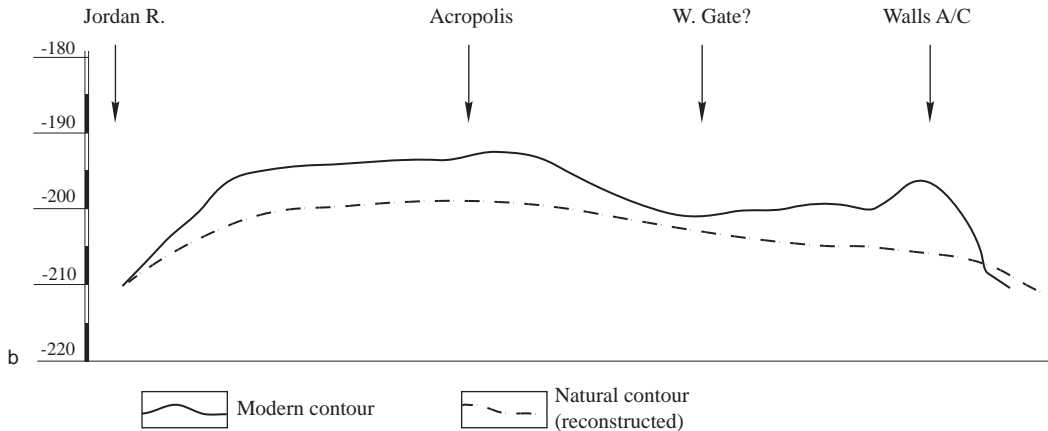


Fig. 1.10. Contour map of Tel Bet Yerah, showing extent of Period A and B settlement.



a



b

Fig. 1.11. (a) The acropolis and western depression, looking north; (b) schematic north-south cross-section of Tel Bet Yerah (10:1 vertical exaggeration), showing present contour in relation to reconstructed natural surface.



excavations have been only partially processed (Esse 1991:42–45), only preliminary details are available: these indicate the presence of Period A pottery in Section C, north of Area GB, and in Sections J and L in the middle of the mound. Just south of these points, in Area UN, only a handful of sherds possibly predating Period B were found, and it seems that the edge of the Period A site lies between Area UN and Sections J and L. In all the remaining excavation fields—BS, MS, and EY in the southeast, GE in the southwest, and in the Delougaz soundings to the west of the acropolis—no remains of Period A are reported, nor were any observed in Area BH or AC, to the *north* of Sections J and L.<sup>3</sup>

Taking into account the eastern, presently eroded, slope of the mound, the Period A, or EB IA, settlement appears to have extended along an elongated oval centered on the highest part of the mound. Its maximum length might have been 600 m; its maximum width, 300 m; and its total area, perhaps 8 ha. The apparent lack of remains at various points within this oval may indicate a spread-out, straggling settlement, of the type often encountered in this period (an occupation of similar size and type has recently been posited at Tel Te'ō: Eisenberg, Gopher, and Greenberg 2001:4).

The chronology of this settlement, as indicated by the pottery from the Deep Cut in Area SA, includes both the main early EB I phase, with its classic Type I Gray Burnished Ware, and a somewhat later phase that shows the beginnings of the grain-wash pottery typifying Period B. We therefore suggest a seamless transition between the two periods, with the straggling, perhaps somewhat shifting, settlement of Period A gradually evolving into the large, much more densely built up village of Period B.

### Period B

The late EB I settlement of Period B was long lived and possibly the most extensive of all phases of occupation at Tel Bet Yerah. Substantial remains of this phase were found in all areas of excavation, within the walled area of the mound proper and even beyond the walls. In most cases, there was evidence for more than one phase of occupation, as outlined in Table 1.1.

Omitted from Table 1.1 is Area GE, where Getzov (2006) reported on the existence of massive Period B fortifications. As shown in *Bet Yerah* I:236–247, the massive mudbrick fortification system, Wall A, must be dated mainly to Period C (EB II), since late Period B

**Table 1.1. Period B Deposits**

<i>Area</i>	<i>No. of Phases</i>	<i>Depth of Deposit (m; not including pits)</i>	<i>Remarks</i>
SA	2 or 3	1.20	Mudbrick material, no walls identified
GB	3	1.30	Stone and mudbrick architecture, with pit or midden beneath
DK (B)*	2	1.90	
DK (C)	1 or 2	1.90	Documentation insecure
DK (D)*	2	2.50	Includes Period A?
DK (E)*	1	0.80	There is an earlier phase, possibly early Period B
DK (F)*	2	1.70	
BH	2 (minimum)	>1.05	Mudbrick construction in earlier phase, massive stone foundations of round structures in later phase
UN	3	1.20	Pits in earliest phase, mudbrick construction in later phases
RV	2 (minimum)	1.30	Mudbrick construction in later phase
MK	2 (minimum)	1.80	Curvilinear stone architecture in latest phase, southern edge of trench
EY	2	0.60–0.80	Pits in early phase, mudbrick architecture in late phase
MS	2–3	1.10–1.30	Pits in early phase, mudbrick construction in later phases
BF	2 (minimum)	>1.00	Stone architecture in later phase beneath Wall A gate; plaster floors cropping out beneath Wall B on western slope of mound
BS	2	1.25	Pits in earlier phase, mudbrick architecture in later phase

\* For location of Area DK sections, see Esse 1991: Fig. 5

remains were found beneath parts of it in Areas MK and BF (beneath the earliest phase of the gate). At most, allowance may be made for the construction of a narrow mudbrick fortification at the very end of Period B. The great preponderance of Period B pottery within the *in situ* and collapsed mudbricks of Wall A must be ascribed to the quarrying of earlier occupation material for the preparation of the enormous quantities of mudbrick needed to build this wall. Physical evidence for this quarrying comes from a feature noted both by Mazar and by Getzov: an internal trough or “moat” bordering the northern, i.e., inner face of Wall A (see below, Fig. 2.6; Maisler, Stekelis, and Avi-Yonah 1952:172; Getzov 2006).

Apart from Area GE, all the excavation fields on Tel Bet Yeraḥ seem to tell a similar tale: densely built up layers of occupation cover the entire mound, extending slightly beyond the confines of the later fortifications. These layers have a remarkably uniform thickness, suggesting that the spread of settlement across the mound in Period B was rapid and complete, leaving few open areas.

In all areas where virgin soil was reached, the first phase of occupation in Period B is characterized by pits. These vary in size and depth: some, narrow and deep, are obviously middens, while others may have served as floors for temporary structures (perhaps best interpreted as animal shelters). These activities may be understood to represent activity at the outer edges of the site. The pits are soon superseded by permanent architecture of remarkable variety, including rectilinear mudbrick buildings without stone foundations and round or curvilinear stone-based buildings (see below, Chapter 2, for further discussion). These structures seem, by and large, to have been abandoned in an orderly fashion. In Area BS, where the Period B remains were not disturbed by later construction, a thick layer of decayed mudbrick sealed the early remains, suggesting an extended period of abandonment at this locale. Other areas, however, revealed intrusive Period C remains quite near Period B floors (e.g., in Areas EY and SA), possibly indicating rapid rebuilding. For the most part, the Period B structures were aligned north–south/east–west.

The presence of pits underlying the earliest architecture in both Period A (Areas SA, GB) and Period B (Areas UN, MS, EY, BS) suggests that permanent settlement expanded gradually and seamlessly during Periods A and B, beginning with the

highest part of the mound and advancing southward and toward the river and lake banks on either side. By the end of EB I, the entire peninsula was built up more or less evenly, preserving the fundamental topography of the mound. The thickness of deposit suggested by the Area MK section might indicate a build-up of refuse along the edges of the site that might have accentuated the edges of the large, 30 ha village. The quality of the excavation records at this location, however, leaves much to be desired, and the alternative—a diffuse border at the edge of settlement—seems equally plausible.

### Period C

The data concerning Period C in various parts of the mound are contradictory and confused. This has to do to some extent with the quality of documentation and stratigraphic control in many of the older excavations, but perhaps, to a greater extent, with the intense sequence of construction characterizing the mound in EB II and EB III. In areas where the stratigraphy was best recorded, the average thickness of each phase was little more than 0.2 m. This means that each rebuild razed earlier remains to within a few centimeters of their floors. Table 1.2 and the description of the Period C strata present, therefore, the best approximation based on present data.

The construction of Wall A across the southern flank of the Tel Bet Yeraḥ peninsula constitutes a turning point in the mound’s physical history and in its presence in the landscape. The construction of the massive fortification, eventually attaining a breadth of 8 m and a commensurate height (perhaps 5–7 m), and of the gateway (gateways?) associated with it, created a new focus of settlement, rivaling the long-established center located on the summit of the mound. Indeed, the different sequences of accumulation evidenced at different parts of the mound seem to suggest that occupation and construction were more intense in both the north and south than in the intervening area, with a particularly swift build-up observed adjacent to Wall A, in Areas BS and MS. This build-up led eventually to the creation of a shallow depression inside the southern end of the mound, bordered on the one hand by the original slope of the mound, and on the other by the deposits built up against the wall on the south. This shallow depression eventually became more deeply incised, draining the mound through a break (gate?)

in the later Early Bronze Age wall (Wall C) near the southwestern corner of the mound (below, Fig. 1.12). The erosion engendered by the depression and its extensions may be responsible for the absence of some Early Bronze Age strata in the area lying 100–200 m north of Wall A (the absence of Early Bronze strata at the northern end of their respective, parallel excavations is apparent in the sections drawn both by Makhoully [*Bet Yerah* I: Plan 9:2] and Getzov [2006: Fig. 1:1]). It cannot, however, have compromised Period C layers in locations further north, such as Areas UN and BH. These tend to be significantly shallower and stratigraphically poorer than the corresponding deposits in Areas SA, MS/EY, or BS, and could well indicate that the Period C settlement was not as evenly spread over the mound as that of Period B.

The presence of North Canaanite Metallic Ware as a significant component directly above Period B deposits in all areas of excavation suggests that the earliest part of Period C was that with the most intensive settlement. Indeed, the earliest phase of the gateway in Wall A indicates the existence of most elements in this wall early in Period C, and substantial

stone-and-brick architecture can be found in every area excavated. As time wore on, the successive stages of reconstruction and repair appear to have affected a gradually diminishing portion of the mound, with intervening areas perhaps left in a state of abandonment or converted to intramural open spaces for use as gardens, livestock enclosures, or refuse dumps.

By the end of Period C, the houses nearest Wall A had been raised well above its foundations, forming a pronounced slope from the wall toward the interior of the town. To the observer approaching the town from the south (the only land approach possible), the tall scarp of Wall A and the cut that may well have fronted it (see *Bet Yerah* I: Chapter 6) would have dominated the skyline, rendering the original acropolis all but invisible. Upon entering the town through the southeastern gate, the visitor would have faced a maze of paved streets and alleys and only after pushing ahead for some minutes would he have been able to emerge into the open, gaining a view of the more widely spaced domestic compounds in the center of the mound and the important buildings that no doubt stood on its summit.

**Table 1.2. Period C Deposits**

Area	No. of Phases	Depth of Deposit (m; not including pits)	Remarks
SA	3	1.20	North Canaanite Metallic Ware dominant in earliest phase; smooth architectural transition to Period D
GB	?	0.50	Poorly documented
DK (B)*	1	0.35	
DK (C)	2	1.40	
DK (D)*	3	1.05	
DK (E)*	2	1.15	
BH	1	0.30–0.80	Poorly preserved, damaged by later construction; large pits
UN	1	0.40	Stone-based architecture, large pits; NCMW dominant
RV	1	0.40	Poorly documented
MK		0.40?	No documentation available
EY	4	0.80	Dense construction, brick on stone foundations; earliest phase with pillar-bases, later with smaller rooms; much <i>in situ</i> pottery in earliest and latest phase; NCMW common but not dominant in earliest phases only; partial abandonment in transition to Period D
MS	4	0.80–1.40	Thicker accumulation near Wall A, with <i>in situ</i> pottery in latest phase
BF	2	0.60–1.20	Two main phases in gateway
BS	4	1.05	Two main construction phases, each with subphase; in both: brick on stone construction and paved street; clear abandonment phase in transition to Period D

\* For location of Area DK sections, see Esse 1991: Fig. 5

### Period D

The crisis of late Period C asserts itself in the form of various, selective abandonments observable between Periods C and D. The first evidence of Khirbet Kerak Ware (KKW), marking the onset of Period D (EB III), falls within the pattern of the late Period C occupation. Thus, in Area BS, massive amounts of KKW are found in what seems to be a midden-tip (Local Stratum 11) covering abandoned Period C structures, and in Area EY the richest KKW deposits in Local Stratum 6 occur in open areas. The renaissance of Tel Bet Yeraḥ may well belong to a later stage, when KKW is associated with widespread new construction on the mound, as tabulated below (Table 1.3).

Beyond the fact that Period D occupation is attested in every part of the mound, only the most tentative conclusions may be drawn on the basis of the observed stratification. That is because over the greater part of the mound, the EB III remains were exposed for at least

two millennia, until the large-scale resettlement in the Hellenistic period, and, in some cases, for an additional millennium, until capped by Early Islamic settlement. The fact that the most comprehensive stratigraphic sequence occurs within the protective shadow of Wall C in the south of the mound, and in particular in Area BS—the only corner of the mound reoccupied in the Middle Bronze and Persian periods—should sound a warning against hasty conclusions regarding the relative extent or intensity of EB III settlement.

That said, it remains clear that the focus of Tel Bet Yeraḥ's building effort in late Period D was along the edges of the site (Fig. 1.12). The massive effort expended on the construction of Wall C appears to have come at the expense of construction in the interior of the town or on its acropolis. The Circles Building, built early in Period D, shows clear signs of decline, and no other building appears to have been erected in its place. In terms of the morphology of the mound, Period D may be said to have accentuated processes

**Table 1.3. Period D Deposits**

<i>Area</i>	<i>No. of Phases</i>	<i>Depth of Deposit (m; not including pits)</i>	<i>Remarks</i>
SA	2	0.60–1.20	One early and one late phase in the Circles Building and in the Deep Cut, both with KKW; Hellenistic- and Islamic-period intrusions
GB	?	Possibly as much as 1.60	Rich deposits of KKW; part of a large structure south of Circles Building; significant intrusions of Hellenistic and Islamic periods
DK (B)*	1	0.40	Poorly preserved
DK (C)	1	0.65	
DK (D)*	3	1.10	
DK (E)*	3	1.60	
DK (F)*	2	1.30	
BH	1	?	Badly disturbed by Hellenistic structures
AC			
UN	2	0.80	Two major building phases, with stone-based houses, streets; uppermost phase eroded; KKW in both phases
RV	3?	0.70	
MK	?	1.20	Structures and paved street associated with KKW
EY	5	1.15	Lower phases densely built up; later phases poorly preserved; all associated with KKW
MS	2–5	0.50–1.60	Fewer phases near fortification, perhaps due to clearance during construction of Wall C; densely built up to north, all phases with KKW
BF	2		Two Period D fortification walls: Wall B and Wall C
BS	6	2.10 (not including fortification)	Early midden, followed by five phases of public and domestic construction; Wall B built during second(?), and Wall C built during fifth phase

\* For location of Area DK sections, see Esse 1991: Fig. 5

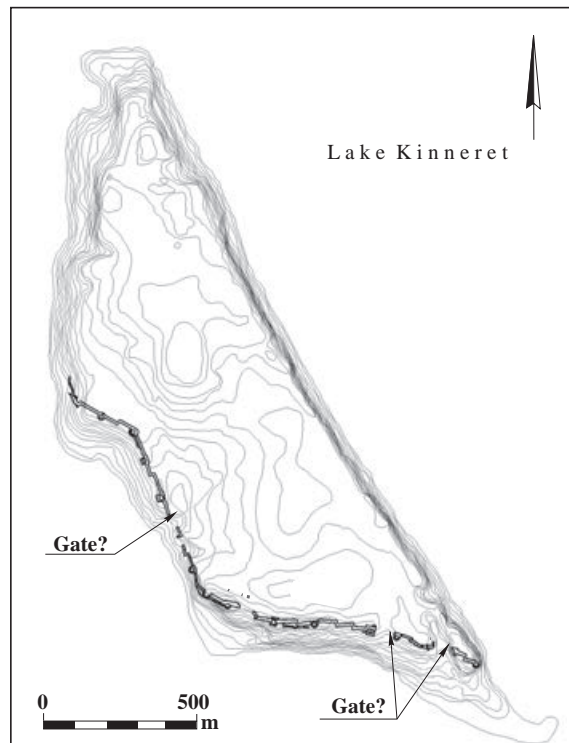


Fig. 1.12. Modern contour map of Tel Bet Yerah with superimposed late Period D fortification, accentuating the shift of architectural mass toward the southern and western flanks of the mound, at the expense of the old acropolis.

begun in Period C: The external profile of the mound was enhanced and its skyline was largely that of its massive fortifications, particularly along its vulnerable southern flank. Founded largely on top of the decayed remains of Wall A, the late fortifications would have towered some 10 m above the natural slope, forming an imposing mass for anyone approaching the site from the south or southwest. They also afforded the best protection for the inhabitants of the mound, and it was to the southeastern corner of the site that the focus of settlement shifted during the next phases of occupation.

A significant anomaly in the course of Wall C is worth noting: between Towers 3 and 4, just west of the blocked Wall A gateway, Wall C turned inward, presumably to exclude a north-south gully that had begun to form at this point. This gully might have been the intentional or unintentional result of action taken to drain the interior of the city, north of the rise formed by the city walls. Its presence is marked not only by the deviation in the line of the wall, but also by a clear dip

in the elevation of the wall's foundations, as has been described in *Bet Yerah* I: Chapters 5, 6; and Plans 5.13, 6.6. Bar-Adon's field notes indicate that he thought there might have been a gateway at this point (although Tower 5, the Bastion, might mark the location of a gate some distance to the west). In any case, this possibility will remain forever moot, as the gully was widened, probably in Ottoman times, to serve as a road, and was further compromised in more recent times.

Another topographic anomaly in the present day appearance of the mound—a deep depression just north of the southwestern corner—suggests the existence of another gate in Wall C. This location presently serves as the preferred ascent to the mound from the west.

### Periods E–G

The unique and fascinating Final Early Bronze phase described in Area BS (Local Stratum 6) occupied a limited area in the southeastern corner of the mound. Remarkably well-preserved remains, the original construction of which might be ascribed to late Period D (see Chapter 2), were found over the entire area excavated by Bar-Adon within the Early Bronze Age walls. In addition, a handful of sherds of unspecified provenance identified in the Area MS assemblage suggest that some of the late Period D structures excavated there might have been used in Period E as well. Taking all this into account, the extent of the Final Early Bronze Age village huddled against Wall C could hardly have exceeded 1 ha in size—a mere fraction of the original size of the Early Bronze town.

The Period E village comprised a dense huddle of contiguous houses with three- to four-course stone foundations and a mudbrick superstructure. Their contribution to the general form of the mound was the creation of a raised platform inside the line of the wall, which eventually comprised a secondary acropolis, reoccupied in Periods F and G.

The Period F (early second millennium) occupation succeeded the Period E occupation after a significant gap, lasting perhaps 300 years. By this time the Period E houses had long since collapsed, adding a layer about 0.75 m thick to this part of the mound. As far as we know, the Period F deposits (about 0.3 m in depth) are limited only to the very tip of the mound (0.1–0.2 ha in all), spilling over the fortifications to the southern slope (in *Bet Yerah* I:157–160 it was suggested that the houses were located on the slope, and a series

of industrial installations—mainly potters’ kilns—downwind and inside the wall). A further, and yet longer, gap separates Period F from the fifth- or fourth-century BCE Period G occupation (approximately 0.5 m in maximum depth), also limited to the 0.1 ha acropolis at the southeastern tip of the mound.

### Late Periods

Evidence for extensive settlement in the Hellenistic period (Period H; third–second centuries BCE) has been found in most excavation areas on Tel Bet YeraḤ. Most remains may be associated with a well-planned orthogonal settlement composed of what appear to be large town-houses. Parts of such houses were found in Areas BS, MS/EY, MK/GE, SA, GB, and possibly BH as well. All were built on a virtually identical axis, parallel to the lake-scarp (the latter advanced in the years following the Hellenistic period, cutting into the Hellenistic remains). In most places, the Hellenistic construction stopped 10–30 m short of the still visible Early Bronze Age fortifications, although a number of towers in the wall were rebuilt or used for burial (see *Bet YeraḤ* I: Chapter 6). This planned settlement seems to have extended over most of the eastern half of the mound, although perhaps not contiguously, as architectural remains in Areas BH and especially UN are scant. No Hellenistic architecture at all appeared in the northern part of Area MK and in a number of

soundings in the large western plateau conducted both by Bar-Adon and the Chicago expeditions. The general impact of the Hellenistic occupation must therefore be characterized as diffuse, having little visible impact on the way the mound was experienced in the landscape.

As for the Byzantine and Islamic periods, these are represented on the mound by individual structures and cannot be said to have formed strata. The bulk of the activity in these periods was concentrated in the northern quarter of the mound. Most significant to the ultimate form of the mound was the aqueduct built to supply running water to the Umayyad baths built over the Circles Building in Area SA. The bridge that may have carried this aqueduct across the Jordan River at the northwestern corner of the mound was partially responsible for the blockage of the original river channel, which is attested from medieval times (Saarisalo 1927:76–77).

The marked lack of soil accumulation during the extended gaps in occupation, as evidenced by the Hellenistic re-use of the Early Bronze Age city walls and the construction of the late bathhouse directly on the platform of the Circles Building, indicates that the present table-like appearance of large parts of the mound does not represent its aspect in antiquity. Indeed, during most of its existence, the mound would have been perceived as a ruin with massive fortifications, fully living up to its post-abandonment Arabic name, *Khirbet el-Kerak*, ‘the Ruin of the Fortress’.

### NOTES

<sup>1</sup> A handful of Early Bronze Age sites have been tentatively identified by Maeir (1997: Fig. 15), based principally on Yeivin and Maisler (1944). I have not succeeded in corroborating their existence, though it does appear likely that there was an EB (I?) site at or near Tell ‘Ubeidiya, about 3 km south of Tel Bet YeraḤ. It is particularly interesting that no major Middle Bronze Age site emerged to stake a claim to the Kinrot Valley, and to its seemingly prime location on the east–west and north–south routes skirting Lake Kinneret and connecting the Jordan Valley with the northern Levant

and beyond (with the possible exception of Tell ‘Ubeidiya). These observations suggest the existence of a particular Early Bronze Age regional configuration, not repeated in later times, that made the site attractive for settlement. This is an issue that needs to be tackled in future research.

<sup>2</sup> Abundant evidence for such utilization has been recovered in the renewed excavations at the site.

<sup>3</sup> My thanks to Gabrielle Novacek, who showed me the relevant material in the University of Chicago archives.

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