

CHAPTER 2: REGIONAL INTRODUCTION

Geographical Definition and Background

The region that is studied in this volume, the Jordan Valley, is a relatively easily defined geographical feature – it is the valley that surrounds the principal river running along the entire length of the region, i.e. the Jordan River (Fig. 1). Although it can be argued that the study of such a region is a modern, culturally-derived construct, nevertheless, the straightforward definition of this region, based on various criteria (geographical, ecological, transportation, etc.), appears to warrant its study as a separate unit; and as such, the study of a certain period, the MB.² WILKINSON (2003: 210–214) has recently discussed the significant divergence between various “landscape configurations” in the Ancient Near East, and in particular, between rain-fed and irrigation based agricultural zones. As most of the temperate ecological/agricultural zones in the Southern Levant are rainfall dependant, the Jordan Valley stands out as one of the few zones in the region with potential irrigation-based agriculture. A study of this specific zone may reveal interesting and explicitly culturally-oriented differences in comparison to other ecological/agricultural zones in the Southern Levant.

The Jordan Valley is but a small section of the colossal Syrian-East African rift, one of the largest geological rifts in the Earth’s crust (e.g. MART *et al.* 2005). Reaching from the Amanus Mountains in Turkey and all the way to the East African lakes in the south, the entire rift has a length of more than 6,500 km. The section which is the focus of this study, which was formed approximately 4 million years ago (e.g., HEIMANN 1990; HOROWITZ 2001), reaches a length of approximately 175 km (from Metulla in the north, to the northern shore of the Dead Sea in the south).

The geological structure (Figs. 2–3) of the Jordan Rift Valley (or sometimes termed the “Dead Sea

Transform”) is usually seen as a *graben* that was depressed, and its shoulders which were uplifted, along a series of faults, as part of the long-term structural development of the region (e.g., HOROWITZ 2001: 71–74; BEN-ABRAHAM, GARFUNKEL & LAZAR 2008; but see other suggestions, such as SHRODER & INBAR 1995: 67). As such, there is extensive confirmation of ongoing seismic activity in the region (e.g., MARCO *et al.* 1996; HOROWITZ 2001: 86–88; HAMIEL *et al.* 2009), including historical evidence of catastrophic results (e.g., TSAFRIR & FOERSTER 1992; AMIRAN *et al.* 1994; ELLENBLUM 1998; MARCO *et al.* 2003; MARCO 2008; WECHSLER *et al.* 2009).³ Although at present there is no definite evidence for seismic activities and damage during the period under study (but see possible evidence at Pella and Jericho [below, Chapter 3]), due to the common appearance of earthquakes in this region, this should be considered as one of the factors effecting the development and/or decline of sites during this time frame.

The Jordan Valley is traditionally divided into three parts: The Upper Jordan Valley, which includes the Huleh Valley, the Rosh Pinna Sill and the narrow Jordan Gorge; The Central Jordan Valley, which includes the Kinnarot Valley (the Sea of Galilee [Kinneret] and its immediate surroundings [including the Yarmuk Valley immediately to its south]), and the Beth Shean Valley; and finally, the Lower Jordan Valley, which extends to the northern shore of the Dead Sea (see Fig. 1).⁴

Although the region under study is hardly an expansive zone, and at its maximum is only several score km wide, it is an area of diverse geographic and environmental settings. Substantial changes in the geological and geomorphological settings, coupled with diverse ranges of climate, water and ecology, have turned this north-south oriented region into a zone with a very varied history of settlement. While the northernmost parts border an almost sub-alpine zone (the Hermon Massif), the southernmost reach-

² For recent overviews of the strengths and weaknesses of regional studies (and new directions of research), see, e.g., KANTNER 2008 and KOWALEWSKI 2008.

³ See as well suggestions by NIGRO (2010a; 2010b) to identify archaeological evidence of earthquakes during the EB, at both Jericho and Khirbet al-Batravi (and other sites in the vicinity of Jordan Valley).

⁴ The geographic description of the Jordan Valley in this chapter is based on various sources, with particular emphasis on the general surveys by SCHATTNER (1972: 176–173), ORNI & EFRAT (1980: 80–98), and HOROWITZ (2001).

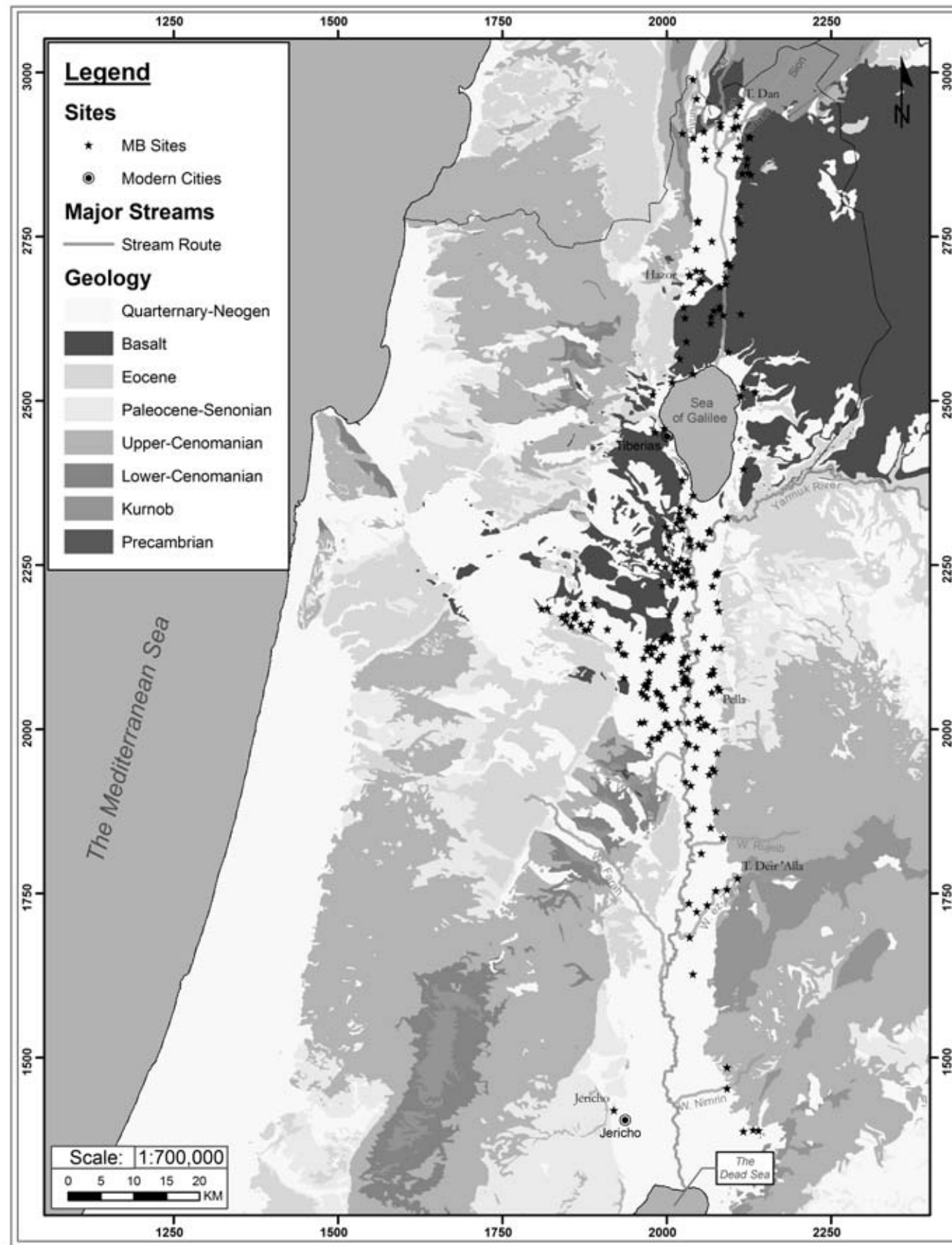


Fig. 2 Geological map of the Jordan Valley with MB sites

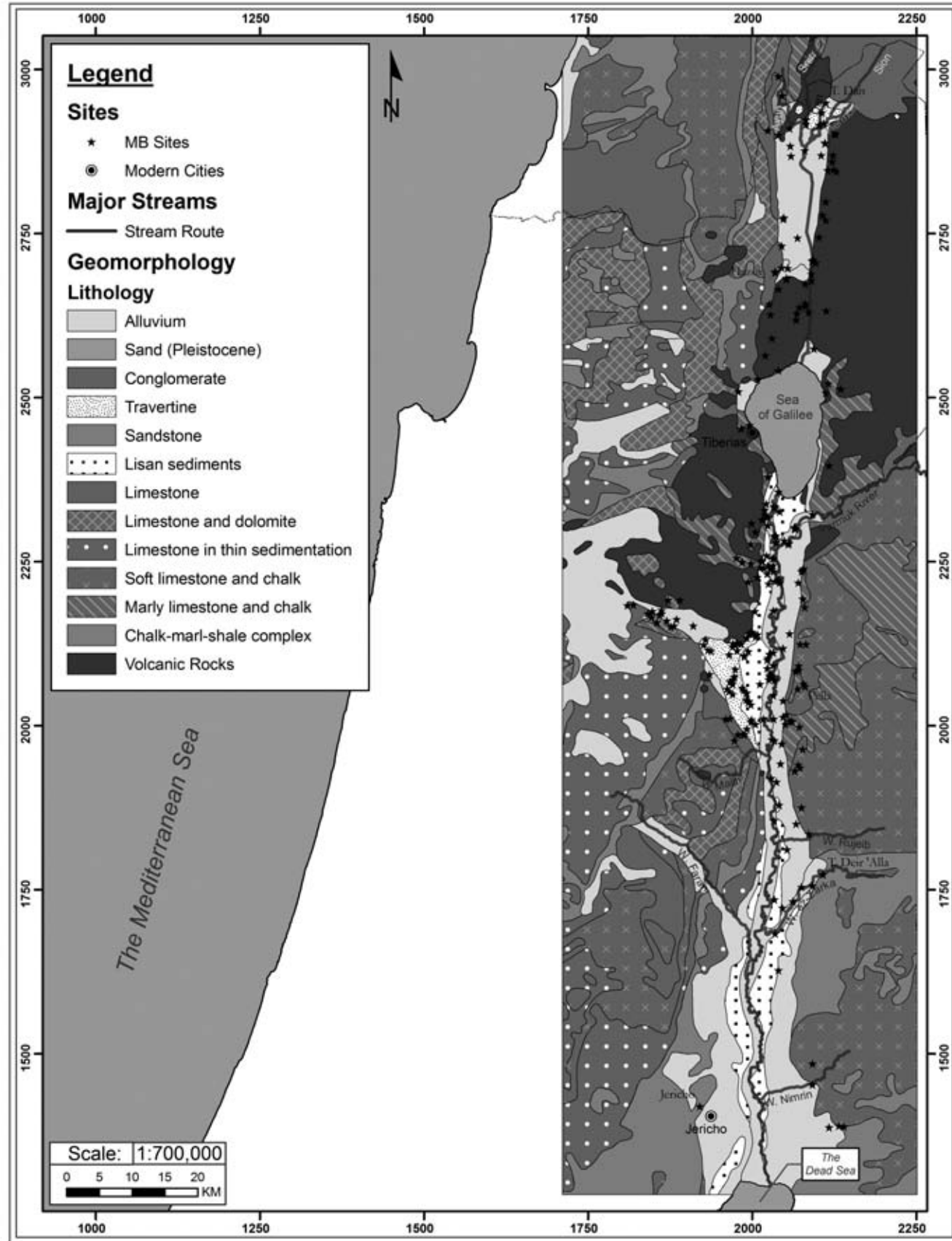


Fig. 3 Geomorphological map of the Jordan Valley with MB sites

es are in a fully-fledged arid zone. Just about all environmental variations in between these two extremes are met in the Jordan Valley – from the temperate, through the semi-arid, to the arid. It is with these major fluctuations in mind that one must study the settlement history of this region. Not only do the environmental conditions change so dramatically over a rather short distance, producing zones of such stark differences, but due to the borderline character of the valley, the actual borders of the various environmental zones can change quite abruptly.

Thus, it is clear that the wide variations of settlement types that are seen in the region during the MB, from the “mega-city” of Hazor (according to Ancient Near Eastern standards), to small scale villages/hamlets, alongside populations living nomadic lifestyles, must be seen through the lens of the environmental conditions. This is not to say that environmental conditions do not affect other regions, areas and cultures, but rather, the drastic changes exhibited throughout the region under study, enable one to see the clear cut effect that these conditions foster.

In order to more fully understand and appreciate the environmental differences noted above, a brief introduction to the various geographical and environmental zones within the Jordan Valley is presented below.

The Upper Jordan Valley

As mentioned above, the Upper Jordan Valley is divided into two areas: the Huleh Basis, and the Korazim Plateau (with the Jordan Gorge to its east). These two areas are quite different from the other areas from a geographical and environmental point of view, and, as mentioned, the different settlement history of these respective areas throughout history, including during the MB, mirrors this.

The Huleh Basin (see, e.g., GREENBERG 2002: 11–23)

The boundaries of this area are quite straightforward, being almost completely demarcated by the surrounding mountainous areas. Starting from the west, it is bordered by the limestone slopes of the Naftali Range which rises quite abruptly more than 800 m above the valley bottom; On the north eastern side there is the Herman Massif, comprised of Jurassic sedimentary rock formations, while to the east one has the Upper Golan Plateau and the “Cover Basalt”. In the north, it is defined by the Metulla Hills (SNEH & WEINBERGER 2003), while to the south (see now HEIMANN *et al.* 2009) it is bordered by the Rosh Pinna Sill, which is at a higher altitude than the Huleh Valley (see below). Geological (HEIMANN 1985), palyno-

logical, and other bioarchaeological studies (e.g., HOROWITZ 1971; BOTTEMA & VAN ZEIST 1981; MEADOWS 2005; VAN ZEIST, BARUCH & BOTTEMA 2009) have clearly shown that the predominant topographic, hydrological and ecological conditions that existed in the Huleh until the mid-20th century (with permanent swampy zones) have been in place throughout the entire Holocene. As GREENBERG (2002) has aptly demonstrated, these conditions, and their effect on human settlement, so well-documented in recent times, should be taken into account in the reconstruction of ancient settlement patterns.

Settlement and subsistence activities have always been under severe constraints in the Huleh Valley. Due to the existing, overall swampy conditions since Prehistoric times, settlement sites can be situated only on the periphery of the region (e.g., Dan, Abel Beth Ma’acha, Qiryat Shemona, Hazor, etc.), or on localized topographically-raised locations (e.g. Tel Na’ama). Most of the central parts of the Huleh Valley could not be settled due to the swampy conditions. It can be assumed that this had an effect not only on the actual location of the sites, but on other factors as well. Thus, for example, health related issues may have played an important role (e.g., Malaria and other swamp-related sicknesses). From an agricultural point of view, much of the area could not be used for the agricultural spheres common in the Southern Levant – undoubtedly requiring dependency on agricultural resources that were at geographically more distanced locations.

Nevertheless, the margins of the Huleh Valley, beyond the limits of the swampy zone, were zones with high quality soils, and for the most part, sufficient water sources, with topographically advantageous positions. These peripheral zones, provided the necessary infrastructure for both settlement and sundry agricultural activities, and it is here that evidence of settlement and other activities are seen, including during the MB.

The Korazim Plateau and the Jordan Gorge

The Korazim Plateau is located immediately to the south of the Huleh Valley, and is in fact the source of the swampy nature of the Huleh Valley. The plateau is bordered on the north by the Huleh Valley, and on the south by the Kinnarot Valley (and the Sea of Galilee). On the west it is defined by the Hazor Foothills, which slope eastward from the Eocene and Senonian limestones of the Safed Block. The eastern limits of the plateau are conveniently defined by the foothills of the Golan Heights, which begin to rise just to the east of the Jordan Gorge.

The plateau consists, in its northern part, of Mid-Pleistocene sedimentary rocks (some of which represent the ancient shore of the “Paleo-Huleh Lake” on which important Hominin remains have been found at the site of Gesher Benot Ya‘aqov [e.g., GOREN-INBAR *et al.* 2002; 2004; 2006; ALPERSON-AFIL *et al.* 2009]) which were elevated due to tectonic activity (BELITZKY 2002). These Pleistocene sedimentary levels were covered by the “Yarda Basalt” lava flow, dating to ca. 0.6 million years ago (HOROWITZ *et al.* 1973). The southern part of the plateau consists of a large exposure of the much earlier “Cover Basalt”, which is also partially covered by the “Yarda Basalt” (HEIMANN 1990).

The predominance of basalt outcrops and basalt derived soils had a profound effect on the development of human settlement throughout the ages on the Korazim Plateau. The hard and irregular basalt, as well as topographic limitations, made the formation of settlements in this region somewhat difficult, and agricultural activities were also limited. Thus, in almost all periods, there are few settlements on the plateau (for a recent summary of the long-term settlement history of this region, see STEPANSKY 2008a). During the MB, this area is almost completely devoid of settlements. In fact, the only major site in the region, Tel Kinrot, which is settled at the very end of the MB, is located on an outcrop of sedimentary rock on the south-western side of the Korazim Plateau. There is, though, extensive evidence of burials in this zone, in particular, megalithic style burials (mostly dolmens), in most cases the local basalt being utilized as the building material for these tombs (STEPANSKY 2005a; 2008a: 276).

As mentioned above, the Korazim Plateau blocked the flow of water from the Huleh Valley, originally forming the paleo-Huleh Lake. In more recent geological periods, the Jordan River channelled through the Korazim Plateau, towards the Sea of Galilee. The Jordan River cuts through the plateau, to form a very narrow and deep gorge (at times up to 100 m deep), making an abrupt ascent toward to the south (ca. 280 m over a distance of 13 km). The gorge is a formidable barrier, and all transportation routes skirt around it.

The Kinnarot Valley

The Kinnarot Valley includes the Sea of Galilee and its shores, the Bethsaida Valley on its north-eastern side, the Ginnosar Valley on its north-western side, and the Jordan-Yarmuk plain to the south. The Kinnarot Valley is quite easily defined by the elevated zones surrounding it: the Korazim Plateau in the north; the rapidly rising cliffs of the Golan Heights to

the east; the western border is defined by the series of ridges to the west of the Sea of Galilee; and finally, its southern border is defined by the area in which the south-eastern side of the Yavne‘el Hills descend into the Jordan Valley (at the Harod River), forming a relatively narrow pass within the Jordan Valley itself.

The Kinnarot Valley is an area that is rich in water sources but not intensively settled in most early periods (in general, see FASSBECK *et al.* 2003). The very narrow shores of most of the Sea of Galilee limit the development of settlement along of the shores of the sea. The rather extensive fluctuation of the sea shore, evidenced geologically and in the historical and contemporary records (e.g. SHRODER & INBAR 1995: 88–89), may have seriously curtailed settlement potential around the lake, since, in most cases, the distance between the shore and the adjacent hills was not large.

Presently, there are three regions in the Kinnarot Valley which have more extensive tracts of land. On the northwest there is the fertile Ginnosar Valley, which is covered in the rich alluvial soils deriving from the eastern Upper Galilee. On the northeastern side is the Bethsaida Valley, formed by long term fluvial, estuarine and lacustrine sedimentation. This area, though, is extensively water-logged. Due to this latter problem, there is not much settlement in the Bethsaida Valley, save for a limited amount of sites. In addition, it has been suggested that the present extent of the plain only appeared in the last 2000 years or so, so that this was not an area of potential settlement during the MB (in general, see SHRODER & INBAR 1995).

To the south of the Sea of Galilee is the Jordan-Yarmuk Plain formed between the Yavne‘el Ridge on the west and the Southern Golan Heights and the Northern Gilead Mountains on the east (see BEN-ARIEH 1968). Two rivers cross this plain, the Jordan River emerging from the southern outlet of the Sea of Galilee near Kh. Kerak (Tel Beth Yerah), and the Yarmuk River flowing out from a gorge between the basaltic Southern Golan Heights and the northern slopes of the Gilead Mountains. Although both rivers carry large amounts of water, due to the fact that their respective river beds have cut deeply into the surrounding plain, the actual access to their waters was quite difficult, prior to the invention of modern pumping machines. The Jordan-Yarmuk plain is predominantly covered by lissan marl soils, which are not conducive to extensive agriculture without the use of supplementary fertilizing.

The lack of expansive, wide shores around most of the Sea of Galilee, along with the unfavourable soil

and hydrology in other parts, seems to have limited settlement in all periods. Although during the EB a major site was founded at Beth Yerah on the southern shore of the Sea of Galilee, this site was abandoned at the end of the 3rd millennium B.C.E., and no major site was founded in the Kinnarot Valley during the MB; medium-sized sites though appear towards the end of the MB and the beginning of the LB (see ZWICKEL 2003).

The Beth Shean Valley

The Beth Shean Valley is a clear geographic unit that has been closely studied by NIR (1989a; see now MEILER *et al.* 2008 for the seismic background of the Beth Shean Valley). It is situated on both sides of the Jordan River, from the vicinity of Gesher in the north, to Wadi Malih in the south, and from the foot of the Gilboa Mountains and the Harod Valley in the west, to the foot of the Hills of Gilead to the east. As opposed to the modern political situation, it appears that one should not differentiate geographically between the western and eastern sides of the Beth Shean Valley, on the two respective sides of the Jordan River. For an environmental and physical-geographic perspective, these two sides are closely connected. The Jordan River at this point (and for that matter along its entire length), was quite often not a true geographical and political border (see, e.g., SMITH 1966: 316–318; on the general history of the Jordan River, see NOTH 1956; GLUECK 1968).⁵ The numerous crossing-points (whether full-fledged bridges or the numerous wading points) along the entire stretch of the river throughout the Beth Shean Valley can demonstrate this point (Fig. 11). In the relevant map of the *Survey of Western Palestine* (CONDER & KITCHENER 1882: sheet IX) some forty crossings (*Makhdat* in Arabic, *Mā'aborot* in Hebrew; NOTH 1956: 135–136) are marked along the course of the Jordan River (with more than twenty in the Beth Shean Valley alone). Although the Jordan River has served in the past, as well as in the present, as a political boundary (for the Roman-Byzantine periods, see NIR 1989a: 82, fig. h2), it is not a full-fledged geographical one. Clear regional similarities exist between the western and eastern sides of the Beth Shean Valley, warranting their discussion as one unit.

The border between the Beth Shean Valley and the Harod Valley is usually defined based on the change in soil between the two, seen on the north-

south line between the modern settlements of Sedeh Nachum and Nir David. Although, as posited in an earlier study (MAEIR 1997a), one can study the Beth Shean and Harod Valleys as one contiguous zone, since the present study is limited to the Jordan Valley, the Harod Valley is not included.

To the north-west of the Central Jordan Valley, from the western shores of the Sea of Galilee in the north, till the southern edge of the Issachar Hills (to the north of the Harod Valley and Beth Shean itself) in the south, is a hilly region (the Poriah, Yavne'el and Issachar Hills) that is comprised mainly of relatively young volcanic formations (Neogene/ Quaternary) with the rare appearance of older volcanic formations. Along with them appear Neogene sedimentary formations, seen in the valleys between the hills in this region, the same valleys that lead out into the Central Jordan Valley (such as N. Harod and N. Issachar).

To the south of this region one enters the Harod Valley, which is comprised primarily of recent alluvial depositions. To the south of the Harod Valley rise the Gilboa Mountains. These mountains are comprised mainly of Eocene sedimentary rocks, although at the northern part there is a limited appearance of Senonian, Turonian and Upper Cenomanian sedimentary formations as well.

To the south-east of the Gilboa Mountains, the north-eastern hills of the eastern Samaria are comprised mainly of Cenomanian and Turonian sedimentary rocks. This block forms the south-west and southern borders of the Central Jordan Valley.

Moving to the eastern side of the Central Jordan Valley, the situation is quite similar. On the north-east, the Central Jordan Valley is bordered by the Golan Heights. Although to the north of the immediate periphery of the Central Jordan Valley, the Golan Heights are comprised almost entirely of volcanic formations, in the portions of the Golan Heights that border the Central Jordan Valley there are additional formations. Along the lower slopes of the heights there are Eocene and Neogene sedimentary formations as well.

South of the Golan Heights, the region to the south of the Yarmuk (the Gilead Mountains) is comprised of formations that are very similar to those encountered in the Gilboa Mountains, namely Eocene, Senonian and Cenomanian sedimentary formations. Noteworthy is the outcropping of volcanic

⁵ For a survey of modern Jewish-Arab border relations in the Jordan Valley, see, e.g., HAVERLOCK 2010.

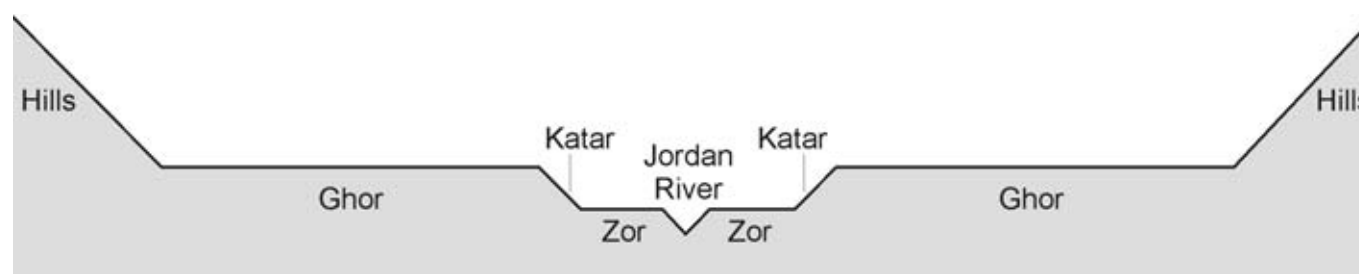


Fig. 4 Schematic section of the Central/Lower Jordan Valley

rock in the north-western side of the Gilead region, a continuation of the volcanic formations seen in the adjacent regions.

A clear-cut topographical border between the Central Jordan Valley and the surrounding regions mentioned above, are the fault lines that run along the entire length of the Central Jordan Valley, from north to south, on both sides of the valley. Only on the border between the Harod Valley and the Issachar Hills is there a gradual topographical transition between the regions (despite the geological and pedological change).

Along the entire length of the Jordan Valley one can note two primary morphological units: the wide, and essentially flat, valley bottom, extending to the east and west towards the hilly regions, which is known as the *Ghor*. It should be noted that in the traditional Arabic terminology (BUHL 1977), the *Ghor* includes the entire valley, save for the actual area in which the Jordan flows; thus in some sources (see above) the Harod Valley is considered part of the *Ghor* as well. In this study, the term is applied only to the portion of the valley along the Jordan River itself, between the lower terrace and the hilly regions surrounding it (see SCHATTNER 1961). The width of the *Ghor* depends mainly on the position of these hills. In the immediate vicinity of the Jordan River, cutting into the *Ghor*, is the lower terrace, the *Zor* (see Fig. 4), the second morphological unit. It is on the *Ghor* that the majority of the sites are situated since the lower terrace is regularly flooded (NIR & BEN-ARIEH 1964 report relics of an intermediate terrace between the *Ghor* and the *Zor*).

At certain points, the Central Jordan Valley extends beyond these two elements. In the Beth Shean Valley, there is an additional terrace. This terrace is very prominent on the western side of the Beth Shean Valley, but is seen as well on the eastern side, in the region of Pella. The terrace is formed from Tufa depositions from the highly salinated springs in the region. On the western side of the Central Jordan Valley, the border between this upper ter-

race and the middle (*Ghor*) terrace forms a topographically distinct terrace. It can be seen today for example on the eastern limits of the city of Beth Shean.

To the west of the Beth Shean Valley one enters the Harod Valley. The Harod Valley serves as a channel for the waters running to the east of the central Cisjordanian watershed. The Harod Valley is comprised almost completely of Quarternary/Recent alluvial and colluvial depositions which emanate from the surrounding hills. For the most part these are "Mediterranean" in nature.

One of the most prevalent elements in the Central Jordan Valley is the Lissan Marls, which are lacustrine depositions of the extinct Lissan Lake (NEEV & EMERY 1967; BEGIN *et al.* 1974; GOLDBERG 1995: 42-45). This formation is seen along the entire length of the Jordan Valley, and forms a major part of the *Ghor*. It is these depositions into which the lower terrace (the *Zor*) cuts, in many cases exposing earlier elements (mainly Pleistocene gravel layers). In the Kinnarot Valley, the Lissan deposits form the major part of the Jordan-Yarmuk triangle. As one moves southwards, the Lissan is limited between the Jordan and the *Zor* in the center, and the hills to the east and west on the periphery.

Above the Lissan Marl deposits one primarily finds more recent alluvial/colluvial depositions, save for a limited appearance of other geological elements (such as small volcanic outcrops, the sedimentary rocks of the surrounding hills, etc.). On the whole though, the recent elements are dominant.

An interesting formation mentioned above is the lime Tufa ("travertine") which forms the upper terrace in the Beth Shean Valley. The water sources on the upper Beth Shean Valley terrace contain a high percentage of lime. This is slowly deposited in the area to the west of these springs, forming a thick layer of Tufa, which in many cases overlays the Lissan marl layers. Although known mainly from the western side of the Beth Shean Valley, similar formations have been reported on the eastern side as well, in the vicin-

ity of Pella (NIR 1989a: 51; MACUMBER 1992). The Tufa deposits were sometimes utilized as building material in the earlier periods. This is seen quite often in the MB, LB, and Iron Age strata at Beth Shean.

Various pluvial deposits are found in the Central Jordan Valley, deposited from the various riverine processes (recent or ancient) in the region. At the exits of the various wadis into the Central Jordan Valley, there are alluvial fans of lower Pleistocene and later date.

Much rarer are various outcrops of other geological forms, mainly appearing on the periphery of the region (related to the formations of the surrounding areas described above).

In several instances there are outcrops of basalt, of various ages. Examples of this are: in the vicinity of Tel Ubeidiyeh, at the western edge of the Golan Heights, in the region of the Naharayim Dam, along the western and southern limits of the Issachar Hills, in the vicinity of Kibbutz Gesher, near Tel Kitan, and at the north-eastern side of the Gilboa Mountains, near the site of Tel Magda.

Likewise, areas with sedimentary formation (limestone and dolomite) are seen. This is noticeable along the periphery of the Central Jordan Valley, wherever it is bordered by appearances of these same formations (i.e. along the Gilead Mountains, near the Gilboa Mountains, etc.). One of these formations that is of particular importance are the chalk/gypsum deposits (part of the Pliocene age, Bira formation) found in the vicinity of Gesher (Malhamiyeh [=Manahamiya]) (SCHULMAN 1962: 30–53). These deposits were utilized in the MB and LB (and possibly later) as a source for gypsum used in the production of the local stone vessels, imitations of the contemporary Egyptian forms (BEN-DOR 1945; SPARKS 1996; BEVAN 2007: 108–110). These deposits have continued to be utilized in modern times for gypsum products, used, for example, in the construction industry (BEN-ARIEH 1965: 159; NIR 1989a: 162).

In the Central Jordan Valley, there are two predominant types of soils, residual valley soils, and alluvial/colluvial soils which originate in the peripheral hilly regions.

The most common type of residual soil in the region is Rendzina soils. These soils are formed on the Lissan marls or, where it appears, on the lime Tufa. They comprise over 65% of the soils of the Beth Shean Valley (NIR 1989a: 68) and appear along the entire length of the Central Jordan Valley, save for the Harod Valley. These soils, especially those related to the Lissan formation, are usually highly salinated. This is due to the salinity of the original Lissan Lake,

coupled with insufficient precipitation and high evaporation in the region which does not enable soil leaching (VAN ZEIST 1985: 200). These soils are not highly fertile and in many cases offer only marginal options for cultivation unless otherwise augmented.

In addition to the Rendzina soils, there are several additional types of residual soils that are found in the region, though these other types are not as common.

Terra Rosa soils are found mainly on the peripheries of the Central Jordan Valley where there are outcrops of Limestone/Dolomite. Brownish-red basaltic soils are found as well in the region in the various (though limited) exposures of volcanic rock. These soils, though, represent only a small portion of the soils in the region.

The second type of soils is the alluvial/colluvial soils. These soils are brought to the region from the surrounding hilly regions, whether from the immediate surroundings or from farther a field. Several areas of alluvium originating from volcanic rocks are seen, such as in the region of Neve-Ur.

The more common of these soils are the alluvial/colluvial products of Terra Rosa and Rendzina which are found in the alluvial fans of the valleys along the Central Jordan Valley. Some of these soils are brought from the sedimentary rocks on the periphery of the Central Jordan Valley, while others are brought from sources further away in the hilly regions. These soils are usually highly fertile. The clear-cut difference between the soils of the Harod Valley and the soils of the Beth Shean Valley immediately to the east was mentioned above. The soils of the Harod Valley are Mediterranean brown alluvial soils in the center of the valley, and colluvial soils (washed down from the hills to the north and south) on its sides. As noted above, on the other hand, the Rendzina soils are common in the Beth Shean Valley.

Finally, an additional group of soils, seen mainly in the Beth Shean Valley and the Harod Valley, are hydromorphic soils, remnants of swamps that existed in the region until the recent past.

An interesting phenomenon that was noticed at several sites is a thick alluvial deposition covering these sites. This has been noted by GAL (1991b) regarding a site near T. Menorah [Tirat Zvi (olive grove)], and by COVELLO-PARAN (2001) at the recently excavated cemetery adjacent to T. Yosef Hayeshana. At both sites a 1–3 m. thick layer of alluvial soil covered the remains. A similar phenomenon has been noted in other parts of the Jordan Valley (although regarding later sites), by KARMON (1956: 56) in the

Huleh Valley, and by VITA-FINZI (1964: 28; 1966; 1969: 83–88) in the Lower Jordan Valley.

One possible explanation of this phenomenon is that it is due to an overall change in the alluvial conditions in the Jordan rift valley, apparently in post-Roman times (VITA-FINZI & DIMBLEBY 1971). This would be concurrent with a general rise in the quantity of alluvial sedimentation in the post-Byzantine period, noticed in numerous parts of Israel (see, e.g., MILLER-ROSEN 1986: 69–74). This though would not explain the fill layers covering the site near T. Menorah, since the fill covering the MB site is overlaid by a late Iron Age I site (GAL 1979; 1991b). If one assumes that the heavy sedimentation is due to a rise in the precipitation in the period between the MB and the Iron Age I period, this would contradict the various paleo-climate studies of this region (BARUCH 1986; 1990; NEEV & EMERY 1967; MILLER-ROSEN 1986: 57–74; ISSAR *et al.* 1992; SCHILMAN *et al.* 2002; BAR-MATTHEWS *et al.* 2003; WILKINSON 2003: 147–150; ISSAR & ZOHAR 2004; NEUMANN *et al.* 2007; ROSEN 2007).

Two additional possible explanations to this phenomenon can be suggested, though they have yet to be tested by a pedologist in the field.

1) During the LB, the irrigation/drainage system that may have existed in the region during the MB was not fully maintained, which caused the settling of sediments in this region (on the existence of irrigation in this region in the second millennium B.C.E., see discussion below). To this one can add the ongoing depletion of the forest covering (as indicated, for example, by BARUCH 1990) and improper agricultural land-use (or cessation of use) in the surrounding hilly regions. All this together may have caused increased erosion and fill producing processes (see in general, VITA FINZI 1969: 103–111; WILKINSON 2003: 145–150). Only during the subsequent Iron Age, when the Central Jordan Valley was once again intensively resettled and the proper irrigation of this region was resumed, were the alluvial fill layers reduced (note BROSHI & FINKELSTEIN's [1992] conclusions regarding the enormous rise in settlement and population during the Iron age). In addition, once the mountainous regions were reutilized for settlement and agriculture during the Iron Age (e.g., GAL 1992; BRAEMER 1992) the runoff and the sedimentation in the valleys below diminished. This can be compared to the phenomenon that occurred in this region in the post-Byzantine periods. Due to the lack of maintenance/destruction of the drainage/irrigation system in the Beth Shean Valley soil degradation in the higher areas and extensive swamp lands in lower areas developed, which disappeared only in the

early 20th century C.E. (NIR 1989a: 59; see also, e.g., REIFENBERG 1950; WILKINSON 2003: 97; cf. BEAUMONT 1985).

2) An additional explanation for this heavy sedimentation could be that it is due to deforestation that occurred in the surrounding highlands during the MB, which is supported by BARUCH's observations (1986; 1990: 284). In light of intense settlement in the region during the MB (see discussion below) extensive deforestation, due to a rise in wood consumption would have occurred, which would then bring-on problems of soil erosion (for a similar situation in MB Syria, see VAN ZEIST & WOLDRING 1980; MILLER-ROSEN 1986: 37; WILKINSON 2003: 146; VALSECHI 2007).

Regarding the covering over of archaeological remains, one can note as well that Roman-Byzantine sherds were found under the eastern edge of the lime Tufa terrace (NIR 1989a: 51). This perhaps hints that other sites in this region were also covered over by later soil deposits (as noted already by ZORI 1957a).

Needless to say, this has serious implications for the detection and reconstruction of ancient sites and settlement pattern, and must be taken in mind regarding an evaluation of the completeness of the data in any regional surface survey (see recent comments in GAL 1991b; JOFFE 1993). Similar problems regarding the results of surface surveys have been reported for example by BUTZER (1982: 261–262; in general, see as well, e.g., FALCONER 1987a: 96–98; WATERS & KUEHN 1996).

The Lower Jordan Valley

To the south of the Beth Shean Valley begins the Lower Jordan Valley. To the south of the Wadi Malih on the west and the and Wadi Kurn on the east, the slopes of the northeastern Samaria Mountains and the Gilead Mountains reach almost to the Jordan River itself. From this point onwards, the Jordan Valley undergoes a major transformation from a geographical and environmental perspective. For almost the entire remainder of the Jordan River until the Dead Sea, the river meanders southwards within the Lissan Marl (which itself progressively thickens and widens towards the south) in increasingly more saline soils. From the Beth Shean Valley until the Dead Sea, the Jordan Valley topographically drops quite substantially from north to south, from a height of 270 mbsl (meters below sea level) at the southern end of the Beth Shean Valley, to 390 mbsl at the northern shores of the Dead Sea.

The valley widens at three points. First, 19 km to the south of the Beth Shean Valley, the valley widens

to form the Ghor Abu 'Ubeidah/Succoth Valley (at times referred to as the "Zerqa triangle" – see, e.g., KAPTIJN 2009), at the point where the Wadi *ez-Zarqa* (Yabboq) enters from the east and Wadi Farah (Tirzah) enters from the west.⁶ Further south, past Mt. Sartaba (to the west of the valley), the valley once again widens at the Faza'el Valley, and finally, in the vicinity of Jericho, attains a width of ca. 32 km. These places in which the valley widens are located in direct relationship to the rivers that have the strongest discharge from the surrounding hilly regions.

In the Lower Jordan Valley, the differentiation between the flat upper terrace (*Ghor*, or *Sahel* in Arabic, *Kikar Hayarden* in biblical Hebrew), seen already in the Central Jordan Valley, and the lower terrace, the *Zor* (*Geon Hayarden* in biblical Hebrew) is more defined. The *Ghor*, which is the remains of the Lissan Lake seabed, remains relatively flat and featureless, relatively undissected by the rivers from the surrounding mountains. For example, in the Central Jordan Valley, this is the region in which there existed the pedological and hydrological conditions that enabled intensive agriculture in many periods (see for example already during the early Chalcolithic period, GARFINKEL, BEN-SHLOMO & KUPERMAN 2009).

As one nears the actual course of the Jordan River, on both sides of the river, the *Ghor* turns into a desiccated "badlands". Deep gullies are formed in the Lisan marls, on the deep slopes leading towards the actual river bed. This zone, which is the transition between the *Ghor* and the *Zor*, is known as the "*Katar*". The *Katar*, which is exposed to a thickness of ca. 50–70 m, reaches a width of between a couple of hundred m and up to ca. 2 km (Fig. 4).

The *Zor*, the actual narrow alluvial valley of the Jordan River, is located at times several tens of meters below the *Ghor*. The *Zor* is usually approximately 25–30 m wide, save for overflowing during specific, though rather regular winter events. On both banks of the river there are interspaced sections of dense hydrophilic forests. The river course itself meanders intricately throughout its course (for example, the actual length of the river almost doubles the actual distance between the Sea of Galilee and the Dead Sea).

South of the Beth Shean Valley, the course of the Jordan River can be divided into three distinct parts:

To the north of Wadi Rujeib, the Jordan River is relatively straight lacking meanders. The western hilly region reaches almost directly to the *Zor* and the western *Ghor* is very limited in width.

From Wadi Rujeib to Wadi Nimrin the course of the river is full of meanders. In this region the width of the *Ghor* ranges from ca. 600 m near Wadi Malha to ca. 2 km opposite Wadi *ez-Zarqa*.

From Wadi Nimrin till the Dead Sea, the gradient of the river becomes more substantial, and as a consequence, the flow of the river itself. Due to this, once again, there are fewer meanders.

Throughout most of the Lower Jordan Valley the soils are highly saline Lissan Marls, although in the areas in which the Lower Jordan Valley widens, there are sections with alluvial/colluvial soils derived from the sedimentary rocks and soils in the mountains to the west and east of the valley, that were deposited by the numerous river beds that run into the valley.

The Lower Jordan Valley is quite different from the Beth Shean Valley from a climate point of view as well. If in the Beth Shean Valley there is a fluctuation between a semi-arid to arid zone (depending on the precipitation), the Lower Jordan Valley is a permanently arid zone, save for limited areas on the eastern side (the Succoth Valley), which are in the "shadow" of the Gilead mountains and have a slightly higher average annual precipitation.

Nevertheless, despite the less advantageous environmental conditions, several locations in the Lower Jordan Valley were favorable to human settlement in various periods. In most cases, this is in regions where either there is ample water provided from the rivers that outflow from the surrounding mountains (such as the Succoth Valley and the Faza'el region), or, in a related manner, where abundant springs were located (such as at Jericho).

On the western side of the Lower Jordan Valley the settlement is much less intense, limited to distinct pockets in the vicinity of perennial springs (such as Ain el-Sultan, Jericho),⁷ while in the east, in the shadow of the Transjordanian mountains (and subsequently, more precipitation), there is a more or less continuous zone of settlement. Nevertheless, as one goes farther to the south the region becomes more and more arid and the extent of human settlement in most periods is limited.

⁶ For a recent geographical overview of the western slopes of the "Manasseh Hills", see ZERTAL 2007: 47–50. For a review of the "Zerqa triangle" region (the Succoth Valley), see now KAPTIJN 2009: 13–18.

⁷ See now ISSAR 2008 on the role of the spring at Jericho as an enabler of the continued settlement at this site throughout the ages.

ENVIRONMENTAL BACKGROUND

Traversing the entire length of the Jordan Valley, one in fact passes through almost the entire gamut of environmental surroundings seen in the Southern Levant, save for extreme desert conditions. This wide range of environmental conditions offers a multifaceted backdrop for the development of various types of settlement systems and subsistence regimes. This is true during the various periods in which there is evidence for human settlement in the region and is clearly seen during the MB. Thus, throughout the Jordan Valley there is evidence of just about every type of settlement pattern and subsistence regime that is known in the Southern Levant during this period, from the “Mega-City” (e.g. Hazor) to scanty evidence of nomadic and semi-nomadic groups (e.g., as evidenced in various burials, such as on the Korazim plateau).

Likewise, the corridor-like nature of the Jordan Valley, both from a bio-environmental and human perspective, can be seen in all periods. In general, the Levant can be seen as a striking biological crossroads as it is located on the crossroads between Africa and Eurasia. As such, due to its unique structure, the Jordan Valley has served as a main artery for these intense long-range planes of biological and environmental interaction (see, e.g., TCHERNOV & YOM-TOV 1988).

In light of the above, to appreciate this variety, a brief survey of the climate, hydrology and bio-ecology of the Jordan Valley is presented here.

Climate and Precipitation (Figs. 5–6)

The Jordan Valley has been the focus of a wide variety of Paleo-climatic studies which enable the clear reconstruction of the climate history of this region over the last several millennia. As such, studies relevant for reconstruction of the climate of the Jordan Valley in early times have been conducted throughout the region. This includes studies in the Huleh Valley and the Sea of Galilee (BARUCH 1986; 1990; VAN ZEIST, BARUCH & BOTTEMA 2009), several sites in the Central and Southern Jordan Valley (e.g., HOPF 1983; KRONFELD *et al.* 1988; WILLCOX 1992), and in the Dead Sea and its environs (NEEV & EMORY 1967; 1995; BEGIN *et al.* 1974; ABED 1985; BARUCH 1990; NISSENBAUM 1994; NEUMANN *et al.* 2010). If these studies are correlated with studies from relatively adjacent zones (e.g., SCHILMAN *et al.* 2002; BAR-MATTHEWS *et al.* 2003; ISSAR & ZOHAR 2004; FAUST & ASHKENAZY 2007; NEUMANN *et al.* 2007; RIEHL *et al.* 2008; RIEHL 2009; HAJAR, KHATER & CHEDDADI 2008; KANIEWSKI *et al.* 2008; DECKERS *et al.* 2009; HAJAR *et al.* 2010) one can reconstruct a relatively robust picture of the climate in the Jordan Valley during the various

early periods, including the Middle Bronze Age (VAN ZEIST 1985). All told, it appears that although there are substantial fluctuations between periods they are not overly extreme. There is some disagreement over the details of the climate during the MB. SCHILMAN *et al.* (2002) believe that the early second millennium B.C.E. can be defined as a relatively arid period (SCHILMAN *et al.* 2002; see as well VALSECCHI 2007 for a similar assessment) followed by a more humid period more or less parallel to the Late Bronze Age. On the other hand, MIGOWSKI *et al.* (2006) believe that although there was a severe dry period at the end of the third millennium B.C.E., during the first half of the second millennium (parallel to the MB) there is a higher level of precipitation which continued until ca. 3500 B.P. – more or less the beginning of the Late Bronze Age. Despite these differences in interpretation, it does appear that the overall differences between the conditions during the MB were not extremely different from that of today. In any case, as will be seen below, there is quite impressive evidence of extensive and intensive agricultural activities during this period. As will be discussed below, I believe that the extensive settlement activity seen in this region during the MB is due to more complex reasons than the possible fluctuations of the overall climatic conditions.

Precipitation in the region is quite varied, ranging from ca. 800 mm in the northern parts of the Jordan Valley to substantially less than 200 mm (arid conditions) in the southern parts. As in modern times, it can be assumed that the border between the arid and humid zones fluctuated substantially, with the 200 mm isohyet at times moving north or south significantly, in various years. In modern times, the border between the arid and humid zones was always situated somewhere in the Central Jordan Valley between the Kinnarot Valley in the north and the Beth-Shean Valley in the south. It can be safely said that in the regions to the south of the Beth-Shean Valley there were at all times arid conditions, and settlement and agriculture in the Southern Jordan Valley were totally dependent on the existence of water sources that enabled irrigation (such as at Jericho). If one looks at the distribution of the MB settlements in Fig. 5, one can see quite clearly a very nice match between the large amount of settlements within the 200 mm isohyet (north of Wadi ez-Zarqa), as opposed to the drastic drop in the number of settlements to the south, in the region of ca. 100–200 mm of rain.

Hydrology

Although the Jordan River, which is the perennial river system with the highest water output in the

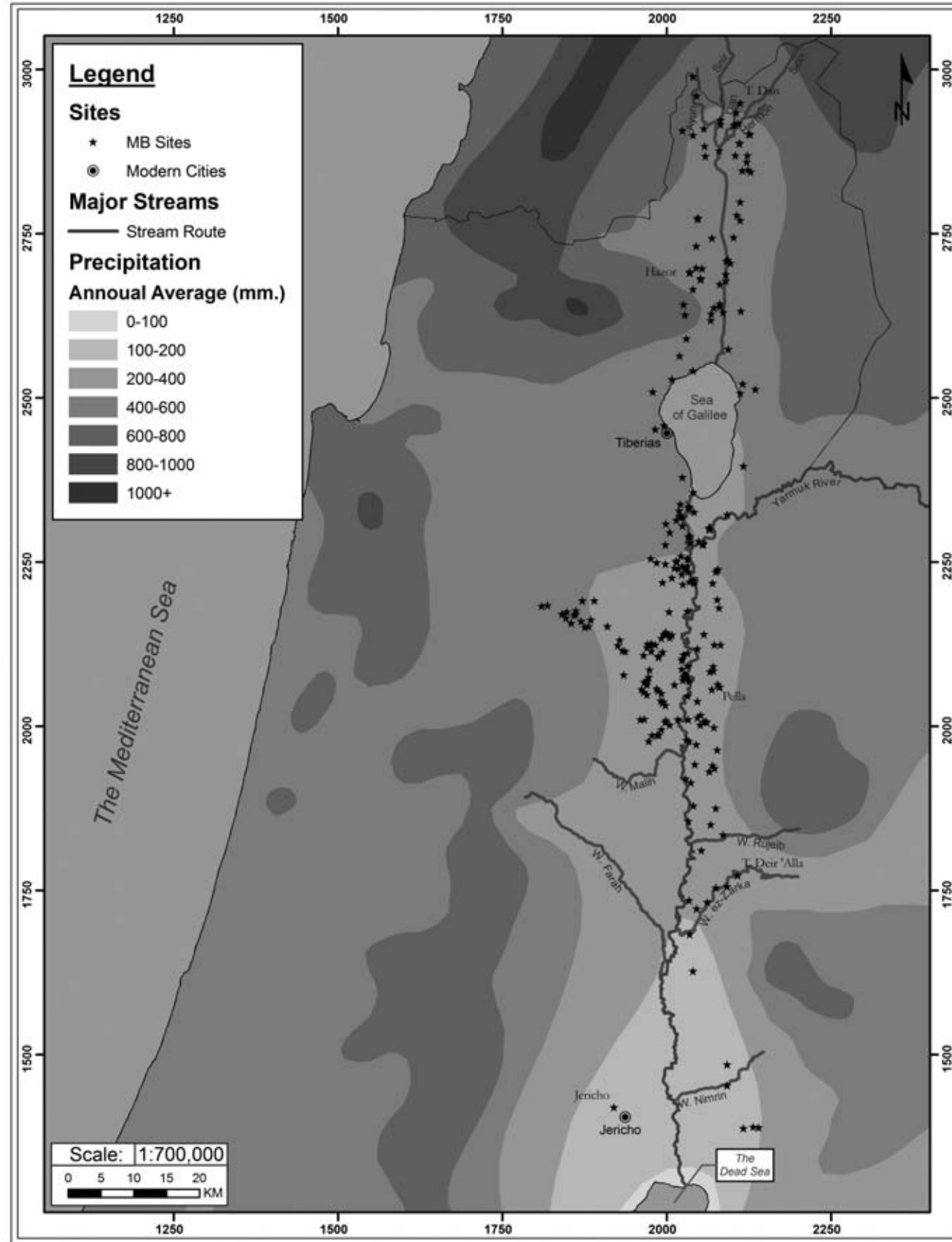


Fig. 5 Precipitation map of the Jordan Valley with MB sites

entire Southern Levant, runs throughout the Jordan Valley, one cannot relate to the Jordan Valley as a region with abundant water sources and agricultural potential. This is due to several reasons:

1) To start with, throughout large portions of the Jordan Valley, the Jordan River itself flows in a topographical depression, which makes it somewhat difficult to utilize the waters for irrigation without the use of modern pumping methods. This is particularly so in the regions to the south of the Huleh Valley.

2) The Huleh Valley has extensive areas that are covered by swamps, a situation that existed in ancient times as well. Due to this, large portions of the Huleh Valley could not be utilized for agriculture, and at the same time, made the use of the water from the Jordan River in this area difficult.

3) As mentioned above, most of the Jordan Valley is in fact in a semi-arid to arid zone, in addition, the border between the temperate and arid zones fluctuated in an abrupt manner over the years, thus, there was little long-term security for rain fed agriculture in most of the Jordan Valley.

4) Although throughout the Jordan Valley there are rivers that bring in water from the hilly regions to the west and the east of the valley, most of these rivers are not perennial, and even those that are, are either situated in deep topographic depressions, or produce water quantities that are sufficient for a limited area. One of the few regions in the Jordan Valley which benefited extensively from such a river is the delta of Wadi Farah, west of the Jordan, and the Succoth Valley, to the east of the Jordan.

5) Throughout the Jordan Valley there are only a limited amount of perennial springs. In the more arid zones (south of the Beth Shean valley), in particular along the western side of the valley, these springs enabled the existence of permanent settlements throughout the ages. Needless to say, the settlement of Jericho is an excellent example of this – where in fact, Jericho is a oasis in the desert, largely dependent on the waters of the Ain el-Sultan spring, and to a lesser extent on the waters of the wadis supplying water from the west.

6) The Beth-Shean Valley is the only region of the Jordan Valley that is truly rich in water sources. A wide range of water springs dot this region. The problem with many of these springs is that they have

a high level of salinity making many of them unusable or only partially usable for irrigation agriculture. Although in modern times this was solved by creating a sophisticated system of water-mixing (see, e.g., NIR 1968; 1989a; for salinity problems in general, see FARBER *et al.* 2007) such a system did not exist in ancient times.⁸

7) Nevertheless, despite the drawbacks of the many springs in the Beth-Shean Valley, they did enable relatively intensive settlement and agriculture, regardless of the fact that large parts of the Beth-Shean Valley are situated within an arid zone (particularly during dry years). There is high probability that the intensive utilization of these water sources for irrigation was one of the primary reasons for the intensive and extensive settlement in the Beth-Shean Valley during the MB. Once again, there were advantages and disadvantages to this situation. The many water springs, and related irrigation channels, required constant upkeep otherwise swampy conditions would develop. Just such a situation occurred during the Muslim conquest of the Beth Shean Valley when the Byzantine armies tried to stop the Muslim advance by blocking the irrigation channels in the valley and creating a muddy, swampy obstacle. Despite this, the Muslim armies won the day (known as *Yum el-Rhadrah* – “the Day of the Mud” in Arabic). As will be mentioned below, one of the reasons, and/or outcomes of the collapse of the MB settlement in the Beth Shean Valley during the late MB may be the formation of swampy conditions due to lack of care of the irrigation systems.

8) Finally, the existence of what may be the only long-distance water channel in the entire Land of Israel during this period. STEPANSKY (2006; 2008b) reports a rock-hewn water channel to the west of Hazor, which he suggests interpreting as a water channel that was used to bring water to MB Hazor. If so, this is the earliest known long-distance water channel in the region.

All told, it would appear that the hydrological picture portrayed above fits in very well with the pattern of settlement seen during the MB in the Jordan Valley (e.g., Fig. 5). One can see that the most intense region of settlement in the Jordan Valley is in the area between the Sea of Galilee and the Succoth Valley with a slightly lesser intense settlement in the

⁸ For a general overview of the hydrology of the Jordan Valley, see now HÖTZL, MÖLLER & ROSENTHAL 2009. For a review of the utilization of the Jordanian portion of the

Jordan River in recent times, see now VAN AKEN, MOLLE & VENOT 2009.

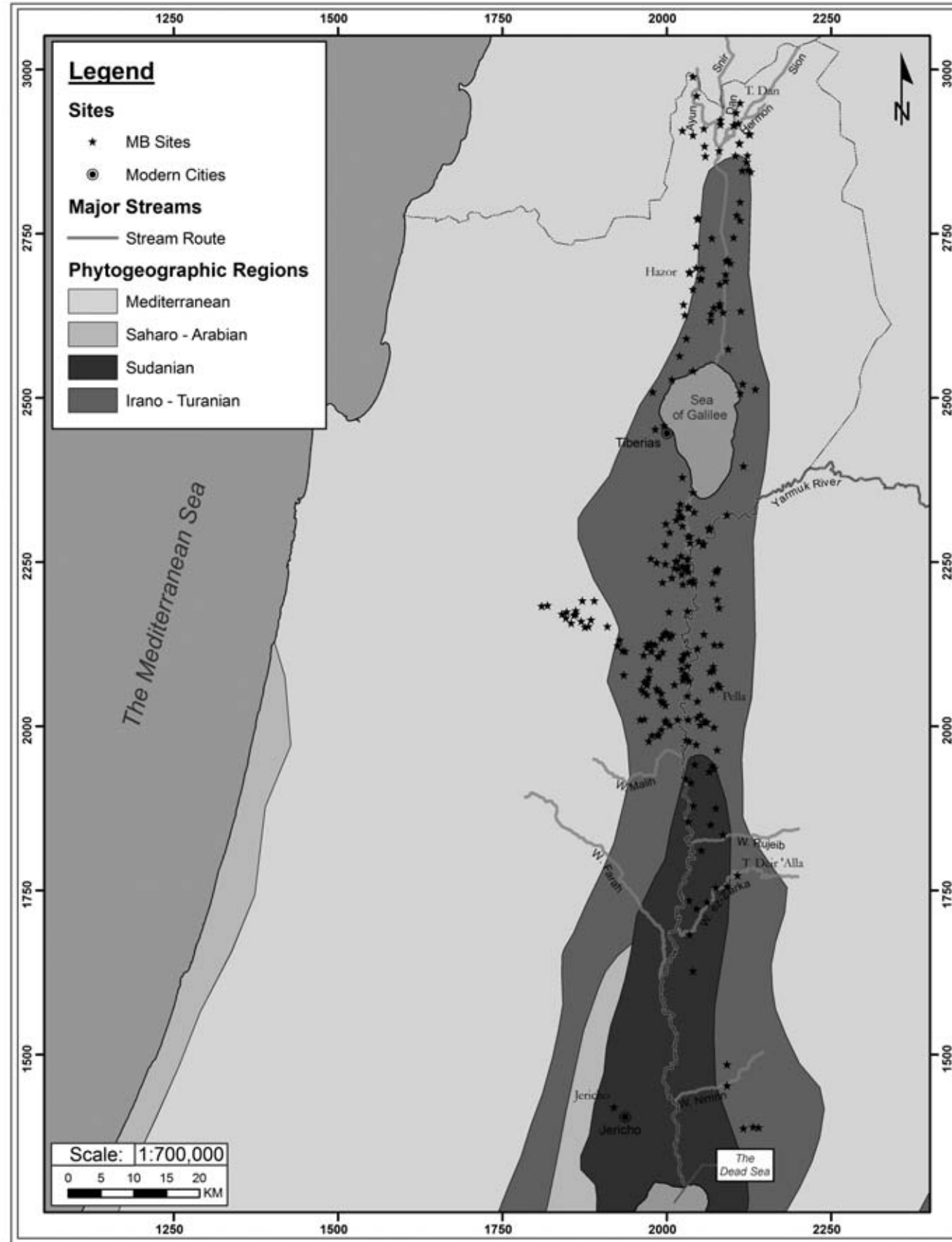


Fig. 6 Map of the Phylogeographic zones in the Jordan Valley with MB sites

Huleh Valley. In the Southern Jordan Valley, there are fewer sites, and these are situated in the immediate vicinity of local water sources.

Phyto-Geography and Zoogeography (Fig. 6)

The present-day Jordan Valley encompasses a wide range of phytogeographic zones and has been discussed extensively in the literature (see, e.g., ZOHARY 1973; DANIN 1988; 1995, and there further literature). Although the exact division into phytogeographic zones of the Jordan Valley is not agreed upon by all, in general, one can see that if one moves from the northern part of the Jordan Valley to the south, a clear pattern emerges. In the northern parts of the Huleh Valley one sees a temperate Mediterranean zone. From the middle part of the Huleh Valley and until the southern part of the Beth Shean Valley (near Wadi Malih), most of the Jordan Valley is defined as Irano-Turanian (save for the Harod Valley which is Mediterranean), while south of Wadi Malih, most of the Jordan Valley is defined as a Sudanian zone, save for the eastern boundaries of the Jordan Valley between Wadi Rujeib and Wadi Nimrin. The consistent “aridization”, as one moves south, which is the predominant pattern seen today, seems to have existed during the second millennium B.C.E. as well (see above), and serves as a backdrop for the less intensive settlement pattern seen as one proceeds southwards within the Jordan Valley. Although here and there in the southern regions one can find pockets of more temperate-oriented plant associations, this is usually in relationship to specific sites where water is abundant locally (e.g., the river deltas of Wadi Yabis, Wadi Rujeib, Wadi ez-Zarqa [the Succoth Valley], Wadi Nimrin, and the perennial springs at Jericho and Tell Hamman), or pockets of vegetation “relics” from much earlier environments.

The archaeobotanical evidence from the Jordan Valley indicates that from the third millennium B.C.E. and onwards there is extensive utilization of a wide range of agricultural products. In fact, it appears that most of the typical Mediterranean field crops and fruits (wheat, barley, olive, fig, vine, etc.) were intensively cultivated in the region (see, e.g., FALL *et al.* 1998; 2002). Evidence of both rain fed and irrigation agriculture are found, indicating the agricultural diversity that existed in the region, enabling the development of a multi-tiered settlement structure and a broad economic base. Of particular interest is the fact that the archaeobotanical evidence from sites in the Jordan Valley seems to indicate that during the MB there was a clear rise in the popularity of wheat and a decline in that of barley, compared with the preceding periods. FALCONER & FALL (2006: 126–127)

suggest that since wheat required more water than barley, this is indicative of a rise in precipitation between the EB IV and MB periods.

The “corridor-like” nature of the Jordan Valley is seen in the zoological remains as well, with a wide variety of northern and southern, temperate and arid zone species in the region (TCHERNOV & YOM-TOV 1988). Archaeozoological data indicate that already during the Early Bronze Age, sites in the Jordan Valley were well-integrated into the agrarian economy typical of the Southern Levant, with a mixture of Mediterranean and arid zone domesticated animals, along with the utilization of relevant wild species (see, e.g., FALCONER & FALL 2006: 114–116). Although, for the most part, the species found in MB sites are not unexpected in comparison to other sites in the Levant, both in the MB and other periods, the growing popularity of pig consumption in MB Tell el-Hayyat is of interest (FALCONER & FALL 2006: 114–116). Although this could be explained as being the result of solely economic factors, the fact that pigs require much wetter surroundings than sheep/goats and cattle is another indication of the rise in the availability of water sources during the MB, particularly in comparison to the earlier EB IV.

Transportation (Fig. 7)

The Jordan Valley, by its very nature, has served as an important route in all periods. On the one hand, it is a natural north-south route, part of the much longer Syrian-African rift, and affords relatively easy accessibility between various portions of the Southern Levant. Due though to the fact that the southern portions of the valley, from the Dead Sea until the Southern Beth Shean Valley are in largely arid zones and that the western side of the valley is not always easy to cross, the entire Jordan Valley rarely served as the primary transportation route in the Levant. Rather, other routes, to the east, or west, were of more central importance (see, e.g., DORSEY 1991). Only the northern portion of the Jordan Valley, from the Sea of Galilee and northwards, served regularly as part of a north-south international route, connecting between the coastal route along the Israeli littoral (the so-called “Via Maris”) and the inland north-south route running in the Lebanese Baq’a and Syrian Orontes Valleys.

On the other hand, the Jordan Valley is criss-crossed by numerous east-west routes, most of them of regional status, which connect between the regions to the east and to the west of the Jordan Valley. These are seen from the Huleh Valley in the north, down to the route that crosses the Jordan River to the east of Jericho in the south. As mentioned, while some of

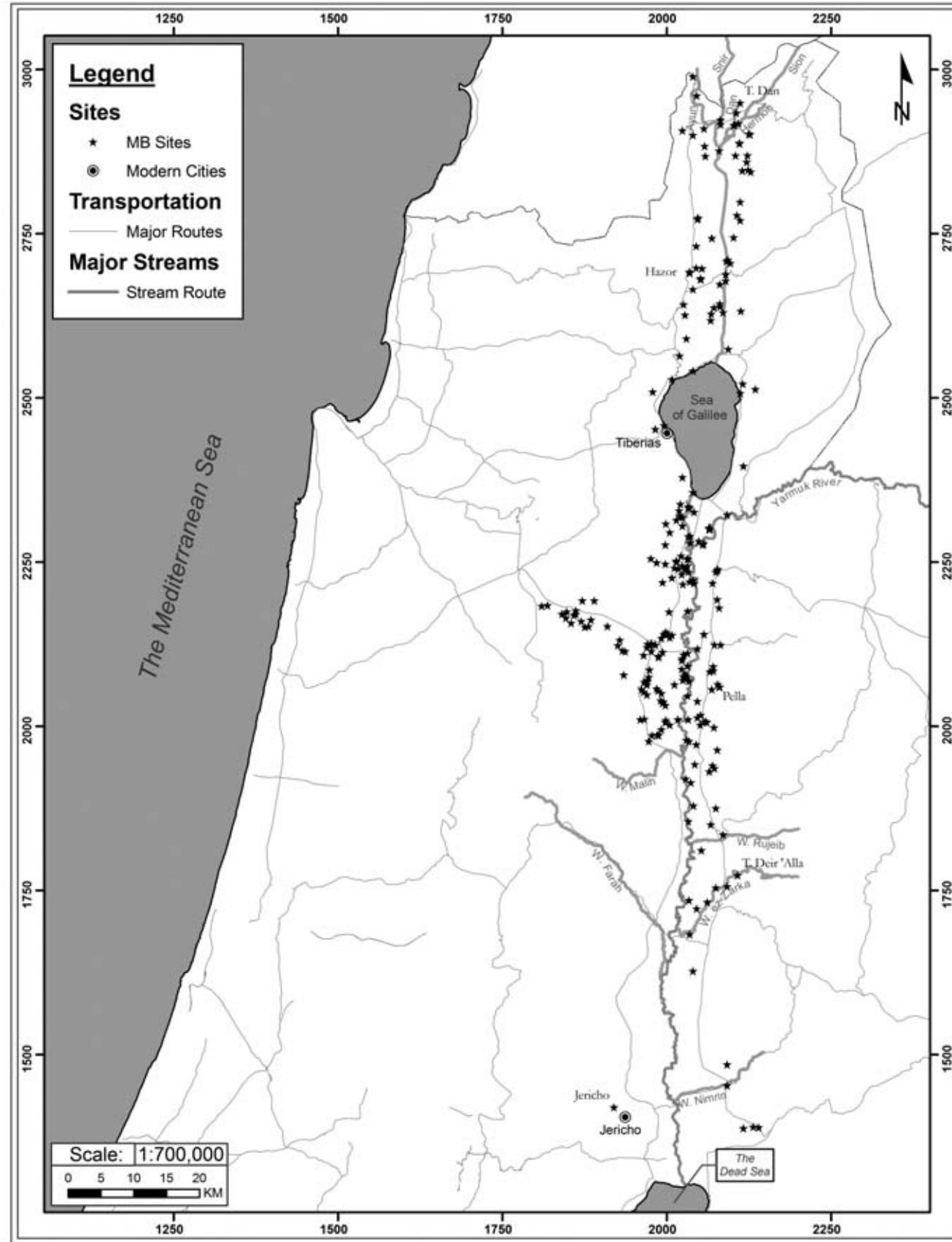


Fig. 7 Map of main transportation routes in the Jordan Valley with MB sites

these routes are of local importance, some are of inter-regional importance as well (ROLL 2009). The latter include: the route going eastward from the northern Huleh Valley over the northern part of the Golan heights and towards the Damascene Basin (ROLL 2009); the traditional *Darb el-Hawarneh* – a route connecting the northern Transjordan to the Acco Plain, traversing the Jordan Valley at the southern tip of the Sea of Galilee (ODED 1971; KOCHAVI 1998; ROLL 2009); the eastward continuation of the Jezreel Valley, through the Harod Valley, into the Beth-Shean Valley and from there crossing the Jordan to the central Transjordanian highlands (in the region of Irbid); the route which connects between Nablus/Shechem, through Wadi Farah, eastwards to the Valley of Succoth, and up into the Transjordanian highlands in the region of Salt or Ajlun; and finally, the route which goes from Jerusalem, through Jericho, towards the region of modern-day Amman.

An important aspect is the fact that throughout most of the year, most of the Jordan River (save for the section to the north of the Sea of Galilee) is not a significant geographic obstacle. In fact, throughout most of the year, the water flow in the Jordan River enables the existence of numerous fords for crossing the river. This is one of the reasons that during most periods, the Jordan River did not serve as an important political boundary.

Historical Sources of the Second Millennium B.C.E.

Throughout the period that is covered in this study there are relatively few historical texts that relate directly to the Jordan Valley, whether to sites within it or to events that occurred in it. It is only with the commencement of the Egyptian New Kingdom in the mid-to-late 16th century B.C.E., and the intense Egyptian interest in Canaan in general, do the amount of texts that relate to the Jordan Valley substantially expand. Since the New Kingdom texts are by and large not within the topics discussed in this volume, they will only be mentioned where directly related to the topics under discussion.

The following texts dating to the Middle Bronze Age either mention site and/or events in the Jordan Valley, or, in a few, very rare cases, were found in the Jordan Valley.

The Egyptian Execration Texts: The Egyptian execration texts of the Middle Kingdom, which mention sites in the Southern Levant, have been extensively discussed in the literature (for recent discussions, and further references, see e.g., REDFORD 1992: 87–93; 2006; COHEN 2002: 47–49; RAINEY 2006a: 52–58; 2006b: 289–292). In both the earlier and later

groups, several toponyms have been identified as sites in the Jordan Valley. AHARONI (1979: 144–146) for example, notes Beth Shean and Rehov in the earlier group, and Laish, Abel, Hazor, Beth Shean, Rehov and Pella in the later group. If this is in fact the case, it would seem then that the region was well-known in the Egyptian world in the early second millennium B.C.E. The dating of these texts, and these site identifications, require though clarification.

In the present study an MB II dating of both groups is accepted. Following THOMPSON'S (1974) summary of the palaeographic and orthographic analyses (and see SASS 1989: 45; S.J. WIMMER, pers. comm.) both groups can be dated to the Egyptian Middle Kingdom (see as well NA'AMAN 1982: 146–147). The early group can be placed in the late Dyn. 12, while the later group slightly later in the early Dyn. 13; in other words contemporary with the late MB I through early MB II.

This point should be accentuated since in many studies the two groups are seen as reflecting the contrast between the EB IV and the MB I periods. According to this view, the early group can be dated to the EB IV, while the later group can be dated to the MB I (e.g. AHARONI 1979: 146; ALBRIGHT 1941: 18–19; BRIGHT 1980: 54–55, recently reiterated in REDFORD 1992: 93). This is hard to accept with the current state of research, as far as the dating (THOMPSON'S 1974; RAINEY 1994), the interpretation of the historical significance of the texts (RAINEY 1972; 2006b) as well as the overall archaeological substantiation (GERSTENBLITH 1983: 18–19). In other words, these texts are quite clearly contemporary to the mid-MB, and are irrelevant to the discussion of the EB IV/MB I transition. I fully concur with RAINEY (2006b; *contra* REDFORD 2006), that both the earlier and later texts portray an urban-oriented society of the late MB I and early MB II, and are not to be seen as evidence of the rural character of the previous EB IV. More so, as RAINEY (1972) has emphasized, the overall applicability of these texts as a tool for the study of the contemporary socio-economic structure is limited.

Before dealing with the details that one can learn from the execration texts as to the Jordan Valley during the MB, a brief digression on the relevance of these texts is required. Recently, A. BEN-TOR (2006b) has suggested a seemingly revolutionary understanding of the relationship between the execration texts and the archaeology and history of Palestine. In his opinion, the texts do not reflect the settlement pattern in Palestine during the MB, and in fact, he believes that they reflect the settlement pattern during the EB. He goes on to claim (following WEINSTEIN

1975) that there were very minimal connections between Egypt and Palestine during the Middle Kingdom. I believe though that this suggestion cannot be accepted for various reasons:

- 1) BEN-TOR accepts identifications of various sites mentioned in the texts that are no longer viable. For example, as discussed below, Beth Shean and Rehov are most likely *not* mentioned in the texts;
- 2) Despite what he writes, both Hazor and Pella have MB I remains (see below);
- 3) The claim that there were few connections between Egypt and Canaan during the Middle Kingdom was incorrect when WEINSTEIN suggested this over three decades ago (1975) and in light of finds and discussions in recent decades becomes completely unacceptable (see, e.g., MARCUS 1998: 72–74; 2007; ALLEN 2008; MARCUS *et al.* 2008a; 2008b). For example, the locally produced Egyptian sealings and imported Egyptian Middle Kingdom pottery from Ashkelon (STAGER 2002; BIETAK & KOPETZKY 2003; BIETAK *et al.* 2009), imported Egyptian Middle Kingdom pottery from Tel Ifshar (PORAT 1991; PALEY & PORATH 1997; MARCUS *et al.* 2008a; 2008b), as well as petrographic evidence from Middle Kingdom ‘Ezbet Rushdi in Egypt, all demonstrate the wide and varied contacts between Egypt and the Southern Levant (e.g., MARCUS 2007: 160–163), and serve as clear proof of these intense contacts. Similarly, there is explicit Egyptian textual evidence of Egyptian involvement in, and the knowledge of, the Levant during the Middle Kingdom. In addition to the agreeably somewhat problematic Khu-Sebek text that BEN-TOR (2006b: 70–72) mentions, the Mit Rahina inscription of Amenemhet II (originally partially published in FARAG 1980 and POSENER 1982; more thoroughly by ALTENMÜLLER and MOUSSA 1991; for an in-depth discussion of this inscription and its background, see now MARCUS 2007), which explicitly discusses Egyptian activity in the Levant, has been known from over two decades. To this one can add the text from Khnumhotep III’s Mastaba at Dashur (ALLEN 2008) which dates to the reign of Senusret III, in which there is specific evidence of intensive Egyptian contacts with the Levant (see as well MARCUS 2007: 173);
- 4) BEN-TOR (2006b: 65) claims that the Middle Kingdom is parallel to the MB I and the beginning of the MB II parallels the commencement of the Second Intermediate Period. Based on this, he assumes that since all the relevant execration texts date to the Middle Kingdom (late 12th and early

13th Dynasties), if in fact there is reference to sites in Palestine, one must see clear MB I finds at these sites. This is unacceptable. Without going into too many details on this issue, the evidence from Tell ed-Dab’a, which BEN-TOR often cites, unmistakably demonstrates that clearly recognizable Palestinian MB I/II and early MB II finds are found in unambiguous 13th Dynasty contexts (e.g., Tell ed-Dab’a, Strata F–E/3; see, e.g. BIETAK 2001: 41, fig. 15). Thus, there is no reason to assume, *a priori*, that the latest execration texts (the Brussels group) can only parallel the MB I – a MB I/II date is just as likely. Accordingly then, sites which only have MB I/II or early MB II (such as Jerusalem) can be relevant in relationship to the execration texts;

- 5) Due to the specific nature of the texts (magical), there is no reason why one must expect only large sites to be mentioned in these texts – small sites, perhaps evidence of rural, or even nomadic groups, are mentioned as well;
- 6) Ben-Tor’s suggestion to date these texts to the Old Kingdom/EB III raises other problems. Many of the relevant sites are not settled in the EB III, and, as BEN-TOR himself has argued (e.g. A. BEN-TOR 1982), the connections between Egypt and Palestine during the EB III were quite minimal. In addition, the very assumption to date these texts to the Old Kingdom is problematic. If these were copies of early, Old Kingdom texts, one might expect archaic orthography in the toponyms, which in fact is not seen (see for example *kbny* (=Byblos), an orthography which first appears in late Middle Kingdom texts [e.g., THOMPSON 1974: 110]). Needless to say, the lack of any, currently known, Old Kingdom sources for such list of places and names in the Levant, makes this supposition quite problematic.

From the above, as well as other issues that cannot be broached here, I believe one cannot accept BEN-TOR’s suggestion, and accept that the Middle Kingdom Execration texts do in fact relate to MB Palestine. Nevertheless, it should be stated that one should exercise caution in how one uses these sources for recreating the history and culture of Palestine during this period, and the relationship between Egypt and Palestine.

With the above in mind, we can now deal with aspects that appear in the execration texts that are directly relevant to the Jordan Valley. In the earliest group of texts, it has been usually assumed that one of three sites in the Levant that are mentioned, Rehob (‘*a-r-h-b-u*; ‘*Arhabu* [e 11–12; f 8; E 14]; which is mentioned along with its ruler, ‘Abdu-Hadda [‘*pr-u-h-t*]) should be identified as Tel Rehov in the Beth

Shean Valley (e.g., ALBRIGHT 1941: 33; AHARONI 1979: 114, map 8; RAINEY 2006a: 52). Although it was previously assumed (e.g., MAEIR 1997a) that Tel Rehov was a substantial site during the MB I, the recent excavations at the site have found virtually no finds from this period (MAZAR 2008). Even if eventually some finds dating to the MB I are revealed at Tel Rehov, it is quite hard to assume that such a minor site would have been mentioned in the early execration texts, instead of, for example, the site of Pella, which is mentioned in the later texts, and substantial archaeological evidence from the MB I has now been reported (e.g., BOURKE *et al.* 2006).⁹

It has also been suggested that the toponym *ḫ-ḫ-r* (e 13–15; f 14, E 3), appearing in both groups, can be interpreted as Beth Shean (B. MAZAR 1962: 13). This, though, has been disputed on several occasions. YEIVIN (1962: 21–22) debated this on the basis of the geographic positions of the various sites in relation to Beth Shean. RAINEY (1972: 384, n. 83) raised palaeographic objections to this. Amihai MAZAR (1993c: 610) has recently added that the lack of MB I/II finds at Beth Shean encumbers this identification as well (note though that I believe that in fact there are remains [although limited] of the late MB I and early MB II at Beth Shean, see below). Thus, it would appear that sites in the Jordan Valley are not mentioned in the early execration texts.

In the later texts, the picture is somewhat different – it appears that perhaps four sites are mentioned: Laish, Abel, Hazor, and Pella.¹⁰

The toponym *r-ḫ-i* (E59; RAINEY 1972: 404; 2006a: 52) is usually equated with Laish, the accepted early name of Tel Dan (Tell el-Qadi). As discussed below, the archaeological evidence for substantial MB I and MB II finds from Tel Dan fully supports the mention of this site in the later group. Also identified as being located in the Northern Huleh Valley, the toponym *ma-ḫa-ya* (E 37; RAINEY 1972: 404; 2006a: 58), is identified as 'Abel-Beth-Ma'acah. Although not yet exca-

vated, DEVER's (1986) survey of the site indicates that this site was in fact settled during the early MB II.¹¹

Hazor, the most important MB site in the entire Jordan Valley, is mentioned in the later group as well. The toponym *ḫ-ḫ-r* is unanimously identified as Tel Hazor (YADIN 1972; RAINEY 1972: 402; 2006a: 52, 58). The ruler of Hazor in this text is a figure named *g-ḫ-i*.¹² As mentioned above, it is hard to accept A. BEN-TOR's (2004a: 51, n. 4; 2006b) suggestion that the Hazor mentioned in these texts is either another site, or, does not actually indicate that the site was settled during the MB I/II. Further south, the only site in the Central Jordan Valley that appears to be mentioned in the later execration texts is Pella. The toponym *p-ḫ-r* (E 8 in the later texts) is widely accepted as pertaining to the site of Pella (e.g., POSENER 1940: 68; ALBRIGHT 1941: 19; RAINEY 1972: 406; 2006a: 52, 58; SMITH 1973: 23; KITCHEN 1992: 21–23; KNAPP 1993: 39–40; ELITZUR 2004: 60–64; BOURKE *et al.* 2006: 9). As will be discussed below, there are substantial remains (including possible fortifications) dating to just this timeframe at the site.

Sinuhe: Another well-known Egyptian text which is dated, at least in its original form, to the Middle Kingdom is the story of Sinuhe. Although in general it is irrelevant to the region under study, mention should be made of GOEDICKE's (1992) somewhat idiosyncratic suggestion that Sinuhe did not stay in the region of Byblos. Rather, he suggests that *Qedem* mentioned in the text is Jericho, and the region in which he resided is to be located in either the Jordan Valley or the Jezreel Valley. Needless to say, this interpretation is not accepted by most scholars who have discussed the Sinuhe story (e.g., RAINEY 1972; LICHTHEIM 1973: 222–235; 2003; REDFORD 1992: 83–87; BARTA 2004; MILEVSKI 2007). It should be stressed that the text does not provide any clear toponyms in Canaan besides Byblos, and there is no evidence in the text to assume that Sinuhe was in the Jordan Valley or its vicinity rather than somewhere in Lebanon. One

⁹ A more likely identification of the toponym Rehov in the execration texts is Tel Kabri in the western Galilee. See, e.g., PETERSON & ARAV 1992; KEMPINSKI 1991; YASUR-LANDAU, CLINE & PIERCE 2008: 67.

¹⁰ The identification of Beth Shean and Rehov in the later group can be discounted as well, due to the same reasons as discussed above regarding the earlier group.

¹¹ See as well STEPANKSY 2006 on an MB burial near this site. It should be noted that Alt (1941: 33) suggested identifying the toponym *'bw'm* in the later execration texts (E 47) as 'Abel-Beth-Ma'acah, but this is hard to accept (see, e.g.,

FRITZ 1992). LIPINSKI (2006) and MA'OZ (2006) have both suggested to identify Tell el-Qadi as 'Abel-Beth-Ma'acah; this suggestion is hard to accept, but the details of this will have to be dealt with on another occasion.

¹² There is no reason to assume that this is a non-Semitic name or even that the name is "enigmatic" (as A. BEN-TOR 2006b: 75 proposes). Although not an overly common name, Semitic names with the root 'zy (=to be strong) could very likely be parallels for this – see, e.g., HESS 1993: 210. I would like to thank A. Rainey for discussing this issue with me.

could add that there is little, if any, evidence for an early MB I presence at Jericho (see discussion, below, Chapter 3), which would fit in with the early MK context (reign of Sesostris I) of the Sinuhe story.

Egyptian Statues and Stelae: If dealing with Egyptian texts, one should mention the fragments of two Middle Kingdom statues that were found at Tel Dan. One, a headless granite statue in the style of a Middle Kingdom private statue, was found reused as a building stone in a much later, Iron Age context (BIRAN 1994: 161, fig. 120). Although SCHULMAN (1990) suggested that it might have arrived during the Middle Kingdom, it is more likely that as many other Middle Kingdom Egyptian statues in the Levant, they were exported from Egypt long after they were made in Egypt (e.g. HELCK 1976; AHRENS 2007). Thus, it most probably has no relevance for understanding the relations between Egypt and the Jordan Valley in the MB. The second is a fragment of a black Middle Kingdom statue that was found on the surface (BIRAN 1994: 161), which was originally inscribed in the Middle Kingdom and then again the Third Intermediate Period (SCHULMAN 1990: 236). Once again, it may very likely have arrived at Dan long after the MB, and thus may be completely irrelevant for our discussion.

Hazor has also produced several objects of Egyptian origin that appear to date to the MB. GOLDWASSER (1989) summarizes the Egyptian finds from Hazor found by the Yadin expedition. In addition to various scarabs, she discusses the fragmentary Middle Kingdom funerary stele that was found in unstratified contexts. Although she suggests, that due to its uniqueness in Canaan (the only private Egyptian stele from Canaan bearing an offering formula), it might indicate that the presence of an Egyptian burial at the site (GOLDWASSER 1989: 345), this is open to discussion.

From the recent excavations one can now add several additional Middle Kingdom Egyptian statues that were found in later contexts, which were recently (partially) published by A. BEN-TOR (2006a; see as well 2006b: 5). Among these items, of interest is a small stone sphinx dating to the Middle Kingdom, inscribed with a cartouche of Amenemhet III (Dyn. 12), which was found in an Iron Age context. Need-

less to say, when and how this statue reached Hazor is of interest but beyond our ability to determine.

Once again, although it is tempting to suggest that this inscription, and the statues, were set up and/or arrived at Hazor during the MB and perhaps are indicative of the presence of people of Egyptian origin at Hazor during that period, this should be qualified. Although it is possible, and even highly likely, that such connections did exist and Egyptian objects and influence (and perhaps Egyptians themselves) did reach Hazor during the MB (e.g. MAEIR 2000b), until more explicit evidence of this exists (such as Egyptian objects found in clear MB II contexts),¹³ these objects may have also arrived at a later stage and are indicative of other types of connections between Egypt and this region. As far as the MB scarabs that have been found at Hazor, we follow D. BEN-TOR's (2007a) assessment that almost all of the scarabs found in MB II Canaan are in fact of local production.

Scarabs: BOURKE and ERIKSSON (2005) have recently discussed several Second Intermediate Period royal name scarabs and impressions that were found at Pella. Although, from a textual point of view there is little information in this glyptic evidence, it is clear that it indicates the importance of Pella and its relationship with Egypt during the late MB. This issue will be further discussed below. Likewise, a possible Egyptian royal scarab was reported from Shamir, in the Huleh Valley (RICHARDS 1992: 9–11).

Jericho has also produced several Egyptian royal name scarabs as well. While there is no consensus as to the identification of all of them (for different opinions, see, e.g., KIRKBRIDE 1965: 580–581; BIETAK 1984: 482–484; TUFNELL 1984: 4–5; WARD 1987: 421–423; WARD & DEVER 1994: 108; NIGRO 2009: 373), they do indicate some degree of cultural connections between Egypt and Jericho, although following D. BEN-TOR (1997; 1998; 2007a), this should be limited to the latter parts of the MB – and not during the MB I or even early MB II (*contra* NIGRO 2009: 373).

NIGRO (2009) has recently suggested an interesting, if somewhat problematic, reading for one of the scarabs found at Jericho. Tomb D.641, which was excavated by the Italian/Palestinian team, contained,

¹³ E. MARCUS (1998: 197) has noted a red-slipped jar handle with an incised “Egyptian” sign that was found at Hazor, Stratum XVII (YADIN *et al.* 1961: CLVI:27), in the same locus as some apparently early MB II pottery (*ibid.*: CLVI:19, 23–24, 26, 28) a stone mould for metal weapons (*ibid.*: CLVI:30), and a scarab (*ibid.*: CLVI:29), which appears to be

of the “Late Palestinian” group, based on the running spiral design that adorns it (see, e.g. D. BEN-TOR 2007a: 159). Although the possible Egyptian origin, or at least, influence, of this jar handle cannot be denied, it requires further study to ascertain this.

inter alia, two scarabs. While the excavators date this tomb and its content to the mid/late MB I, as argued below (see discussion in Chapter 3), I believe that this tomb can be dated to no earlier than the MB II. NIGRO has suggested reading the hieroglyphic signs on this scarab as *dmr ḥr*. He suggests interpreting this as “Administrator of Jericho”, which he believes is perhaps the title of the local ruler of Jericho. If correct, this would provide a rare example of the title of a ruler in MB Canaan on an object found in Canaan. This suggestion though should be related to with some caution. D. BEN-TOR (1997; 1998) has demonstrated that most of the hieroglyphic signs on locally-made Palestinian MB scarabs are not to be read as actual inscriptions, being in most cases either pseudo-hieroglyphs or meaningless sequences of signs, slavishly copied by the Canaanite engravers.¹⁴ In addition, Nigro’s very suggestion to understand *ḥr* as Jericho (based on the reading of two signs on the scarab as *rw-ḥr* [GARDINER 1957: 460, E23; 489, N28]) is hard to accept. While (as NIGRO 2009: 373 notes) there is some similarity between this reading and the writing of the name of Jerusalem (*ru-u-s(l)m-m*) in the execration texts (e.g., RAINEY & NOTLEY 2006: 58) in which the initial *yeru-* is replaced by the vowel *ʔ* that is transposed to a *r* (see, e.g., AHITUV 1984: 122; VAN DER KOOIJ 2007: 23, n. 3; AHITUV & MAZAR 2000: XV) the very question is whether this possible reading is at all related to the Egyptian “group writing” commonly used in the execration texts.¹⁵

Hazor Texts: The next set of texts which relate to the Jordan Valley are the MB texts that have been found at Hazor (for general survey of the Hazor cuneiform texts, see HOROWITZ and OSHIMA 2006: 65–87; to which now add HOROWITZ 2007; HOROWITZ & OSHIMA 2007; 2010). Hazor, which is the largest MB site in Canaan (see separate discussion below, Chapter 3) has yielded the largest collection of cuneiform texts from any site in the Southern Levant. All told,

15 objects with cuneiform inscriptions have been reported, of which nine date to within the MB, five date to the LB, and one whose date could not be determined with certainty.

The MB texts from Hazor apparently represent two main periods, those that are more or less contemporary to the texts from Mari which mention Hazor (from the early MB II – see discussion of the chronology below), and those that date to post-Mari, late MB. The first (earlier) group is dated to the earlier stages of the Old Babylonian period, examples being the Hazor documents just mentioned, and the Hebron tablet (ANBAR & NA’AMAN 1986–1987). The historical and cultural contexts of this group can be seen in light of the Mari correspondence and its cognates.

The second group can be dated to the late Old Babylonian period, i.e. the late MB. In this group, in addition to the later texts from Hazor, one can note documents from Shechem (BÖHL 1926) and Jericho (SMITH 1934: 117). These documents are palaeographically later than the first group and can be placed (both on archaeological and palaeographic considerations) in the late MB/early LB I period. These are to be seen as the continuation of the cuneiform scribal tradition in Palestine during the post-Mari period, prior to the Egyptian domination during the LB.

It should be noted that the texts from the second group, of the late Old Babylonian period are to be seen as evidence that until at least the end of the MB, there existed a flourishing Mesopotamian influenced scribal tradition in northern Palestine (HOROWITZ & SHAFFER 1992a: 32–33; W. Horowitz, pers. comm.). While southern Palestine was closely connected, both culturally and politically to Egypt, the regions of northern Palestine were in more direct contact with the northern, Syro-Mesopotamian world. Even subsequent to the destruction of Mari, the northern, Syro-

¹⁴ For comparison, D. BEN-TOR (2007b) convincingly argues that the MB scarabs from Byblos on which the names of Byblian rulers are written, are *not* made in Byblos, but rather, based on a close stylistic analysis, produced in Avaris, Egypt, by Egyptian artists, and then exported to Byblos. The scarab from Jericho, on the other hand, is clearly a local, Canaanite product (see discussion below, Chapter 2) and there is no reason to assume that the local Canaanites had the knowledge to produce an actual Egyptian inscription on this scarab.

¹⁵ It should be noted that NIGRO’s (2009: 373) suggestion to interpret the name Jericho (in Hebrew *Yericho*) as being connected to Arabic (and Hebrew) “scent, perfume” is

somewhat questionable. It is much more likely related to *yrh* = moon, and should be seen as a toponym connected to the moon god, known to have been of importance at various sites in the Jordan Valley during the third, second and first millennia B.C.E. Thus, there are sites which incorporate the lunar god’s name (such as Beit Yerah [= “house of the moon”] and Jericho), and there is ample evidence for cult of the lunar god, such as, e.g., at LB Hazor (YADIN *et al.* 1958: 89; YADIN 1970 [the temple in Area C]; ORNAN 2001: 17–18 [the “temple/palace” in Area A]), and at Iron Age Bethsaida (BERNETT & KEEL 1998; KEEL 1998; ORNAN 2001). On the lunar god in general, see, e.g., SCHMIDT 1999.

Mesopotamian influences continued to be felt in the Southern Levant.

The fact that during the initial stages of the Egyptian penetration into Palestine in the LB I, northern Palestine was not adversely affected (see additional discussion below), may be due to its northern (Syro-Mesopotamian) inclinations (cf., WEINSTEIN 1981; NA'AMAN 1994; see as well BIENKOWSKI 1987).

Returning once again to the Hazor texts, it should be noted that although these texts were not found in primary contexts, dating to the MB, their importance cannot be overstated. They demonstrate several important facts regarding Hazor, and the Northern Jordan Valley in general, during the MB.

To start with, this is additional evidence of the central role of Hazor within the Syro-Mesopotamian world during the time of Mari. As noted before (e.g. MAEIR 2000b), Hazor can be related to as the southernmost outpost of the Syro-Mesopotamian cultural realm. As such, the Hazor texts inform us of the strong scribal traditions at Hazor, parallel to those seen in contemporary Syria and Mesopotamia. Likewise, they inform us of cultic, judicial, administrative and economic facets of Hazor, which are also intimately connected to Syro-Mesopotamian cultural traditions. Although the actual remains of the royal archive of the city have yet to be found, at least two of the texts (Hazor 8 and Hazor 12; HOROWITZ & OSHIMA 2006: 77–78, 83–85) may actually derive from the city's royal archives.

Perhaps the most important aspect of these texts is the manner in which they dovetail so well with the texts mentioning Hazor from Mari (see, e.g., MALAMAT 1971; BONECHI 1991, and below). The texts provide us with conclusive evidence, from the Hazor side, of its diplomatic and economic connections with Mesopotamia (including mentions of Mari and Ekallatum in Hazor 12).¹⁶ The quite impressive quantities and diversity of the luxury items described in Hazor 12 fit in very well with a supposition that Hazor played a central, and perhaps, dominant role in international connections during the Mari period.¹⁷ Hazor apparently continues to play a central role after the fall of Mari, as seen in the late MB texts from the site,

which date to the latter parts of the MB, but prior to those of the LB.

The Mari Texts: The Mari texts provide a complementary viewpoint to those from Hazor, once again, illustrating the significant role that Hazor played during this period. Since these texts have been summarized in previous literature (e.g., MALAMAT 1971; 1992; 1998; BONECHI 1991) it is unnecessary to provide a detailed discussion of their contents. Nevertheless, several important points should be stressed.

First of all, the very fact that over 20 letters relating to Hazor were found at Mari is of significance. In addition, the role of Hazor in aspects such as the shipment of tin (e.g., MALAMAT 1971) provide important evidence of the international role of the city.¹⁸

Just as we have seen that at Hazor there are MB cuneiform texts from during and after the Mari period, it is important to note that the texts from Mari are not from a very limited period. Although most of the texts mentioning Hazor date to the reign of Zimri-Lim, the earliest text (A.2760) dates to the reign of Yasmah-Addu, which could be as much as twenty years earlier. As stated previously (MAEIR 1997b: 321), the very fact that Hazor is mentioned over a period of several decades at Mari, may have chronological and cultural implications as to the date of the rise of Hazor, and when it assumed the role of a central, international polity (see discussion below).

In addition to the mention of Hazor, it has been suggested in the past that Laish (=Dan) is also mentioned in one of the Mari documents (A. 1270; see MALAMAT 1971: 35–36), placed immediately before a mention of Hazor. The very fact that these two toponyms are mentioned one after the other in the same document, as well as the fact that this period is well-represented at Tel Dan (see below), is a compelling argument in favour of this identification. Although this identification has been questioned in the past (SASSON 1984: 249), the parallel texts about Hazor from Mari, and now the clearly Mari-connected texts from Hazor, as well as the archaeological evidence from Tel Dan, appear to lend credence to this identification. Nevertheless, until additional proof of this is available, the role of Dan in the inter-

¹⁶ Effectively disproving ASTOUR's (1991) suggestion that the Hazor mentioned in the Mari texts is not the Hazor of Canaan.

¹⁷ On the significance, and possible geopolitical interpretation of Hazor 12, see, e.g., HOROWITZ & WASSERMAN 2004; CHARPIN & ZIEGLER 2004; VAN KOPPEN 2007; and below, Chapter 5.

¹⁸ Hazor's involvement in even rather "mundane" aspects, such as the arrival at Mari of a group of musicians from Hazor (e.g. MALAMAT 2003), hints as well to its prominent role at the time.

national web of relations during this period is far from clear.

Ugarit(?): MARGALIT (1981; 1989: 233–234) has raised the possibility of an additional text which may refer to the Jordan Valley during the MB. He has suggested that the region of the Jordan Valley can be seen as the geographical background of the *Aqht* text from Ugarit. He contends that the toponyms Kinneret, Beth Yerah and Beth Shemesh (which may possibly be identified as T. Ubeidiyeh) are mentioned in the text. This is based on a suggested reading of *knrt* (= Kinneret). Furthermore, he believes that this can be seen as testimony of the pastoral elements in this region. If we were to accept this suggestion it would be of interest since it would provide the earlier textual reference to the pastoral components in society in this region during the MB.¹⁹

This suggestion though has been questioned. Some scholars have claimed that one cannot read *knrt* in the text at all (DRESSLER 1984; PARDEE 1987). More so, even if the *knrt* reading is accepted (as vigorously claimed by PITARD 1994), the geographic setting suggested by Margalit still remains difficult to accept. On the one hand, this word, which appears only once, does not seem to refer to a lake (Lake *knrt*) but rather to a town or region of that name (PITARD 1994: 36). And even if *knrt* does in fact refer to the Sea of Galilee, this hardly implies that the entire story occurred in this region. If at all, the region of the northern Baq'a Valley is a much more likely geographical setting for the text, in light of the probable mention of the site Hermel in this text. It would be more likely that a reference to Kinneret, can be explained in light of a general knowledge of Canaanite geography in the Syrian cultural milieu in which the *Aqht* text was formed.

Another problem with Margalit's interpretation that can be raised is the mention of Beth Yerah. Although there is evidence of activity at the site at the time, it was not an important site and would hardly warrant a central role in this story. Thus, although one might be tempted to relate to this reference as a rare historical source mentioning the pastoral elements in the MB Jordan Valley, it is not insufficiently established to be related to as an explicit historical source.

Texts from Pella?: The cuneiform tablets discovered at Pella merit mention as well. Two fragmentary tablets were found, of which unfortunately little could be read, save for possible lists of names (BLACK 1992). The tablets were found in a pit, perhaps indicating that they (and other objects found with them, see below) were placed there after they went out of use. Although originally dated to the late MB or early LB I (SMITH & POTTS 1992: 59–63), more recent studies have shown (BOURKE *et al.* 1994: 107, n. 32; BOURKE *et al.* 2006: 9) that the context should be dated securely within the LB and related to the LB "palace" ("governor's residence") at the site. Thus, these two texts are irrelevant for the study of the MB.

Additional Mesopotamian Text: There is one additional text that was discovered in the Jordan Valley that may date to the MB. In the American excavations at Beth Shean, in the foundations of the LB Level VIII, a cylinder seal with a Sumerian inscription which was dated stylistically to the Old Babylonian period was discovered (e.g., ROWE 1930: 23, pl. 34:3; HOROWITZ & OSHIMA 2006: 47–48; JAMES & MCGOVERN 1993: 231, pl. 58a). The inscription mentions a diviner (*bānū*). While the Old Babylonian date of this seal is clear, one cannot be certain when this seal reached Beth Shean, and under which circumstances.

¹⁹ For possible archaeological evidence of nomadic and/or pastoral elements in the Jordan Valley during the MB, see STEPANKY (2000; 2003; 2005), who reports on megalithic

burials in the Korazim plateau which he suggests are connected to nomadic elements in the region.

