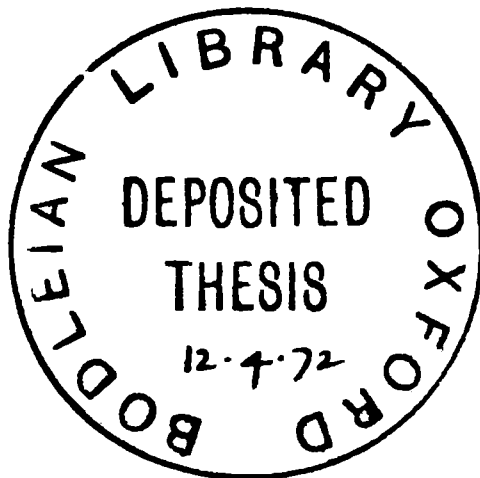




A Study of the Intermediate Early Bronze - Middle Bronze Age
in Transjordan, Syria and Lebanon

by

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I

ABSTRACT

The general homogeneity of artifacts of the Intermediate Early Bronze - Middle Bronze Age in Palestine has been acknowledged for some years, but the evidence for a relative chronology and typology of objects within the period is based largely on the contents of tombs. Since the surveys of Nelson Glueck in Transjordan it has been apparent that in this region there exist a very large number of EB.MB settlement sites with artifacts directly comparable to those of contemporary Palestine. It was hoped therefore that some evidence for development within the period might be more readily discernible in Transjordan than in Palestine, where regional differences between cemeteries were sufficiently marked to make any chronological succession very difficult to establish. If the order of succession could be achieved in Transjordan, it would therefore elucidate some of the most difficult problems of chronology in Palestine, as well as shedding light on an area that was in itself insufficiently well known. Subsequently the scope of this research was widened to include all areas within which this homogeneous culture was discernible.

This study is based therefore on the field work of several seasons in Syria, Lebanon and particularly Transjordan. It is primarily a collation of most aspects of archaeological evidence in the areas where objects typical of the EB.MB period have been found, and a discussion of the inferences which may be drawn from this evidence. The period is defined chronologically c. 2350 - 1900 B.C., and at the outset the general basis of terminology and chronology accepted in this study are defined, as there are a multiplicity of terms currently in use.

The first section attempts a very short summary of the literary and historical evidence from Mesopotamia, Egypt and Syria-Palestine which

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bears on the questions of the ethnic identity of the occupants of Palestine - Syria in the late third - early second millennia and what evidence there is for population movements. Although there is no direct historical solution to these problems, such historical evidence as there is must provide a framework within which the archaeological evidence can be more accurately assessed.

The second section is concerned with the geographical evidence. The first topic is the limits of settlement of EB.MB peoples based on the evidence of archaeological survey, only in terms of people using artifacts directly comparable to those in Palestine. Sources and methods are described. The discussion which follows suggests topographical and climatic factors which appear to have influenced settlement at this time, and finally some tentative suggestions are made concerning political and social organization, and direction of settlement. Distribution of sites and the surface evidence suggest that new influences are most likely to have come from the north-east, penetrating Palestine and Transjordan by way of the major river valleys.

Section three, dealing with the pottery, contains the weight of the evidence for the conclusions. It deals first with a description of the excavations and pottery from Tell Iktanu, which provided the basis for the pottery typology and relative chronology of the EB.MB in Transjordan. There follows a discussion of the comparative material from surface survey and excavation in Transjordan which suggests where this material should be placed in relation to regional and chronological variations. The main inferences which can be drawn from this pottery evidence are that much of the pottery is directly derived from that of the local EBA, and secondly that there are definable "innovating features" as opposed to mere typological developments from EBA to EB.MB; and that therefore if the origins of these innovations

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can be traced, a clear case for the origins of the new population element which intermingled with that of the EBA should also be indicated. A brief survey of the contemporary archaeology of areas to the north indicates that apart from the south Lebanon cemeteries no direct contacts for either EB.MB pottery or the "innovating features" are found in Lebanon. The central Syrian pottery shows greater complexity, but the conclusion is that a sequence Hama K - Hama J - Qatna Tomb IV - Hama H excludes the "innovating features" observed in Transjordan, and that contemporary Hama J develops from three major urban traditions a) late Early Dynastic III of north Syria indicated mainly in Hama J8-7, b) Sargonid of north Syria from Hama J7 onwards, and c) Levantine EBA throughout.

The direct links for the "innovating features", dated c.2350 B.C. in Transjordan, are found in the ED III traditions of the central Euphrates region, from Mari, Til Barsip, Harran, Amarna and Hammam, and it is concluded that people who were associated, but not perhaps directly part of that urban tradition, migrated south from their homelands following the campaigns of Lugalzagesi, the Akkadian expansion in north Mesopotamia and campaigns of Sargon.

A secondary influence is traced c.2100-2000 B.C. affecting Palestine more considerably than Transjordan, of which the origins are not clearly discernible, but which are probably due to new influences rather than influxes of new people. The degree of continuity in population and pottery typology is however stressed for the whole period.

Sections four and five deal with the stone and metal work. The flints in particular indicate continuity of "Canaanite" traditions from EBA through EB.MB to MBA. There are not many metal objects on which to base a relative typology, but it is also suggested that throughout the period the pin types

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in particular indicate greater continuity of early inland Syrian traditions than has previously been recognised.

Section six shows that there is considerable diversity of grave types, but again tentatively suggests there is a clear, and probably early, north Syrian influence on a basically EBA tradition, and concludes by suggesting that traditions of burial are one of the very few factors by which the assimilation of the EB.MB population in MBA society post-1900 B.C. can be detected archaeologically.

Section seven is concerned with the evidence of habitation. It is generally agreed that the EB.MB period is one of nomadic or semi-nomadic occupation, but in some respects the evidence for sedentary occupation has been denigrated. The evidence for both ways of life is reviewed and it is concluded that there are two major processes involved, i) the decline of EBA urban civilization which nonetheless has a lingering influence in the EB.MB period and ii) the introduction of a semi-nomadic element in the population which gradually shows a tendency to settle permanently in fertile areas.

In the concluding chapter a few other aspects of the EB.MB period are discussed, including the suggestion that cattle played an important part in pastoralism, and that there was sufficient agriculture to indicate not more than partial nomadism. A brief summary of other views of typology and the origins of the people of the EB.MB period is then followed by conclusions based on the evidence of the previous chapters.

These conclusions are that c. 2350 B.C. semi-nomadic people arrived in Transjordan from north Syria and intermingled with the probably West Semitic EB III population. These newcomers may also have been West Semites,

but there is no definite evidence that they were Amorites though the evidence does not exclude the possibility. This population remained largely unchanged, and in considerable isolation, until c. 1900 B.C. There are new influences apparent c. 2100 B.C. but the basic continuity of artifacts and social order is clear, and the changes probably do not indicate a large influx of new people. At the end of the archaeological period, this rather primitively organized society was destroyed by new urban traditions brought by fresh influxes of people from Syria, which probably absorbed the older population in the building of new towns.

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BIBLIOGRAPHYI. Abbreviationsa) Periodicals

- AAS Les Annales Archéologique de Syrie (Damascus).
AASOR Annual of the American Schools of Oriental Research (New Haven).
ADAJ Annual of the Department of Antiquities of Jordan (Amman).
AfO Archiv für Orientforschung (Berlin).
AJA American Journal of Archaeology (Cambridge, Mass.).
BASOR Bulletin of the American Schools of Oriental Research (New Haven).
BBSAJ Bulletin of the British School of Archaeology in Jerusalem. (London).
BIES Bulletin of the Israel Exploration Society (Jerusalem).
BJPES Bulletin of the Jewish Palestine Exploration Society (Jerusalem).
BMBeyr Bulletin du Musée de Beyrouth (Paris).
Bull.I.A.London Bulletin of the Institute of Archaeology (London).
EI Eretz Israel, Annual of the Israel Exploration Society (Jerusalem).
IEJ Israel Exploration Journal (Jerusalem).
JAOS Journal of the American Oriental Society (New Haven).
JCS Journal of Cuneiform Studies (New Haven).
JESHO Journal of the Economic and Social History of the Orient.
JNES Journal of Near Eastern Studies (Chicago).
JPOS Journal of the Palestine Oriental Society (Jerusalem).
JQR Jewish Quarterly Review
JSS Journal of Semitic Studies
LAAA Liverpool annals of Art and Archaeology (University of Liverpool).
MJ Museum Journal (Philadelphia).
MUSJ Mélanges de l'Université Saint-Joseph de Beyrouth.

<u>OA</u>	Oriens Antiquus (Rome).
<u>PEFA</u>	Palestine Exploration Fund Annual (London).
<u>PEQ</u>	Palestine Exploration Quarterly (London).
<u>PMB</u>	Palestine Museum Bulletin (Jerusalem).
<u>QDAP</u>	Quarterly of the Department of Antiquities of Palestine (Jerusalem).
<u>RA</u>	Revue d'Assyriologie et d'Archéologie Orientale (Paris).
<u>RB</u>	Revue Biblique, Ecole Biblique et Archéologique de St. Etienne, Jerusalem.
<u>RivSo</u>	Rivista degli Studi Orientali.
<u>VT</u>	Vetus Testamentum.
<u>ZDPV</u>	Zeitschrift des Deutschen Palästina-Vereins (Wiesbaden).

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<u>ANET</u>	J. B. Pritchard, (Ed.) <u>Ancient Near Eastern Texts relating to the Old Testament</u> (3rd ed. with supplement, Princeton 1969).
<u>Ara'ir</u>	E. Olávarri "Fouilles a 'Arô'er sur l'Arnon", <u>RB</u> 76 (1969) pp. 230 - 259.
<u>ARM</u>	Archives royales de Mari.
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SECTION IINTRODUCTION AND HISTORICAL EVIDENCE

It seems necessary to define at the outset firstly the terminology and chronology, and secondly the historical and geographical frontiers which come within the scope of this investigation.

The terminology of the Intermediate Early Bronze - Middle Bronze Age has probably been subject to more alteration and debate than that of any other period. In practice, terms such as 'Early Bronze Age' act more as useful forms of reference to the archaeologist than as actual definitions of the state of technological achievement within a given chronological period. Many of the alterations in the naming of the period c.2350 - 1900/1850 B.C. have been due to an attempt to give a more accurately descriptive title, and are mostly subjective, reflecting the views of the user on ethnic and chronological grounds.

Probably the earliest publication of pottery distinctively of this period was that by Captains Wilson and Warren in The Recovery of Jerusalem in 1871, where a four-spouted lamp from a "cave upon Olivet" is illustrated in the section on "Graeco-Phoenician Pottery" (p.475). Although there were sporadic finds of tombs and objects of this period in the intervening years (1), it was not until 1931-1932 that clear definition of the separate archaeological horizon of this type of pottery was obtained. Almost simultaneously, Petrie worked on the 100-200 and 1500 cemeteries at Tell el-Ajjul dating the objects to a Fifth-Sixth Dynasty context and calling the period "The Copper Age" (2); while Albright excavated his

(1) Sellin and Watzinger at Jericho in 1908-9 attributed EB. MB. Pottery to a "Spatkanaanitisch" period.

(2) AG I (1931), f.14-16; and AG II, f.6-9 (1932).

Strata H-I at Tell Beit Mirsim and called the period "Middle Bronze I", dating it c. 2100-1900 B.C. (3). This title has remained in fairly general use, particularly among American archaeologists. Since then, other names have multiplied. Mallon, Koepfel and Neuville dated objects of the period to "Bronze I final et Bronze II initial" (4). Miss Tufnell called it the period of the "Caliciform Culture" (5); R. Cohen and others in Israel the "Middle Canaanite A" period (6); recently Lapp called it the "Intermediate Bronze" Age (subdividing into IB I 24th-21st centuries, and IB II from c.2050 - 1900/1850 B.C.)(7). The terminology used here is that of J.H. Iliffe and Dr. K.M. Kenyon (8), for the reasons put forward by her; there is a clear break in way of life, burial customs, type of objects in use, and at many sites, in stratigraphy, between the Early Bronze Age, the Intermediate Early Bronze - Middle Bronze Age (EB. MB. hereafter) and the Middle Bronze Age (9). What

(3) Albright, in AASOR XII (1932) §§ 11-19 and AASOR XIII (1933) §§ 6-13 pp.62-67.

(4) TG I (Rome 1934) p.151.

(5) Lachish IV, p. 41ff.

(6) R. Cohen, in RB 1967, pp.94-96. It has also been referred to as the "period of the Patriarchs" in more general works.

(7) Dhahr Mirzbaneh, pp.v-vi, 97 ff.

(8) K.M. Kenyon, Amorites and Canaanites, Schweich Lectures 1963, p.8; and ADAJ III (1956), p.41. In CAH, "Syria and Palestine c.2160 - 1780 B.C." (1965) p.61, the period is dated "from at least the twenty-fourth to the twentieth centuries B.C."

(9) Most recently W. G. Dever in "The "Middle Bronze I" period in Syria and Palestine" has suggested the compromise title of "EB IV - MB I" which surely only adds further to the confusion.

local evidence there is for cultural continuity, archaeologically speaking, is most clear between the Early Bronze Age and the EB. MB, rather than with the Middle Bronze Age, with which parallels are established largely on the basis of foreign comparanda. The use of the term MB I seems therefore to be more confusing to students than otherwise. However, this is, as mentioned above, a subjective problem and the main issue is to make clear what classification the current writer is using, as the principal effect of the debate has been to confuse the meaning of the term Middle Bronze I. The present writer will therefore use the term MB I to refer to the period beginning post c.1900 B.C.

Historical and Epigraphical Evidence relating to the Intermediate
Early Bronze - Middle Bronze Age.

As there is no evidence to indicate the use of writing in Palestine and south Syria in the third millennium B.C. (the nearest literate areas being Egypt, and possibly by extension therefore Byblos, and Mesopotamia and perhaps its north Syrian sphere of influence) it is interesting to see what trends the texts of the civilizations at either end of the 'Fertile Crescent' reflect of the history of the area in between. These are not only interesting, but our only possible contemporary sources for the period preceding the general diffusion of the arts of Egypt, Mesopotamia and Anatolia in an area by comparison materially and culturally backward.

This is not, at the outset, an attempt at an exhaustive history of the ancient Near East, a task neither within the scope of the present work, nor which the present writer is competent to undertake but rather a critical attempt to collect and evaluate those references which seem cogent to the topic, and the conclusions drawn by students of the literature of those times and places, based on their evaluation of the translation and interpretation of the

texts. This textual material is not definitive in itself - the inscribed object is often damaged or incomplete; and the knowledge of the languages and the accurate reading of them is still developing. The sources have another drawback. The number of texts available to us is presumably the merest fraction of those current at the time, and the majority of those we have deal with small economic matters or domestic events. And this is likely to be so even had we all the texts written in Egypt and Mesopotamia; the writers' interest must be primarily in local events, only secondarily in foreign affairs, and even then as these foreign events affect Egypt or Mesopotamia. How much less then are we to know of the internal events of those outside countries, if even international events suffer one sided reportage?

Much of the information on Syro-Palestine drawn from the texts of Egypt and Mesopotamia is based on assumptions - ranging from the primary one that the text has been read and interpreted correctly, to identification of persons and places based on sometimes uncertain data. There is little relevance in reviewing these sources much earlier than c.2400 B.C. but somewhat more in going a little beyond our terminal date of c.1850 B.C., for knowledge of the then occupants of the country must to some extent reflect earlier events.

The chronology used throughout this present work will be the "Middle Chronology" (i.e. based on 1792-1750 B.C. for Hammurabi of Babylon).

In transliterating foreign words the most familiar form in each case has generally been accepted, rather than making an attempt to follow any uniform system.

A) The Mesopotamian Evidence.

The very large number of ancient documents available from Iraq and North Syria from the third millennium onwards continues to be a

source for debate to those who look for a solution of questions involving languages and linguistic affiliations as evidence for ethnic origins and movements; and it behoves the non-epigraphist to tread delicately between the views put forward by these scholars:

'Geographical, ethnic and linguistic criteria are employed simultaneously in most classifications of the Semitic languages, with the result that imprecision, vagueness and controversy persist'. (10).

A topic of interest to many scholars, and relevant to this work is the Amorite question - and one starting-point should be to attempt to define this term and its present uses from the Mesopotamian-Syrian evidence. The English word 'Amorite' is derived from Hebrew 'ēmorī; as generally accepted, it refers to a West Semitic people with characteristics discernable particularly in their personal names, but also in language, social habits and habitat. Buccellati and others, including Kupper (11) and Gelb (12) make the equation Amurru (Akkadian) = MARTU (Sumerian) for the Ur III period; but Amorite is also a term of reference in use from the mid-third millennium, through biblical history to late Assyrian and Babylonian times, which clings persistently to the Syria-Palestine area.

The scanty evidence on the subject before the Ur III period can be briefly summarised. There is general agreement that the basis for the linguistic situation in Mesopotamia in the early and mid-third millennium is the existence of a Sumerian-speaking, non-Semitic race most densely concentrated in the southern part of the country whose origins are unknown, which was infiltrated from a very early date by a Semitic population most densely concentrated in the North, speaking

(10) Albright and Lambdin, p. 15 .

(11) Nomades, p. 149.

(12) JCS 15, p.29.

Akkadian (an East Semitic language). The conquest of the Sumerian cities, after a series of battles by Sargon, united the entire country under the East Semitic Akkadian Dynasty, c.2370 B.C.

That this conquest was the culmination of a long process of immigration and sedentarisation by Semites is indicated by the fact that earlier dynasties at Kish and Akshak with Semitic rulers are listed in the Sumerian king-list (13), and also perhaps one at Mari (14); the early predominance of Semites in the northern part of the country is also suggested by Semitic names in the archaic tablets of Shuruppak (Tell Fārah) and Abu Salābikh near Nippur (15).

The relevance of this is to indicate that most scholars do distinguish linguistically and ethnically between the (mainly) sedentary population (Sumerian and Akkadian) of Mesopotamia, and the people who begin to appear in the records in the latter half of the third millennium B.C., the Amurru or MAR.TU.

The earliest documentation for a person qualified as MAR.TU seems to be on a tablet from Fārah, c. 2550 (16). The first direct contact with the western lands may also be pre-Sargonic, if the claim of Lugalzagesi, that he made an expedition to the "Upper Sea" (the Mediterranean) can be accepted as historical (17). (The evidence for locating Amurru in the direction of the "Upper Sea", that is, to the north-west of Sumer, will be discussed below). Now well attested however, are the major expeditions of Sargon and his grandson Naram-Sin in that direction, both in royal inscriptions directly relating to conquest, and linguistically (Akkadian

(13) C.A.H. Gadd, p.5; Gelb, Old Akkadian Writing, p.4.

(14) Gelb, JCS, 15, p.34.

(15) Garelli, p.84; Gelb, Old Akkadian Writing, p.5.

(16) Kupper, Nomades, p.150.

(17) Gadd, CAH, p.7.

inscriptions and documents of the period are found not only in Sumer and Akkad, but in the Diyala, northern Mesopotamia and further north to the region of Diyarbakr, as well as in Elam)(18). Later "Omen Texts" relate that Sargon "went to the land of Amurru, defeated it....." and he "went to the land of Amurru.....smote it for the second time....." (19) referring to campaigns that Gadd surmises might well have reached beyond the furthest confines of Syria into Cappadocia, and as far south as the Byblos area (20). This view requires the location of Iarmuti and the 'Forest of Cedars' in the Lebanon (21).

It is not relevant here to pursue further the subject of how far-reaching were the empires of Sargon and Naram-Sin, (22) but what is relevant is to suggest the effect such campaigns should have had on the western countries. Garelli suggests in his section "The Amorite Invasions" that "La pousée occidentale de Sargon aurait-elle provoqué un exode des tribus nomades?" (23). This is a stimulating idea, but perhaps reflecting a more complex situation. The actual campaigns of Sargon and Naram-Sin probably had little effect on nomads; probably more on the local sedentary populations, if not in actual conquest, then in subsequent reorganization; witness in particular

(18) Gelb, Old Akkadian Writing, pp.9-10.

(19) Nougayrol, Ecole Pratique 1944-5, p.19f. nos.72, 74 and 75; and for refs. see Kupper, Nomades p.149, no. 2.

(20) Gadd, CAH pp.12-3.

(21) Drower and Bottéro pp.10-11.

(22) ibid. pp.10-13, for a detailed discussion of the campaigns of the Akkadian dynasty.

(23) Garelli, p.242 and see also B. Mazar "Middle Bronze Age in Palestine" IEJ 18 (1968) p.66 who attributes the fall of EB III in Palestine in part to these "invasions".

the Palace of Naram-Sin at Tell Brak with its great store rooms for the collection of tribute (24), if that can be held to be at all representative of the situation in other parts of the Empire.

In reorganizing new territories, the Akkadian kings may well have dispossessed some of their new subjects, thus adding to the migrant population; and even more importantly, the campaigns are likely to have weakened, if not removed the previous rulers, leaving no organization in their place to combat the inroads of nomads and plunderers once the Akkadian power in its turn declined. The possible upsetting of this balance of petty states in Syria and the east is likely to be both the source and the fuel of the situation which is strongly evident in the reign of Sargon's great-grandson, Shar-kali-sharri. Here for the first time there is a contemporary record of contact with Amurru(m), outside Mesopotamia (25), in a date formula of the king recording his victory over the MAR.TU at Basar(26).

This date formula is important for the linking of the name Basar with the Amorites; Kupper, Gelb, Buccellati and others agree in identifying Basar with Jebel el-Bishri, west of the central Euphrates, and this identification is one of the major reasons for placing the homeland of the Amurru-MAR.TU in the sub-desert areas of North Syria.

(24) Mallowan, "Excavations at Brak and Chagar Bazar", Iraq 9, (1947) p.26, p.63ff.

(25) Kupper, Nomades, p.149; Thureau-Dangin, Les Inscriptions de Sumer et d'Akkad, Paris, 1905, p.320, IIb; Gelb, Materials for the Middle Assyrian Dictionary I, Chicago 1952, "Sargonic Texts from the Diyala Region", p.139, no.268; and MAD II, 2nd.ed. 1961, p. 102, no.254a for reading of LAM.KUR.

(26) Kupper, Nomades, p.150; Gelb, MAD I, p.139, no.268 from Tell Agrab.

Shar-kali-Sharri's battle also indicates how pressing were the enemies of Akkad on its western borders, as well as to the east. Shar-kali-sharri's reign of twenty-five years closed with the successful incursions of the eastern Gutians over territory doubtless already weakened by attacks from the Amurru in the west. The Akkadian Empire disappeared though a line of six Akkadian kings of small import continued in Akkad, contemporaneously, it is thought with a Gutian dynasty holding limited authority mainly in the north, and also with a dynasty at Lagash, one at Uruk, and possibly others (27). This fragmentation of power in Mesopotamia almost certainly indicates a cessation of any control in Syrian territories.

There are few records from this period following the Gutian invasion; the one that particularly mentions MAR.TU being an inscription of Gudea of Lagash (c.2150) recording ornamental stones brought from Ba-sal-la (Basar = Jebel el-Bishri), "the mountain of the Amorites", and Ti-da-num, also described as "the mountain of the Amorites" (28). The bringing of this stone from the north shows that at least the riverine trade routes were open to the north-west in Gudea's time, in spite of the Gutian invasion, and the people of Babylon trading over a wide area, including dealings with the territory of the Amorites.

To what extent the Amorite incursions succeeded in the years following the reign of Shar-kali-sharri can only be seen by studying the more numerous texts of the Ur III period, nearly 150 years after Shar-kali-sharri fought his battle at Jebel el-Bishri.

The recent well documented work of Buccellati (1966) contains the material for this study for the Ur III period (c.2111-2003). Prior to this period we have little more than references to personal

(27) Gadd, CAH, p.43; Garelli, pp.80-I chart.

(28) Gudea Statue B, VI.5-6, 13-4; Buccellati, p.92 and p.236; Kupper, Nomades, p.150, p.157; Edzard, p.31; Gelb, JCS 15, p.30.

names qualified as MAR.TU or records of events. The Ur III texts provide at last a sizeable body of references. Buccellati's conclusions are that "MAR.TU, i.e. the Sumerian rendering of Amorite "Amurru"..... in its proper meaning, ... is a gentilic derived from the name of a tribe or group of tribes from the Northern Syrian desert. The territory occupied by these tribes is called kur MAR.TU, i.e. the "highland of the Amorites", and the people are called MAR.TU, both as a group and as individuals. The term MAR.TU is also used in a proper meaning when it refers to Amorite tribesmen who had become sedentary (or descendants of such Amorites)" (29).

He distinguishes between Amorites now sedentary in Mesopotamia, and "foreign" Amorites. The former are particularly concentrated in Umma and Lagash, and the "foreigners", that is, visiting Amorites, are to be found in the more northerly cities, i.e. Dreham and Isin. We are not concerned with the "resident" Amorites except to note that they represent successful past incursions of people who have to all intents and purposes been integrated into the Sumerian/Akkadian population and to note the interesting point that this process seems to have occurred in the southern part of the country, rather than the north (30) the reverse of what might be expected for immigrants coming from the north.

It is what can be learnt of the homeland and social customs of the "foreign" Amorites that is of particular interest.

A summary of Buccellati's main points is as follows: the expressions used in the Ur III texts to describe the MAR.TU are conventional; they describe nomads (i.e. no permanent house, tent-dwellers), who live in the highlands, do not cultivate grain, who

(29) Buccellati, p.352; and cf. Kupper, Nomades, p. 154 "MAR.TU had for essential function the signification of origin".

(30) Buccellati, p.344.

(said the Sumerians) "eats uncooked meat", "who on the day of his death will not be buried". These are a people who are regarded by the Sumerians as having barbarous customs (31). Their tribal character is emphasized by such expressions as "all of Amurru has joined together" and "father (sheikh?) of the MAR.TU" (32). Their nomadic character is further indicated by the fact that in Sumerian texts the MAR.TU are never associated with western cities, even though the rulers of Ur III were in contact with the west (33).

The relationship between the people thus described and the Mesopotamians was not exclusively hostile. There are texts referring to both warlike and peaceful encounters. The summary of hostilities gives a picture of continuous pressure from Amurru against the settled areas. In some texts there is mention of animals taken from the Amorites as booty (34). Drehem texts refer to animals captured during fighting against the MAR.TU and brought back by a "general".

That the rulers of the Third Dynasty of Ur faced the same problems as the Sargonid monarchs is indicated by the date formula of the Fourth Year of Shu-Sin (c.2032 B.C.), which is named after the building of the "fortress of the Amorites, which holds back Didnum" (35).

Later still, there are records of Amorite successes "Reports that

(31) Buccellati, p.330-I.

(32) *ibid*, p.334.

(33) As far as Byblos, see Sollberger, "Byblos sous les rois d'Ur" in *AfO* 19; Year 4 of Amar-Sin, there was an ensi of Byblos; "Ib-dâdî", see Albright in *BASOR* 163, p.45 footnote 44. A west Semitic name, though we would agree with Drower and Bottéro p.36 that it is proof of Ur III - Byblos commercial contact, not implying necessarily that Byblos was part of the Ur III 'Empire'.

(34) Buccellati p. 241, p.290.

(35) *ibid*, p.243; and cf. Ti-da-num of Gudea Statue B.

hostile Amorites had entered the plains having been heard, 144,000 gurs of barley in its entirety, was brought to Isin. Now the Amorites in their entirety have entered the interior of the country, taking one by one all the great fortresses....." (36). Jacobsen dates this Amorite breakthrough to the Year 5 of Ib-bi-Sin (c.2022 B.C.), and suggests that the economic and, finally, total breakdown of the Ur III organisation was due to it (37). There was an ephemeral recovery, when the MAR.TU seem to have retreated, and later seem to have submitted to Ib-bi-Sin. Later still they seem to have been allied to Ib-bi-Sin against the Elamites who led the final over-whelming attack on him (38).

These events form the culmination of the hostilities between the Amorites and the Ur III cities. The reverse of the coin is the large number of texts of the Ur III period listed by Buccellati which record peaceful dealings with the Amorites. There are a large number of texts from Drehem dealing with trade and movement of animals (the Amorites are particularly connected with the bringing of fat tailed sheep to this Mesopotamian city, but there is no seasonal preference indicating transhumance) (39). Amorite cattle, donkeys, chariots and wool are also listed (40). At Isin the texts mention Amorites mainly as recipients of finished leather goods - sandals and containers, but also of chariots and an ox-yoke. These may be presents from the Ur administration; the Amorites do not seem to be concerned in their production (41). These are the principal pre-occupations of the

(36) Buccellati, p.91.

(37) T. Jacobsen, "The reign of Ib-bi-Suen", JCS 7, (1953), pp.39-40.

(38) Kupper, Nomades, pp.158-9.

(39) Buccellati, p.283.

(40) Kupper, Nomades, p.195.

(41) Buccellati, pp.306-9.

"Amorite texts. Others deal generally with food rations and allowances, accounts, records of work or legal documents (42). There are records of envoys sent to and from the Amorites by the principal cities of Mesopotamia.

There are no texts which indicate specifically the homeland of these MAR.TU of the Ur III period. A. Clay (1909, 1919) maintained that the Amorites had an organised kingdom in north Syria; Bauer (Die Ostkanaanaer, 1926) placed the origins of the West Semites in the region north-east of Mesopotamia. For a number of reasons the West Semites-Amorites are generally identified as inhabiting the land west of the Euphrates nowadays. Firstly, as has been mentioned before, this is based on the identification of Shar-kali-sharri's Basar with Jebel el-Bishri (43). Buccellati considers that other place names specified as belonging to the territory of MAR.TU also belong west of the middle Euphrates in the northern Syrian sub-desert, even if not precisely located. The use of the phrase kur MAR.TU "highland of the Amorites" puts it outside the low Mesopotamian area, but it is obviously, judging by the number of contacts, not excessively remote. Secondly, the MAR.TU are often associated with the people of Mari and Ibla in Sumerian texts, suggesting that they all come from approximately the same direction - i.e. north-west of Sumer. Thirdly, IM.MAR.TU = "west", one of the four cardinal points of the Sumerian compass (44). Fourthly, the west Semitic character of the personal names (indicating use of a language related to other languages used in countries to the west of Mesopotamia).

(42) *ibid*, p.274 ff.

(43) Buccellati, p.233 ff, in particular his discussion of the geography and archaeological survey.

(44) Gelb, JCS 15, p.30; Kupper, Nomades, p.165, *tumu.mar.tu* = west from the Akkadian period.

While Buccellati lists other evidence for the MAR.TU homeland, he finds it difficult to reconcile some texts which offer widely diverse interpretations. There are some links with the east (45) which probably indicate a secondary area of settlement by west Semites. At present no-one seems to regard this area as an original homeland for the Amorites (46). There are several texts associating Amorites with the south or south-west (47). Texts which link diviners from Dilmun (Bahrein?) with Amorites, mention leather objects made for "Dilmun and the Amorites" and "fresh fish" brought in by Amorites (surely not from north Syria?). Few though these texts are they should not be neglected as a possible indication of a wider homeland for the Amorites; Buccellati conjectures a possible link with a past Amorite homeland in the Arabian peninsula, a view postulated by B. Landsberger (48). It is also possible that in Sumerian eyes all west Semitic nomads either to the north-west or the south and west were qualified as Amorite. But their presence so far to the south may simply be a logical extension of their trading or wandering activities, as permanent settlement as far east as the Pusht-i-Kuh may be of their migrations.

Buccellati's conclusion is that although there is an Amorite presence in north Syria, the Persian Gulf and probably East Mesopotamia "there can be little doubt, however, that their original homeland was in northern Syria" (49). Kupper defines this a little more widely as

(45) Buccellati, p. 247-9.

(46) Kupper, Nomades, p.165-6, p.176 - in the late 19th cent. B.C. Amurru seems to be a trans-Tigrine country.

(47) Buccellati, pp.249-50.

(48) B. Landsberger, "Amorites" Encyclopaedia Britannica 1965 (I), pp.809-10; also "Assyrische Königsliste und 'Dunkles Zeitalter'" in JCS 8 (1964) pp.31-45; 47-73; 106-133.

(49) Buccellati, p.251.

the syro-arabic steppe, and the eastern settlement as due to later penetration (50).

An important point to emphasize here is that the "foreign" MAR.TU of the texts of the Ur III period are never mentioned as coming from a city (51). They have dealings with the people of Sumerian and other cities such as Mari, but as nomads only. The persons described in these texts therefore bear little relation to those whose cities have been excavated, e.g. Chagar Bazar, Harran and Carchemish, so it is difficult to correlate the historical and the archaeological record. An attempt has been made by Liverani, one of the excavators of Tell Mardikh in north Syria, to associate the occupants of the ancient town with the Amorites (52), but for the period before 2000 B.C. there is as yet no clear evidence for associating Amorites and city-dwellers.

The problem is confused by the various uses of the words "Amorite" and "West Semitic" as both linguistic and ethnic terms, and the relationship of one term to the other. Buccellati, for the Ur III period, restricts the use of "Amorite" to a people and a language qualified as MAR.TU. In his study "no attempt is made..... to establish the place of Amorite in relationship to other West Semitic

(50) Kupper, Nomades, p.165-6.

(51) Kupper, *ibid.* pp. 160-I; gives one instance where MAR.TU appear to be associated with a town in a year formula of Isbi-Irra "Year when the town of MAR.TU was devastated" but thinks "town" in this instance may refer to the "fortress" built against the MAR.TU.

(52) Missione archaeologica Italiana in Siria. Rapporto preliminare della campagna 1964 (Roma 1966) pp.122-4. More recently Liverani has re-assessed this question in OA IX (1970) pp.5-27 "Per una considerazione storica del problema amorreo".

languages" (53). The variation in use of this term seems in part to be chronological. Many writers use "West Semitic" and "Amorite" as interchangeable ethnic terms in post Ur III contexts. Buccellati (54) thinks it quite fair to refer to West Semitic names of the Old Babylonian period as "Amorite". In a broader sense it leaves no ambiguity in the later period when used in a geographical sense translated as "West" or "Westerner", and he defers to Gelb's "Old", "Middle" and "Late" Amorite divisions as chronological criteria. Gelb sees the differences between the Amorites of Ur III and Amorites of the Old Babylonian period as differences of time and possible geographic background, rather than ethnic differences (55). Kupper, broadly speaking, says the same, but would like to restrict the term Amorite to the early period (pre-Sargonic down to the fall of Ur III) and keep the term West Semitic for the Isin-Larsa and Old Babylonian periods, when there is a new wave of immigration first observable at Larsa in the time of Abi-sare. However, he agrees that there are connections between Ur III and Babylon I (56), and says that both of these major waves are part of a continuous current, and elsewhere refers to the "great complex of 'West Semitic' peoples commonly called 'Amorites', who had originally come out of the Syrian desert" (57).

(53) Buccellati, pp.126 - In his review of Buccellati's book, W.L.Moran suggests there might well be considerable dialectical differences within the Ur III MAR.TU language; says closest parallels are with Ugaritic and South Arabic. In JAOS 90 (1970) pp.529-531. But compare p.17 Albright and Lambdin "contemporary data are insufficient for dialect divisions".

(54) *ibid.* p.362.

(55) Gelb, JCS 15, pp.33-4.

(56) Kupper, Nomades, p.155 and p.213 ff.

(57) Kupper, CAH, p.27; (on p.21 he refers to the Dynasties of Babylon I and Mari as Amorite).

The problem is to decide to which peoples and places the term "Amurru" at the later period (post c.2000 B.C.) should be applied. In Mesopotamia itself the Amorites constitute a clear presence in the Isin-Larsa period. They engage in peaceful employments as part of the sedentary population in Isin (58) and occasionally more violent ones as at Sippar and Larsa (59). The first king of the dynasty at Larsa bears a MAR.TU name well known in the Ur III period (Nablanum). The strong element of population bearing West Semitic names in Mesopotamia c.1900 remarked on by Kupper, at Larsa, Babylon and Kish in particular, marks a new stage in the West Semitic story in Mesopotamia, and for the most part their activities do not primarily concern us. On the whole the First Dynasty of Babylon imposed a curb on the Amorites, who were an important element in the population, though Samsu-Iluna in his thirty-sixth year (c.1713) seems to have had to fight a battle with them (60). Included in the titulary of some of these kings (starting with Warad-Sin and going on to Hammurabi of Babylon (61)) was "king of the whole country of Amurru" which appears to refer to an area east of the Tigris, a country neighbouring Eshnunna, south of the Diyala, and already noted as a probable region of secondary settlement.

The North Syrian Evidence.

There are textual sources from Syria itself from the mid-nineteenth century onwards, and it now relevant to turn briefly to these. The primary archives for the area are from Mari, followed shortly (about fifty years later) by those of Alalakh Level VII (62),

(58) Kupper, Nomades, p.166.

(59) *ibid.* p.168.

(60) *ibid.* p.174.

(61) *ibid.* p.176.

(62) Kupper, CAH p.25.

and then Ugarit. As the greater part post-date the period we are concerned with, they present problems in that evidence which is scanty for the contemporary scene has to be used to infer earlier situations. The principal object is to look at a) the ethnic situation as witnessed in these texts and b) direct references to the country and people of Amurru for evidence for its location.

a) Ethnic situation in Syria from the texts in the 19th century B.C.

Gelb (63) and Kupper (64) both describe the Iaggid-lim dynasty at Mari (c.1830), Šamši-Adad's dynasty at Aššur (c.1814) and the nomadic confederations of Benjaminites, Khanaeans and Sutians as West Semitic (from personal names and language). It is relevant to note that the sheep raising Benjaminites, located primarily in the region of Harran in the Balikh Valley, are known to have pastured their flocks over a very wide area, from the north of Mesopotamia (Khabur Valley) right round to the regions of Aleppo, Qatna and further south (65). The Khanaeans seem to be concentrated primarily on the central Euphrates in the region of Mari, and the wilder pillaging Sutians, west of the Euphrates, dominating the Syrian desert, raiding towns and caravans in large bands (up to 2000 men) in this area, even including the town of Palmyra itself and in the direction of Qatna (66).

The texts indicate therefore that throughout the whole central section of the fertile crescent and to the south, there are West Semitic nomads. However, this is a small part of the story, for there were also large sedentary populations in the same area.

In the cities of the north of Mesopotamia there seems to be a strong Hurrian concentration. The earliest Hurrian text comes from

(63) Gelb, JCS 15, p.35.

(64) Kupper, Nomades, p.206ff.

(65) Kupper, CAH, p.27.

(66) Kupper, ibid. p.28.

Urkish in the eastern Khabur basin (?) and mentions Tisari (or Tisatal) king of that city in the early Akkadian period (67). There is also the tablet of Arisen, Hurrian king of Urkish and Nawar, of the same period (68). Considerably later, the texts from Chagar Bazar (c.19th cent.) show the number of Hurrian names to be second only to the number of Akkadian names on the site, and to exceed West Semitic names (69). There are also a few Hurrian texts at Mari (70). Further away to the east of Mesopotamia at Nuzi, there are no Hurrian names distinguishable in the early texts of 24th-23rd centuries, but when there is textual evidence again in the 15th-14th centuries B.C. the Hurrians are dominant there (71). This Hurrian presence is also found in the west at Alalakh in Level VII (c.1800). Wiseman (72) and Kupper infer a greater and perhaps earlier Hurrian influence at this city than Gelb (73). All are agreed, however, that by the time of Alalakh IV (16th century), the city is completely Hurrianized, which at least, as at Nuzi in the east, suggests a process of immigration, not an original homeland. Kupper Albright and Lambdin, and Bottéro (74) put the original homeland of the Hurrians to the north and east, whereas Wiseman suggests the proportion of Hurrian names at Alalakh is sufficiently large to make the Hurrians

(67) Albright and Lambdin, p.33; Parrot and Nougayrol, RA 42 pp. 1-18.

(68) Thureau-Dangin, RA 9, (1912) p.1ff. "Tablette de Samarra".

(69) Kupper, CAH p.18.

(70) Thureau-Dangin, RA XXXVI (1939) "Tablettes Hurrites provenant de Mari" p.1ff.

(71) Albright and Lambdin, p.34.

(72) D.J. Wiseman, 666 Alalakh Tablets, London 1953.

(73) Gelb, JCS 15, p.41.

(74) Kupper, CAH, p.26; Albright and Lambdin, p. 34; and Bottéro, Cassin and Vercoutter, p. 132.

at home in the west (75). The date when this progress to the west began is perhaps more in dispute than their origins (76). In the 19th-18th centuries B.C., the Kings of Alalakh VII bear 'Amorite' names (77) and the few names recovered from Aleppo are West Semite (78); there was an 'Amorite' dynasty in Qatna, a princess of which was married to (West Semitic) Iasmah-Adad of Mari (79). Kupper refers to a seal found at Ugarit, and in use there in the 14th-13th centuries B.C., which indicates Ugarit also had a ruler with a West Semitic name at this earlier period (80). The king of Byblos in the time of Zimri-Lim, Iantin-Khamu, also had a West Semitic name (81).

The picture given by Kupper of north Syria in the 19th century is therefore almost entirely of a West Semitic population, with some Hurrian penetration in the north only (82). Gelb sees an earlier (pre-2000 B.C.) stratum of non-Hurrian, non-Semitic names in Syria (83) which are of unknown affiliation, followed by West Semitic, pre-eminent in the Mari period, and thirdly, a Hurrian element. His reconstruction

(75) Wiseman, The Alalakh Tablets, p.9.

(76) E.A. Speiser "Ethnic Movements in the Near East in the Second Millennium B.C.". In AASOR XIII (1933) pp.13-54. Hurrian arrival at both Nuzi and Billa at the beginning of the second millennium.

(77) Kupper, CAH p.25.

(78) *ibid.* p.21.

(79) G. Dossin, "Iamhad at Qatanum", RA 36 (1939) p.54.

(80) Kupper, CAH p.23.

(81) For a comprehensive list of such names, West Semitic and Hurrian, see Kupper, Nomades, p.230.1.

(82) See also on Hurrian penetration R.de Vaux "Les Hurrites de l'histoire et les Horites de la Bible" in RB, 1967 pp.481-503.

(83) Gelb, JCS, 15, p.40.

of the ethnic history of Palestine and the Phoenician coast differs from that of Syria and especially in Palestine, Gelb would see the earliest element as West Semitic, followed by Hurrian (later than in the north; there is no trace of Hurrian elements in the Execration Texts). Gelb concludes that Palestine, and perhaps the Phoenician coast "may represent the original habitat of the West Semites" (84).

b) References to Amurru and Amorites in the texts of Mari and Alalakh.

There are very few references specifically to the country or the people so designated at this time; and none specify exactly where the place is to be located. As Kupper says (85) it is difficult to see why, when the whole area is linguistically West Semite/Amorite, one or two specific areas should be called Amurru. It is also clear that Amurru, as a political entity, varies geographically over the centuries.

The main references from Mari for the western territory of Amurru are firstly a text of the time of Zimri-Lim concerning the pastures used by the Benjaminites, who wander from the Balikh to the countries of Iamḥad, Qatna and Amurru (86). The order in which these three countries are mentioned suggests a geographical progression southward from known Aleppo and Qatna. Secondly, there is another Mari text, in which Šamši-Adad requests Iašmah-Adad to put in the care of the envoy of Ishi-Adad of Qatna, the envoys coming from Ḥaṣūra (Ḥaṣṣor in Palestine?) and the envoys of "the four Amorite kings" (87). Dossin suggests that the Qatna messenger was to be a guide for the more distant messengers until they reached territories with which they were

(84) *ibid*, p. 41.

(85) Kupper, Nomades, p. 180.

(86) Kupper, Nomades, p. 179; G. Dossin, RIV SO XXXII (1957) p. 38.

(87) Kupper, Nomades, p. 179; Dossin, RIV SO XXXII (1957) p. 37.

familiar. This again suggests a location for the home of the "Amorite kings" to the more distant south of Qatna.

The Alalakh texts offer similar hints, but no definite information. At Alalakh "the population was increased by the coming and goings of itinerant merchants and caravaners from Emar (88) and Amurru" (89), fodder was provided there for horses coming from Amurru (90); and grooms from Amurru are recorded (91). To Kupper these dealings with Amurru would indicate, when the limited geographical horizon offered by the Alalakh texts is considered, that the country of Amurru was not far distant (92).

A final hint of Amorite trading activities in the west is provided by the Assyrian texts from Cappadocia (93), where persons identified as Amorite participate in the commercial activities of the Assyrian colonies, and where one of the commodities mentioned is "Amorite silver".

Kupper (94) thinks the country of Amurru now and later (in the Amarna period) should occupy the "Phoenician hinterland" - "l'hinterland phénicien, la région de l'Anti-Liban, du pays de Damas à la vallée de l'Oronte, à hauteur du Nahr el-Kebir,..... C'est vers l'intérieur qu'il était tourné, vers le désert de Syrie; les villes de la côte étaient entre les mains de petits princes indépendants". "On conçoit que les tribus benjaminites y soient allées chercher des pâturages, à la lisière

(88) For Emar, see W.W.Hallo "The Road to Emar" in JCS 18 (1964) p.67.

(89) Wiseman, The Alalakh Tablets, *269; lines 28, 53, 75.

(90) *ibid.* lines 49, 71 and cf. nos. 246, 267, 281; Kupper, Nomades p. 179.

(91) *ibid.* 247 lines 21, 25; no. 277 line 13 and no. 281 line 9.

(92) Kupper, Nomades, pp. 179-180.

(93) Kupper, Nomades, pp. 183-184.

(94) *ibid.*, p. 180.

de la zone désertique".

Gelb in delimiting the frontiers of Amurru defines it in terms of evidence of the 14th-13th centuries from the Amarna, Ugarit and Boghazkoy sources. "The core of Amurru lay in the area east of the Lebanon, bounded on the north by the kingdoms of Ugarit, Qatna and Nuḥašše, and on the east by those of Kadesh and Damascus, and on the south by the Egyptian possessions in Palestine. Its extent westward, toward the Mediterranean Sea, is not quite certain". (95).

Two main points emerge from this review. The first is the amazingly widespread use, both chronological and geographical, of the term MAR.TU/Amurru (from at least 2550 B.C. onwards and from east of the Tigris to Cappadocia and Palestine); and the second is the equation of West Semite-Amorite in the terminology of those writing on the subject, a practice which tends to disguise what may have been an originally closer definition on the part of the ancient writers.

This difficulty may be summed up by saying that while it is certain that Amorites are (North-) west Semites, it is not at all clear which West Semites can be regarded as Amorites, in both linguistic and ethnic terms.

Historically another summary is possible. The texts make it clear that from c.2500 at least there are "foreigners" defined as MAR.TU appearing in Mesopotamia; and that from c.2250 they are united in a large and hostile force troublesome enough to be fought against

(95) H. Cazelles. "Patriarches" in Dictionnaire de la Bible, Supplément 7 pp.81-156 says in XV-XIVth centuries the Kingdom of Amurru dominates the valleys of the Orontes and Litani, with Simyrra as port, and unknown border to the south.

and defeated by Shar-kali-sharri.

One should consider what effect the balance of power in Mesopotamia had on the fortunes of those who encroached its frontiers - the weakening of central power in the Gutti period, and in the Isin-Larsa period seems to have been followed in both the Ur III and First Dynasty of Babylon periods by a great expansion of West Semitic population and power. Whether this expansion can be attributed in the first place to either disruption, or favourable conditions imposed by the empires of Akkad and Ur has already been discussed. The other interesting factor is to note that the MAR.TU of the reign of Ib-bi-Sin capturing all the great fortresses of the land, and the Sutians of the Mari period, raiding in force against Palmyra and cities of the west, indicate that West Semites of the late third-early second millennium were a sufficient force in the east of Syria to destroy an existing sedentary economy without the intervention or aid of other invaders.

B) The Egyptian Evidence

References to Syria/Palestine in Egyptian texts before 2000 B.C. are exceedingly rare; and such evidence as we have is largely secured by archaeological data. In Egypt the pictorial reliefs as well as the inscriptions throw considerable light on the people and events behind the mere visible exchange of objects.

The earliest history of contact between Egypt and the lands to the east extends well back into the Pre-dynastic period, and need not be gone into here, except to note that the evidence consists largely of Syrian-Palestinian objects found in Egypt, or vice versa (96).

(96) e.g. coniferous woods in Egypt at this period are probably cedrus libani, A. Lucas and J.R. Harris, Ancient Egyptian Materials and Industries p.432; PUB pot in Egypt from Edwards Coll., London; also S. Yeivin, "Early Contacts between Canaan and Egypt" IEJ (1960) 10, pp. 193-203, pl.23-4 on Tel Gath c.3500-EBII; cf. also the Syrian- contd.

The earliest references to fighting with the peoples to the east of Egypt appear in the archaic period, c.3000-2780 B.C. Whether one considers Narmer to have been capable of a foreign expedition or not (97), his successors Aha and Djer seem to have battled with encroaching nomads of the nearby deserts. Not long after, "Udimu throws back the Bedouins of the east" (98). A jar sealing of the Second Dynasty records "Per-ibsen, who carries off Asia" (99). Vercoutter considers these battles to have been defensive rather than offensive; and they clearly reflect the same tendencies we have seen in Mesopotamia, translated into terms of Libyans and Asiatics instead of Martu and Gutu - the attempt of peoples on less fertile land to move into rich agricultural and settled regions.

There is considerably more "foreign" activity recorded during the Old Kingdom. The volume of trade with Syria increased, as did Egyptian capacities in various directions. It is interesting to see what levels of organisation the Egyptians were capable of at this period in their dealings with foreign peoples. Commercially the

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- (96 contd.) Palestinian type pottery found at Abusir in the First Dynasty (W.S. Smith, Interconnections in the Ancient Near East, fig.2); R.Amiran and Y.Aharoni "Arad, an Early Bronze Age City and a Biblical Citadel" in Archaeological Discoveries in the Holy Land, The Archaeological Institute of America pp.89-99, where there is a clear relationship of a walled Palestinian city with the First Dynasty of Egypt; also W.A.Ward "Egypt and the Eastern Mediterranean from Predynastic Times to the end of the Old Kingdom" in JESHO (1963) 6, pp.I-57 esp.p.56.
- (97) Y.Yadin "Egypt's Earliest Penetration into Asia", IEJ (1955)5, pp 1-16.
- (98) Bottéro, Cassin and Vercoutter, p.268. For a detailed account of the foreign relations of Egypt see Drower and Bottéro, pp.28-36 for Byblos, pp. 36-41 for Sinai, and pp. 41-47 for Palestine.
- (99) Wilson, in Pritchard, ANET, p.227.

Egyptians were active simultaneously in the western desert, Nubia, Sinai and Syria. In Sinai they seem to have been primarily concerned with turquoise at this time (100). The principal raw materials brought from Syria were timber and resin, and probably oil. In the time of Snefru, according to the Palermo Stone, the Egyptians had forty sea-going ships in one expedition coming laden with timber. The name of Khasekhemui of Dynasty II is recorded at Byblos, to be followed by names of rulers and others in the Fourth, Fifth and Sixth Dynasties. The occurrence of such names is particularly frequent in the Sixth Dynasty (101). W.S. Smith thinks that communication with Byblos at first was by a land route (p.6) but if there were forty ships capable of making the voyage from Egypt to Byblos c.2600 it suggests the sea route had already been in use for heavy timbers and jars of oil for some time previously, and must have been a much easier route once open. There is a relief of an Egyptian ship of the Fifth Dynasty depicting the Syrian expedition of Sahure (c.2470) - a sea-going ship returning with "Asiatics", Syrian jars and Syrian bears, as well as Egyptians (102). Another ship with "Asiatics" aboard is depicted at the end of the Fifth Dynasty on the causeway of Una's funerary temple (103). It is notable that from the Second Dynasty right up to the visit of Egyptian notables to Byblos in Dynasty VI (104) relations with Byblos appear to be friendly and profitable, whereas almost the reverse picture is given of the country to the south of Byblos, that of the "Asiatics" and the "Sand-dwellers".

Military Records of military achievements are generally, it seems,

(100) Beno Rothenberg, "An Archaeological Survey of South Sinai", PEQ (1970) pp.4-29 p.15ff.

(101) W.S. Smith, Interconnections p.11.

(102) Smith Interconnections p.7 and figs. 6,7,8;

(103) *ibid*, p.8, fig.9.

(104) *ibid*, p.12.

to be treated with caution, being in all aspects subject to exaggeration. Egypt does not appear to have possessed a standing army in the Old Kingdom, but to have levied troops when occasion demanded, from the nomes (105), and at least in the Sixth Dynasty, from Nubia and from Libya as well. "The organisational unit of the army often seems to have been the "boat" after the vessels that would transport it to its campaign base" (106).

This must have been an efficient system to have successfully defended the Egyptian frontiers, and better organised than those of its neighbours, as Egyptian victories would indicate. Emery quotes figures for Egyptian campaigns in Nubia, the effect of which seem to be archaeologically attested (107). Egyptian activities in Nubia are recorded as early as those to the east. A cultural horizon in Nubia, the "A" Group, ends at approximately the same time as an Egyptian invasion under Khasekhemui at the end of the Second Dynasty, and Nubia seems to have been largely subjugated under the Old Kingdom. Snefru claims to have taken 7000 prisoners and 200,000 head of cattle from Nubia; and 11,000 prisoners from Libya on another campaign.

Whether or not these figures are exaggerated the Egyptian domination of Nubia seems to be a reality, as the large Fourth-Fifth Dynasty settlement at Buhen shows.

These activities indicate that fairly large scale Egyptian military activity in Sinai and Palestine during the Old Kingdom was at least feasible; and thus supports such slight evidence as we have in the texts. Many of the kings of the Fifth and Sixth Dynasties - Sahure (see above), Niuserre, Menkauhor, Isesi, Unas and Pepi I either sent expeditions or were active in obtaining raw materials (e.g.

(105) Bottéro, Cassin and Vercoutter, p.303.

(106) *ibid.* p.303.

(107) W. Emery, Egypt in Nubia, pp.123-132.

turquoise) to the east (108). Two tomb inscriptions of the Sixth Dynasty are particularly relevant (109). The first is the oft mentioned relief of a seige (110), thought to be of a walled town in South Palestine. Also important is the record of Uni, an official mainly under Pepi I (c.2320-2280 B.C.) who describes the levying of a large army from Egypt, Nubia and Libya, which mounted five expeditions against "the Asiatics who-are-upon-the-sands", the "Sand-dwellers" - who are the people of the east; presumably, as they are described as having "enclosures", fig-trees and vines, and houses, these "rebellious" people must be as far east as south Palestine, and not just nomads of the desert fringes of Egypt. Uni's text concludes "When it was said that backsliders because of something which were among these foreigners in Antelope-Nose, I crossed over in transports with troops. I made a landing at the rear of the heights of the mountain range on the north of the land of the Sand-Dwellers. While a full half of this army was still on the road I arrived, I caught them all, and every backslider among them was slain" (111).

After considering the experience of Egyptian seafaring to Syria, the size and capacity of its army and the very numerous "smiting of the Asiatics" recorded in the preceding 500 years, the oft-proposed identification of "Antelope-Nose" and "the mountain range on the north of the land of the Sand-Dwellers" with the Carmel Range conjectures a situation not beyond the capabilities of the Egyptians of the Sixth Dynasty. Whether in fact Uni did go as far as Carmel (or even beyond Byblos as once suggested by Albright) with his army is not certain - but if one locates this expedition in the north, and all his previous

(108) Bottéro, Cassin and Vercoutter; pp. 321-326.

(109) Ward, JESHO 6, p.26.

(110) Petrie, Deshasheh, pl.10.

(111) Wilson, in Pritchard, ANET p. 228.

campaigns in south Palestine in any seriousness, one should consider what effect this had on Palestine as a whole, and in fact to wonder whether the collapse of Early Bronze Age urban civilization in that country was not triggered off by Egyptian action in the early Sixth Dynasty, rather than by the Inter. EB.MB peoples in the first place; and whether such a disturbance might not have prepared the way for their advance.

The alternative, to place these campaigns entirely in Sinai, perhaps in the region of the turquoise mines or the routes to them, raises problems both in terms of times of the sedentary occupation in Sinai, and identification of the "mountain range on the north of the land of the Sand-Dwellers". In fact "land of the Sand-Dwellers" applies better to Sinai than to Palestine; but identifying the "mountain range" with Jebel el Ma'aza - Jebel el Maghara, for instance, dark low hills a maximum of 2000 feet above the sandy coastal district, and having Uni land in the region of el-Arish to march inland, having avoided the dry land route across north Sinai, excludes the whole of the south Palestine region from the "country of the Sand-Dwellers", and, so far, no fortified sites on the scale of that depicted at Deshasheh have been discovered in Sinai.

Egyptologists stress that the collapse of the Old Kingdom at the end of the reign of Pepi II (c.2258 B.C.) was largely due to flaws in the system which had been developing for generations previously in Egypt; the decentralisation of wealth and power from the monarchy to the nobles, temples and funerary cults, which lead eventually to the anarchic conditions which prevailed in the early years of the "First Intermediate Period" (c.2258-2040 B.C.)

To the outside world this was indicated by the cessation of foreign expeditions - to Byblos and to Sinai (112), and by the end of

(112) Posener, Bottéro, Kenyon, CAH 29, p.3.

the Egyptian presence in Nubia after Pepi II. The evidence within Egypt is very scanty - and relies heavily on a document called "The Admonitions of Ipu-Wer" which survives in a Nineteenth Dynasty copy (113). It bemoans the lack of resinous oils for the mummification rites - "no-one really sails north to Byblos today. What shall we do for cedars for our mummies?" (114). In the disordered conditions of the times, foreigners occupied the Delta "Barbarians from outside have come to Egypt", "foreigners are now skilled in the work of the Delta" gives "a glimpse of Asian nomads infiltrating Egypt and occupying the Delta by force" (115). These foreigners occupied and ruled the Delta until the re-establishment of Egyptian order by the Tenth Dynasty of Heracleopolis sometime after c.2130 B.C.

There is little evidence concerning the origins of these invaders of the Delta, and until such time as it is forthcoming, it seems most likely to think they were the fringe dwellers, nomads, against whose infiltration the Egyptians had been holding out for centuries; "Asiatics", "Sand-Dwellers", from the east and people from the western desert fringes, taking advantage of the disorganisation in Egypt, and thereby adding to it. The description of them in the "Instruction of Meri-Kare" is the only one available to us. "The wretched Asiatic, bad is the country where he lives, inconvenient in respect of water, impracticable because of many trees, its roads are bad on account of the mountains. He does not settle in one single place, for (lack of) food makes his legs take flight. Since the time of Horus he has been at war; he does not conquer, nor can he be conquered. He does not announce the day of fighting...." (116).

(113) Bottéro, Cassin, Vercoutter, p.329.

(114) Pritchard, ANET p.441.

(115) Bottéro, Cassin, Vercoutter, p.329.

(116) Posener, Bottéro, Kenyon, CAH, p.5.

The re-unification of Egypt under the Pharaoh Mentuhotep I of the Eleventh Dynasty (c.2040) brought with the re-imposition of order a renewal of foreign contact. The 20th and 19th centuries were periods of lively activity, but we have very little indication of what changes the Egyptians found in neighbouring countries. They reconquered Nubia almost immediately to restore their trade routes to the south, and the policy of subduing the foreigners as obstacles in the path of obtaining raw materials seems to continue. The Sinai turquoise mines were reopened equally promptly, possibly under Mentuhotep, certainly under Sesostri I. There is evidence that this movement was not one sided, for Asiatics still seem to be settled in Egypt during the Middle Kingdom (117). As before, the records refer to "'Aamu"= "Asiatics", a term attested from the Sixth Dynasty (118). In the Tenth Dynasty it seems to refer to warring nomads in a mountainous wooded area, probably Palestine (see above "The Instruction of Meri-Kare").

The first king of the Twelfth Dynasty, Amenemhet I, seems to have taken a more positive approach to foreign policy. After expelling foreigners from the Delta (there is some indication of upheaval at the end of his predecessor's reign) he constructed fortresses on both east and west frontiers of the Delta, that on the east being called "The Prince's Wall", and consisting probably of a line of forts to control entry into Egypt; in other words, an attempt was made to seal off the unsubdued elements of the east in Sinai and Palestine. In his 24th Year Amenemhet seems to have organised a limited campaign in south Palestine (119). In his 29th Year he was active in the Eastern desert. It was the assassination of this monarch that is the starting point for the famous "Story of Sinuhe" (120) which appears to be sufficiently

(117) *ibid*, p.13.

(118) Pritchard, ANET, not before Sixth Dynasty.

(119) Nesmont Stele; Breasted, Ancient Records I, p.469 ff.

(120) Pritchard, ANET pp.18-22.

founded on fact to make the details of Sinuhe's flight from Egypt to a country of "Upper Retenu" somewhere in north Palestine-south Syria historically interesting. It is on the basis of this story that the "Wall of the Prince" or "Ruler" is thought to be a line of garrisoned fortresses rather than an actual wall. Sinuhe's flight took him towards the north, in the direction of Byblos, but before reaching it he turned inland towards the east, to the land of "Upper Retenu", where he lived in exile for many years. The description of this country given by Sinuhe (c.1960 B.C.) is detailed; of a tribal society (with a ruler whose name is read as (121) Ammi-enshi), with agricultural pursuits, harvesting figs, grapes, wine, honey, olives, fruit trees of all kinds, barley and emmer; and which also possessed cattle. In spite of minor rivalries and raids, the land was peaceful, and most importantly, Egyptian messengers passed from country to country, unhindered. This is not only interesting as indication of a revival of Egyptian activity in Asia; but it brings strongly to mind the similar situation described in the Mari letters. That is only a century later, when there is a well established tradition of messengers passing from places as far apart as Elam and Qatna and possibly Hazor, in fact not far from the region that Sinuhe appears to have chosen for his exile. The interesting fact is that neither in the Ur III period (c.2111-2003) when Mesopotamian trade may have reached as far as Byblos, nor at this time (c.1960-1940), nor during the time of the Mari letters (c.1830-1759) is there any mention of mutual recognition by Egypt and Mesopotamia, though admittedly in the Ur III period, Egypt was no longer going to Byblos, and the Biblites may have had to look to the east for a market (122). Another indication of the peaceful period

(121) ibid; p.19, footnote 11 "an Amorite name".

(122) And perhaps north; see Albright BASOR 155 pp.31-34 "A "Lycian" at Byblos in the 21st century?"

that coincided with the reigns of Sen-Wosret I, Amenemhet II and Senwosret II (c.1962-1878), in the Sinuhe story, is that "there is never a mention of any war between Egypt and an Asiatic state; and in the second place, all of these principalities appear to be independent of Egypt, with whom they are all on excellent terms"(123).

There seems to be co-operation between Egyptians and Asiatics in Sinai at this time also. The Beni Hasan wall paintings show a party of Asiatics arriving in Egypt in the reign of Sen-Wosret II, bearing gifts, and coming in peace with weapons, women, children and animals (124). Their leader is called Ibsha - which Albright has interpreted as Abi-Sharru (125).

This peaceful interlude was disrupted in the reign of Sen-Wosret III (c.1878-1843), during which the mining expeditions to Sinai appear to be quasi-military; and the king marched into Asia at the head of his army as far as Sekmem, thought to be Shechem in Palestine. Perhaps relating to this campaign is the painting of Syrian cattle in the tomb of Djehewty-hetep, which may have been brought ~~back~~ from Palestine as loot (126). There is also other evidence for livestock being imported into Egypt from Asia in the Twelfth Dynasty (127). The same military push is witnessed in Nubia.

This period of less good relations with the east seems to coincide chronologically with the Execration Texts, which for the first time provide a considerable list of personal and place names for Palestine. They also, on present chronology, coincide with the end

(123) Bottéro, Cassin and Vercoutter, p.366.

(124) P.E. Newberry, Beni Hasan I, 1893, pl.XXX.

(125) Albright, JPOS VIII, p.255.

(126) P.E. Newberry, el Bersheh, 1893, pl. XXVIII; and Rowe, Cat. of Egyptian Scarabs in Palestine, fig.3.

(127) Posener, Bottéro, Kenyon, p.13.

or more probably a period after the end of the EB.MB period in Palestine. They fall into two groups, those published by Sethe (128) dated c.1850, and those published by Posener (129) dated c.1800 (130). The texts contain the names and countries of petty rulers in Palestine and the countries neighbouring Egypt, inscribed on potsherds or small limestone figurines of prisoners, by breaking which the Egyptians hoped to magically bring about the downfall of their enemies. Sethe, Posener, Alt and Albright (131) among others have suggested identifications for the places listed, which vary from fairly well attested to very doubtful (132). The lists do not seem to include

(128) K. Sethe, Die Achtung feindlicher Fürsten, Völker und Dinge auf altägyptischen Tongefässscherben des mittleren Reiches... (Abh. Berlin 1926, no.5). The texts from Mirgissa recently published by Posener (Syria XLIII (1966) pp.277-287) parallel those of Sethe in content and date, and provide no further place names for Palestine.

(129) G. Posener, Littérature et politique dans l'Égypte de la XIIe dynastie (Bibliothèque de l'École des Hautes Études, fasc. 307) Paris, 1956.

(130) The dating of the Execration texts varies slightly. It is generally agreed that those of Sethe pre-date those of Posener. Vercoutter attributes them to the second half of the Middle Kingdom (i.e. c.1900-1786 B.C.); Kupper (Nomades p.238) to the end of Dyn. XII or a little later (i.e. c.1850-1750 B.C.). Albright (BASOR 184 p.28) dates the Sethe texts c.1925-1900, and those of Posener c.1850-1825, on the higher chronology.

(131) Albright, "The Land of Damascus between 1850 and 1750 B.C." in BASOR 83, (1941) pp.30-9.

(132) For a list of identifications, see also Y. Aharoni The Land of the Bible pp.125-135; Maisler, Revue del. Hist. Juive en Egypte I, (1947) pp.66-7 and Alt, ZDPV LXIV (1941) p.33.

those cities, which, judging by the number of Egyptian objects found in them in excavations, are most closely linked with Egypt, e.g. Megiddo, Ugarit, the town of Byblos, and Qatna (133). The older (Sethe) texts list twenty countries, for each of which it is not unusual to have from two to three or even four rulers listed, which suggests a tribal organisation; while the later (Posener) texts list 62 countries or districts with only one ruler for most (134). It altogether suggests a great expertise on the part of the Egyptian "foreign office", both in knowledge of the territories, and in ability to keep pace with political changes within them.

The linguistic evidence based on these texts is unanimous that all the names are linguistically West Semite; they are often called Amorite (135) though Gelb produces some evidence to cast doubt on whether these names can be distinguished as West Semitic/Amorite or innovating Canaanite (136).

The earliest mention of "Amor" in an Egyptian text is much later, c.1300 B.C. (137) when it is mentioned as neighbouring Qadesh in Syria (138).

C) The Palestinian Evidence

The literary evidence from Palestine itself can be confined to two major headings, a) biblical and b) place names.

(133) Posener, Bottéro and Kenyon, p.19.

(134) *ibid*, p.26.

(135) A. Goetze, JSS (1959) IV, p.144 ff.; and Posener, Bottéro and Kenyon, p.29.

(136) Gelb, JCS 15, p.39.

(137) Posener, Bottéro and Kenyon, p.27.

(138) Cazelles, "Patriarches" in Dictionnaire de la Bible Supplément 7 pp. 81-156.

a) Biblical

The Bible is primarily the history of a religion, not of events (Cazelles) and its difficulties as an early source are increased by its being transmitted as an oral tradition from various, probably tribal sources, long before being written down. The "Patriarchal Period" in Genesis is usually given an historical background in Palestine in the early second millennium, and the attempts to elucidate the details by reference to earlier or contemporary Egyptian or Mesopotamian history, religion and mythology have been numerous. Cazelles (139) gives a detailed summary of the subject. He concludes by saying it is impossible to resolve the difficulties involved, but agrees in placing the Patriarchs (Abraham, Isaac and Jacob) as historical figures "complex characters", in a historical and geographic background that is "Amorite" (though in Jacob there are later elements). It is the figure of Abraham, or rather perhaps, the background against which he moves, that has been subject to so much study.

The relevant main points in the Patriarchal history are as follows. Firstly, Abraham and his immediate predecessors are pictured as coming to Canaan from Ur in Mesopotamia, by way of Harran. Reduced to its essentials, the story reflects a tradition of West Semites emigrating to Palestine from the north-east. Other aspects of this route have been considered; Dhorme, for example, points out the connection between Ur and Harran for the worship of the Moon-god Sin (140).

Secondly, the semi-nomadic way of life which is given for the Patriarchs. "Now Lot was travelling with Abram, and he too possessed sheep and cattle and tents. The land could not support them both together; for their livestock were so numerous that they could not

(139) H. Cazelles, "Patriarches" in Dictionnaire de la Bible, Supplement 7, pp.81-156.

(140) E.Dhorme, "Les religions de Babylonie et d'Assyrie" 1949, p.60.

settle in the same district, and there were quarrels between Abram's herdsmen and Lot's.'(141). Though Abraham has dealings with towns such as Shechem, Hebron, Jerusalem and Gerar, he appears to camp by them, not to settle in them (with the possible exception of Gerar?). He goes to the sanctuary at Shechem, pitches his tent between Bethel and Ai, and journeys to the Negeb. In time of severe famine in the Negeb he goes to Egypt. Other places in the Negeb, and Beersheba, as well as the five cities of the plain come into the story, which is centred on central Palestine, and south to Egypt. These plus the Transjordan places mentioned in the story of the campaign of the four kings (Genesis XIV) suggest a period for Abraham when both Transjordan and northern Sinai were inhabited which points to the EB.MB period or the 1A. The pastoral and semi-nomadic life combines with this place name evidence to suggest the EB.MB period.

de Vaux (142) would suggest a period c.1850 B.C. as best fitting the various elements of the story. However, the insistence with which the sources reiterate from the time of Abraham's arrival at Shechem that "the Canaanites.....were then living in the land" (143) is perhaps an indication that the incidents should not be dated earlier than c.1800, if they can be accepted historically at all.

Albright has related evidence for donkey caravans in the early second millennium to the story of Abraham (144). There is no biblical support for this interpretation at all (145) except in associating

(141) The New English Bible, 1970, Gen.13: 5-6.

(142) R.de Vaux, "Les Patriarches Hébreux et les Découvertes Modernes" in RB 55 (1948) p.334.

(143) Gen.12:6; 13:8; 24:3.

(144) W.F. Albright, "Abram the Hebrew; a New Interpretation", in BASOR 163 (1961) pp.36-54.

(145) de Vaux, RB 1969, p.118.

Abraham's ancestors with large trading cities in Mesopotamia (Ur and Harran) and having him go to Egypt once in time of famine in the Negeb (Gen. 12.9-20 and 13.1-2). Though he becomes rich in Egypt, and later more rich and powerful in the Negeb and South Palestine than a pastoral life might perhaps lead one to expect, there is no indication of commercial activities or such regular journeying.

Thirdly, the most puzzling of the incidents associated with Abraham is the curious Genesis Chapter 14 (146) which recounts the campaign of the four kings to Transjordan and the Jordan Valley. It is generally agreed that this chapter does not belong to any of the major identifiable sources of Genesis, but its historical value is very diversely appreciated. Some refuse all credit to it; or consider it only a late composition, an antique pastiche which tries to give Abraham a warrior lustre that he lacks (147). Both de Vaux (148) and Albright (149) consider that the story has authentic elements and have attempted to identify and date the protagonists. The campaign again presupposes a time when south Transjordan was inhabited; indeed de Vaux suggests the cause of the expedition was to reopen the trade routes from the north to the Red Sea ("The Kings' Highway"). de Vaux suggests the circumstances fit best into the nineteenth century; Albright prefers a date a little later in the time of Abi-eshuh or Ammi-Ditana of Babylon (late 18th-early 17th century). But the whole incident remains obscure (150).

(146) Cazelles, op.cit. p.122; de Vaux, RB 55 1948, p.334.

(147) de Vaux; La Genèse; La Sainte Bible, trad. en français sous la direction de l'Ecole Biblique de Jerusalem, 1962, (2nd. ed.) p.78.

(148) de Vaux, RB 1948, p.334.

(149) Albright, BASOR (1942) 88, p.34 "The Spartoli Tablets".

(150) J.A. Emerton "Some false clues in the study of Genesis XIV" VT XXI (1971) pp.24-47 tends to dismiss present evidence for a verse tradition for Gen. XIV; and the work of M.C. Astour that Gen. XIV is based on a

To attempt to date Abraham, or similar West Semitic nomads, on the Egyptian evidence is impossible, for a sojourn in Egypt in time of famine in the Negeb could equally well fit into a context of "Asiatics" invading the Delta during the First Intermediate period, or "Asiatics" who are living in Egypt under the Twelfth Dynasty or later. At the most one can say there is literary evidence from both sides for such movements; but the later periods best fit the picture of order and wealth in Egypt given in the biblical story.

It is equally difficult to understand the ethnic situation in Palestine from the Biblical account of the Patriarchal period. Canaanites and Amorites are the main inhabitants of the land, but a host of other elements are referred to, such as the Hittites (Hurrians?) of Hebron (151). The Bible never mentions the "country of Amurru" - but there are many references to Amorites, from the mention of Mamre the Amorite who was an ally of Abraham's in Palestine, to Sihon the Amorite who was King of Hebron in Transjordan after the Conquest.

The Amorites are simply referred to, like Canaanites, Jebusites and others, as inhabitants of the land, with all of whom Abraham seems to have lived fairly amicably (e.g. Egyptian slave girls, a Hittite burial ground, Amorite allies, a pact with the King of Gerar). Later, a broad geographical distinction is drawn, between "all the Amorite kings to the west of the Jordan and all the Canaanite kings by the sea coast" (152).

b) Place Names

An attempt has been made by Isserlin to draw information on the

(150 contd.) version of the Spartoli tablets in "Political and Cosmic symbolism in Genesis 14 and in its Babylonian sources" in A. Altman (ed.) Biblical Motifs (Cambridge, Mass. 1966) pp.65-112.

(151) See Speiser, on Horites; *infra*.

(152) Joshua 5: I.

ancient settlement of Palestine from place name evidence (153). While stating that evidence pre-dating the Middle Kingdom is scanty and of doubtful validity he also says "Palestinian place names are West Semitic as soon as evidence is available"; and "In this study however, the beginning of the Early Bronze has been taken as the limit up to which the history of settlement is followed. This limitation is not meant to imply any judgment, but is merely based on the fact that by that time at least the presence of Semitic speakers on sites later known to have borne Semitic names would not be unlikely, whereas before this it would be open to discussion" (154).

Speiser (155), presumably on the basis of the same "scanty" evidence of "doubtful" validity, disagrees. "Now it would be fallacious to base upon this fact (Hurrians arriving in Palestine post c.2000 B.C. met West Semites in occupation) the conclusion that the Semites really constituted the earliest ethnic groups in the areas under discussion, at least within historic times. We know, in fact, that such was not the case. In Palestine place names of the Early Bronze Age testify to the early occupation of the country on the part of non-Semitic elements; the same may be said of Syria". (156).

(153) B.S.J. Isserlin; The Occupation of Palestine during the Third and Second Millennia in the Light of Place Name Evidence. D.Phil. Thesis Bodley 1954.

(154) Isserlin, op.cit. p.9.

(155) Speiser, "Ethnic Movements in the Near East in the Second Millennium B.C." in AASOR XIII (1933) pp. 13-54. Speiser's view is also at odds with that of Gelb, detailed above, who considers Palestine to be a West Semitic homeland.

(156) Speiser, ibid. p.32. Sethe's work on the Execration Texts should perhaps be mentioned in this connection; and see also, Albright, "The Egyptian Empire in Asia in the Twenty-first Century B.C." in JPOS 8 contd

Later in the same article he agrees however that in the period of the conquest of Canaan "the Habiru settled in a district that was predominantly Semitic" (157). A final remark on this undocumented problem can perhaps be taken from Albright and Lambdin (158) who discuss the relationship of Semitic and Ancient Egyptian, both languages being treated as sub-groups of the Afro-Asian (Hamitico-Semitic) Family. Both indicate developed separate forms by no later than the fourth millennium B.C. This relationship perhaps has some relevance in at least a geographic sense. At a better documented period they conclude (p.17) "c.2000 (and earlier) to c.1750; a dialect continuum (Amorite) extending from northern Mesopotamia westward into Syria - Palestine. Contemporary data are insufficient for dialect divisions".

Isserlin's conclusions for the period are also interesting. "The

(156 contd.) (1928) p.231 "Gubla or Kupla (originally non-Semitic) which was Egyptianised as Kpn (later Kbn) not later than the First Dynasty". Drower and Bottéro (p.6), also indicate the scantiness of the evidence for Palestine at this early period, rather than much improving the case for a non-Semitic element in Palestine. Lachish is suggested as a particular case, but as with others, there is no clear proof that this was the earliest name for the site. It is agreed that "farther to the north, the proportion of Semitic names grows smaller".

It is clearly impossible in the present state of the evidence to say more than that in the third millennium there is at present a stronger case for Palestine as an original home of the Semites, than for northern Syria, which has a larger proportion of linguistically unidentified early place names.

(157) *ibid.* p.41.

(158) Albright and Lambdin, pp.12-13.

catastrophic period following the end of the Early Bronze Age leads over to the second millennium B.C. about which we are in possession of more reliable data. Topographical nomenclature seems to have undergone a change with a decrease in the number of nominal compound names. The external association of the names found are with the "East Canaanite" area and the West Arabian zone. The place names may indicate the intrusion of a nomadic element of "Amorite" affinities. Other features, such as names from the root 'pr maybe linked with the settling down of these tribes, but they are documented only at a later stage" (159). Isserlin discusses the position of Arabia in linguistic terms, and sees a clear affinity between Palestine, Syria and South Arabia (160). He suggests that "A Syrian as well as an Arabian centre of diffusion in early times would thus emerge; the two regions are obviously closely related, but where any original priority might lie is at present impossible to say" (161). In his discussion of the Middle Kingdom place names evidence "Old Anatolian and Hurrian elements were, occasionally at least, to be found down the coast early in the second millennium B.C. We have however, not met a case where the existence of such elements in Palestine could be maintained with any high degree of probability". (162).

The major points that emerge from his work are i) the entirely Semitic character of the evidence for the language in Palestine possibly from late Chalcolithic, probably in the Early Bronze Age, and certainly in the early second millennium. 2) The close relationship of the language of Palestine and Syria in the early second millennium and its relationship to South Arabian; and 3) the likelihood of Syria as a centre of diffusion for West Semitic.

(159) Isserlin, p.212.

(160) *ibid.* p.58.

(161) *ibid.* p.222.

(162) *ibid.* p.78.

Finally it seems relevant to include the article by Astour (163) in this section on place names. Here the evidence for a connection between the tribes of the Benjamina of the Mari texts and the Israelite tribe of Benjamin is set out, together with a summary of the views of other scholars. Summarised, Astour's conclusion is that the name of the ancient city of Jericho in the Jordan Valley, in the territory of Benjamin after the Conquest, is derived from that of one of the tribes of the Benjaminites - the Iariḥû (known from the Mari texts). He lists an impressive number of "coincidences" to support this conclusion, ranging from Abraham's connection with Ur and Harran, chief centres of the worship of the moon-god; the Benjaminites being centred on the region of Harran; and the translation of Jericho as "tower of the moon" or "moon god"; to the Israelite practice of renaming cities captured by them (e.g. Laish - Dan) and the earliest reference to the name of Jericho being post-conquest and therefore possibly the responsibility of the tribe of Benjamin. Noth regards these coincidences as being fortuitous, others see some element of truth in the connection (e.g. Dussaud, Dhorme, von Soden and Parrot, and see Kupper, Nomades, p.81, no. 1). The text from Mari referred to previously, in which the Benjaminites are the tribe who pasture their flocks as far away from Harran as the country to the south of Qatna, adds another factor to an at present unresolvable series of contacts in our continually widening knowledge of the net-work of West Semitic movements and interrelationships in the late third and second millennia B.C.

(163) M. Astour, "Benê-Iamina et Jericho", in Semitica IX (1959) pp. 5-20.

SECTION IISURVEY AND DISTRIBUTION OF INTERMEDIATE
EARLY BRONZE-MIDDLE BRONZE AGE SITES

The Intermediate Early Bronze - Middle Bronze Age is a period which has been recognised archaeologically for over forty years by its (in general) homogeneous series of artifacts, in both ceramic and metal. Starting at sites like Jericho, Ajjul and Tell Beit Mirsim, and continuing to such recent additions as Har Yeruham and Jebel Qa'aqir excavations have provided a considerable body of material in Palestine, and several attempts have been made to give chronological and geographical position to variations revealed within the period, on both stylistic and stratigraphic grounds (1).

(1) In particular, G.E. Wright, "The Chronology of Palestinian Pottery in MBI" in BASOR 71 (1938) pp. 27-34. G.E. Wright, p.87, Chart 4, in Essays in Honour of W.F. Albright ed. G.E. Wright, (London, 1961). R. Amiran, "The Pottery of the MBA I in Palestine" in IEJ 10 (1960) pp. 204-225. W.F. Albright, "The Chronology of MBI (EB.MB)" in BASOR 168 (1962) pp. 36-42. W.F. Albright, "Remarks on the Chronology of EBIV-MBIIA in Phoenicia and Syria-Palestine" in BASOR 184 (1966) pp. 28-33. K.M. Kenyon, Amorites and Canaanites (London, 1966) esp. pp. 6-35. K.M. Kenyon, Jericho I (London, 1960) pp. 180-185. Jericho II (London, 1964) pp. 33-49. P.W. Lapp, The Dhahr Mirzbaneh Tombs (Amman, 1966). M. Kochavi "The Settlement of the Negev in the Middle Bronze (Canaanite) I Age" (Unpublished Diss. Heb. Uni. Jerusalem 1967). W.G. Dever, "The 'Middle Bronze I' period in Syria and Palestine", in Essays in Honour of Nelson Glueck, Near Eastern Archaeology in the Twentieth Century, (Garden City, New York, 1970), and forthcoming, Vols. II and III of the new Annual of the American Schools in Jerusalem, his doctoral dissertation on the MBI in Palestine and Syria.

Most of these efforts have been based on stylistic variations, as the majority of the artifacts have come from cemeteries. These provide useful closed groups of contemporary material, but for the most part leave the problem of differences between groups open to various interpretations, regional, tribal or chronological. Only in recent years has more evidence been forthcoming, much of which is still unpublished.

This study is not an attempt to re-evaluate the Palestinian evidence on the same basis; but using the general background of well-known ceramic and metal types in Palestine, to see what evidence there is for the culture represented by similar artifacts in Transjordan, where there is a considerable amount of material now available for study; and subsequently to look at the evidence available in the adjacent areas of Syria and Lebanon.

The sites listed on the distribution maps are restricted to those which clearly belonged to the homogeneous groups which are known from Palestine, and do not include any of the settlements of contemporary groups which merely indicate varying degrees of contact or closer relationship. These sites and relationships will be discussed in the Pottery and final sections.

A) General Distribution of Sites of the EB.MB Period

Distribution maps have been drawn for all the areas under review, including Palestine, the Negeb and Sinai, as the overall picture in this case is obviously as important as the individual location and relationship of sites. The two main sections, Map II, Transjordan and Map III, Palestine and the northern Negeb, have been drawn at 1:250,000, as this is the smallest scale at which topographical details are still legible, and the scale of some of the best drawn and most readily available maps from both the British Mandate Government period, and from Israel. As the final result is, however, still inconveniently large, in areas where the sites are more scattered, or fewer finds

have been made to date, a smaller scale has been adopted. Thus for Map IV, Lebanon and south Syria and Map V, Sinai and south Negeb a scale of 1:500.000 is used. Map I provides a key for the combination of the different areas, at 1:4.000.000.

In all cases, the sites are referred to by an Area Letter which has been organized as follows.

- A-B North of the Yarmuk River, incorporating the north-east section of the Jordan Valley, the Jaulan Heights and south Syria.
- C-D North of the Zerqa River
- E-F North of the Mujib River
- G-H North of the Wadi Hesa
- J North of Aqaba
- K-L East Jordan Valley, south of the Yarmuk
- Q Lebanon
- R-S Israel north of the line of the old Haifa-Hamadiya Railway
- T-U Jordanian Palestine
- V-W Central Israel and the Gaza Strip
- X-Y Negeb, south of Palestine Grid 070
- Z Sinai

This initial letter is allied to a second letter, which is given to each individual site (NB but which is not in strict alphabetical series) - thus Site CL = Jerash, in the Transjordan Plateau between the Yarmuk and Zerqa Rivers, and Site TN = Dhahr Mirzbaneh in Jordanian Palestine. The sites have been organized in this way for several reasons. First, so that each location could be identified on the map, on which there was insufficient space to include the full name (even at 1:250.000 this has not been fully possible for all the sites in the densely settled parts of the north Negeb and Sinai). Second, this separation into broad geographic units should indicate geographical variations in both study techniques and finds, if these can be shown to exist. Third, letters are used rather than numbers to

avoid confusion with the numbers allocated by Nelson Glueck to sites discovered during his mammoth surveys in Transjordan and the Negeb, where the first site in each survey season was numbered 1. Thus in Expl. I-IV the sites are recorded as follows:

Expl. I: Sites 1-150 Amman-Shaubak area.

Expl. II: Sites 1-261 Sinai, and south Transjordan.

Expl. III: Sites 1-370 Central and south Transjordan.

Expl. IV: Sites 1-330 North and Central Transjordan, and Jordan Valley.

Negeb: Sites 1-450+.

Fourth, a system capable of expansion within each section was required.

An alphabetical key list which runs from AA-ZAD is given in Appendix B; and an alphabetical list of sites, divided into three parts a) Syria and Transjordan, b) Lebanon and Palestine and c) Negeb and Sinai (this is a separate category as the majority of the sites are unnamed) is given in Appendix A, together with references to their publication. In compiling these alphabetical lists, the Arabic definite article, and the normal descriptive terms "tell" and "khirbet" and their Hebrew equivalents, have been ignored (except in the case of Tel Aviv). Generally the title under which the site was first published has been preferred, unless a secondary name has become standard since then. This subject is particularly complicated in view of the establishment of Israel, and occasionally it is difficult to decide whether a known site is being referred to under a different name, or simply a direct translation; or whether another site has been discovered in the vicinity. Where necessary cross references have been introduced. Early visits to many of these sites, such as those of Musil, Conder or Brunnnow and Domaszewski have been listed by Glueck, and these references are not repeated here.

On the distribution maps, the following conventions are in use:
o settlement; i.e. artifacts found indicating domestic activity,

- or evidence of habitation.
- + cemetery or single grave only.
- both the above categories.
- ? the evidence for o or + is doubtful, e.g. finds variously identified by different archaeologists or sherds which may be EB.MB.

Perennial streams and modern political frontiers are usually the only other features marked. The reasons for the former will be discussed below, and the latter is practical information of the first importance to a field archaeologist. Other features which might usefully have been incorporated on separate sheets have been reduced to chart form (see Appendix C) as the amount of information coming from most of the sites is too limited to justify a series of distribution maps. Such details were not included on the main sheets as an overloaded distribution map is simply confusing. The Palestine Archaeological Grid has been drawn on the relevant sheets as this is the general system of field reference used by the majority of field archaeologists, and forms the only topographical identification for most of the Negeb sites.

Sources for the Distribution Maps

The amount of source material for the total of 308 sites marked on all maps varies enormously (the references are given in Appendix A). Of this number the writer has seen and handled pottery from more than 70 sites, and approximately the same number of sites have had material of this period published. The exact numbers are indefinite, as in Expl.III for example, all EB.MB pottery from central and south Trans-jordan sites was published as a small representative pottery series without individual find places being listed; and for very few of the Negeb sites has there been any pottery published. More often a characteristic sample is given or mentioned for a group of sites.

The main sources for the distribution maps are as follows.

i) Palestine.

These sites divide broadly into two categories

a) 37 grave or cemetery finds,

b) 27 settlements. Fourteen of these have been excavated in part, the remainder are surface finds only. The relatively small proportion of settlements to cemeteries (27 to 37) is probably largely due to the lack of published surface survey material in Israel in recent years.

A fairly large amount of survey material for Palestine does exist in the basement of the Palestine Archaeological Museum which was collected under the Mandate Government. Of the fifty or so sample bags looked at, only Tell Ain Fara(h) (presumably the site excavated by Père de Vaux and the École Biblique of the Couvent des Dominicains de Saint-Étienne de Jérusalem) had sherds dating earlier than the Iron Age; and for the most part the sherds seen were indicative of all the later periods of settlement (Iron Age to this century). This is probably to be explained, as is the small proportion of settlement sites listed above, by the comparative frequency in Palestine of the "tell" formation, so that the earlier sherds are buried and very difficult to find. Even on 'one period sites' in the Negeb and Transjordan where the sherds are relatively exposed, it can still be an extremely hard task to find definitive sherds (2). There is also more building and agricultural work of all periods in Palestine to disguise earlier settlements.

Of the thirteen remaining unexcavated settlement sites, it is interesting to note that one site was found by Glueck during an extension of his survey into the south-west Jordan Valley, and the

(2) B. Rothenberg, God's Wilderness, (London 1961) p.39 "The ruins were so characteristic (of EB.MB) that I still stuck to my guns after a prolonged search had failed to yield a single sherd".

Wadi Farah (3), and three sites were found in a relatively small area south of Beth Shan during the detailed work of Dr. Mittmann (see below) in more recent years. This rather large proportion of sites (four out of thirteen from a very small part of the total geographical area), indicates that modern survey techniques applied to Palestine should substantially increase the number of sites.

The high excavation rate in Palestine is reversed in all other areas.

ii) Sinai and the Negeb.

59 - 61 sites are recorded in the north and central Negeb, and so far, 28 in North Sinai. Only one is recorded in the south part of the Negeb, and none at all in south Sinai. They are all settlement sites, but many, if not most, clearly incorporate cemeteries adjacent to them. The main site for the area (and the only one excavated) appears to be Har Yeruham, but it is clearly more complex than nearly all the others, and therefore to some extent uncharacteristic. It is also clear that these sites are difficult to separate from one another, and many are so close together that it is difficult to say whether they should be regarded as one complex or many units. "Site XAG" for example, refers collectively to settlements in great density in several parts of the Ramat Matred plateau. The number of sites listed for the whole area is only an approximation therefore, and has been collated from the surface survey work of Glueck; Evenari, Aharoni et al.; Rothenberg; and Cohen. For detailed references see Appendix A, Sinai and Negeb section. It has also been reported that on many of these sites the sherds are very scarce, very difficult to find and so worn as to be difficult to date. Very few of them have been published.

The Sinai distribution map as drawn at present is likely to be

(3) Expl. IV, p.422, pls. 88 - 90, Tell Misqa (TJ).

subject to substantial increases in other areas. In a recent conversation Rothenberg (31st March, 1971) kindly told me that many other sites have recently been discovered in north-western Sinai. The numbers of such sites were unspecified but he indicated that EB.MB settlements similar to those already known might be found on nearly every mountain in north Sinai. His survey included the finding of a large EB.MB site "only a few metres" from the Suez Canal (4).

iii) Transjordan.

All the material from Transjordan, with few exceptions, is also from surface survey, and the sites listed are disproportionately settlements as opposed to cemeteries. Of these sites there are between 115 and 130, while only three isolated graves (plus one uncertain case) and one definite and one uncorroborated cemetery are known. At the outset therefore, any statistical comparison between Palestine and Transjordan needs careful attention, for any bias in tomb offerings in Palestine will probably not be observable in Transjordan. Compared to the 14 excavated settlement sites in Palestine, only nine have been partly dug in Transjordan, out of the total of between 115 and 130 sites.

All the cemetery sites have been chance finds, except for the graves at Bab ed-Dra' (Lapp uses the form edh-Dhra'). The earliest surveys which found and attributed finds to approximately this period were those of Albright and Mallon in the early 1920's. A considerable amount of material was published in Mallon, Koepfel and Neuville's volumes on Teleilat Ghassul. They were followed by F. Frank working in the Arabah, and PP. de Vaux and Benoit in the Salt region.

(4) Rothenberg considers it likely that these sites will be found to continue into the Eastern Desert of Egypt, and to the Nile Delta, as he says there is evidence for EB.MB type settlement right across to the east in Libya, but could not give me a reference for this.

The first and only overall survey of Transjordan was carried out by Nelson Glueck between 1932 and 1947. In general his survey progresses from south to north, and the increase in knowledge of the pottery and experience in surveying and recording is fairly clearly reflected in the publication between Part I and Part IV. While the lack of experience perhaps reduces the value of Part I and some undue haste is visible in his survey of the mass of northern sites in Part IV, and while not all the pottery is published or correctly attributed, these are relatively minor points in an immensely valuable piece of very hard work. Sufficient of the pottery is published, and sufficient remains in the Palestine Archaeological Museum to check his results and to allow the critic to produce a different point of view. Where Glueck reiterates his personal conclusions on the results of his findings, he also provides a good basis for others to work from. To him belongs the credit for the first knowledge of the scale of EB.MB settlement in Transjordan, and in fact for some indication of settlement patterns as a whole. His list of sites includes the majority of those listed here for Transjordan, as will be obvious from the list of references.

More recent surveys have been carried out by de Contenson and Mellaart as part of the East Ghor Canal project. de Contenson included a few small trial excavations in this project. Their findings, while not greatly extending the list of EB.MB sites, refined a little on Glueck's results in the Jordan Valley.

The two most recent surveys have been a large scale one by Dr. S. Mittmann of Tübingen University, and a small check survey by myself.

Dr. Mittmann, while plotting the Roman road system of north Transjordan, included a survey of Roman sites in the area to indicate where such systems should lie (5). He did not neglect material of the

(5) Seigfried Mittmann, Beiträge zur Siedlungs- und Territorial- contd.

other periods however, and a very important number of sites of all periods have been added to the distribution map in the area between the Yarmuk and the Zerqa. This can also be used as a check survey on the number of Glueck's sites in the EB.MB period. A survey with this as the primary purpose was conducted by the writer in a small area of the south-east foothills of the Jordan Valley.

Both surveys make useful comparisons with Glueck's survey, as in both cases the number of sites was approximately doubled. In the Yarmuk-Zerqa area for example, Glueck found EB.MB occupation on 21 sites (only about seven of them sites which had been listed prior to his visit, and he was usually the first to isolate the EB.MB element). Mittmann's work adds a further 22 sites not visited by Glueck. These two surveys, plus the one chance found site, bring the total to 44 for the area.

In the small area of the south-east Jordan Valley foothills between the Wadi Shu'eib and the Wadi Heshban where the check survey was carried out by the writer in 1965/6, Glueck had recorded two EB.MB sites in his section on the area (6) in which he listed a total of 18 sites of various periods. Most of these had been previously recorded by Mallon et al. before Glueck's visit around Jan. 26th-28th, 1943. Of the two EB.MB sites, one had previously been found and published in some detail by Mallon, and Glueck therefore found and added one EB.MB

(5) contd. geschichte des nördlichen Ostjordanlandes. (Abhandlungen des Deutschen Palastinaverains). (Wiesbaden, 1970).

The site distribution map is folded at the back of his volume, and the list of sites is given on pp.256-264. The pottery is being published elsewhere by various people, the present writer doing the EB.MB material, but due to various mishaps there has not ~~yet~~ been an opportunity for more than a preliminary look at it.

(6) Expl. IV, pp.366-398,c) 'Arboth Mo'ab.

site to the list for the region. Most of the 18 sites are the fairly obvious tells of the area, on which he clearly concentrated to the exclusion of the surrounding terrain with its less obvious traces of ancient occupation; so that, for example, he does not record the enormous quantity of EBIV-EB.MB sherds on the lower tell at Iktanu, which had been noticed and published by Mallon ten years previously. He also clearly did not visit the lower site at Hammam. The sites in the area will be discussed in more detail below. However, the number of sites in the check area was increased by eight definite and three uncertain finds, which, broadly speaking, reduce to three major "areas" of settlement. Mellaart's discovery of the nearby EB.MB site of Tell Meshra al-Abyad II (7) ought to be included in this group for though it is just north of the mouth of the Wadi Shu'eib it clearly belongs to the same unit. Some confusion exists about this site, for Glueck lists a Tell Meshra al-Abyad with "ruins" in the same place as the site found by Mellaart, but says the sherds found there are Byzantine (8). It is difficult to say whether two nearby sites are being confused, or whether the few later sherds which do exist on Meshra al-Abyad were in fact the only ones found by Glueck.

It is purely speculative to conjecture how many sites will eventually be recorded in Transjordan, but the results of Mittmann's survey and the check survey in the Shu'eib - Heshban area suggest that the total of sites in other areas can easily be doubled.

The sites from these two surveys have been included in the general distribution map.

iv) Lebanon and Syria.

The sources for the compilation of the EB.MB distribution map in

(7) ADAJ VI-VII (1962) p.130, 138.

(8) Expl.IV, p. 363.

Syria and Lebanon (Map IV) are fewer. While there is a considerable amount of excavation material from central and north Syria and coastal Lebanon, there is very little for south Syria and south Lebanon. The writer had originally planned to do some survey work in these areas in 1967, but this was made politically impossible by the June war. A considerably reduced project was undertaken in 1968, when, through the courtesy of M. Roger Saidah of the Beirut Museum, I was allowed to see some of his unpublished material from the EB.MB cemeteries in south Lebanon; and the kindness of Dr. Hachmann and the German Expedition to Kamed el-Loz, who showed me the material from Rafid (also unpublished). Similarly to Mrs. N. Alameddine I owe many thanks for her kindness in inviting me to see the cave site at Khallet el-Khazen, and the pottery from it. These sites represent the only definite EB.MB of Palestine-Transjordan type that I have seen in the Lebanon. The rest of the sites marked on the map are the result of survey work, primarily by Kushke and others, which is most usefully incorporated in Copeland and Wescombe's "Inventory of Stone Age Sites in the Lebanon" (9). The writer visited sites in the Beqa' and collected sherds from them in the course of a short survey there in 1968. The pottery from these sites and their date will be discussed in the pottery section.

The writer's own survey was restricted to the Beqa' for several reasons. Primarily, the whole southern part of the country remains inaccessible under present conditions, particularly for the archaeological surveyor. Secondly, the coastal region in the south being politically impossible and the central section illuminated by Byblos, the intervening area was considered as potentially useful. But this area would necessitate far greater time and resources to survey it

(9) L. Copeland and P.J. Wescombe, "Inventory of Stone Age Sites in Lebanon" Part I, MUSJ 41 (1965), pp. 29-176, Part II in MUSJ 42 (1966), pp. 1-174.

than is practical. The coastal region is heavily populated, and its hilly to mountainous terrain is thickly planted or overgrown with much vegetation, (see pls. 1 and 2). Eventually it is hoped that sites will be reported as chance finds are made, as has been the case with existing cemeteries.

Some material in the National Museum was seen, but it proved rather more difficult to gain access to the Museum of the University St.-Joseph, and in the end, time did not allow for the collections made by Copeland and Wescombe, or the French, to be seen.

For north Syria, excavation reports are the major source of information (9a). For south Syria the position is more difficult. It was hoped to carry out some survey work there before 1967, but this has become impossible since that date. The writer hoped to visit the sites of Hebariye and Khirbet el-Umbachi but in 1968 they were inaccessible. M. Dunand has no sherds from the excavation in his possession, and the Damascus Museum also has nothing from Hebariye or Umbachi. M. Adnan Bounni and M. Jindi of the Museum in Damascus most kindly allowed me

(9a) Various surveys have been made however. Some material from Sir Max Mallowan's surveys mainly in the upper Khabur region of north-east Syria is in the Aleppo Museum. Dr. Veronica Seton Williams surveyed in the Jabbul Plain east of Aleppo in 1939, and some of that material is in the basement of the Institute of Archaeology, London. The preliminary season of the Italian Mission in Syria (Missione Archaeologica in Siria 1964) was concerned with the general survey of a large area immediately south of Aleppo, and their findings were quickly published. In 1966 Dr. G. and Mrs. M. Buccellati surveyed the area between Palmyra and the Jebel Bishri (Buccellati, p.237, footnote 14a) but found no sites of any period between the Neolithic and Islamic periods (kindly communicated by Mrs. Buccellati).

access to the Museum stores and records, and the EB.MB pottery from the Museum is included in the Pottery section. M. Bounni also kindly showed me his material from Tell Kazel. Thanks to the courtesy of the Museum staff in Aleppo I was allowed to see some of the pottery in the new Museum (which was not then officially opened) mainly from Hama and Qatna, but also from sites further east, Tell Chuera, Tell Ahmar (Til Barsip) and from some of Sir Max Mallowan's sites.

Finally, Dr. Matthias very kindly showed me around the excavations at Tell Mardikh, and some of the pottery from there.

The only recent survey in south Syria (in the Hauran and Jebel Druse) was that of Mrs. C.M. Bennett (in 1964). Her survey was particularly aimed at the larger sites, and amongst the pottery there was, she reports, only one sherd which might be attributed to the EB.MB period. She very kindly showed me some of this material but the sherd in question was not accessible at the time. The lack of more EB.MB material might well be attributable to the concentration of her survey on large sites, where sherds of this type are notoriously difficult to find, and their present absence cannot be regarded as definitely negative evidence for EB.MB distribution.

B) Geographical Remarks on the Area of Distribution of EB.MB Sites.

The most cursory glance at Maps II - V will indicate that EB.MB settlement extends, so far as is known at present, from south Lebanon and south Syria in the north to the Negeb and north Sinai in the south. It is limited to the west by the Mediterranean, and is so far noted at least as far south-west as the Suez Canal. To the east the limits are the Syrian and Arabian desert fringes. It is immediately apparent also, that the most densely occupied areas seem to be north-western Transjordan, the east Jordan Valley and a central portion of the Negeb and that part of Sinai adjacent to it. Fairly evenly distributed, though less densely, are the sites in the central highlands of Palestine, the coastal strip and the north of Israel and the central

highlands of Transjordan. To the north and south of these areas the number of sites dwindles.

The geographical factors which perhaps contribute to this situation should be examined, bearing in mind that at some points, particularly in coastal and northern Israel, and south Lebanon and Syria, there is probably insufficient survey data available, and, as has already been mentioned, Rothenberg has further unpublished evidence for EB.MB settlement as far as the Suez Canal.

Topography

The general topography of Palestine and Transjordan have been described very frequently (10), but the geographical variation in the lands now known to have been settled by EB.MB people is remarkable in its variety. It varies from forested mountain foothills and sandy flat coastal strips, to swampy inland river basins and fairly arid plateaux, as well as fertile oases and river valleys.

Topographical details in south Lebanon in particular, may be said to have had a strong influence on patterns of settlement. The main geographical features of the Phoenician region are the Lebanon and Anti-Lebanon ranges (see fig. 1), which tend to divide the country into distinct and separate areas. The coastal strip, narrowest and hilly in central Lebanon and widening slightly to the extreme north and south where there are flatter river plains, has fairly heavy vegetation (see pls. 1-2) and is today heavily populated. In antiquity it was at all times a region favouring the development of a few major towns - primarily, of course, Byblos, and later Tyre and Sidon. Today, Beirut and Tripoli are the most prominent. The most important factors

(10) In particular, Naval Intelligence Division, Geographical Handbook Series, Syria (1943) esp. pp. 11-102; F.M. Abel, Geographie de la Palestine, 2 vols. Paris, Études Bibliques, 1933 and 1938; W.C. Brice, South-West Asia (London, 1966).

favouring these towns are first their positions for exporting goods from the hinterland, whether the products of the adjacent mountain slopes, or the more distant products of the Beqa' and inland Syria, which can be carried through the passes of the Lebanon and the Anti-Lebanon. Second, the central position on the eastern Mediterranean seaboard, which is notably lacking in harbours except in this area, where there are several small natural harbours and others which have been artificially improved or extended. And third, the position on a practicable north-south coastal route where the central section is the most difficult part to traverse (11), as the foothills of the Lebanon range fall directly to the sea (see fig. 1).

The Lebanon range itself, rising to a maximum height of 3088 metres above sea level, has permanent snow on the heights. The western foothills contain much fertile land, and it is in the southern foothills that the only group of Lebanese sites has been discovered so far. They are all cemetery sites, varying between 5 and 15 kms. inland, the most northerly being about 17 kms. south of Beirut, and the most southerly about 13 kms. south of Sidon. On the market in Beirut are also a number of EB.MB pots which are said to come from the region of Sidon and which have probably been looted from these or similar cemeteries.

The six known cemeteries, at Rachimaya, Chhim, Majdalouna (pl.1A), Wadi Leimun, Bnafoul (pl.1B) and Sarafend-Baissariye (pl.2A) all have chamber tombs excavated by Saidah, Simson and a colleague. None have yet been published.

Another site, belonging to the same geographical environment (11a), is that of Khallet el-Khazen, which is located in similar hilly and

(11) Naval Intelligence, Syria, pls. 45-46.

(11a) for a photograph of the Khallet el-Khazen area, see Copeland and Wescombe, Part II, pl.13.

forested foothill country; but which is further round the southern flank of the Lebanon range, and across the Lebanon watershed above the western side of the Litani gorge, about 30 kms. inland. But it lies in the same latitude as the cemeteries and probably belongs to the same group of sites. Khallet el-Khazen may not be a cemetery, and so far the EB.MB vessel from there is just a chance find in or near a cave, which seems to have been used principally in the EBA.

The location of these sites, inland in the foothills of the Lebanese ranges in the places more immediately adjacent to Palestine, suggests they are an offshoot of the main group of EB.MB peoples to the south, who have penetrated northwards in this rougher country; rather than a group who have spread down the coast from the north. The present lack of EB.MB sites further north may be the result of the more rugged central terrain of the Lebanon foothills acting as a barrier, or may indicate simply the stronger entrenchment of other settled communities on the coastal strip, particularly at Byblos and Ras Shamra. If there was a barrier to EB.MB settlement in the north at this point it is more likely to be political than geographic, especially if it could be shown that these EB.MB sites in south Lebanon are a secondary phase of EB.MB settlement belonging to a period when Byblos was recovering from the decline which it seems to have suffered c.2250-2050 B.C., when its attention was perhaps being turned more to the north, following the collapse of its trade with Egypt and the south. Although there is some material at Ras Shamra comparable to that in the south, it cannot be said to be identical.

There is as yet no evidence to suggest a reverse trend, penetration by EB.MB settlers on this route from north to south, which would be suggested by EB.MB finds from further north, such as typical EB.MB pottery from Byblos, which is conspicuously absent.

The eastern slopes of the Lebanon range lie in the rain shadow and are more barren than those on the west (pl.3A). They offer a few

fertile scattered pockets in the land which drops sharply to the next major topographical feature of Lebanon, the inland valley of the Beqa', the floor of which varies between about 750 and 1100 metres above sea level. Two major rivers have their source in the Beqa'; the Orontes, which flows north into Syria, and the Litani which flows first south, then west to the coast just north of Tyre.

The Beqa' is an inland area having direct access to the north over open terrain to the major modern cities of Homs, Hama and Aleppo, from which it is only separated today by a political barrier. The northern end of the Beqa' is a rather arid region, with fertile oases such as that at Hermel and along the banks of the Orontes itself. This arid section extends towards the ancient site of Tell Nebi Mend on the shores of the Lake of Homs, and south towards Baalbek, and makes a rather barren zone between areas of denser settlement which has at all times contributed to political and cultural divisions. To the south the central Beqa' (see Pl. 3B) is very fertile, and was evidently (from the numerous ancient tells which dot the landscape) well settled in antiquity also. It is also in the central area that the Beqa' is crossed by the main east-west route.

However, the south end of the Beqa' does not offer a direct route towards Palestine, for here the fertile plain narrows, the foothills of the Lebanon and Hermon Ranges close in and the Litani Valley becomes a gorge (Pl.4A). The most practical route to the south is provided by the Wadi et-Teim to the east (see fig.1). From about the level of Majdal Anjar, this easily sloping valley runs parallel with the Beqa', only separated from it by the range of hills which offer a number of easy passes between the two valleys. Kamed el-Loz, the site excavated by the Germans, lies at the Beqa' end of one of the easiest of these, and the east end is not far from the large EB.MB grave found at Rafid in the Wadi et-Teim (Site QL). There are a number of fairly large sites of various periods in the Wadi et-Teim, whose location cannot be attributed solely to the limited local agricultural resources, and

which almost certainly reflect the importance of this as a north-south route. The latter follows fairly directly down to the headwaters of the Jordan Valley, having descended from about 800 metres above sea level near Hesbaiya, to about 200 metres above sea level, in twenty kilometres. The single grave at Rafid suggests that this route was known and used by the EB.MB people, but this so far isolated find is not clear evidence of its being a much travelled route. As with the south Lebanon foothill cemeteries, it may simply be a reflection of the "conquest" of Palestine, and not an indication of EB.MB origins; for as in Byblos and north coastal Lebanon, the upper Beqa' so far has given no clear indication of EB.MB settlements. The site at Rafid, approximately 30 km. from Khallet el-Khazen (Site QF) to the south-west, and forty km. from its nearest known neighbour to the south in the Huleh basin (Ma'ayan Barukh, Site RC) gives what is probably a false impression of isolation.

To the east of the Beqa' and the Wadi et-Teim rise the Anti-Lebanon mountains. In the north, the maximum height is 2629 m. above sea level, and in the south Mt. Hermon (Jebel es-Sheikh) rises to 2824 m. There is an easy pass between these heights leading directly to Damascus, where one crosses the third major north-south route, which offers the easiest terrain of all, connecting Aleppo with Amman, and linking with the tremendous network of ancient routes going east to the Euphrates and Palmyra, south to Arabia and south-west into Palestine and Egypt.

To the north of Damascus lies rather broken, hilly, barren country (the Kalamun ridges, for excellent photos of which see Naval Intelligence, Syria, pls. 17, 19, 21, 22 and figs. 9-10) which extends east of the Anti-Lebanon (see fig.1). These, to some extent, cut Damascus and the southern part of the country off from the fertile plains to the north. The distribution of EB.MB sites in south Syria is certainly insufficiently documented. The location of the site of Khirbet el-Umbachi (Site AK) miles from any other known sites, is a clear indication that many others exist. However, there has so far been no indication that EB.MB pottery

of the unmixed Palestinian type occurs on the many excavated sites north of the Kalamun Ridges area. This suggests, in lieu of other evidence, that the Kalamun ridges area may be regarded as the probable northern limit of the distinctly EB.MB types. There is so far no evidence that the ancient site of Damascus fulfilled a political role similar to that suggested for Byblos.

The fertile Syrian plains and large towns of the area north of the Kalamun ridges, which begins at Homs and becomes increasingly fertile as one goes north to Hama and Aleppo and approaches the higher rainfall areas south of the Amanus Mountains, are not cut off entirely from the south, and the relationship between the two areas will be further discussed below.

To the north-east and east of Damascus the country merges into the Syrian steppe country, the sub-desert, which forms the northern borders of the Arabian desert proper (12). Damascus itself is a well watered oasis. To the south is the stony, but fertile land of the Jaulan and the Hauran, and the bare lava flows of the Leja, the Qra'a, the Durs and the Safa, and the hills of the Jebel Druse.

The occurrence of EB.MB pottery at the site of Khirbet el-Umbachi situated to the north-east of Jebel Druse on one of the fingers of the lava of the Qra'a is so far a curious anomaly. Its position so far to the east might suggest that in this region of Syria the EB.MB peoples were "fringe" dwellers only, but this would be a dangerous hypothesis to pursue until more is known of sites in the Hauran. It is more reasonable to expect to find sites there linking with those in north Transjordan and south Lebanon, rather than stopping dead, as they do at present, at modern political frontiers.

The topographical patterns of Lebanon and south Syria are repeated in broader and lower features in Palestine and Transjordan. The mountains of Lebanon shade down into the Plain of Esdraelon, which

(12) C.P. Grant, The Syrian Desert, London, 1937.

offers an easy east-west route from the coast to the Jordan Valley and the Wadi et-Teim. A low line of hills (the Carmel Range) jutting north-west from the Palestinian highlands cuts off the Palestinian coastal plain from the north.

The Palestinian coastal plain itself is considerably wider and flatter than in Lebanon, and the Judaeian Mountains are not so high (max. 1020 m. near Hebron), and sink abruptly on the east to about 395 m. below sea level at the surface of the Dead Sea. The Rift Valley, in which flows the Jordan River, forms a topographical unit on its own, creating a completely different environment from that of any of the other regions so far described, and which has therefore modified to some extent the settlement patterns and customs of those who inhabit it, in a way in some respects comparable to that of the Beqa' of Lebanon. As well as forming an important natural north-south route, it is crossed by several important east-west routes, especially at the level of Beth Shan, Wadi Farah and Jericho. The north-south route, while it connects to the north with the way through the Wadi et-Teim above the former Huleh marshes, does not continue to the south directly, being cut off, in recent historical times at least, by the cliffs south of Ain Feshka on the west, and those near Zerqa Ma'in on the east. Whether this was always so, particularly on the east side, depends on variations in the level of the Dead Sea, which has been the subject of some controversy.

The environment of the Rift Valley varies from north to south. In the higher northern end much of it is extremely fertile and grows good crops after autumn and winter rain, or when irrigated. In the south, where temperatures in the vicinity of Jericho reach as high as 130°F in the summer, where the evaporation rate is very high and much of the ground saline, settlement is restricted to places with a good fresh water supply. For the most part these are confined to land watered by perennial streams, with the notable exception of Jericho with its magnificent spring, and to a few other lesser springs. The Valley

today supports a nomadic as well as a sedentary population, the former profiting by the mild winters, and moving to the hills when it grows hot at the beginning of May. No doubt advantage was taken of these conditions in the past also, for the winter in the highlands can be severe.

On the east of the Rift Valley the Transjordan Plateau rises equally abruptly to 1247 m. near Ajlun, rather less in the region of Amman, but then rises again south of Kerak to 1736 m. above sea level in the region of Shaubak. In the southern part of the Plateau the winter can be very severe, and this might be regarded as a possible factor in the lack of EB.MB settlement sites found there to date. A comparison of the distribution map, and the Temperature and Humidity Chart in the Atlas of Israel (13) indicates that the four coldest areas of the parts of the Near East being reviewed are the highlands of Lebanon, Anti-Lebanon, Shaubak and South Sinai, none of which places at present show traces of EB.MB occupation.

With the south Transjordan area as the single exception, there is general EB.MB occupation of the whole of these briefly described regions of Transjordan and Palestine. The nature of the sites will be more fully discussed below.

To the east the Transjordan plateau slopes gently down toward the Euphrates about 1000 kms. away, with the Hamad or sub-desert country broken only by the Wadi Sirhan, and in the north by the lava fields. At the southern end of the plateau, the land level drops dramatically at Ras al-Naqab to country geographically akin to that of north Arabia (14). In the extreme south of Transjordan beyond this point and in north-west

(13) Atlas of Israel IV/IB.

(14) For a description of the north-west Arabian area and references, see P.J. Parr, G.L. Harding, J.E. Dayton; "Preliminary survey in N.W. Arabia 1968" in Bull. I.A. London, 8-9 (1970) pp. 193-242 esp. pp. 196-8.

Arabia early sites are very rare. For the period between the Neolithic (15) and the Late Bronze Age, no sites have yet been found.

Two other areas should be mentioned. The first is the Wadi Arabah, the continuation of the Rift Valley south of the Dead Sea. On the east and south edges of the Dead Sea there are small, well watered areas which supported settlements at various periods, in spite of the heat, in particular the huge site at Bab ed-Dra'. Away from this fringe to the south, the sites are probably more for "specialist" activities than ordinary settlements. They include salt panning and copper mining today sugar growing in medieval times, and more anciently facilities for caravans and copper mining. It is not entirely certain whether the EB.MB people included this area in their territory.

The final area is the region of high density EB.MB settlement in the Negeb and Sinai. The sites are found continuously through the mountains from the Judaeen highlands to the chain of hills in the Sede Boqer area (which form a narrow neck between the sand dunes which run north to the Mediterranean and the wide Wadi Zin which runs east to the Wadi Arabah) and south again to the hills of the central Negeb. Most of these sites very clearly cling to the higher ground, with some exceptions around el-Muweileh and Ain Qudeis where there are perennial springs.

There are only about six sites found and published so far outside this area, and they are suspiciously widely scattered over north Sinai. Three (Bir el-Hasana, Jebel el-Halal and Sidr el-Heitan) are right on the route from Suez to el-Quseimeh, and a fourth (about 60 kms. WNW of Elath) is on a route which joins Aqabah to the Quseimeh - Suez route at a point near Sidr el-Heitan. Two other sites are also located south-east of Suez. All these sites are close to high ground.

The ancient mining site of Serabit el-Khadem where Rothenberg found stone structures remarkably similar to those of the EB.MB period in the Negeb and central Sinai (16), and the use of which in the EB.MB period

(15) *ibid*; p.241, fig.19; and also some sites in the Wadi Ram.

(16) B. Rothenberg, God's Wilderness, p.135, pl. 51-2 notes.

might have explained the direction of these "trade route" sites as a copper route, has since been revisited by him and is said to be solely a source of turquoise, where there are traces of Chalcolithic activity but not EB.MB (17). The nearby sites in Wadi Nasb (Wadi Kharit) which do show copper mining activity (18) and which Rothenberg attributes to "Ancient Egyptian" and "IA?" and later, have also been said to show traces of an EB.MB presence (19). The possibility of EB.MB copper mining in Sinai or the Arabah does not yet appear to be definitely disproven. After his 1968 survey, Rothenberg wrote "We found no traces whatsoever of the Intermediate Bronze Age in Southern Sinai" (20).

The distribution map of the Sinai-Negeb area is thickly strewn with sites in one area, but the thin scatter of sites over a wide adjoining region suggests that either there are many more still to be found (which Rothenberg's latest work emphasizes), or that some evidence for trade must be found to support a sites on trade route theory. This evidence still seems to be lacking, even with the evidence from Rothenberg's latest work. The single exception, which may support the view that copper was being obtained in Sinai or the Arabah, are the 18 rough castings of almost pure copper from Yeruham, which at least indicate that the metal was either worked or traded as a valuable commodity locally (21).

Rainfall.

A number of years ago, de Vaux, in discussing the sheep-cattle semi-nomadism or pastoralism of the Patriarchs (22), associated the

(17) Rothenberg, PEQ 1970, p.26, Site 355.

(18) *ibid*, p.25, Sites 344 and 344A.

(19) Communicated by Dr. P.R.S. Moorey after a recent visit to the site.

(20) Rothenberg, PEQ 1970, p.22.

(21) Kochavi, Yediot 27 (1963) p.284 ff., pl.15: 4-5.

(22) de Vaux, RB 56 (1949), pp. 6-12.

territories they most constantly favoured with the 500 - 100 mm. isohyet limits. The lower limit of minimum annual rainfall is clearly an important factor in restricting a population that ekes out an existence on the fringes of the more fertile lands supporting sedentary agricultural populations. The camel- and goat-owning Bedouin of today in the eastern parts of Transjordan are able to graze their herds over wide areas in the spring (23) which in later summer are dry wastes, where only the occasional bird, snake or rat is to be seen. These areas extend well below the 100 mm. isohyet. Because of their mobility and the hardiness of their animals, at the driest seasons these Bedouin can withdraw to the slightly more kindly land, achieving an ecological balance by moving over the territory of sedentary agriculturalists after the spring crop has been harvested.

A comparison between the practices of modern Bedouin of the marginal areas and those of the EB.MB inhabitants of Palestine and Transjordan would be pointless, for the latter seem to have been the uncontested occupants of most of Transjordan and Palestine for several hundred years; and included within their territory land which today lies above the 600 mm. minimum average rainfall limits, and easily supports a sedentary agricultural population. Further, there is no evidence that they used or bred camels.

The statistics of seasonal rainfall in Palestine and Transjordan reflect only the measurements taken during the last century at the most, and there have been many advocates for theories of climatic change or fluctuation in antiquity. The current views on this subject should, therefore, be taken into account in any attempt to relate rainfall limits to the limits of EB.MB settlement, and to see if the results of such comparisons have any bearing on the subject of EB.MB ecology.

Recently, Miss Western has summarised research on the subject of climatic fluctuations in ancient Palestine in her work on the charcoals

(23) Naval Intelligence, Syria pl.60.

from Jericho (24), and has also discussed the amount of variation that might be likely in that area. "The hypothesis that there have been small climatic fluctuations and periodic changes in the amount of rainfall since the end of the Pleistocene is accepted by climatologists". For the Jericho area, she suggests some small fluctuations or movements in the isohyets, mainly that the 100 mm. isohyet came slightly closer to Jericho (i.e. slightly further east at that point) in the Early Bronze Age, thus expanding the rainfall limits in that area.

Allowing for similar minor shifts, the main patterns of modern rainfall and vegetation maps do seem to be relevant and applicable to earlier periods.

Modern rainfall maps vary somewhat in accordance with the data on which they are based. The map of Palestine and Transjordan used by Miss Western (25) is based on that of Zohary (26) and relies mainly on the statistics used for the Atlas of Israel maps (27) for Palestine, and on the Survey of Palestine (1946) for Transjordan. The map given by de Vaux (28) is based on the Survey of Palestine and on Syrian statistics (29). All agree reasonably. There is considerable variation on the map given in Buccellati (30) for which no authorities are listed.

The map on IV/2K in the Atlas of Israel shows annual variation in rainfall and gives an indication of the fluctuation possible over a short

(24) C.A. Western, "Ecological interpretation of ancient charcoals from Jericho", Levant III (1971) pp. 31-40.

(25) *ibid*, p.39, fig. 2.

(26) M. Zohary, Plant Life of Palestine (1962) Maps 3-4.

(27) Atlas of Israel, IV/2A and IV/2E.

(28) de Vaux, RB 56 (1949) fig. I, p.13.

(29) L. Dubertret and J. Wewillesse, Manuel de Geographie Syrie, Liban at Proche-Orient (1940), fig. 28.

(30) Buccellati, p.240.

period, for recent years. It gives some idea of the difficulties of life in marginal areas in terms of the number of dry years which are likely to be met with in only one generation; but it does not reflect the considerable variations which occur over longer periods and which should be taken into account.

Turning then to a comparison of the maps of EB.MB distribution and rainfall limits, it is most interesting in the north Negeb-Sinai area to note the coincidence of the high density settlements (Map III) with the present limits of the 100 mm. isohyet, and the continuation of the Indo-Turanian vegetation type (31).

This suggests that rainfall patterns in the central Negeb in the EB.MB period (or at least for some years during the period) may well have been much the same as at present, and that an EB.MB population could survive in at least semi-sedentary conditions in a marginal area of almost minimum rainfall. The greater part of the area has no perennial springs or streams to bolster the supply. There are also however, the scatter of sites through north Sinai which have no known perennial supply and which lie outside these limits. It might seem possible to postulate periods of increased rainfall generally in the Negeb and Sinai, with perhaps the 200 mm. isohyet moving further south to support a bigger population in the central Negeb, and extending the 100 mm. limit to other areas. This would be extremely difficult to prove however, and it may well be that the EB.MB population utilized the generally high level of the ground water table in Sinai by digging wells. This could be suggested by the presence of ancient sites located by modern wells (e.g. Bir el-Hasana and Jebel el-Halal/Bir el-Hadeira). This is an interesting point that may well be resolved when studies of the EB.MB settlements in Sinai and the Negeb have been published (31a).

(31) Western, *ibid*, fig.2.

(31a) But even this source is limited as most of the artesian water in the Negeb is too saline to be of any use; W.C. Brice, South-West Asia, p. 226.

This coincidence between the 100 mm. isohyet and EB.MB sites does not always hold for the whole eastern section. That there are sites known in the area between the 100-200 mm. isohyets running around the west, north and east edges of the Dead Sea is not particularly conclusive as many of these sites are directly allied to other perennial water supplies (e.g. Jericho, Iktanu). The southern limits of EB.MB settlement in Transjordan would be better defined by the isohyet map published by Buccellati, where the 100 mm. isohyet goes no further south than the limits of site distribution shown on Map II. Zohary and the Atlas of Israel, and de Vaux's map however take both the 100 and 200 mm. limits further south - Zohary to about the level of Aqaba, but the Atlas of Israel not quite so far. It seems certain that the data employed to compile Buccellati's map neglected statistics for the southern part of Transjordan; and his map does not therefore, in restricting the limits of minimum rainfall in Transjordan, indicate a possible reason for the lack of EB.MB settlement in the southern region.

In southern and central Transjordan the eastern limits of EB.MB sites do follow fairly evenly the direction of the limits of the modern 100 mm. isohyet, the line of which bulges sufficiently far east in the north to include the site of Khirbet el-Umbachi, the most easterly site yet known (Site AK, Map IV).

To summarise, the limits of EB.MB settlement as known at present lie just within the modern 100 mm. isohyet, with two areas excepted. These are south Transjordan, where the settlements lie considerably within the limits (32), and north Sinai, where they extend considerably beyond it.

The distribution of sites is by no means restricted to this marginal area. While all the Negeb and Sinai sites, and those of the south Jordan Valley lie in regions receiving less than 200 mm. of annual rainfall; and all south Transjordan sites in areas receiving less than

(32) The sole exception is Glueck's site at Feinan in the Arabah.

400 mm., most sites in north Transjordan and the greater part of central and north Israel and south Lebanon lie within areas with 400-800 mm. annual minimum rainfall. The EB.MB population thus occupied a great deal of land with high agricultural potential.

The limits of EB.MB site distribution tend to confirm generally therefore the applicability of modern rainfall patterns for the late third-early second millennia B.C. in terms of ancient settlement limits which compare with modern marginal rainfall limits. Where these limits do not coincide (north Sinai, south Transjordan) the evidence is conflicting, north Sinai perhaps supporting a case for a wetter climate, and south Transjordan suggesting a drier one.

The lack of clear EB.MB settlements in south Transjordan may be explicable in terms to be discussed later, but the extended settlements in the Negeb and Sinai at this period are interesting in the light of some recently published theories on climatic variations. This area has a sporadic history of occupation, being inhabited in the Chalcolithic, EB.MB, Iron Age and Nabataean-Byzantine periods only, until the present day. In a recent article, based for general climatic conditions on the work of Butzer (33) and others, B. Bell (34) postulates two major periods of drought in the ancient Near East; the first c.2200-2000, and the second c.1200-900 B.C. In the part of the article so far published she discusses the earlier of these, in particular presenting the Egyptian evidence. The preliminary section lists Egyptian evidence

(33) K.W. Butzer, "Quaternary Stratigraphy and Climate in the Near East" Bonner Geogr. Abh. Vol.24. He postulates a decline in the "Neolithic Wet Phase" progressing from c.2900 B.C. and culminating c.2350 B.C. Also in "Late Glacial and Post Glacial Climatic Variation in the Near East" Erkunde II (1957) p.21ff.

(34) B. Bell, "The dark ages in ancient history. I. The first dark age in Egypt" AJA 75 (1971) pp. 1-26.

for the end of the "Neolithic Wet Phase" c.2350 (35). This date coincides with that generally given for the end of the EBA in Palestine, and if the beginning of this generally drier period could be verified in Palestine, and allied to heavy deforestation and grazing of natural vegetation known to have taken place throughout the EBA, the two could be regarded as a serious if gradual factor in the decline of EBA civilization. However, against this, the EB.MB settlement patterns in the Negeb and eastern Transjordan and south-east Syria suggest that conditions were at least no drier than at present.

The main part of the article deals with evidence for two major intervals of drought in Egypt, where the land is not dependant on local rainfall, but on the annual flooding of the Nile. The author postulates that c.2180-2130 B.C. and for a few years around 2000 B.C. there were a series of very low Nile floods, leading to famine and social, political and religious anarchy. She postulates "that prolonged insufficiency of the floods destroyed a somewhat weakened central government" at these periods.

There is undoubtedly evidence for dust-storms, famine and anarchy (36) and some breakdown of laws or customs for irrigation of fields, but she is reduced to suggesting, as there are no texts actually referring to a failure of the Nile flood, that the ancient Egyptians spoke of this dreadful event only in euphemistic terms.

These two periods of drought, it is suggested, affected the whole of the Near and Middle East c.2180-2130 and c.2000-1990 B.C. and had far reaching political consequences, but the evidence for Mesopotamia is to follow in a later article, so that we cannot fully judge the validity of

(35) This evidence is concerned primarily with the appearance of Libyans from the Western Desert in Egypt itself, and the famine scenes from the causeway of Unas.

(36) esp. Bell, *ibid.* pp.8-10; and J. Vandier, La famine dans l'Egypte Ancienne (Cairo, 1936).

her theories. But on our chronology, in Palestine and Transjordan these dry periods lie within the EB.MB period as "internal" events only, and do not seem to affect the arrival or departure of the EB.MB people on the archaeological scene.

If such widespread droughts did occur at these periods however, they could explain the sites scattered across Sinai as the temporary settlements of pastoralists and their herds on their way to Egypt from Palestine in periods of drought, in hopes of finding better grazing land at times when the Egyptians were too disorganised to keep them out (which would coincide with the incursions of Asiatics lamented by Ipu-Wer (see Section I). The north Sinai sites could then represent stops on an irregular or perhaps seasonal traffic of Asiatics with their herds going into Egypt and possibly returning at better seasons. The end of the settlements might then coincide either with the expulsion of the Asiatics from the Delta by Amenemhet I, or the building of the "Prince's Wall" shortly after, to control or prevent these groups from wandering at will into the Delta grazing land, and thus forcing them to withdraw entirely into south Palestine; or into gradual extinction.

All this is very hypothetical, for certainly Asiatic cattle arrived in Egypt well into Dyn. XII (See Section I) and there is no sign so far from any EB.MB site in Palestine or the Negeb of trade or contact of any kind with Egypt. The possibility of drought being the raison d'être for the location of EB.MB sites over toward Egypt therefore must remain simply another suggestion, but one which has some support from a later tradition, in the story of Abraham. "Thus Abram journeyed by stages towards the Negeb. There came a famine in the land so severe that Abram went down to Egypt to live there for a while" (Gen. 12: 9-10).

Perennial Streams

One marked feature of settlement in Transjordan is the number of sites found along the courses of perennial rivers. While this is true particularly of the Wadi Yarmuk and all rivers flowing into the Jordan Valley, the most marked example is the Wadi Zerqa where there are a

large number of sites on both banks of the main stream (from Tell Umm Hamad near the junction of the Zerqa and the Jordan in the Jordan Valley right up to Amman where the grave on Jebel Taj marks the head of the all-year-round water supply) and on many tributaries, particularly the Wadi Umm ed-Dananir and its tributaries (Sites ES, FF, ET, FO, FE, FT and FP).

The sites tend to be located on hills above the stream, whether close to it, as at Tell er-Reheil, a steep but small hill rising sharply from the river bed, or set one or two km. back from the water on the lip of the plateau and perhaps 300 metres higher, as at Rujm el-Beida, on a hill top overlooking the descent to the Zerqa.

Approximately half the EB.MB sites in Transjordan are located close to perennial streams, and nearly all the rest are on seasonal wadis, particularly on the larger ones such as the Wadi Shellale in the north. Many of these sites set back from the course of perennial streams are close to seasonal wadi courses as well, and obviously many sites clearly had access to springs, as Glueck emphasized. "The EBIV-MBI inhabitants were somewhat more dependant upon springs than the EI I-II inhabitants. It has been our experience, that frequently where there is a strong spring somewhere in the vicinity, either on the slope leading away from it or on top of the hill overlooking it, a great EBIV-MBI site may be found. If not immediately near a spring, the EBIV-MBI inhabitants of the land chose with especial predilection the top of a high, elongated, completely isolated hill..... On the whole, comparatively few cisterns have been found on such hill top sites, and the question of how they supplied themselves with water is still a moot one". (37). In no case does Glueck actually attribute one of these cisterns to the EB.MB period.

However the pattern of sites along the river banks suggests that the

(37) Expl. III, p.171-2. Where such statements by Glueck are quoted, "MBI" of course refers to the EB.MB period.

watering of flocks might be a considerable factor in their choice, whether for permanent occupation, or for use by pastoralists on the move, seasonally or even more frequently. It may also suggest that river valleys were the routes by which the EB.MB population first occupied the land.

Whether a large number of sites on seasonal wadis were abandoned in summer in favour of those near perennial water supplies is a problem which might be cleared up by excavation, but it should be emphasized that sherds may indicate semi-nomadic, as well as permanent settlement.

It is possible that this distribution of sites is partly due to archaeological surveys being conducted along rivers; in other words, the most likely areas for settlement have been concentrated on more intensively. However, chance finds, such as that at Jebel Taj, tend to bear out the river pattern in Transjordan. The number of sites found near the course of modern roads (see in particular on the Jerash-Irbid and Madeba-Amman roads) indicates another possible bias in survey. Whether this gives a true indication of the line of earlier routes, or a false impression of EB.MB site distribution due to convenient sampling it is at present impossible to say.

In Palestine this pattern is not so clearly defined. This may be due to the very large number of cemetery sites involved, but it may be presumed that the homes of the living, even if only temporary or seasonal, would be not far removed from their burial grounds. The picture may not in any case be the same as for Transjordan, once we know more about the pattern of settlement in Palestine. With higher rainfall and perhaps better springs the priorities in choice of site may not be comparable. Approximately a quarter of the known sites in Palestine lie on or near perennial streams. The pattern of settlement on the Qishon river system is probably the closest analogy to that in Transjordan.

Most of the Lebanese sites are in locations generally watered by perennial streams, but only two sites are close to the rivers. The

Negeb and Sinai, which have no permanent river supplies, are a separate case, and their water supplies have been mentioned above.

Coastal Sites

There are no EB.MB sites directly on the coast of Lebanon or Palestine, though about half a dozen are quite close to the shore line.

In Lebanon, no site yet known of the period is closer than 3 km. to the coast, though as all these sites are cemeteries only their position is not conclusive evidence for the way of life of the inhabitants.

In Palestine, the site of Yavneh Yam (Site VY), which is only $\frac{1}{2}$ km. inland and 2 km. south of the mouth of the River Rubin (but is described as a promontory site, and possibly a landing place) is the only site so close to the sea to be dated to the EB.MB period. The main features of the site are however attributed to MBI and later periods and no excavation has been undertaken to establish the nature of the EB.MB settlement (38).

Other sites in Palestine located within 5 km. of the coast are few and not informative. Tell et-Tabayiq (Rosh ha-Niqra, Site RE) is very close to the coast in the north, and has been excavated, disclosing a small settlement of the period but no buildings. There has been no suggestion that the site, which is a little inland, had maritime connections at that period. The third site is that of Tell el-Ajjul (Site VC) where there is a cemetery of the period, about 2 km. inland. The fourth and fifth sites, the last of the coastal group, are Deir el-Belah (Site WC) and Tel Aviv (Site VX), where objects have been purchased or referred to, but no traces of settlement found, and therefore add nothing to our knowledge.

There are only three sites therefore on which can be based a discussion of maritime or sea-fishing activities, and so far the evidence for this is otherwise lacking. The location of these few

(38) Kaplan, IEJ III, p.108, and RE (1970) p.388, chronique.

sites, compared with the hundreds known inland, suggests the EB.MB population had little interest in the various occupations associated with the sea, and that the course of their journeyings was not much affected by it.

Altitude and the Pattern of EB.MB Settlement

A final aspect of the geographical environment which merits specific remark is the present limit imposed on settlements by altitude. Something of this has already been mentioned in relation to lack of settlement on the southern Transjordan plateau.

In general, there are very few sites above the 1000 metre contour. In Lebanon, Rafid lies at about 1200 m. above sea level, but none of the foothill sites lie above the 1000 m. mark. In Transjordan a number of sites on the fringes of the Ajlun area lie at approximately 1000 m. (Sites CG, CO, CV, FC, FW and FV), as do some sites in the south of Transjordan (Sites GA, GE, GO, GP, GB and JC). But in the higher ground of Ajlun and Shaubak, as in the Lebanon and Anti-Lebanon, no sites have yet been found. Various reasons for the lack of EB.MB sites in these areas have already been referred to. They are the higher, colder areas, which lie within the 100-200 mm. rainfall limit, and in the case of Ajlun, which has an annual average minimum rainfall closer to 600 mm., very much within the limit. A further point to be made concerns the vegetation, for even today Ajlun is heavily wooded, and until the beginning of this century the Shaubak area was also. If the EB.MB peoples were principally pastoralists and agriculturalists without heavy requirements of timber, they may well have avoided settling these areas, where grazing was thin and flocks could easily be lost, and agriculture meant heavy work to clear the vegetation first. Environmental factors may thus be of primary importance in limiting EB.MB settlement in Ajlun, Shaubak and parts of Lebanon.

In Palestine, where distribution of sites appears to be general, the country nowhere exceeds 1100 m. in height. Sites in the region of Hebron are located at about the 1000 m. contour.

At the other end of the scale, there are numerous sites below Mediterranean sea level, the lowest being Teleilat Umweis which is more or less at the level of the Dead Sea surface, nearly 400 m. below Mediterranean level.

C) Type of Terrain Selected for EB.MB Sites

After following the general geographical limits of EB.MB settlement, some more detailed aspects of the sites should be reviewed for evidence which might reveal some of the political, social or economic factors governing the EB.MB peoples in their choice of site. This evidence will be primarily concerned with the settlement sites in Transjordan where there is a greater amount of material available for comparison. The use of the term "EB IV" in this section follows the terminology of Glueck, and refers to particular types of pottery in the EBA tradition. The term will be fully discussed in the pottery section.

Defence

One factor which can be looked at in a brief survey and may suggest the political climate of the time, is whether the choice of location was made foremost for defensive purposes. As there is as yet no clear evidence that major fortifications were constructed during the period, it suggests a) they were unnecessary, b) EB.MB ignorance of all principles of major construction, c) lack of sufficient internal organization for recruiting the necessary man power or d) failure of urban civilization in Palestine and Transjordan to a degree where settlements did not justify such defences. But the construction of these defences would in any case be allied to the selection of a site with some potential for defence. This in view of the lack of evidence for walls or ramparts was perhaps a more important element.

In 1938, after visiting the sites south of the Wadi Zerqa, Glueck concluded that "If not immediately near a spring, the EBIV - MBI inhabitants of the land chose with especial predilection the top of a high, elongated, completely isolated hill, which they surrounded with a

great wall, and inside which they built their permanent houses, watch-towers and fortresses, and also carried on some cultivation of the soil, in addition to the farming they practised on the slopes of the hills and the valleys that stretched along their bases" (39)

A fairly typical description of a site of this type is that given for er-Reṣeifeh (40). "On top of a large, high hill, which is almost completely isolated, is the large ruined site of er-Reṣeifeh. The s.e. side is the most approachable one, being separated from the highland to the east of it by a depression. The n. side descends very steeply to the Wādī er-Reṣeifeh below it..... the s.s.w. and the n.n.e. sides slope down somewhat more gradually..... below the n.n.e. end of the slope of the latter side is a very strong spring..... The long and very narrow hill-top on which the ruins of the site are strewn.....was once completely surrounded by a great wall, most of which has disappeared. At either end of the flattish top of the hill, and also approximately in the middle, are the ruins of three buildings.....between these three towers may be seen the wall foundations of other buildings. Large numbers of EBIV-MBIIA sherds were found on the top and slopes of er-Reṣeifeh.....and also several sherds belonging to EI I-II". Glueck suggests that these later sherds might have been brought to er-Reṣeifeh from an IA site on the opposite side of the Wadi Zerqa (which is in fact wide and deep at this point and involves an energetic walk of over a kilometre plus fording the river, and seems altogether unlikely). Glueck's attribution of defensive walls and towers on the site to the EB IV-EB.MB - MBA I periods is here as at other sites difficult to prove; survey without excavation has numerous pitfalls. That there was originally an enclosure wall is difficult to verify (Mrs. Bennett at Tawilan has found no evidence to show that the lines of stones on the

(39) Expl.III, pp.171-2.

(40) Expl.III, pp.205-6. "MB IIA" in Glueck's terminology is our MB I.

ground which Glueck suggested had defensive purposes in antiquity (41) were either defensive walls, or even walls of any kind). It is often difficult to distinguish such lines from relatively modern field walls or corrals. Added to which, in the case of er-Reseifeh and a large number of the EB.MB sites in Transjordan there is occupation of other periods to which such defensive structures might belong. In this case, there is MBA and IA material (41a). In the majority of similar cases, Glueck tends to attribute visible structures to the IA or Byzantine periods (as for example at el-Beheirah).

The first difficulty is to define what are defensive features on a site and what are not. The topographical variety is such that only the most general rules are applicable, and it may be assumed that a site that is protected on all sides or nearly all sides by a steep slope, or other natural obstacle such as a river, and which is not immediately overlooked, and where there seems no other reason than defence for the awkward, steep or restricted approach, falls into the defended category; while settlements sited merely on a low mound, on a gentle slope or on flat ground, even on the edge of the plateau, are regarded as undefensive. There is frequently a very thin line dividing the two categories.

In Transjordan approximately 34 EB.MB sites could be regarded as occupying defensive positions, and 26 non-defensive (42). It is noteworthy that 20 of the 26 non-defensive sites lie in the Jordan

(41) Expl.II, pp.82-83 and pl. 15.

(41a) In suggesting that Glueck was going further than his evidence justified in attributing ruins on sites to specific periods, it is also interesting to compare the description given of the site and ruins at Tell er-Reseifeh with that for some purely IA sites, in particular Khirbet el-Kibdeh (Expl.IV pp. 60-61).

(42) These statistics refer only to sites for which there is a published description, or which the writer has visited.

Valley or the area south of the Mujib. The former is naturally flatter, which may account for the variation, but there does not seem to be such a simple answer for south Transjordan. However, the Jordan Valley sites in particular do indicate that the political situation was not such as to prohibit the settlement of open or exposed terrain.

These statistics are on the whole inconclusive, though the defensive position may be the more favoured.

Many of these sites are attributed to both the EB IV and EB.MB periods and so their location may be simply a direct following through of EBA tradition. The type of site offering most evidence would be the "one period site", purely EB.MB, with no earlier and no later occupation. Here another notable fact emerges. On the Transjordan plateau, Glueck attributed no sites south of the River Zerqa to a purely EB.MB category; they are all EB IV-EB.MB (43).

North of the Zerqa Valley and in the Jordan Valley the sites are usually described as EB.MB only, without the EB IV occupation and Glueck considered that this indicated a gap in the occupation of north Transjordan. But even in these areas the "pure" site is almost totally lacking. Mellaart's site of Meshra al-Abyad does have some late Roman-Byzantine sherds (44) as do Glueck's Mu'amariyeh (44) and Zaharet Umm el-Merar. The only known settlement site that does appear to be almost exclusively of the EB.MB period is Tell Umm Hamad Gharbi in the Jordan Valley, which will be described more fully below, but which is a site rising barely 5 metres at maximum above the level of the fields around it and which has no trace of defences whatsoever.

Of the sites north of the Zerqa which have EB.MB pottery without EB IV sherds (in other words all sites north of the north bank of the

(43) But the graves of Bab ed-Dra', Jebel Taj and Beitrawi suggest that the periods are divisible in the south as well, as all these are "pure" EB.MB groups.

(44) Picked up by the writer in 1965/6.

Zerqa), six fall into the non-defensive category, and nine into the defensive, about the same proportions as for the overall statistic and also therefore rather inconclusive; but it suggests that where there is an EB.MB site which is not preceded by EB IV occupation, the defence prerequisite in choosing a site is about as important as when there is an "EBIV" element; i.e. the choice is not always primarily based on defence.

Between the Zerqa and the Mujib, where all sites are described as EB IV-EB.MB, 11 are non-defensive and 19 defensive, a slightly greater proportion than in the north. There are also purely EB IV sites south of the Zerqa, many of which do seem to be fortified (45).

Another factor in considering whether an earlier tradition influenced the EB.MB choice is to see who were the predecessors of the EB.MB population on individual sites. Here a further distinction between north and south of the Zerqa emerges. Of EB.MB sites north of the Zerqa, in 13-14 cases the preceding occupation of the site was in the EB I-II period, 5-7 of the EB III and 16 were new foundations (phases of the EBA as defined by Glueck and Mittmann). South of the Zerqa (plus the EB IV sites on the north bank of the Zerqa) nearly all sites were first founded in the EB IV-EB.MB period, very occasionally being preceded by Chalcolithic occupation (see p.121 for fuller comparative statistics).

These figures must of course be treated with some caution, as they are based almost entirely on survey work. But it does suggest that the present information on defences in the EB.MB period in Trans-jordan may be largely affected by EBA tradition, either directly through EB IV influence in the south, or indirectly through settlement on earlier EBA sites in the north.

The check survey carried out in the Shu'eib - Hesban area, as well as providing evidence for a statistical comparison with Glueck's work,

(45) Expl.III, pp. 198-9, el-Qeseir as an example.

revealed reasonably definable trends in comparative distribution patterns for the various periods. Taken as a geographical slice across the lower foothills of the plateau down to the plain, the following broad pattern emerged. Neolithic (mainly PPNB) sites were found in the tributary river valleys and on hill tops set well back and just above the level of the Jordan Valley. The Neolithic-Chalcolithic site at Ghrubba and the Chalcolithic sites at Teleilat Ghassul and Tell Ghanam are placed well out on the valley floor on open flat ground in a completely undefensive position, while that at Iktanu is on the edge of the foothills, not just on the main mound, but spreading over the flat ground near the base of the hill (see fig. 10.ii). The EBA sites lie at the point where the perennial streams issue into the Jordan Valley and involve complexes which can be inter-related as: a) an "acropolis site", a high, partly artificial mound, set very little above the level of the Jordan Valley floor, but protected by the foothills behind and to the side; b) a low site, which probably also had a defensive wall, which spreads out from the base of the acropolis; and c) either cult places or fortifications, or very possibly both, on the tops of the hills immediately adjacent. The EBA settlement pattern at the mouths of the Shu'eib and Kafrein in particular is not only very complex, but suggests a heavy emphasis on a carefully worked out urban defence system.

The EB.MB sites which follow are in approximately the same locations as the EBA sites, but while in some cases they occupy the mounds of the EBA sites, they also sprawl, in definitely undefended small groups, along the flat banks of the river, outwards from the limits of the EBA settlements and into the plain, rather in the manner of the Chalcolithic sites.

The next certain period of settlement in the area is in the early IA, when the same defensive type of site as for the EBA tends to be chosen in the same area, but the identical place is not always selected. In this respect one gets a more definite impression of an actual gap in the settlement of the region, than between the EBA and the EB.MB. For

instance, Tell Bleibāl, the IA site on the Wadi Shu'eib, is in a geographically similar location to that of Tell Mustah, the EBA site, but is on the opposite side of the wadi (pl.9). These IA sites clearly had fortifications also, some perhaps being fortresses as opposed to fortified towns. Later settlement again moved out further toward the plain, a process which begins in the IA and continued through the Roman, Byzantine and medieval Arab period, while recent undefended Jordanian villages tended to be placed out from the foothills in the middle of the irrigated valley fields. Some of these settlements may well have retreated to the protection of the hills since 1967 (45a).

In general the picture that emerges is of a strongly organized EBA with complex fortifications, followed by a totally unfortified series of EB.MB settlements, which cover quite large areas in a sprawling fashion. Some refinement on this pattern is observable at Iktanu where an EB IV type phase is observable, and this will be discussed below.

There is not very much known from the excavated sites in Trans-jordan with which to compare this picture. At Bab ed-Dra' (46) Lapp found there was a brick defensive wall around the EB II settlement, succeeded by a stone wall dated to EB II and probably EB III. Apart from the graves the only evidence for the EB.MB phase was for camping occupation. At Iskander (47) Period III contained pottery types of both EB IV and EB.MB occurring together throughout. The earlier part of this period had the scanty remains of a defensive or terrace wall,

(45a) This raises the interesting point that settlement on the open valley floor as in the Chalcolithic, EB.MB, parts of the IA etc., may indicate a degree of unity, cultural or political on both sides of the Jordan, while retreat to defensive positions as in the EBA may indicate periods when the Jordan River was a political frontier between hostile groups.

(46) Lapp, RB 73 (1966) pp.556-561.

(47) Parr, ADAJ IV-V (1960) pp. 128-133.

and in the later part there were buildings but no major walls found in the area excavated. At Ara'ir, Olávarri has found two phases, Level VIb which he dates c.2250-2050 B.C. "EB IV", and Level VIa dated c.2050-1900 B.C. "EB.MB", (the first, which is without buildings, has been interpreted as the occupation debris of semi-nomads, and the second has two slender walls (48). At Iktanu there is no enclosure wall for either the first EB IV-type phase or the second EB.MB type phase. These sites give a geographically restricted view of the central and south Transjordan evidence only. No sites of the period have yet been excavated in the north.

The evidence for Palestine is also relatively scanty. At Jericho there is a long tradition of major mud brick defensive walls in the EBA (as at innumerable other sites in Palestine) but no trace of defences for the EB.MB period. At Megiddo and Beth Shan it is impossible to decipher the evidence for this period, and that from Hazor is not yet published. There are no EB.MB defences at Bethel, Khirbet Kerak, Tell et-Tabayiq, Shechem, Lachish, Tell Beit Mirsim etc. At Jebel Qa'aqir in southern Palestine, where there is a settlement on a high ridge, several sections of an enclosure wall which may have encircled it have been found preserved as much as four courses high (49). This is not yet fully published but seems to belong with pottery of EB IV type and to be earlier than shaft grave cemeteries, which do not seem to be associated with permanent settlement or defences. At Har Yeruham in the Negeb (50) in Level II (the earlier) the back walls of the houses may have linked to serve as an enclosure wall, which was however poorly preserved. The pottery associated with it seems to have had an EB IV element (red slip and burnishing) though it is described as EB.MB comparable to pottery from Lachish. The later level appears to have simple round structures and tumuli, and is similar to other Negeb settlements.

There does seem to be scattered evidence in both Transjordan and

(48) Ara'ir, p.230 ff.

(49) Dever, p.146.

(50) Kochavi, Yediot 27 (1963) p.284 ff.

Palestine therefore for two traditions intermingling. An EBA pattern of defended settlements, and an EB.MB preference for open sites. The result seems to have been large numbers of EB IV - EB.MB sites especially in central and south Transjordan and to some extent in south Palestine. The relationships of each to the other will be explored in the section on pottery where this interplay is more exactly observed. This intermingling of traditions does not suggest a clear cut and sudden victory but rather a slower conquest, more rapid and complete in some areas than others and which had a possibly shortlived effect on the conquerors as well. On the whole, a survey of the EB.MB choice of defensive positions for settlements indicates an increasing "demilitarization" of sites from the end of the EBA onwards brought about by a) the destruction of many EBA cities, b) the slow swamping of other areas of EBA influence with EB.MB customs, c) the imposition of non-urban military tactics. This perhaps suggests that during the late EB.MB period existence was more peaceful; but this would be simply to concede that warfare takes place solely between walled towns. The frequency with which the EB.MB dead are found equipped with dagger or javelin suggests that combat took place at a different level and hill-top sites were preferred where possible, even without additional fortifications. The number of completely open sites suggests that other factors were also potent, and some of these will emerge in the following section where some EB.MB sites in Transjordan will be described.

Selected EB.MB sites in Transjordan

In the selection of sites for particular discussion, preference has been given to a) sites from which there is a particularly good selection of pottery, and which will be relevant in Section III; b) sites which occur in groups and appear to bear a relationship to each other; and c) sites which illustrate the range and variety of those known. In accordance with the last category, four sites or groups of sites of the EB.MB period have been selected, and five sites which are

dated EB IV-EB.MB. There are four Jordan Valley sites, two sites from north of the Zerqa, two from north of the Mujib and one from north of the Hesa. They are also all sites which the writer has visited, and which were originally selected from the many sites known as they seemed to offer more information on the period than the numerous sites where simply one or two EB.MB sherds have been noted among the finds. The EB IV-EB.MB sites will be dealt with first, moving in geographical order from north to south for both categories.

Tell er-Reheil Site CS (51) and see fig.2.

This site is very adequately described by Glueck, and had suffered only a few minor changes since his visit of Aug. 22, 1938. The Wadi Zerqa is steep and narrow along this stretch from the old Jerash - Suweileh road (see pl. 5A) to the site of Tell er-Reheil, a distance of less than two kilometres. Glueck describes the difficulty experienced in approaching it along the wadi bed or by a zig-zag path which wandered from north to south of the stream and back again. But there is at present a car track approaching it along the south side of the wadi, which necessitates only a steep scramble down to the river, crossing the stream at a point where it was only knee high after the summer, but fast flowing, and then making an approach to the summit of the tell by means of a steep zig-zag track. The latter is clearly used by the modern cultivators.

The site, as Glueck describes it, is a steep narrow hill-top jutting out into the river which flows around it on three sides. The current hits the rocky east face of the narrow land bridge which connects the east end of the tell to the north bank of the wadi, and swings abruptly south to form a gently sloping haugh on the south side of the hill. This today is cultivated (a cereal crop) as are the areas of the top of the hill not occupied by the tumble of ruined stone buildings. A large area is now given over to a threshing floor as well. The top

(51) Expl.III. pp.223-4, and p.266.

and upper slopes abound in sherds turned up by the plough.

Glueck attributes the occupation of the site to EB IV-MBI (his MB IIA), EI I-II and Byzantine. He describes the visible ruins, cisterns, tower, a long narrow room and traces of an outer wall and compares the long narrow room to one seen at the nearby site of el-Qeseir in the Beqa', which site "cannot be later than EB IV". He dates the enclosure wall to EB IV-MBI, but gives no reasons for this assertion.

Owing to the method of publication in Expl. III, the sherds from this site cannot be isolated and so it is not clear what sherds formed the basis of his dating. On our 1965 visit we picked up sherds which I would put slightly earlier than EB IV, perhaps EB II-III, and which Père de Vaux thought to be EB II or early EBA. There were no sherds which were unhesitatingly identified as EB IV. There were some clear EB.MB sherds. The sherds of the MBA I would hesitate over, as very much more work needs to be done on the MBA-LBA wares of Transjordan. At the moment I would tentatively attribute a large number of sherds from the site to MB II, and a few have good parallels with the later Palestinian MB II. But there are a number of sherds of fine, thin ware, with a beautiful burnished white slip, and red painted decoration which I hesitate to date at present. They fit almost certainly in the MBA-LBA. Père de Vaux and Dr. Hennessy suggested a late MBA - early LBA date. It was probably similar pieces which Glueck found and attributed to MB I. There are some Iron Age and a few Byzantine sherds, and one glazed medieval Arab piece.

There are a few of Glueck's sherds from this site in the Palestine Archaeological Museum which all agree with this list, so the type sherds on which he based occupation for EB IV and MB I (his MB IIA) are probably in America.

It is not possible to say certainly that the EB.MB inhabitants occupied Reheil as a fortified site, or as a permanent settlement with buildings; but as a defensive position it can hardly have been bettered,

as well as affording both arable land, pasture and water for flocks in the immediate vicinity.

Tell er-Reheil is one of many EB.MB sites in this area; indeed there are so many close together that it suggests (if they are approximately contemporary) small agricultural or pastoral communities each having rights over particular areas of land and river. Tell er-Reheil stands opposite the confluence of the Wadi Zerqa and the Wadi Umm ed-Dananir, on both of which perennial streams there are numerous sites with which the inhabitants must have been in contact. Whether these sites are permanent, or semi-permanent sites on grazing routes is impossible to say. There seems no particular reason why they should not have been occupied all the year round as they all have excellent water supplies. The possibility that they were summer grazing ground for groups who wintered in the Jordan Valley is not supported by the pottery of the two groups of sites, which is not identical. However, more will be said about this in the discussion on the pottery. Further comment on the relationship of Tell er-Reheil and the adjacent sites will have to await more evidence than surface survey can produce, as the few sherds available are insufficient data on which to base a comparative study.

Khirbet Umm Rujum Site FV (52)

Located closer to Amman than to the Wadi Zerqa, this site is approximately 21 kms. SSW of Tell er-Reheil, and nearly 800 m. higher, being situated in the high, rather rolling plateau country of central Transjordan. The tell lies on a seasonal wadi, near IA sites which are known to have relied on large cisterns for water (53). The hill is

(52) Expl.III, p.184.

(53) I visited the site in March, 1966 when Dr. G. Mendenhall, then Director of the American School, was excavating the cistern by Qasr Umm Rujum (Expl.III, pp.184-5) which lies just below the NW sides of the Khirbet. This cistern appeared to bear no relation to the Bronze (contd.)

fairly large, with a flattish, terraced top, which is divided into various modern areas of cultivation. Between these areas lie stony banks which are presumably the enclosure wall, internal cross walls and ancient compounds described by Glueck. To some extent these are clearly the result of terracing and clearing land for agriculture and I would hesitate to date them to the EB IV-EB.MB period, as Glueck does, without excavation, though it is of course possible that they do originate at this period. However, in addition to the EB IV-EB.MB sherds which were the sole traces of occupation mentioned by Glueck, there are some of later periods, mainly Byzantine, but also one or two IA sherds, which I found both on the site and in Glueck's collection in the Palestine Archaeological Museum. These later sherds perhaps indicate periods of cultivation rather than occupation as they are not very numerous, but the terrace walls could also date from the IA or Byzantine periods.

The hill is protected by shallower slopes than at Tell er-Reheil, and is altogether not such an easily defensible site. It is uncertain whether agriculture or defence can be considered the major factor in the choice of site. It would require quite a large group of people for its adequate defence, even with a defensive wall, and only excavation can indicate the density of the ancient occupation.

Glueck attributes the occupation of the site to the EB IV-EB.MB

(53 contd.) Age site, and there is no evidence for such water conservation techniques being practised in the EB.MB period. As there is no present trace of a spring in the vicinity, the suggestion that the occupation of the EB.MB site was confined to the late winter and spring should be considered. Glueck did find some Bronze Age sherds in the region of the cistern, so perhaps there was a small spring or water source available there at the time. I am indebted to Dr. Mendenhall for his kindness in showing me around his site and for other courtesies during his appointment in Jerusalem.

period, but again in the Expl.III publication he gives no direct evidence to support this view. The collection of sherds made on the site in 1966 is very homogeneous in ware, and limited in shapes. There are no sherds which compare directly with the pottery described as EB IV in south Transjordan, and there are none with red slip. The pottery will be fully discussed later, but it forms a distinct group to be dated purely within the EB.MB period, and compares directly with that from Mu'amariyeh (see below) a site in north Transjordan, rather than with the pottery from the south. The ware is not identical with that from Tell er-Reheil, though as at Reheil, the criteria for the EB IV occupation are questioned.

Tell Iktanu Site KF (Figs. 9, 10, 11 and pls. 12, 13).

Unlike many EB.MB sites in Transjordan, the main tell at Iktanu has long been known to and visited by archaeologists. First mentioned by Selah Merrill (54) and Conder (55) 90 years ago, both the main tell and the subsidiary spur (Katf al-Hisān) were subsequently well described by Mallon in 1933 (56). He found traces of a "walled town" on the main tell dating from "Bronze I" to the Israelite period, and foundation ruins on the adjacent spur which he dated to "Bronze I final et Bronze II initial". Glueck visited the main tell only (in 1943?). He gives a summary of previous work there (57), and confirmed Albright's identification of the main tell at Iktanu with the biblical Beth-haram.

Glueck attributed the sherds on the main hill to "Middle Chalcolithic to Iron Age I-II, aside from a few Byzantine and medieval

(54) S. Merrill, East of the Jordan (1881), p.230.

(55) C.R. Conder, Survey of Eastern Palestine, p.141, p.230, 236. He visited the site in 1881.

(56) Mallon, Koepfel and Neuville, Teleilat Ghassul I (1933), p.151. For photographs of Iktanu and surrounding terrain see pls. 1-12, esp. 2: 1, 4: 2, 11:2, pl. 60.1.

(57) Expl.IV, p.394-5.

Arabic fragments". In defining the periods of occupation more closely, he subsequently described the Chalcolithic sherds as being mainly "Middle Chalcolithic", and the later material as EB IV - EB.MB and MBA (his MB II). He was not otherwise specific about EBA and LBA sherds, and in the plates (Expl. IV. pls. 82-83) he attributed four sherds to the EBA, dating them EB II (?), EB III-IV, and two to the EBA; he published no LBA sherds. For the MBA (his MB II) he illustrated four sherds (58) which are quite definitely EB.MB. For the rest, he published ~~one~~ IA sherd and several of Chalcolithic date.

Glueck's published sherds, though not always his attributions, agree with those found there in November, 1965. These included a good quantity of Chalcolithic sherds of both "Ghassulian" and "Proto-Urban B" type, as well as sherds of late Chalcolithic - EB I style. There was nothing in our collection that seemed to belong to EB II - III, but there was a large group of EB IV - EB.MB sherds. There were no MBA or LBA sherds, a few IA I, and a large collection of IA II. There were a few pieces of the Roman-Byzantine periods.

On the spur to the SW we found Chalcolithic sherds at the eastern end only; a very few IA sherds concentrated exclusively in one small area in the centre; some Arab glazed pipe ~~fragments~~ on the rocky area at the extreme west end, from which there is a pleasant early morning or late evening view of the Jordan Valley; and some ~~fragments~~ of modern water zīrs which lie among the bases of road construction workers'

(58) Glueck refers to the sherds from Iktanu published by Mallon in TG I and corrects their dating. This is not a very reassuring process, as he assumes that all the sherds referred to are from Iktanu and therefore dates two Chalcolithic sherds from Ghassul to the MBA (TG I, pl.62: 3-4). In fact all four sherds attributed to the MBA are definitely Chalcolithic or EB.MB. This indicates that the criteria on which Glueck based his MBA occupation of Transjordan should be treated with considerable caution.

tents bordering an unsurfaced track running along the centre of the spur, and which was in use presumably in 1960 for the building of the highway. There were a few EB IV sherds scattered over all, but the great majority of sherds, in great quantities all over the site, so little disturbed that adjacent fragments in the surface soil not infrequently joined, were of the EB.MB period. The comparative distribution of sherds of the various periods on both hills can be seen in figs. 9-10.

The two hills are largely natural spurs. The western end of the main site has natural rock exposed to the very summit (Pl.12A). On the eastern end is an Iron Age fortress variously described by Glueck and Mallon. Recently someone has dug a rough hole on the summit (to find the gold that all the locals know is hidden in such places) which exposes well-cut masonry walls which are probably IA. Many IA sherds are to be found on the steep north slope as well. On the south side in particular the Bronze Age sherds are to be found. Here the new Jerusalem-Amman highway has cut through the low ground between the main tell and the spur to the south revealing numerous narrow walls of untrimmed wadi boulders in the cutting, probably belonging to the Bronze Age.

On the southern side of the road the ground surface rises gently to the broad flat top of the southern spur (see Pl.13) whose highest point is at the extreme west end. Here, as on the main tell, the western slope consists of exposed natural rock. The only features on the surface of this mainly natural spur are the track and settlement remains of the road workers' camp (fig.9.i) and numerous foundation walls of untrimmed wadi boulders which criss-cross the top in every direction (see Pl.12B). It seemed from the outset that these walls must belong to either the EB IV or EB.MB periods or both, because of the coincidence of walls and distribution of sherds. In this case the survey has been followed up by a small excavation in 1966, which has nicely supported the survey conclusions. A surface survey of the walls was also made,

over those parts of the spur where they were clearly definable as walls of these periods. The eastern end was excluded as it has considerable Chalcolithic settlement. The resulting plan of a large part of an EB IV-EB.MB village is given on fig.11. No traces of walls were preserved on the north side of the hill, nor on the rocky western end. The plan covers principally the top and south side of the mound (see inset on fig.11).

No defensive wall could be traced, and the buildings appear to end on an irregular line, which at one point descends to the bottom of the slope to within a few feet of the bank of the Wadi Jarafa, and which can just be seen in the photograph of the southern slopes (Pl.13).

The site of Iktanu is located on the eastern edge of the Jordan Valley, on the out-jutting spurs of the plateau. It lies just below the 100 m. below sea level contour, and near the 200 mm. isohyet, on the south bank of a perennial stream, the Hesban. The seasonal Wadi Jarafa lies below it on the south side. Cultivation, especially with irrigation, is carried on over the flat land to the north in the Jordan Valley, and there are several fertile pockets of land to the east and the south-east.

As a defensive position it is of mixed value. Though offering a good view for some distance in all directions, only the summit of the main tell could be practically defended. The settlements of the Chalcolithic and EB IV-EB.MB periods sprawl away from this point, and occupy low, flat ground of poor defence potential. The Iron Age buildings seem to be restricted to the primarily defensive location on top of the main tell, plus what may be a small "outpost" on the southern spur. But the site seems to have been partly or totally abandoned throughout the very defence-conscious period in EB II-III, which may also be true of the nearby site at Tell el-Hammam.

In 1966 there was no permanent village at Iktanu, the cultivable **lands** being owned and farmed from the village of Shaghur. Numerous Bedouin camped in the vicinity in the winter only, migrating with their herds

east to the plateau desert fringe near Meshitta about April or May, when the Valley becomes exceedingly hot. Even in the spring there is very little grazing to be had on the slopes and top of Iktanu and adjacent spurs, though flocks of goats and camels feed off what there is. There is no water on the site itself, and the top has therefore never been ploughed, which has been the fate of many other EB.MB sites.

The land around could therefore support a poor agricultural or pastoral community, particularly in the winter and spring. Life would be possible but not pleasant for the community that stayed on during the summer heat, when there is very little agricultural work to be done even in places now irrigated, as the crops tend to be harvested by May; and there is very little forage for flocks after that time. Environmentally therefore, Iktanu presents a good case for a seasonally occupied site; or for one which might well be abandoned after a few dry winters.

el-'Aqrabah Sites EF and EG (Pl.5B).

At the point where the dramatic descent from the plateau into the Wadi Mujib begins, the present road makes a series of sharp down-twisting hairpin bends around the east, south and west sides of a steep, narrow, very rocky spur (see Pl.5B). It is difficult to imagine a less comfortable place to live, hardly tolerable even for the magnificent view. The wind roars up to it from the valley below and birds of the larger and more predatory variety glide almost continually above it. The only point in favour of the site at el-'Aqrabah is that it lies on the modern, and presumably the ancient route where it negotiates the 600 m. drop into the Mujib before going on to the south. The site has a definite strategic value for its command not just of the route on which it lies, but of the whole sweep of the Mujib to east and west, and the opposing plateau lip to the south.

Both on the top and slopes of this spur, and at adjacent Khirbet el-'Aqrabah which lies on the flattish plateau top with which this spur connects to the north, are quantities of EB IV-EB.MB pottery. Glueck

describes Khirbet el-'Aqrabah as a completely destroyed site (59) and at el-'Aqrabah suggests that every trace of buildings and enclosure wall has been eroded or robbed out by the later Nabataean, Roman, Byzantine and medieval settlers at the Khirbet. Certainly there are no traces of any ruins whatsoever. The site is denuded to a point where only small, shallow pockets of earth remain between fairly jagged lumps of natural rock. It is hard to imagine that these conditions were ever very different, even four millennia ago. But as there is a large quantity of pottery there must have been sufficient flat ground for the siting of at least makeshift dwellings, and even that seems to have vanished. Under these circumstances the large number of sherds preserved is remarkable. At the time of Glueck's visit he was even given a complete juglet (60) which was found by the road workers when pushing the road cutting around the flanks of the hill. The preservation of a complete vessel suggests that there may have been graves in the lower slopes at least, possibly of the same type as at Beitrawi, where a grave was found in very similar circumstances by road workers on the flanks of an EB.MB site. However the presence of fragments of cooking-pot among the sherds on el-'Aqrabah indicates that the site was at least partly domestic in character, and rules out the possibility suggested by the rockiness of the site that it was simply a cemetery. During our visit in March 1966 we also found a few Byzantine sherds.

Dry farming on the plateau top (the area lies on the outer fringes of the 200 mm. rainfall zone) as well as grazing of flocks of sheep and goats are carried on by the present mixed sedentary and nomadic inhabitants of the area and the ancient inhabitants presumably eked out a similar existence, with the resources of the perennial stream also available at the bottom of the steep descent. Even today the inhabitants tend to live up on the plateau, rather than in the low,

(59) Expl.III, pp.113-114.

(60) Expl.III, p.114, fig.44.

heavy valley bottom which at the point where the road crosses the river is little more than 100 m. above sea level. The nearby site at Ara'ir must have been occupied under very similar conditions.

el-'Aineh Site GB (61) (Fig.3).

Close to the southern limits of EB.MB site distribution in Trans-jordan is el-'Aineh. It lies on the north bank of the Wadi Hesa, but unlike el-'Aqrabah it is about half way between the Hesa and the plateau edge, and near good springs. The modern village and gardens lie on the old road up to Dhat Ras, which by 1966 was said to be impassable for motor cars. That was the new road described by Glueck in 1935. The present road from Kerak approaches el-'Aineh from the east and runs below (south of) the modern village, down to the wadi. The Bronze Age site lies north of the modern site, and north of the Dhat Ras road, between springs. The site is a large one spreading over several knolls and divides into a "low site" and an "acropolis". The low site is spread over at least three lowish hills above the Dhat Ras road. The central one of these has a modern small cemetery on its top. Rising behind these is a very steep hill which is isolated on all sides except the north-west by a very steep sided wadi. On the north-west side there is a link to the plateau behind. On the top of the "acropolis" there are fairly numerous sherds and the ruins of a building. Glueck found a few Nabataean and modern Arab sherds as well as the numerous sherds which he dated to approximately 2200-1800 B.C. "the end of the Early Bronze and the beginning of the Middle Bronze periods". This is a period which he subsequently described as EB IV-EB.MB.

This site, with its "acropolis", controls a strategic point on the crossing of the Hesa. Glueck associates the EB IV sites at 'Aineh, Mashmil (JC) and Feinan (JA) with an EBA route to the south-west, linking with sites in the Negeb and Sinai. Considerably more work will have to be done before a direct link between the two areas is

(61) Expl. II pp. 103-4, and pottery p.124-5, pl.25B nos. 14-25.

established, and there is still some uncertainty about the limits of EB.MB occupation to the south of the Hesa. Much excavation will be needed to elucidate whether this can be described as an organised "trade route" linking north and south Transjordan, or simply a route followed by pastoralists in times when life was sufficiently uncertain for those living along its course to adopt a defensive site to live on.

El-'Aineh lies in an area of 100-200 mm. average modern rainfall, but has both strong springs and a perennial river to supply its needs, and is thus, comparatively speaking, a fertile oasis in the surrounding region. Its resources for both agriculture and pastoralism are fairly adequate. Both Feinan and Mashmil to the south and south-west have agricultural resources but neither site is strategically defensible. There is as yet no evidence linking the few Bronze Age sherds found by Glueck at Feinan with the ancient mining or smelting operations carried on there. As with the Sinai sites, metal-working might here provide a raison d'être for scattered "trade route" sites, but until there is definite evidence forthcoming the suggestion must remain tentative.

These five sites sketch something of the range of settlements of EB IV-EB.MB date in the south Jordan Valley and in the country between the Zerqa and the Hesa, which covers most of the distribution limit. The following four sites or groups of sites are selected from those attributed solely to the EB.MB period. Particular reference is made to Jordan Valley sites as these are exceptionally rich in material. The majority of sites of this period described by Glueck are on hill-tops or low hills, show few traces of remains, and have scant numbers of EB.MB sherds as well as considerable later material. Khirbet er-Reqa (Site CT) north-west of Irbid is a larger than usual example of a typical site of this type (62) covering ten acres or more of a broad shelf below the plateau rim. Although there were numerous sherds, Glueck found no trace

(62) Expl.IV, p.180-181.

of ruins of any kind,

Mu'amariyeh Site CP and Tell el-'Ain Site CA (Fig.4 and pls.6-8).

These two sites should probably be looked at together as the (at present) springless Mu'amariyeh may have relied on Tell el-'Ain for its water supply.

Both sites are situated in the open country out towards Mafraq where there is today upwards of 200 mm. average rainfall over an area of low, rounded, principally north-south running ridges. These separate shallow and not very fertile open valleys. There are no perennial streams in the area, but in the winter and spring there is enough rain to grow cereal crops and to create a spate of water in the otherwise dry wadi beds and fill the ancient cisterns which are still in use today. A bleak place in the winter, even in summer the nights are chilly, the open landscape affording no protection from the wind. Today there is scattered occupation through these valleys. At Mu'amariyeh there are three modern houses on the edge of the ancient site, whose inhabitants grow wheat and own goats and donkeys. There are several even more scattered dwellings to be seen over the ridge to the east. That the area has only recently been resettled is suggested by Glueck's finding the site and district of Mu'amariyeh uninhabited in 1944. The small modern village at el-'Ain still exists. These sites lie on seasonal tributaries of the Wadi Zerqa, which flows 10-15 kms. to the south.

Glueck describes the site of Mu'amariyeh (63) as one of the most extensive EB.MB sites he had seen, with no earlier and no later pottery. The features of the site were "three separate groups of ruins or piles of fallen building stones, with hardly a single intact building - stone among them. Were it not for the masses of sherds strewn about, it would be possible at first glance to mistake them for piles of field stones". Today the west part of the site has been ploughed and it is not possible to tell from Glueck's description whether the present heaps of stones

(63) Expl.IV, pp.82-84.

(see pls. 6 and 7) are substantially what he saw in 1944, or whether that evidence has been lost by the modern cultivators turning what "at first glance" one might "mistake.....for piles of field stones" into genuine piles of field stones, for I think that little other interpretation can be put on most of those currently visible.

On visits in October, 1965 and September, 1966 the site was looked at fairly exhaustively. A rough sketch has been drawn to illustrate the remains (fig.4). It is not to scale, and the part of the site on the east side of the wadi (Area 3) is over half a kilometre from the western remains, and settlement is not continuous between the two. The main part of the site (marked Areas 1 and 2 on the drawing) covers an area nearly 800 m. long and 600 m. wide. The eastern part of the site (Area 3) is perhaps 200 metres in both directions. The dirt track running from Bal'ama to a point on the Jerash-Mafraq road cuts through Areas 1 and 2.

Area 1 - which includes everything west of the wadi and north of the track to the houses (see pls. 7 and 8). This area consists of ploughed fields divided by stone tumble terraces on the flattish valley floor. Whether these are ancient or modern agricultural terraces or field clearance, or lie on the lines of older domestic or animal enclosures it is impossible to tell. Sherds were sparse in the area west of the road, but they were of both the EB.MB and Byzantine periods, although the former predominated. There was a concentration of EB.MB sherds in the corner of the area by the wadi bank, associated with greyish earth.

Area 2 - which includes everything west of the wadi and south of the track to the houses (see pl.6). This area is similar to Area 1 but as well as rough stone terraces, between the ploughed areas are circular cairns or enclosures. The main one of these is now used to pen livestock at night, and all of them show signs of recent building or additions. Whether their origins are ancient it is impossible to tell without excavation and it is doubtful whether even excavation would yield this evidence. The sherds, of both EB.MB and Byzantine periods

with the former again predominating were scattered over the whole area. However, just south of a small erosion wadi and the sherd concentration in Area 1 was a small modern cemetery, which lies on top of a low "tell". This is barely a metre above the level of the surrounding site, and again is close to the wadi bank. It appeared to consist solely of very dark black-grey earth and produced an excellent range of purely EB.MB sherds. There was no trace of any structure in the sides of the mound, which had been partly cut away at one point.

Judging by the number of sherds and the considerably darker colour of the soil, as well as the small "tell" formation these two areas along the west bank of the wadi represent the densest and most continuous area of occupation of the site. It suggests that at this point permanent settlement may have existed, with more ephemeral, possibly seasonal or camping occupation on the rest of Areas 1 and 2. Other explanations are of course possible, but it seems likely that this part of the wadi bank was the core of the EB.MB settlement.

Area 3. Clearly visible above Areas 1 and 2 on the slopes on the east side of the valley is another patch of settlement (see pl.7). Some of the best pieces of EB.MB ware from the whole site were found here in the first few minutes of searching, after which all that could be found were Roman-Byzantine sherds. On this part of the site, which has not been ploughed, there are clear traces of structures, both circular and rectangular, and in some cases of very large boulders. These are mainly in use at present as animal pens so there has been some disturbance. But many walls are clearly ancient and show recent piling of stones on much older foundations. However there was nothing to show to what period these belonged.

Environs of Area 3. To the south of Area 3 there are at least two cisterns in use, which are probably old and may date at least to the Roman-Byzantine occupation of the site. We wondered if the cemetery of the EB.MB site might not lie on the higher slopes to the north-east of Area 3, where there are some caves, but these showed no trace of

EB.MB use. On the crest of the ridge above Area 3 is a circular stone structure which may be ancient in origin but has more recently been used as a cairn tomb. Only one sherd of doubtful date was found in its vicinity, and the crest of the hill is mainly bare rock.

The site therefore is extensive, and further settlements are almost certainly to be found in the nearby slopes and valleys. Whether the same type of structures noticed in Area 3 existed in Areas 1 and 2 when Glueck visited the site in 1944 is hard to tell. Whether they can be dated to the EB.MB or the Roman-Byzantine periods only excavation might decide. The core of the western site appears to be a structureless tell, which is of the EB.MB period. There were a few differences in the pottery picked up on the east and west parts of the site, and that excavation might indicate a chronological difference in the two adjacent settlements is tentatively suggested.

Seasonal agriculture and grazing of flocks are both suited to the environment, which seems to offer little else of interest. Probably never on a main route, the site has no strategic importance, is not naturally fortified, and shows no traces of built defences. The terrain and ancient remains suggest that the ancient site was probably similar to the modern one, a simple agricultural or pastoral community, perhaps increasing in size in the late winter to summer. If there was a permanent population it must have depended on a) a spring; possibly located in the now dry subsidiary wadi between Areas 1 and 2 where the densest settlement existed b) cisterns, for which there is no evidence of use at this date or c) water imported from the spring at el-'Ain.

Glueck also discovered EB.MB sherds on the site adjacent to this spring (64), which is only 1.5 km. south-west of Mu'amariyeh, along with Chalcolithic, EB I-II, MB II, LB I-II?, IA I-II, Roman and Byzantine sherds. On our visit, we found only one or two sherds of the EBA or predating the MBA, but found sherds of all the other periods, plus a medieval Arab fragment (probably 11th century). From the single base fragment which Glueck attributed to the EB.MB period among the published

(64) Expl. IV, pp.84-5.

sherds it is impossible to deduce anything of the settlement of the period at el-'Ain except that the single sherd attributed to the period is not very diagnostic. There is nothing which can be compared with the material from Mu'amariyeh to indicate that there was contemporary settlement or use of the spring. Environmentally the site is very similar, being in a shallow valley. It is only a short distance from Mu'amariyeh across the ridge, but the modern track from the Bal'ama road starts from a point north of Mu'amariyeh and veers north and west over the low watershed before swinging south to el'Ain. The distance is nearer 3 than 1.5 km. for cars.

Unlike the site at Mu'amariyeh, the site at el-'Ain is a smallish tell which is divided into two parts by a central dip. The modern cemetery mentioned by Glueck now covers most of the top of both parts of the site and the top and sides are untidy, stony ground where numerous sherds, mostly post-Bronze Age, are to be found amongst modern litter. In both extent and form Tell el-'Ain differs from Mu'amariyeh as an EB. MB site, and the very few sherds suggest that it was much less important.

Though sites of other periods have been noted in the near vicinity, these two sites are rather isolated occurrences on the eastern fringes of the EB.MB distribution map. They are not far distant from one of the dolmen fields which are to be found in various parts of Transjordan.

Tell Umm Hamad Sites KR and KS. (Fig.5).

The double site of Tell Umm Hamad (65), Sherqi and Gharbi, tends to be treated as two separate sites, as the two parts vary greatly in terms of length of occupation. Their location is beautifully illustrated by Glueck with a Royal Air Force photograph (66) where they are shown lying on the south-east edge of the rich agricultural lands in the triangle

(65) T. Umm Hamad Gharbi: Expl.IV, p.83, 202, pp.318-328; and Mellaart, ADAJ VI-VII, (1962) p.136. T.Umm Hamad Sherqi: Expl.IV., pp.318-328 and Mellaart, *ibid*, p.135.

(66) Expl.IV, p.315, fig.102, site 199, visited 1942-5?

formed between the Jordan and the Zerqa rivers. The distinction between the agricultural land and the qattârah hills immediately adjacent is most marked. The first is a rich brown with bright green crops produced under irrigation (which can make the track leading to the site very difficult to pass); and the second is a stark area with yellow and barren knolls leading unevenly down to the water courses. The dividing line between the desert and the sown runs between Umm Hamad Sherqi and Umm Hamad Gharbi. The former is untouched and barren, the latter is ploughed.

Glueck stressed the importance of the site, both in size and in the quality and quantity of the pottery to be found there (67), in all of which it exceeds most other EB.MB sites, not just in Transjordan, but in Palestine as well. He described the site as extending well over a kilometre in length and fully half a kilometre in width, and divided it arbitrarily into two parts for ease of description.

The site was also visited by Mellaart in 1953, as it was due to be affected by the Point Four Irrigation Scheme. He commented then that Umm Hamad Gharbi was much threatened and denuded by ploughing. By November, 1965, the irrigation canal had been dug across the edge of the site itself. A rough sketch is given (see fig.5) to illustrate the main features of the area.

Dealing with Umm Hamad Sherqi first, this site is divided naturally by its location on three separate knolls on the edge of the qattârah, with shallow, dry wadis between them. On the most northerly of these there seemed to be the most homogeneous and undisturbed group of Chalcolithic sherds. On the second or central knoll there is a large admixture of EB.MB sherds with the Chalcolithic ones, and the third of southern knoll has a considerable amount of IA material, plus

(67) Glueck, "The MBI (EB.MB) pottery of Tell Umm Hamad Gharbi is so excellent and so distinctive as to be almost a classroom example of the period", Expl.IV, p.323.

Chalcolithic and EB.MB.

None of these knolls is or has been ploughed, and the surface sherds are numerous and excellently preserved. There are too many EB.MB sherds on Umm Hamad Sherqi to be accounted for as simply "intrusive from the adjacent site of Tell Umm Hamad Gharbi" as Glueck suggests, and at least the central and southern knolls of Umm Hamad Sherqi must be part of the EB.MB settlement.

The track passes on the west side of Umm Hamad Sherqi, and beyond it there is a flattish area of ground about 200 m. wide which is ploughed and irrigated today. A new canal had been run through this part of the site just prior to our visit, and was not yet in use or cemented. There was nothing at all to be seen in its earth-cut sides though numbers of Chalcolithic, EB.MB and IA sherds could be found on the surface in the vicinity. The occupation levels in this area appear to be very thin, possibly were so in antiquity, and have since been ploughed out.

This area rises gently to a knoll, the top of which can be barely 5 m. above the level of the plain, and appears less because of the gentle slopes leading to it. This is the central part of Umm Hamad Gharbi; the knoll is composed of darker grey-brown earth than the surrounding ploughland, and the whole site is ploughed from top to bottom. There are no signs of buildings but there are great quantities of very fine, mainly whitish-slipped EB.MB sherds, and, in this area, very little else. The knoll recalls the small dark mound without traces of buildings under the modern cemetery at Mu'amariyeh, but is here on a larger scale. Glueck presupposed structural remains on the site - "when the walls and houses of the MB I (EB.MB) settlement of Tell Umm Hamad Gharbi were constructed on virgin soil..." of which no traces could be found in 1965 either on the surface or in the cutting for the canal. He also found little to suggest them. "No surface ruins whatsoever are left of the ancient mud-brick houses and mud-brick walls which may have enclosed each of the two parts of Tell Umm Hamad. There are a few crude

building stones of indeterminate period on top of Tell Umm Hamad Gharbi".

Following the scatter of EB.MB sherds to the south the truth of Glueck's estimate of the extent of the EB.MB site becomes apparent. The site stretches for at least a kilometre and the further south one goes the more exclusively EB.MB becomes the pottery, and the more barren the land on which it lies. The extreme south of the site covers an area of barren yellow knolls where there appears to be no depth of occupation deposit at all. There is just a litter of EB.MB sherds on bare yellow ground. The extent and nature of this large area must indicate a sprawling, temporary camp-site, pitched straight onto the bare knolls in the vicinity of the established settlement. Whether these remains are of one temporary camp, or of a camp-site sporadically or seasonally used, it is impossible to say. There is no evidence to support Glueck's suggestion that it was probably a walled settlement, and the site was not selected for any defensive features.

Little else is to be seen at Umm Hamad. The area receives approximately 200 mm. average rainfall today, but the site had a perennial source of water in the Zerqa nearby. There is plentiful land for agriculture and pasture and the site appears to be located principally at a point which has access to the fertile valley land and a good water supply. Though it may have been on a north-south route, the present road and the easier line of country runs further east. The type of site and the pottery are very different from those of sites like Tell er-Reheil, considerably upstream but still on the Zerqa. The site is in some ways similar to that of Mu'amariyeh with which it has no direct geographical link, apart from the fact that the latter is on a distant tributary of the Zerqa.

Like other Jordan Valley sites to be described, it is approximately 200-300 metres below sea level, and very hot in summer.

Tell Meshra al-Abyad and the Wadi Shu'eib Sites Sites KH, LA, KW, KX, LC, KU and LB. (Fig.6 and pl.9).

Some 25 kms. further south in the Jordan Valley, also located on or

near a perennial tributary of the Jordan, is a group of sites, the largest of which is almost as big as the site at Umm Hamad, but which has a number of smaller sites in the vicinity as well, spread out on knolls rather like the southern part of Umm Hamad Gharbi.

This group, which falls naturally into two parts approximately two kilometres apart, consists of the site at Tell Meshra al-Abyad, at the extreme eastern edges of the flattish Jordan Valley floor just north of the Shu'eib where it issues from the plateau foothills, and the collection of small sites on the banks of the Shu'eib itself, where the valley widens prior to issuing onto the flat ground to the west (see pl.9).

Tell Meshra al-Abyad (which also seems to be called Meshra esh-Shuneh today) or a nearby site of the same name, was visited by Glueck in 1942 (68) and described as "some foundation ruins on a small rise, with Byzantine sherds among and around the ruins". This site is not exactly located on his aerial photographs of the region (69), but may be a little further west of the site visited by Mellaart in 1953 (70). However, the descriptions given for the site coincide, particularly if Mellaart's "two white bumps called Tell Meshra al-Abyad" are the "Tulul el-Beida" of Glueck. On the other hand, according to Mellaart, an Iraqi camp was established on the site during the war, and this must have happened after Glueck's visit as it is not mentioned by him. Whatever the answer, the result is a rather sad story for the ruins seen by Glueck and Mellaart had been completely ploughed out and an irrigated tomato garden set on one part by November, 1965.

Mellaart's very brief description is therefore the only one available. "Large and extensive site (c. 1 km. in N.S. Direction) on natural rise just south of the two white bumps called Tell Meshra

(68) Expl.IV, p.363.

(69) Expl.IV, p.365, fig.110, p.369, fig.111.

(70) ADAJ VI-VII, p.130, 138.

al-Abyad. Denuded Early/Middle Bronze site cut by the Damiyeh-Shuneh road. During the war an Iraqi army camp was established here; roads and passages are still showing amongst the ruins. The site is extremely stony; about 20 yards north-east of the road remains of stone buildings are clearly visible and could easily be planned".

While only Byzantine sherds are recorded by Glueck, and only EB.MB by Mellaart, on a visit in 1965 we found a few Byzantine and early Arab sherds scattered on the west side of the site in particular. In 1965 the site presented the following appearance, and was very difficult to find. About 2 km. north of Nimrin on the Damiya road at a point where an almost conical hill with shallow brown caves in its upper slopes is level to the east in the foothills, is a gentle slope going down from south to north. Between the conical hill and the road is a reach of barren brown stones (Mellaart was uncertain whether the site continued underneath this; it is impossible to tell) stretching to a point almost half way to the road. The stretch of land between this and the road had been cleared and recently deeply ploughed in 1965. Mellaart said the site extended for a kilometre in a north-south direction, but I could only find sherds over a rather smaller area. It may however continue under a small village to the north where ancient sherds could easily be concealed by modern debris. There was only one sherd post-dating the EB.MB on this part of the site.

West of the road the entire site was covered by an irrigated tomato garden, and few sherds were found, which included several late fragments.

How similar to Iktanu this site was is difficult to say. However, it resembles Umm Hamad in being a very extensive flat site with no defensive potential, set in good agricultural land and pastoral land though with similar rainfall limits. While not quite so close to a perennial stream, nonetheless it has a good water supply within a short distance.

The Wadi Shu'eib Sites. Though listed individually as they were first discovered (Nov 9, 1965) these seven sites were all found close to each

other, spread along the land on either side of the Shu'eib, between Tell Mustah and the village of Nimrin (see fig.6 and pl.9). On three sites doubtful fragments of EB.MB pottery were picked up. At the large Roman to medieval site of Tell Nimrin, Dr. Hennessy found one piece that might be EB.MB and subsequently a few more pieces were found on the flat ground at the eastern foot of the tell which might be of that date. The same uncertainty exists over some sherds picked up at Tell Mustah, the large EBA site to the east; and over some worn body fragments from Tell Braz East II (or Braz Mutaha), slightly east of Tell Braz East.

Definite EB.MB sherds were found on the little cluster of sites immediately east of the bridge across the Shu'eib however.

Imtaleh, by the domed building on the east side of the Damiya road, is a small bump of clean wadi gravel, on which there were no visible remains except a few EB.MB and late medieval Arab sherds.

One hundred metres to the east, directly on the north bank of the Shu'eib, is Tell Braz. This is a small, stony, river gravel knoll, about 5 m. high on its highest (west) side. A small cement lined canal cuts around its west, south and south-east sides. The top is a wide flat area, about 120 x 120 m. except on the west where it rises to a slight peak. Much of the site is a natural deposit of gravel, but on the highest section where most of the pottery was found are the foundations of rectangular stone buildings. No date can be given to these as sherds of the Roman, Byzantine and Arab periods, as well as the EB.MB period were found.

About 100 m. east of Tell Braz is a similar gravel knoll which had no name and has been arbitrarily called Tell Braz East I. The canal and the wadi flow on the south side of this site also. The surface is covered with many stones from clearance work behind the site but there are also stone foundations of rectangular buildings to be seen, particularly on the south-west side. Sherds of mainly EB.MB type and a few Byzantine sherds were found. This might suggest that these stone buildings foundations were of EB.MB date, but a similar site (referred

to above, and arbitrarily called Tell Braz East II) a short distance further east, appeared to have Byzantine sherds associated with similar stone foundations which were exposed in the north bank of the wadi, so that I would tentatively assign the ruins on all three sites to the Byzantine period. There were on this last site a few worn body sherds which might have been earlier and it is tempting to associate the buildings with these as in some features they resemble known EB.MB structures. The later date is probably the more likely however.

No early sherds were found on Tell Bleibil, or further upstream. On the south side of the Shu'eib in the area between the river and the road to Salt is an open piece of waste land, with an uneven, flattish surface, used partly as a dump and camp-site, but not much built over. It descends in uneven terraces to the wadi. There was much modern pottery and debris, and a scattering of fairly poor ancient pieces, including a clear EB.MB fragment.

On this series of gently sloping knolls on the low banks of the river there appear to have been therefore a number of small settlements or encampments. None of these groups has the appearance of a compact village and there is not enough pottery to judge whether all four areas were used simultaneously or whether these are relatively transient sites chosen at different seasons or by different generations. None of the land immediately adjacent to the sites is at present cultivated, though this may be due in part to the canalization of the waters of the Shu'eib from a point near Tell Bleibel for the irrigation of the valley land to the west, which today cuts the flow to a mere trickle above Nimrin. The perennial water supply must have attracted settlers, but whether these groups represent a few herders, or farmers from the settlement at Meshra al-Abyad, is unknown. It is tempting to link the now vanished ruins of Meshra al-Abyad, with those found on the Shu'eib and those of Iktanu, but there is insufficient evidence. As at Meshra al-Abyad, the inhabitants have not sought after defensive hill-tops, of which there are many in the vicinity which were in use at other periods. The EB.MB

settlers on all these sites chose fresh ground, rather than the sites of their predecessors, except, just possibly, for Tell Mustah.

Tell el-Hammam and the Wadi Kafrein Sites Sites KY, KZ, KD, LD, LE,
and LF. (Fig.7 and pls.10-11).

The final group of sites to be described is very similar in pattern, and geographically very close to the Shu'eib sites, and lies just north of Iktanu. As the adjacent sites have been treated in some detail it seems worth including these also for the small variations in pattern that are revealed.

In this case, as at Iktanu, the EB.MB settlers occupied the main EBA sites in the area, but spread over adjacent areas also. Unlike Iktanu, the secondary areas do not form one unit, but are scattered in a number of smaller sites over low knolls some distance apart, more in the manner of the sites on the Shu'eib (see fig.7).

The main site is the huge EBA double site of Tell el-Hammam (see pl.10). The higher, rather narrow acropolis site (Hammam East) is backed by the plateau foothills (71). Glueck found clear traces of an IA fortress and buildings on the top, and sherds of EB I, IA I-II, Roman and Byzantine periods. In November, 1965, we found EB I, a few EB.MB, IA I-II, Byzantine and Arab sherds. As there is a Roman site nearby, it is possible that sherds of this period are present also. The strategic position of this site has already been fully described by Glueck, who identified it with the ancient Abel has-Sittim. The complex of EBA, IA and Roman fortification works which lie in its vicinity was not fully noticed or understood by him, but they serve to emphasize how important this site was, and fully support the conclusions he reached about it. However, the complex of fortifications of these periods will be described in the publication of the survey.

To the WSW of the acropolis is a low site which Glueck does not

(71) Expl.IV, pp.378-382, and for photographs of Hammam East, see fig. 115-6, pp.380-1.

seem to have visited, and which covers a much greater area than that of the acropolis (71a). It is here referred to as Tell el-Hammam West (see pl.10). Approaching it from the south on the track from the refugee village at Kafrein, it appears as a long, low spur oriented approximately north-east by south-west. Once on the top, it is clear that the site is very extensive, of irregular shape consisting of a series of knolls surrounding a flattish, or depressed central area. To what extent the knolls are natural is unclear. There are traces of a stone wall surrounding most of the site, at least 50-70 cm. wide, of two main courses in width. Most of the early sherds were found on the north slopes which run down to the wadi (Wadi Meqta at this point, and Wadi Kafrein lower down its course. I refer to Wadi Kafrein throughout as it is less confusing). The later sherds were mostly found on the top. The sherds found on Hammam West in 1965 were EB I, possibly EB III, EB IV-EB.MB and Byzantine. The lack of IA is notable, and compares with Iktanu where the IA site was almost entirely restricted to the high fortress area. It seems likely that the enclosure wall may date to the EB I period, but certainty on this point must await excavation.

Once again therefore we have a very large, rather sprawling EB.MB site set near a perennial water supply with excellent pasture and arable land alongside. The site may have been defended through the EB.MB period but here as elsewhere there is no definite evidence for it. The occurrence of EB IV sherds on the site makes it comparable to Iktanu rather than to the sites further north in the Jordan Valley.

The same mixture may be observed on the site of Tell Abu Qarf (72) more or less opposite Hammam on the north side of the wadi about half a kilometre away. This is a low, quite small mound (maximum height

(71a) This part of the site was however described by Mallon (TG I, p.151) who noted walls 3-3.50 m. in width enclosing the site, with towers 16 x 10 metres.

(72) Expl.IV, p.382-4.

about 5 metres) and most of it is natural rock. There are a few houses on the south-west side and a modern cemetery occupying the top. It lies on the modern track which leaves the Nimrin road and goes up to the head of the open valley of the Kafrein. There is more open land here than at the point where the Shu'eib and the Jordan Valleys meet, and it curves round from an east-west opening to the valley, to run more or less north-south for over a kilometre before swinging to the east again at a point where the foothills close right up to the stream. Hammam and Tell Abu Qarf thus stand at the head of a small protected hinterland which is invisible from the valley mouth. At the lower end both in 1942 and 1965 bananas were planted. Glueck found EB IV, EB.MB, Byzantine and Arab sherds on this site, while we found all but the EB IV. Glueck did not publish his EB IV sherds from this site, and all that we found are attributable to EB.MB. That they exist at adjacent Hammam and just south at Iktanu probably indicates that they were being particularly elusive the day we visited the site, though we searched very carefully. Sherds were not plentiful. We also did not see the remains of stone walls crossing the top of the site noted by Glueck. It is possible that they have since been used for graves or house building.

Slightly further east of Tell Abu Qarf on the north bank of the Kafrein where the river begins to curve northwards is the large, mainly natural hill of Tell at-Tahun, which has a mill below its south side, not now in use, but occupied. There are the ruins of a building on the top of the hill. Glueck found Byzantine and medieval Arab sherds, which we also found, plus a few probably EB.MB sherds and one which may have been slightly earlier (EB IV?). The traces of early occupation are so slight that it is difficult to say whether the sherds represent the most ephemeral occupation, or whether the rest have been eroded away from the steep slopes.

In the Wadi Shu'eib there seem to be no EB.MB sites immediately upstream from the point where the river flows into the Jordan Valley.

In the Kafrein however there are some small sites probably of this date at the other end of the hinterland described above. As we discovered no name for these knolls, they have arbitrarily been called Wadi Kafrein Sites C and D (See pl.11 and fig.7).

At the point where the river curves south after issuing from the confinement of the foothills are a series of knolls on the north bank. They are largely natural, with short but fairly steep sides. The most western (Site B) has only IA (?) and later occupation with numerous stone foundations visible, but the central (Site C) and eastern (Site D) knolls, which are only divided from each other by shallow wadis, have earlier sherds. Site C has foundations of small rectangular buildings which look very similar to those of the earlier phase at Iktanu, and which it might also be possible to draw from surface survey. Apart from one Byzantine-Arab sherd, all those found were early. Site D was on a similar knoll, overlooking the wadi, and had two types of stone foundations visible - one was of a large building with thick walls, and the other was of a type similar to that on Site C. This site also had two Byzantine sherds among the otherwise completely early collection.

The dating of these sherds I find exceptionally difficult. There are several features which are almost certainly EB.MB and some which are earlier, but the ware is almost identical to that of Chalcolithic sherds from Iktanu, which is very distinct from that of the EB.MB period. I still hesitate over which period to attribute them to.

Whether Sites C and D belong to the EB.MB or the Chalcolithic period, the pattern of settlement for the period in the south Jordan Valley fringes is fairly clear. It consists of quite numerous sprawling settlements often with houses with stone foundations, set in agricultural land with access to good pasture, and near good water supplies. The type of site and the amount of pottery alone suggests partially if not entirely sedentary populations and indicates a mixed economy of agriculture and pastoralism on a fairly primitive level. None of these sites could qualify as a town, and some parts of others

are clearly only camp sites. Whether the latter indicate transhumance or a completely nomadic way of life for part of the population, or whether there is a chronological difference between camp sites and settlements is difficult to answer. At Umm Hamad Gharbi, where there appears to be a camp-site and a "tell", the homogeneity of the pottery suggests contemporaneity. The extent of the large sprawling sites at least suggests that the inhabitants led lives reasonably secure from their neighbours or from people further afield.

D) Comparative Distribution

A map has been drawn to indicate roughly the limits of settlement in the periods preceding and succeeding the EB.ME., as far as they are at present known (Fig.8). The boundaries are not exact, but give some indication of the relative distribution patterns for Sinai, Palestine and Transjordan. Not all the recent work has been incorporated; the EBA limits are based on a map prepared in 1964 for the Palestine Exploration Fund Centenary from data collected by Mr. Parr prior to that date. However, the broad outlines for all periods except the Chalcolithic and EB.MB have remained largely unaffected by recent work, and for those two periods recent material has been included.

The pattern as known at present indicates a regular advance and retreat. Chalcolithic sites are found over the greatest area, while EBA sites retreat well within the limits of fertile land. The EB.MB period represents a secondary expansion, followed by the MBA which is so far known only within markedly compressed limits. The extreme southern limit in Transjordan for example, seems to be in the region of Mt. Nebo-Madeba.

The Ghassulian and Beersheba Chalcolithic groups and EB.MB populations are thus those whose economy and ecology are most adaptable or have been forced to be more adaptable and make lesser demands on good land and water supply. It is surely no coincidence that during the two more urban periods (EBA and MBA) when populations are known to have been concentrated in greater numbers on urban sites, they are also to be

found occupying the richer territory,

The greater dependence on the dry south lands in the Chalcolithic and EB.MB periods may suggest that some of those people moved there under pressure from succeeding urban groups, i.e. the Ghassulian and Beersheba groups were pushed south by EB, and EB.MB by MB. But there is no clear comparative chronological evidence to support this, and both the Chalcolithic and EB.MB groups appear to be well established in the south long before the entrenchment of their successors in the north. The alternative is that these groups were pushed there by their own weight as land was taken up behind them. Or it may simply be that these southern areas filled certain demands in their economy; Sinai, for example as a source of copper, for in some Chalcolithic and EB.MB groups there is a well developed tradition of copper-working (in particular, the Nahal Mishmar hoard in the Chalcolithic and the numerous daggers, javelins and small artifacts in the EB.MB) and both periods share a relatively primitive technology in metal work. For the Chalcolithic period this is part of a view tentatively put forward by Rothenberg(73). While stating that considerably more work needs to be done on the Chalcolithic settlements in south Sinai and the southern Arabah, he suggests that Chalcolithic tribes of hunters, herdsmen and coppersmiths worked mines in the deposits of copper ore, and utilized any cultivable piece of land and grazing in the vicinity, thereby developing not just a specialized trade or industry, but a whole way of life. Another factor taking these peoples across the routes of south and north Sinai is perhaps trade and grazing on the verges of Egypt. In the Chalcolithic period there is clear evidence in both Egypt and the north Negeb (at Tel Gath for example) that exchanges of goods took place. This is not indicated by the objects discovered in the EB.MB period, but in default of archaeological evidence the Egyptian texts for that period show that people from this area were to be found in the

(73) PEQ 1970, p.15.

Delta, presumably overrunning the better grazing grounds. The non-urban or less urban Chalcolithic and EB.MB periods also coincide with periods of undeveloped or lapsed central authority in the organization within Egypt; and the relative order of urban EBA and MBA Palestine is balanced by periods of strong centrally imposed order in Egypt as well. It is not yet clear whether the spread of settlement into the Negeb and Sinai depends on access to, and trade with Egypt. There is some suggestion though that weakness in Egypt may be an incentive to foreign expansion in Sinai and the Negeb.

Although the settlement pattern as known so far is sparser, the limits of distribution for the Chalcolithic period seem to exceed those for the EB.MB period in southern Transjordan as well as Sinai, and apart from the Arabah sites, Chalcolithic sites are found at least to the region of Petra, some 35 km. south of Feinan. To the east on the plateau, Chalcolithic sites are found in the vicinity of Mu'amariyeh towards Mafraq, ~~the~~ present limit of EB.MB distribution. Within this large area the Chalcolithic, like the EB.MB, shows a strong tendency to regional variations. The tendency to "open settlements" often preferred in both periods has already been mentioned in relation to the comparative settlement patterns in the Shu'eib - Hesban survey.

In drawing a line between the EBA and EB.MB sites it is difficult to decide what to do about EB IV sites. As on the whole they coincide with the EB.MB sites they have been put in this category for to include them with the EBA sites would confuse the pattern of distribution for EB I-III. The southern limits of EBA and MBA settlement in Palestine tend broadly to coincide at about the latitude of the southern end of the Dead Sea. In Transjordan the question is slightly more complicated, and this will be more fully discussed in the following section. The distribution of EBA sites in Palestine reveals a denser pattern than for the EB.MB, particularly in the north Jordan Valley and southern Galilee, but they are fairly evenly distributed otherwise, though as mentioned above, not extending far into the Negeb.

In Transjordan nothing that is definitely EB I-III has been found south of the Hesa, though there are some small indications that this limit might yet be extended. There is sparse, but well entrenched settlement through the central and south central plateau and very heavy settlement of the Jordan Valley and north Transjordan generally.

The limits of EBA settlement apply also to a large extent to those of the MBA, except in Transjordan where settlement so far seems to be confined to the northern parts of both the plateau and the Jordan Valley. Glueck attributed MBA pottery to about 25 sites in all, in the region mostly north of the Zerqa, but occasionally also to the south of it; the furthest extent to the south however seems to be marked by grave groups from Amman and Mt. Nebo. There were some sites where Glueck was uncertain about the MBA occupation. In this respect also the check surveys have been useful. The Shu'eib-Hesban survey indicated the probable complete absence of MBA-LBA pottery in the south Jordan Valley. Mittmann, on the other hand, in the area north of the Zerqa found a further 24 sites which he attributed to the MBA, and a further nine which possibly belonged to this period. So for the north Jordan Valley and for north Transjordan generally there are approximately 50-70 MBA sites, which indicate that the land was reasonably thickly populated.

It has been suggested above that the reason the limits of the EBA and MBA settlement did not extend so far to the south was simply that they occupied only lands sufficiently fertile to support urban communities. There is no evidence (see the section on rainfall) to suggest major climatic changes such as prolonged drier periods during the EBA and the MBA, to cause a retreat of settlement northwards. There is not much evidence to show that the EB.MB sites in the south were in part contemporary with the MBA newcomers in the north, for there is little sign of contact between them, with one or two exceptions (73a).

(73a) These exceptions occur at Beitrawi and Ara'ir, for which see Section III.

Had there been stronger evidence, it might be possible to suggest that the EB.MB population remained in control of the south for longer than in the north, but this would still not explain why the MBA or LBA population did not eventually take over in the south. As it is, the simplest explanation is that in these predominantly urban periods of the EBA and MBA the methods of land use meant confinement to areas of higher rainfall. In fact, the extent of MBA settlement in Transjordan and Palestine coincides approximately with the land within the modern 400 mm. isohyet. In this respect, the comments of Raikes in "Beidha. Prehistoric Climate and Water Supply" (74) are perhaps relevant. "If the soil cover and the frequency of occurrence and type of rainfall had been the same as those of today, a mean rainfall of some 350 mm. would have been necessary for reliable continuous harvesting or cultivation". These remarks are specifically aimed at the local conditions prevailing at Beidha, as is the statement that "the limit of dry farming in conditions similar to those at Beidha is generally associated with about 200 mm. mean annual rainfall". But it is perhaps fair to suggest that for the north Negeb and south Transjordan, areas in general not dissimilar to Beidha, in urban periods when agricultural irrigation techniques were not highly advanced, the concentrations of population would tend to occur in the areas of reliable rainfall.

A further indication of the change in settlement patterns, are Glueck's frequent references to the large number of EB.MB sites founded on virgin ground (75). The overall statistics for Transjordan clearly support him in that 85 EB.MB or EB IV-EB.MB settlements appear to be founded on virgin soil as opposed to 46 on earlier sites. (It should be stressed again that these figures are based on survey only, and cannot be totally reliable). However, when these statistics are broken down into geographical units as shown in the accompanying chart,

(74) PEQ 1966, p.68.

(75) Expl.IV, p.423 (4) and p.321-2.

it is clear that these figures are distorted by the pattern of site distribution south of the Zerqa. North of the Zerqa the proportions are reversed (20 founded on virgin ground, but 24 on earlier sites).

Chart showing number of EB.MB sites first occupied in the EB.MB, compared to the number of EB.MB sites first occupied in earlier periods.

<u>First occupied in:</u>	<u>Pal.</u>	<u>Meso.</u>	<u>Neo.</u>	<u>Chalco.</u>	<u>EBA.</u>	<u>EB IV-EB.MB.</u>	<u>EB.MB</u>
<u>Transjordan</u>							
Zerqa	1		1	3	19	4	16
Mujib				4		34	4
Hesa				2		10	
Aqaba						3	
Jordan Valley				8	8	1	13
<u>Palestine</u>							
North Israel				1	2		1
Jordanian Palestine		1	1	2	4	1	1
Central Israel			1	3	2		6
<u>Sinai</u>				2		27	
<u>Negeb</u>	1		1	8	1	50	
<u>Totals</u>	2	1	4	33	36	130	41

In Palestine the same imbalance occurs between the heavily populated north and the sporadically populated southern regions of the Negeb and Sinai. Were overall statistics only looked at, the number of sites founded on virgin ground would be overwhelmingly the greater, and this is clearly the source of Glueck's inference. But if one excludes the figures from the southern areas, the known EB.MB settlement sites in Palestine (the cemeteries being disregarded for obvious reasons) show that 9 were first founded in the EB.MB, and 17 at earlier periods, particularly the Chalcolithic and EBA as can also be seen from the chart.

Thus although the EB.MB settlers frequently did choose virgin

ground to live on, in cases where there was an earlier site visible, they more frequently chose that (76). The overall statistic thus much more importantly reflects their occupation of a much greater area of territory than that of their immediate predecessors.

E) Inferences Derived from Survey and Distribution Patterns

Some questions may be tentatively answered on the basis of survey work, involving particularly two main facets of the EB.MB period. The first is to ask what social and political aspects of the period can be revealed from the bare bones of a settlement pattern; and the second is, in assuming innovating influences to be discernible between EB III and EB.MB, to ask whether the direction of these influences can be traced.

a) Social and political organization.

- i) None of the sites investigated seemed to be those of urban communities, but indicated a large, fairly sedentary element, often in sprawling villages.
- ii) Defended sites may be partly influenced by EBA tradition, and there are some indications that they gradually die out through the EB.MB period.
- iii) Groups of small communities exhibit considerable regional variation, suggesting a degree of isolation, or independent small areas which are not in regular contact with distant groups.
- iv) The pattern of settlement frequently shows small sites located in close proximity to each other, probably indicating small farming or pastoral communities perhaps organized as tribal or family units.
- v) Villages and large numbers of sherds, often from large thin-walled

(76) I would disagree with Glueck over the case of Umm Hamad Gharbi, where he feels that the site was chosen without reference to the Chalcolithic settlement of Umm Hamad Sherqi whose EB.MB pottery he regards as strays from Gharbi. Not only do I regard Sherqi as part of the EB.MB settlement, but given the present isolation of the site in the ~~SW corner~~ **SW corner** of the Ghor, I think the EB.MB settlers can hardly be said to have chosen virgin ground.

pots which could not possibly have been part of a nomadic household's equipment, suggest a sedentary people indulging in agriculture, as does the location of most sites near arable land.

vi) Other factors, such as the location of sites all along the banks of perennial streams, and the evidence for camp-sites in particular, suggest pastoralism, either nomadic or semi-nomadic, perhaps following routes along river valleys.

vii) Sites like Mu'amariyeh and Umm Hamad suggest either sedentary and semi-nomadic people living in harmony; or else a camp-site used regularly for long periods each year - e.g. Umm Hamad in winter, and Mu'amariyeh in spring and summer; but these two sites were almost certainly not used by the same groups. Variations in pottery suggest that if transhumance is practised, it is only on a limited geographic scale.

viii) While the lack of general insistence on defence might suggest that this period offered a more peaceful existence than in the EBA, signs of a developing tendency towards nomadism may indicate that safety lay in mobility. Life may have been just as insecure, and the change simply reflect a change in offensive and defensive tactics.

b) Indications for the source of new influences from the distribution of sites.

It is probably reasonable to expect a greater intensity of innovating ideas and numbers of sites in the areas first and most continuously influenced by EB.MB settlements, and to some extent this should be discernible in a distribution map for the period. The completeness of the data on which the map is based is of the most basic importance, and as this cannot be guaranteed, any suggestions must be tentative.

If the characteristics of the EB.MB peoples are introduced by newcomers from outside Palestine and Transjordan, the following routes of advance must exhaust all possibilities.

i) from Egypt. The distribution of EB.MB sites is known to extend right up to the edge of the Suez Canal, and that the EB.MB peoples used

this route is therefore certain. It is possible that great numbers of them did so, but there is no indication that the people of the Negeb and Sinai had possessions acquired in Egypt, and the possibility that they merely passed through the fertile Delta lands from a more distant point, without attempting to settle on the better land is unlikely. This line of approach is not in agreement with the epigraphic evidence either, but that is outside the scope of evidence based on survey. The pottery of Egypt in the First Intermediate period on the other hand shows some innovations in the EB.MB style which may suggest that the reverse of this hypothetical advance into Palestine is true; i.e. far more EB.MB people came into Egypt from Palestine than came out again, and in that case, they remained there and were rapidly absorbed.

At Meruham there is pottery of EB IV type suggesting that this group may have been influenced by EBA Palestine, and thus arrived in Sinai from the north, rather than from the west. The density of settlement might in other circumstances indicate a springboard for the invasion of Palestine.

ii) from South Arabia. There are three factors which seem to deny this as a point of origin. First, towards the south of Transjordan, EB.MB sites on the present distribution map do not extend much south of the Hesa. There is a large gap in occupation from there to the Saudi frontier, a region where archaeologists have been reasonably active in recent years. Second, nothing has yet been found in Saudi Arabia to indicate an entrenched EB.MB culture, but as little archaeological work has been done in this region it cannot be regarded as positive evidence. Nothing has emerged on the antiquities market which is of this period which would have come from this southern district. Third, however, as will be seen in the following section, the pattern of these southern sites shows a stronger EBA influence the further south one goes, which suggests a reverse tendency to what one would expect for an area receiving the full brunt of the earliest EB.MB penetration.

iii) from the eastern desert. There is no evidence for the camel in

domestic use in the EB.MB, and people coming from this direction would have to be nomadic groups. Instead there is considerable evidence that the EB.MB groups were at least semi-sedentary agriculturalists and pastoralists using pottery in considerable quantities, and not in an entirely Palestinian tradition.

iv) from the north-east. This direction is that which includes most of the marginal areas of the Syrian steppe and areas around the Jebel Druze, and is one which has been particularly favoured by many as a source for the EB.MB. There is evidence for such groups out beyond the Jebel Druze at Umbachi. Points which favour both iv) and v) as possible routes are first, the effect of EB.MB settlement on north Transjordan appears to have been both intense and early. There is no EB IV period in the region, suggesting that there was an abrupt and total halt to EBA civilization. Glueck's suggestion that there is a gap in occupation in the north in EB IV seems less likely than the immediate succession of EB.MB to EB III. The distribution of EB.MB sites is dense for the whole area north of the Zerqa and for the Jordan Valley, both areas with direct access to the north, and which therefore seem to fulfill the conditions described above, of areas which received the first and fullest brunt of EB.MB influence.

v) from the inland north, by which is meant the more central agricultural areas of Damascus, the Beqa' and in particular Hama and Qatna. To some extent this must be treated as a similar approach to iv). Unlike the evidence for Egypt, there are clear indications of archaeological contacts between the EB.MB and the sites to the north, in both Palestine and Syria. The little that is known of south Syrian distribution suggests that the EB.MB sites in Transjordan can be followed north to a point of recognizable contact with north Syrian towns.

vi) from the coastal north. In this direction the sites are so far scattered cemeteries which do not definitely continue as far north as Byblos or beyond, and show little archaeological contact with the north

coast sites. There are perhaps some indications of a reverse direction on this route as towards Egypt; that is, penetration of south Lebanon by groups coming from the north Palestine area.

vii) from the west by sea. One factor which seems clear on the distribution map and which has been discussed above, is that there are very few EB.MB sites actually on the coast, or clearly connected with maritime activities. Were there to have been a major invasion or series of invasions of EB.MB people from the sea one would expect a) large numbers of initial camp-sites or settlements on the coast, and b) sites clearly connected with sea-faring occupations. Instead of which the EB.MB people are clearly from the very beginning remarkably adjusted to all local conditions, including dry farming and pastoralism in the marginal areas, and their settlements are at their most dense and developed to their most characteristic degree in the Negeb, in the Jordan Valley and in north Transjordan.

SECTION III. THE POTTERY

A. Tell Iktanu

During April - May, 1966 a small excavation was conducted by the writer on the southern hill at Tell Iktanu (pl. 14). It is proposed to use the stratified pottery from this site as the starting point in an analysis of the EB.MB pottery of Transjordan, and subsequently to compare the sequence revealed at Iktanu with the material from both excavations and surface survey at other sites.

i. The Stratigraphy

As the Iktanu material is as yet unpublished a brief account of the stratigraphy of the site must be given, for this to some extent provides the foundations of what follows. Though the main excavation was concentrated in one area, a small check trench was dug some distance away to the east. As this revealed a generally similar sequence to that in the main trench, the details will be reserved for the final report on the site, but the check trench is mentioned here to indicate that the following account of Area A can be regarded as valid for most, if not the whole area, of EB.MB occupation at Tell Iktanu.

In the original survey of the site in 1965, the majority of sherds found on the southern spur were of EB.MB type, though there were some EB IV types, red slipped bowl rims in particular. The relative scarcity of these latter types in proportion to EB.MB sherds is a factor relevant to the stratigraphy of the site, though we were not aware of it at the time. Both this, and the undisturbed appearance of the foundation walls to be seen on the surface (pl.12B, and faintly on Pl.13), were however both

indications of the remarkable lack of post-EB.MB activity on the site, and the stratigraphic evidence has benefitted as a result. The traces of later occupation have been referred to above (and see figs. 9 and 10) and have no further relevance to this study.

The choice of site to dig was governed by several factors. First, a site on the flattish top of the hill was preferred as it was hoped erosion would be less than on the fairly steep slopes. Second, an area which was not affected by any visible later occupation was chosen, particularly as the site was thought to be a shallow one. Third, the final choice was made after the surface ruins had been planned (fig. 11), when what appeared to be a single complete unit of housing was selected, as it was hoped that a more rounded picture of the activities of at least one family would thereby be obtained. The plan of the Area A house in fig. 11 has been left unaltered from the original survey and can be compared with the plan of Area A, Phases 1 and 2 after excavation (figs. 12 and 13). This provides some form of check on the degree of accuracy and detail visible in the rest of the surface plan, in comparison with what might be expected were the whole settlement excavated.

The excavation of Area A proved that the remains were shallow, but within this area there was a clear demarcation of two phases, which was demonstrated simultaneously in stratigraphy, pottery and architecture.

The primary purpose of the excavation was therefore fulfilled, in that the relationship between the EB IV and EB.MB sherds was clarified. The secondary purpose, to obtain a complete architectural unit, was not fully achieved for the earlier phase, and the excavation was extended north of the original area in the last few days in a partially successful effort

to rectify this.

A grid of nine small squares was laid out over the house, which were dug successively in groups of three. The main sections illustrated in fig. 14 indicate the direction of these squares, which were laid out to give approximately right angle sections to the main walls of the house. An addition in the south-east corner of the house was a narrow diagonal baulk laid out to give a section across the successive small structures revealed there (fig. 14, sections 5 and 6). Most of the baulks were removed after the sections were drawn, but all the walls except T, D2 and N2 were left intact as it seemed little further information would be revealed by destroying them.

The stratigraphic sequence revealed two main phases.

Phase 1 (the earlier) was probably of somewhat longer duration than Phase 2, and indicated minor architectural developments.

Phase 1a.

This phase was founded directly on the natural close packed gravel and brown soil, the top of which forms the earliest floor level. It is not clear whether some of the numerous pits dug into this floor form the earliest traces of activity in the house area, or whether they are contemporary with the building and use of the first structure (pl. 15A). The earliest level of Phase I is therefore a pebbly earth floor with which are associated Walls A, B, C, L, G, D1, E1, N1, N2 K1 and J; Pits 1, 2, 3, 6 and 8 (pl. 15B) and the hearth (pl. 16 A-B). Pit 8, which underlies Wall N2 suggests that some of the pits may pre-date the construction of the walls, though judging by the pottery, the chronological difference is not significant. The collapsed inner line of wall sections A2, A3, L2 and L3 are

contemporary with this level (pl.17A). Pits 4, 7, 9 (10-11) and 13 were all disturbed, and though belonging to Phase 1 generally, could not be more closely dated. Pit 12 probably belongs to the earliest part of Phase 1, but due to erosion there was no direct stratigraphic link between the area north of Wall B and that south of it.

Phase 1b follows the collapse and rebuilding of parts of the perimeter walls (pl. 17A), and the consequent slight raising of the ground surface. There is no particular change in use or function of any of the structures, though Wall M and possibly Wall T succeed Walls N1-2, and the enclosure K-J may have been extended at this time or towards the end of Phase 1b or beginning of Phase 2, by the building of K2 and H. It is probable that the hearth went out of use and it is uncertain whether Wall B1 was built at this time or in Phase 2.

Associated in Phase 1b therefore are a soft, grey earth and pebble floor (pl. 17A), all the walls of Phase 1a except Walls N1-2; Pit 5, and possibly but uncertainly Pit 9 (10-11).

Walls P, Q, R and S are not stratigraphically linked to the main part of the site but undoubtedly belong to Phase 1, with the possible exception of Wall Q3. These remains all lie on the natural gravel and erosion has accounted for all but two to three centimetres of contemporary deposits (pl. 17B).

It is thought that in Phase 1 the area enclosed by Walls A, B, C and L was used as a courtyard with small rooms along the perimeter walls. The probable absence of any wall at B1 suggests that the living quarters lay to the north and this wide opening, plus the large size of court and the odd position of the hearth, and the width of the east-west corridor between

walls P and B giving access to the street, all suggest that flocks were kept in the courtyard at night. There were no other traces of doorways preserved in walls A, B, C or L. The area between Walls P and Q might have been the main living room of the house with access from the north by way of a small flat mud porch, which had embedded in it the lower half of a storage jar (see fig. 21.1). Its position against the cool north wall of the house perhaps suggests that it was used as a *zīr*, which the scraped condition of its interior walls supports. A small socket stone in the western end of Q3 suggests there was a doorway at this point (pl.17B).

This outline of Phase 1 is a simplification of the stratigraphy of Area A. In some areas of the courtyard only one floor level was observed, in others, three or more surfaces were distinguished. Considerable variation in wear and deposit is not surprising in an open yard of this kind.

The stratified pottery of Phase 1 can be divided into two groups, a) the closed groups from the undisturbed pits, and b) the pottery from the floor levels, which was largely undisturbed except in the south-west and the north-east corners, and which forms a usually reliable group in spite of the shallowness of the site. However, the typology which follows is restricted, unless otherwise specified, to types from the first category: these form a sufficiently large group to cover most of the shapes found at Iktanu in the early phase.

Phase 2. It is difficult to estimate how long Phase 1 lasted, and even more difficult to give a duration to the gap between Phases 1 and 2. Various factors indicate that neither was very long.

In most parts of the site the difference between Phases 1 and 2 is mark

by a rise in the ground surface with the deposit of fairly clean, dense, yellowish brown earth, which probably comes from the decay of a terre pisée (or just possibly mud-brick) superstructure. This deposit, plus the fact that none of the pits were dug by the Phase 2 occupants helped to preserve the stratigraphy of the site.

The Phase 2 occupants arrived at a time when at least parts of the superstructure and in some places even the top course or two of the stone bases of the walls had collapsed, but were all still clearly discernable. All Phase 1b walls were reused, and in parts rebuilt (Wall C2 is a clear example of this rebuilding process, pl. 18A). In addition, such walls as were necessary to convert the Phase 1 courtyard into a courtyard plus living quarters were constructed - Walls B1, D2, E2 and F. Phase 2 thus indicates a shrinkage of house size as well as a deterioration in building techniques (though this will be more fully described later).

The function of the original structure was thus radically changed, even though there is a strong superficial resemblance between the houses of both Phases, as the small rooms continue in use unaltered. There are three main stratigraphical conditions (see fig. 14): i) In general the top level over Area A belongs to this phase and is marked by deposits on a soft earth and pebble floor not dissimilar to the Phase 1 floors. As this level forms the top 5-10 cms. of soil on the site the pottery can hardly be regarded as coming from a sealed stratified deposit. Oddly enough, it forms a very uniform group and not a single sherd of post EB.MB date was found anywhere in Area A. ii) In the south-west corner of Area A the floor levels above Pit 9 were considerably disturbed by erosion and by the digging of two small cist graves (marked Graves 1 and 2 on

fig. 13) with infant burials which had been dug from a point at or above the present ground surface and which, though there is very little in the graves to date them, may be medieval. Stratigraphically they can only be dated to post-Phase 1. iii) In the area bounded by walls E, B, C and F the reverse of i) took place. In what was clearly the main dwelling room in Phase 2, the floor level was steadily worn down throughout the occupation and the whole deposit in the room dates to the final use of the house (and this part of the site) and is sealed by a layer of clean yellow-brown earth which again probably comes from the decay of the upper walls (see fig. 14, section 1). Wall F is founded directly on Phase 1 debris at a higher level than the final Phase 2 floor with its central stone (?) column base (see pl. 18B).

On the floor were the bases of some large vessels most of the upper body fragments of which were scattered round the room at various higher levels (see fig. 25.6). This, and the deposit above the floor which was made up of numerous thin levels of earth, silt and possibly decayed roofing material suggested that the house was just abandoned at the end of Phase 2 with most of its contents intact and with the owners presumably planning to return - perhaps the following winter. When they did not the house gradually fell down; with perhaps the occasional visitor in the early stages to give a kick to and scatter what pottery remained intact as he passed through.

A comparable process occurs in the curious small area bounded by Walls K, H and J, all three of which remained in use simultaneously, and which was fairly thoroughly cleared out in Phase 2. The fill is entirely of Phase 2 type although it was in use in both Phases 1a, 1b and 2.

Thus the Phase 2 pottery offers no completely closed groups. It is liable (as in any level of secondary occupation) to contamination by earlier material, and it is clear that the very beginning of Phase 2 is just such a mixture; but the evidence suggests that in several areas such contamination is slight. There is no evidence for any contamination from a post-Phase 2 date.

The pottery in figs. 15 to 29 forms a typology based on the contents of the sealed pits only for Phase 1 (eg. Pits 2, 3, 5, 6, 8 and 12) which had a considerable amount of pottery in comparison to the not very productive courtyard floor; and for Phase 2 the pottery comes from the main room (Walls B, C, F, E), the enclosure (Walls K, H, J) and the four least disturbed surface areas. The considerable amount of pottery from the less certainly stratified pits and levels is not reproduced except where a more fully preserved example is used to illustrate an identical stratified type. However, in the discussion of each type the evidence from all levels is reviewed.

ii) Ceramic technology

Though there are variations in ware and technique between Phases 1 and 2, and between pots having varying functions, all the pottery at Iktanu in both phases is handmade, usually with horizontal smoothing at the rim. In a report by Frederick R. Matson¹ it was concluded that this finishing process (visible even on lamps prior to the spouts being formed) could be achieved by rotating a pot on a mat, sherd or piece of wood, or even in the lap of a skilled person. This seems a more satisfactory explanation than

1. Dhahr Mirzbaneh p. 63, footnote 7.

inferring the use of a potter's wheel to produce the rims alone, particularly when it is clear that the manufacture of the bowls was a single process.

In the case of jars, indications that the body and the neck were manufactured separately are given by the ridge on the interior junction of the neck and shoulder; also in one or two cases it is clear that slip has been applied to the body before this junction was effected (fig. 20.2).²

The potting in both phases shows considerable competence in that hand made vessels of considerable size are thin-walled and fairly evenly fired though the surface is sometimes mottled in colour, and some vessels appear to have been over-fired accidentally. In EB.MB pottery generally over-fired pots are not infrequent, which suggests a not fully controlled firing technique. Apart from discolouration some vessels are warped and "bubbled".³

With the exception of the cooking pots, most lamps and the occasional miniature bowls all vessels appear to have had flat bases. In Phase 1 the ware generally is of three types, a coarse heavy fabric, sometimes rather metallic; a finer and thinner "gritty" ware; and cooking pot ware. In Phase 2 only the two latter types are in use.

iii) The Pottery of Phase 1 at Iktanu

Cooking Pots (see fig. 15). Nearly a third of all sherds in Phase 1 were

2. For some remarks on methods of hand potting, see D. B. Doe "Notes on Pottery found in the Vicinity of Aden", Aden, Department of Antiquities, Annual Report, (1960-61) pp. 5-6.

3. Examples of EB.MB kilns are known at Har Yeruham (Yediot 27 (1963) p. 284 ff.) and at Jebel Qa'aqir (Dever, pl. 14).

of cooking pot ware, which is a very distinctive and uniform fabric. Ranging from drab-grey to bright brown or pink in colour, often with a grey core, it is a coarse ware full of small to large white grits. The exterior surface is frequently smoke blackened. The vessels are hand-made with horizontally smoothed rims.

Not a single flat base of this ware was found on the site, so it is safe to assume that the cooking vessels had globular bodies and round bases, although no complete example was found. All cooking pots are hole-mouth vessels, and fall broadly into two main types, those with concave rims (Type 1) and those with flat or convex rims (Type 2). They also fit into four main decorative categories, A) Plain, B) Incised slash decoration below the rim, C) Band of finger impressions at the rim and D) Band of finger impressions below the rim.

In Phase 1 the overwhelming majority are of Type 1A (fig. 15.1-7), followed by Type 2A (fig. 15.10-15), which together comprised over 80% of the total of all Phase 1 cooking pot rim sherds. There were one or two examples of each other category in both the "sealed pits" and other Phase 1 levels, with the exception of Type 2D (convex rim with finger-impressed band below the rim) which does not occur at all in Phase 1. There is fairly good though probably insufficient evidence to show that Types 1B-2B and 1C-2C may be restricted to Phase 1, but are in any case rare. There is only one well stratified example of Type 1D, though two others occur in possible Phase 1 contexts.

In general, Type 1A seems to have been preferred. The vessels range considerably in size, and though the wall thickens towards the rim, they are in general fairly thin-walled. The fragments were evenly scattered over

the Phase 1 levels and in the pits and numerous tiny burnt fragments were found in the hearth.

Lamps. There were no lamps recorded in any certain Phase 1 context.

Red slipped wares. Of the Phase 1 sherds, an estimated fifth or quarter had red slip. This gives a slightly false impression of the proportion of red slipped vessels, as most of the vessels so treated are the smaller shapes, though there are rare examples of large storage jars (the zīr fig. 21.1 specially slipped to be an ornament at the front of the house?) and very broad shallow bowls. Conversely therefore, the large proportion of plain ware sherds (the remaining half of the total) probably indicates fewer larger vessels. In any case, the red slipped vessels constitute an important part of the Phase 1 repertoire and most of the Phase 1 shapes to be described below have this decoration. Some shapes appear to be invariably red slipped, others occasionally have non-red slipped parallels. In each category therefore the slipped and non-red slipped forms are juxtaposed for comparison.

The red slip technique has a variety of surface treatments, which seem to occur without particular ordered preference on the various shapes.

- a) matt red slip is fairly common, applied over the whole vessel, or just the interior and over the rim of open shapes.
- b) slightly less common is red burnished ware. The surface of some of these vessels is a drab pink-grey rather than red, but burnish does occur on bright and dark red slips, both inside and out. The burnish is irregularly applied. This technique applies most often to the coarser and metallic type of ware.
- c) the most popular red slipped type at Iktanu has a reserved cream

band at the rim. On cups and bowls the rim at least has a cream slip applied and subsequently the whole interior and lower exterior is red slipped to leave an irregular cream band in reserve just below the exterior rim. Sometimes just the rim and the lower exterior have the red slip applied. This technique is found particularly on the cups and bowls with tapering rims. Jars have the necks and handles, and sometimes the lower body, left in reserve. This technique is particularly favoured at Iktanu, and there appear to be few parallels. It is associated particularly with the finer "gritty wares".

d) occasionally the red slip on these red and cream vessels is also irregularly burnished.

The ware is varied to some degree in relation to function. Many of the larger bowls are made from a fairly heavy thick ware which has numerous ungraded grits and the colour ranges from grey and drab to bright pink. Most of the finer red and cream vessels are made from thinner wares, evenly fired bright pink throughout.

Some smaller vessels (such as fig. 16.7 and fig. 17.2 and 6) are made of fairly coarse ware, gritty and fired to a dense metallic texture and slightly mottled reddish-pink on a predominantly grey ware. The surface is irregularly burnished. The type is not unlike the coarser red burnished ware, but in this form is not common on the site.

Black slipped wares. Almost invariably the few examples of black or nearly black slip on sherds from Iktanu have a rather fugitive surface on a greenish fabric. Black slip is therefore probably an accident in the firing process for red slip wares, rather than a deliberate attempt to produce black pottery, and the two will be treated together.

Plain wares. The large number of plain sherds in Phase 1 are usually also covered with a slip or wash. Often this is probably just a slurry of the same clay; but frequently there is a deliberately applied greenish, grey, cream or pinkish-cream slip. This is applied over the whole surface, and is never burnished. The fabric is usually well fired, fine "gritty ware".

Red Slipped Miniature Bowls. Fig. 16.1 illustrates the only vessel in this category. It probably comes from Phase 1, but not a clearly stratified context. The matt red slip tends to confirm this attribution. Its rounded base is the only example of this on the site apart from the lamps and cooking pots.

Cups

Red Slipped Cups. (Fig. 16.2-7) These are of two varieties. Type 1 is a small flat based vessel with tapering rim (Fig. 16.2-5). There are nearly a dozen examples from the site, so that it is fairly common. Most have red slip (one is black) with a cream slip in reserve below the outside rim. Fairly often the lower exterior is burnished. Most of the examples occur in the clear Phase 1 contexts.

Type 2 (fig. 16.7), a footed cup with grooves at the rim, is much less common, there being only four fragments. Two are of the rather metallic grey-reddish ware described above, and two base fragments are of the ordinary gritty pink-buff fabric with matt red slip. All occur in Phase 1 contexts.

Plain cups. Only one example without red slip was found, in a Phase 1 level, of Type 1 (Fig. 16.6).

Red Slipped Small Bowls. (Fig. 16.8-12). There were five main varieties

of this bowl all of which seem to have had flat bases. Few were burnished.

Type 1: plain tapered rim (Fig. 16.8). Not very common, and either with a red and reserved cream slip, or matt red slip.

Type 2: plain square rim (Fig. 16.9), rare, red with reserved cream slip.

Type 3: slight single groove near rim (similar to Cups Type 1). This was the most common type in Phase 1, and nearly all examples are red with reserved cream slip. Two have red burnished slip; all examples are from Phase 1.

Type 4: marked groove at rim (Fig. 16.11) was not uncommon and normally decorated with red and reserved cream slip; there were a few in matt red and one in matt black slip.

Type 5: double groove at rim (Fig. 16.12) was the second most common type and is found with reserved cream slip, or a simple matt red slip.

Plain Small Bowls (Fig. 16.13-16). These tend to be more limited in size and range and grade evenly into types which vary only with the number of grooves below the rim: 1) plain taper (Fig. 16.13); 2) single groove (Fig. 16.14); 3) double groove (Fig. 16.15); and 4) triple groove (Fig. 16.16). The latter type is the most popular.

Red Slipped Medium Bowls (Fig. 17.1-10). This category includes the shape that is the "type fossil" of the EB IV period; the inverted rim bowl with exterior grooves. The bowls vary considerably in size from vessels which could be placed in the small bowls category, to platters over 40 cms. in diameter. The main distinction between this and the previous category is the more elaborate rim, and generally heavier wall; and in all but Type 5, the coarser fabric. Although it seems a bit pointless to classify these vessels into seven groups, the Iktanu potters clearly imposed conservative

rules on the making of rims and although there is considerable variation within each form (and only one example of each is given here), they quite clearly intended a specific shape in each case. All types are probably flat based. With the exception of Type 6, they are all very common in Phase 1, the most popular shapes however being Types 1 and 2.

Type 1: inverted rim bowls a) with one groove (Fig. 17.1)

b) with two grooves (Fig. 17.2).

All examples are red slipped though they range from drab-pink to bright red. A number have irregular burnish inside and out. The ware is generally heavy, and some examples are drab to dark grey throughout.

Type 2: is similar to Type 1 but the inner edge of the rim is lifted slightly, perhaps suggesting that this type of bowl was used for liquids and this was an "anti-spill" device. Type 2 also has a) a type with one groove (Fig. 17.3) and b) with two grooves (Fig. 17.4).

The ware is possibly slightly finer than in Type 1 and most examples have a matt red slip, though occasionally they are burnished or have a reserved cream slip.

Type 3: in this type the slope of the rim is levelled or reversed (Fig. 17.5 and 6). The fabric treatment is as for Type 2.

Type 4: this is a miscellaneous category of flattish rim bowls (Fig. 17.7-8). They are not common, and vary considerably from each other and from the other categories in shape though not in fabric.

Type 5: this is a distinct small group with rolled everted but not inverted rim (Fig. 17.9). All examples have a reserved cream slip, and although the size range is considerable (up to 35 cm. in diameter) the rims vary very little. Two examples have a slight groove below the exterior rim.

They are always found in the finer, thinner gritty ware.

Type 6: there are only two examples of this type, and both show traces of a worn red slip on fairly coarse heavy ware. (Fig. 17.10).

Type 7: with an incurved rounded rim, does not occur in the pits at Iktanu, and is therefore not illustrated here. There are three examples in probable Phase 1 contexts, which in shape lie between Fig. 32.3 on the one hand, and Figs. 33.5 and 6 on the other. They are incurved, but not severely. All are red burnished and one is of the heavier and coarser ware.

Plain Medium Bowls. (Fig. 17.11-14). The examples of plain medium bowls occurring in Phase 1 contexts are clearly allied to the red slipped types but have some features which suggest they are the "heavier duty" kitchen ware. They are (with one exception) all of Type 1 (Fig. 17.11-12) or Type 2 (Fig. 17.13). They are all at the larger end of the size range, and it is probably because of this that Fig. 17.12 has an envelope ledge handle (there are no examples of this on a red slipped bowl). They are included here, rather than under storage bowls, because of the similarity of shape with the red slipped types, but the rims and other details tend to be exaggerated.

The exception to the Type 1 and 2 bowls is Fig. 17.14, which has been classified as a Type 4 bowl, but has no immediate parallels among the red slipped bowls of that category.

Deep Bowls. (Fig. 18.1-5). This category is so called because the shape is considerably deeper than that of the medium bowls. Although these large bowls occur fairly commonly (about twenty examples) in Phase 1, no examples with red slip have been found. This tends to confirm the impression that large domestic vessels are not thus decorated and indicates that these may

have been storage or mixing bowls. The ware often has large grits, which are less carefully graded than usual, though belonging to the "gritty ware" type.

There is considerable variation in rim treatment and decoration, but all vessels of this type have finger moulded applied bands. They are here divided into three categories on the basis of the placing of the band. Type 1 has finger moulding at the rim.

Type 2 has finger moulding both at the rim and below it.

Type 3 has finger moulding below the rim only.

There is an approximately equal occurrence of each type in Phase 1.

Red Slipped Holemouth Jars and Spouted Vessels (Fig. 18.6-13).

A very popular shape in Phase 1 is the partly closed neckless jar.

A very few sherds with spouts, or fragments of spouts were found which often related to vessels in this group.

Type 1: does not occur with red slip.

Type 2: (Fig. 18.6-7) has a rounded rim with exterior groove. All examples have a red and reserved cream slip, and are in the finer gritty ware (in this they compare with the Type 5 Medium Bowls).

Type 3: (Fig. 18.8-10) is the most common type of holemouth jar, with a squared rim and a distinct depressed band below the exterior rim, which is usually left in reserved cream slip. All examples are red slipped, except for the most interesting vessel in this category (Fig. 18.10), a spouted version with the same rim which is clearly of the well known "tea-pot" type, though of local manufacture. It varies from the others in having no reserved slip band, the entire surface being covered with the somewhat fugitive black slip not uncommon on the site. Though other fragments of

open rim spouts were picked up on the site, no other fragment of a cylindrical spout of this type was found. This may suggest that the other holemouth vessels of Type 3 were not "tea-pots", and this example is a rare instance of a "foreign" form being imitated in local shape and fabric. On the other hand it may simply be chance and the preference of this particular household that only one was recovered.

Type 4: (Fig. 18.11) has a plain rounded rim with multiple grooves on the upper exterior. This type is not as common as Types 2 and 3 and the single example with red slip has no reserved cream slip.

Type 5: has a plain narrow rim with an open rim spout. It may be a holemouth related to other less certainly stratified examples, or may be simply an upright walled bowl (Fig. 18.12). If the latter it has no certain parallels on the site, though it is illustrated as a curved bowl shape.

Fig. 18.13 is a miscellaneous holemouth jar which does not fit into any of the above categories.

It is assumed that all these types were flat bottomed.

Plain Holemouth Jars. (Fig. 19.1-2). There is one example of a Type 1 jar, which is identical to a Type 1A cooking pot, but in the ordinary gritty ware of the site (Fig. 19.1). There is one example of a Type 3 holemouth with a mottled red-cream slip which is perhaps plain ware; and there is one example of a Type 4 (Fig. 19.2) holemouth which has no trace of slip but is otherwise very similar to Fig. 18.11.

Small Jars. (Fig. 19.3-12). Included in this category are jars with a rim diameter of 8 cm. or less, which generally have rather upright necks, Small pierced lug handles at the junction of neck and shoulder, rather squat

bodies and flat bases. One or two small rim fragments may belong to handleless jars but have been included as they are considerably smaller than other jar rims. All pierced lug handles have been included in this category, all but one being of approximately the size illustrated. The single exception, from an uncertain context which could belong to Phase 2, is at least double the size of any of the others and probably comes from a medium sized vessel. No attempt has been made to classify these vessels into types as there are few stratified examples, and all have a general similarity (Fig. 19.3-12).

Red Slipped Small Jars. Both red and black slip examples are found, and a few have irregular burnish. Two may have reserved cream slip bands, though it is difficult to tell as the surface has worn and discoloured anciently.

Some examples from probable Phase 1 contexts are included. Fig. 19.8 with irregular burnish and a stabbed band around the shoulder, on a mottled grey-red metallic ware (cf. Fig. 16.7) is almost certainly Phase 1, as is the curious small fragment (Fig. 19.9) included here despite the fact that its small flared rim looks like that of a bottle or juglet neck: it might also be the end of a cylindrical spout, though the flared rim would be unusual and is not very like Fig. 18.10.

The majority of small jars are of the type of Fig. 19.3.

Plain Small Jars. This is a poorly stratified category as the majority of finds come from mixed contexts. Fig. 19.11-12 are included here because of their similarity to Fig. 19.3, but could belong to either phase.

Jars. Jars and bowls are the commonest forms occurring in Phase 1 and are found in approximately equal numbers. There is a considerable range in size, but most vessels have flared rims and probably envelope ledge handles. The

base is almost certainly flat in all cases, and the body is generally of the squat and globular kind, narrowing considerably at top and bottom and similar to those in the Jericho Outsize Tombs, rather than the taller and more slenderly proportioned jars common on a number of sites in Palestine, including Lachish. As a complete section has been obtained very rarely this statement is based on the fragments of bases and envelope ledge handles which come from this type of vessel and are found in the same levels.

Red Slipped Jars. (Fig. 20.1-5 and Fig. 21.1). The proportion of red and black slipped ware among the jars is much smaller than for the bowls and in general only a few of the smaller or medium varieties are so decorated. The single large exception is the zīr in Fig. 21.1, which is the vessel found on the (?) front porch of the house, and thought to be a water jar.

Although contemporary stratigraphy is lacking in that area, the slip suggests it should be attributed to Phase 1 and tends to support the theory that this specially decorated large vessel was intended to be not just functional, but an ornament at the front of the building.

What remains of the zīr has the entire exterior surface slipped in blackish-red, and the small jar rim on Fig. 20.3 is also entirely covered. However, the other red slipped fragments suggest that the majority had areas of neck, shoulder, lower body and handles left in reserve, and each of which, as diagnostic features, might alter the proportionate quantities of red slipped jars in the type series. Another feature of red slipped wares which occurs only on the jars is the heavier band of slip which in two examples (Fig. 20.4-5) encloses the slipped field. They seem to be achieved by painting a line of slip on the vessel to demarcate the slipped zone. This is one of the rare instances of a painting technique at Iktanu.

Both the jars on Fig. 20.2 and 4 have a groove or grooves at the neck, the only other form of decoration found on the slipped jars. Fig. 20.2 is particularly interesting for the light shed on the technical process, for the clay below the junction of neck and shoulder on the inside has a band of slip, indicating that the body and rim were made separately and joined only after the body of the vessel had been slipped.

Plain Jars. Fig. 20.6-14; Fig. 21.2-6). There are two categories of plain jars, the medium and the very large storage jar. The former have a very varied range of rims and necks, a selection of which are shown in Fig. 20.6-14, ranging from the most upright (Fig. 20.6) to the most flared (Fig. 20.14). Most rims have a simple rounded tapering section, though a few examples are very slightly squared or pinched. The stratified range of jar rims in Phase 1 is one of slight variation on a very plain theme.

The large storage jars (Fig. 21.7-9) have similar plain rims but all have a finger moulded band at the junction of the neck and shoulder, a motif which does not seem to occur on the smaller vessels. Judging by the length of some envelope ledge handles, this type also may have had handles on the lower body.

A few bases from jars are illustrated on Fig. 21.2-6. The ware is invariably of the "gritty" type.

Jugs. (Fig. 19. 13-20). A not very well defined category consists of jugs with strap handles stretching from the shoulder to the rim or a point just below the rim. Only one or two fragments have the rim preserved intact to show that these vessels are jugs and not two-handled jars. By far the largest number of sherds included in this type are fragments of **strap handles**, and it is probable that some of the rim fragments included

in the jar category belong here. All the jug rims can be paralleled among the jars with the exception of Fig. 19.15 the neck of which slopes in.

Very few pieces of rim with strap handle attached survive. In Phase 1 there is one red slipped fragment of a strap handle (Fig. 19.14) which has a reserve pink zone demarcated by a single groove at top and bottom, and doubtless belongs in the jug classification. In a mixed context there is a red slipped piece of this type with flared rim, though with a thicker handle (Fig. 19.13).

Two cream slipped Phase 1 jugs survive (Fig. 19.15-16) with straight necks which slope slightly inwards. These seem to have a plain strap handle. An incised fragment of broad strap handle with stab decoration occurs in Phase 1 (Fig. 19.17) and in general strap handle fragments appear to have incised decoration, either grooved or stabbed, and three examples which could be either Phase 1 or 2 are given (Fig. 19.18-20).

There is not a single fragment from anywhere on the site to show that these jugs had a pinched lip. The only rim spouts belong to holemouth jars or bowls.

Ledge Handles (Fig. 22.1-8). These handles occur with great frequency throughout both phases and are all of the envelope ledge type with only two exceptions; one from a mixed context and one from Phase 2. Of the Phase 1 examples the handles can again be divided into red slipped and plain varieties, the former being quite rare.

Red Slipped Envelope Ledge Handles. One further example only is illustrated (Fig. 22.1, and cf. Fig. 21.1, 20.2 and 4) to show another example of reserved cream slip technique, which has^a large zone left in reserve right around the handle. All examples showing red slip are of medium size and

probably all with three flaps, fairly narrow and well pushed down. Slipped examples occur only in Phase 1.

Plain Envelope Ledge Handles. Some indication of the size range is given in Fig. 22.2-8. No attempt has been made to classify these as the width of ledge and size of flap appears to be haphazard. All are well folded down, most are of medium rather than large size and a considerable proportion have small flaps with a gap between each. Fig. 22.7 is the longest and Fig. 22.8 is the broadest example to be found in Phase 1. The latter may have had four flaps, a variety which certainly occurs in Phase 1.

Because of the fragmentary nature of most of the material the proportion of four flap as opposed to three flap envelope ledge handles is impossible to estimate.

Decoration in Phases 1 and 2 (Fig. 22.9-19).

Some decorative motifs are applied in both phases, others have a more restricted use and a few cannot clearly be attributed to either phase. A brief comparative description of these techniques and their chronological range for both phases simultaneously seems most useful.

Incised single lines or grooves. This technique is found in both phases (Fig. 20.2, Fig. 24.3 and Fig. 22.9-10) but seems to be particularly popular in Phase 1 when quite wide grooves are found mainly on the shoulders of jars. It may be restricted to bowls in Phase 2. In both cases it appears to be applied horizontally only.

Band Combing. This term describes the technique by which a multiple pronged tool (three to eight points) is used to produce a usually shallow series of straight or wavy lines. It is not particularly common at Iktanu (less than a dozen vessels exhibit it) and there are no clear Phase 1

examples. It seems likely that this technique largely replaces the incised single line described above, and more elaborate effects are achieved with it. The most frequent is latticing (Fig. 22.11); others are combinations of straight and wavy bands (Fig. 26.3-4); just straight (Fig. 26.10 and 27.11); just wavy (two sherds, not illustrated); or a row of small stab marks combined with a straight combed band (not illustrated, only two examples). It is found mainly on jars and holemouth jars, and probably first appears in Phase 2.

Face Combing occurs with about the same frequency as band combing. Face combed vessels usually have the whole body (not neck and handles) covered with shallow relief grooving carried out in mainly vertical or slightly oblique lines with a multi-toothed implement. The technique is usually restricted at Iktanu to large jars and perhaps large bowls. One tiny fragment only (Fig. 22.12) was found in a Phase 1 context (one of the sealed pits) but it is mainly found in Phase 2. It is never found with red slip.

Incised Stabbing is found in both phases, on a variety of vessels, cooking pots, jars and bowls. In Phase 1 there is a tendency to use single or multiple rows of carefully applied small stab marks (Fig. 22.13-14). In Phase 2 single or double rows of medium stab marks are more common (Fig. 22.15). In both phases the strap handles were commonly decorated in this manner.

Finger Impressed or Moulded Bands. This is probably the single most popular motif used in both Phases 1 and 2, and is mainly restricted to cooking pots, large jars and storage bowls. There is a tendency for this band to be applied below the rim of the cooking pots and on the shoulder of jars in Phase 2, and at the rim of the cooking pots and at the junction of the neck and shoulder of jars in Phase 1; in brief, finger moulded bands tend to be

placed higher in Phase 1.

Knobs. Whether these come into the category of vestigial handles or of decorative motifs, they are uncommon at Iktanu. There were only two examples. A small round knob is found on a red slipped and presumably therefore Phase 1 sherd (Fig. 22.16), and an elongated knob occurs below the neck of a Phase 2 jar (Fig. 27.10).

Painted Decoration is found occasionally on sherds at Iktanu, but it is difficult to define chronologically. In Phase 2 there are rare examples of irregular lines painted in the same slip with which the body of the vessel has been treated (Fig. 22.18). In unstratified contexts there are a few examples of red or orange bands painted on buff ware (Fig. 22.17 and 19). On the latter example it is combined with incised stab marks; on the basis of shape and ware it is probably Phase 2.

With the reserved cream slip technique and the heavy slip lines (Fig. 20.4 and 5) these motifs indicate the present sum of Iktanu artistry.

iv) The Pottery of Phase 2 at Iktanu

Cooking pots. (Fig. 23.1-7). A smaller number of cooking pot fragments were found in Phase 2 and probably the proportions of one-fourth to the total number of sherds is a correct estimate. The duration of Phase 2 occupation was almost certainly shorter than that of Phase 1 and so there are fewer sherds altogether. Conclusions concerning Phase 2 cooking pots as a result must be slightly tentative.

Of the very few clearly stratified rims the majority appear to be of a denser and not quite so coarse fabric as that of Phase 1, and fired bright buff to pinkish throughout. The majority of the grits are grey and tend to be of small to medium size. In the less secure Phase 2 contexts there is

however a quantity of the white gritty Phase 1 type fabric and it cannot be said certainly that this type does not continue into Phase 2.

As before all sherds appear to be of hand-made globular, round-based vessels with horizontally smoothed rims.

The types which are found exclusively (with only one exception) in stratified Phase 2 contexts are Types 1D and 2D, particularly the latter, and it is also with this type that the dense grey gritty fabric is associated. The single example of Type 2A in these levels is however supported by numerous examples of Types 1A and 2A in the possible Phase 2 levels, and it seems likely that a plain cooking pot type continued in use in Phase 2.

However it is clear that the main type of cooking pot ware in Phase 2 is the dense grey gritty ware of Type 2D (which never occurs in Phase 1), and secondarily both grey gritty dense and white gritty coarse ware associated with Type 1D (of which there is only one stratified example in Phase 1).

As in Phase 1 there is considerable variation in size and the vessels are relatively thin walled and well built. Unlike the Phase 1 cooking pots the vessels do not occur in a general scatter over the site. Apart from a very few body fragments (including two of Type D) they do not occur in the main room (Walls B, C, F, E) and very little was found in the courtyard. But about half the fragments found in the small enclosure (K, J, H) were of cooking pot ware, and very little except for a large fragment of cooking pot ware was found in the small room E, D, G.

This suggests that the main living room in Phase 2 was not used for cooking; and the enclosure K, J, H may well have been used as a kitchen at

this time.

Lamps (Fig. 23.8-12). Fourteen lamp fragments in all were recorded on the excavations, all in clear or probable Phase 2 contexts.

The ware is fairly thick, medium coarse fabric and fairly gritty. The majority of examples, including all the certain Phase 2 examples, are of unslipped clay ranging from red-grey to pink-buff in colour, sometimes with a grey core. Two examples from the mixed Phase 1-2 Pit 9 have buff or greenish-grey ware, and greenish slip.

Although no examples were completely preserved it seems likely that all are of the four spouted variety. Of the six fragments from which part of the base was preserved, one (from a mixed level) had a flat base, three were round, and two probably round. Two of the three lamps from the main room definitely have round bases.

They were all fairly crude and simple pieces, and most show blackening at the spouts. The three examples from the main room are larger than those from Pit 9. Over half the fragments found came from the main room, the rest were found scattered in the surface levels of the courtyard and roadway.

Red Slipped Wares. (Fig. 24.1-2). Only seven fragments of red slipped wares occurred in the Phase 2 type levels. Three were rim sherds (cf. Fig. 16.5, and see Fig. 24.1-2), the remainder body sherds. Though it is possible that these types were still in production in Phase 2, it seems unlikely. They are published here simply to indicate the possibility. They indicate that some degree of contamination is likely to affect the sequence in the plain gritty and cooking pot wares in Phase 2. New types are recognizable as such, but the degree of continuity is otherwise more difficult to isolate.

Plain Wares. Nearly all Phase 2 sherds are of this type. Most of the ware is grey to buff-pink gritty, often with a greenish tinge and frequently with green or cream slip. Most of the vessels are of a thinner, harder and finer gritty fabric than is general in Phase 1, though the general techniques of manufacture remain the same, e.g. handmade, and horizontal rim smoothing.

Miniature Bowls and Cups. None were found in Phase 2.

Small Bowls. (Fig. 25.1-5). These were rare in Phase 2 and the only type, with slight variations in the angle of the wall, was the plain tapered rim type (cf. Type 1 in Phase 1 and see Fig. 25.1-5). The small bowl from the main room (Fig. 25.1) was one of the two variations from the envelope ledge type handle on the site. The ware of these vessels is fine gritty, and the slip (where it exists) is light. Examples from not certainly stratified but high levels have been published in this case also (Fig. 25.3-5) but they seem to fit satisfactorily into Phase 2.

Medium Bowls. (Fig. 24.3-8). As with the small bowls of Phase 2, all the elaborate rim shapes of the Phase 1 medium bowls are lacking. The ware is usually a fairly fine gritty ware, in shades of pink to buff, and often has a cream slip.

Type 1: has a plain square rim (Fig. 24.3). The example illustrated has two lines incised below the rim, and both examples of this type have envelope ledge handles.

Type 2: (Fig. 24.4) has a plain concave rim (concave at the top) and the examples found do not have ledge handles.

Type 3: (Fig. 24.5-7) has a rim which projects slightly in and out and is the most common shape in the stratified Phase 2 levels. They fairly frequently have envelope ledge handles just below the rim.

Type 4: (Fig. 24.8). Both examples are quite small, have more elaborate rims, and no handles preserved.

Deep Bowls. (Fig. 25.6-8). There is only one example of this type in a clearly stratified context in Phase 2 though there are several which are probably of this date. The stratified example (Fig. 25.6) and most of the less certain types are of Phase 1 Type 3; there are some examples of Type 2 in (?) Phase 2 contexts, but there are none of Type 1 (finger moulding at the rim only). The ware of the Phase 2 example is (as in some other categories of vessels) a little finer and thinner than that of Phase 1, but the vessel is quite clearly a part of the same tradition.

This occurrence of Type 3 rather than Type 1 reveals a preference very similar to the varied preferences in cooking pots in Phases 1 and 2. Both types of vessel indicate a tendency to lower the moulded band below the rim in Phase 2, though this occurred rarely in Phase 1 in both cases.

Holemouth and Spouted Jars. (Fig. 26.1-4). As with the medium bowls and other shapes the range of types in this category is considerably limited when compared to Phase 1.

Type 1: (imitating cooking pots) has one example (Fig. 26.1); and Types 2, 3 and 4 are lacking. There may be examples of Type 5 (fairly plain rim with rim spout) but the vessels belong to an uncertain context.

The predominant type is a new Type 6, with a plain tapered rim, squat body and flat base. Two examples have incised or combed decoration (Fig. 26.2-4). Though a considerable amount of Fig. 26.2-3 was preserved, there was not enough to be certain whether they had handles or spouts, but for Fig. 26.3 there was sufficient to suggest there were neither. As the rim was missing it is possible that this should be included in the small jars

category, but the fabric at the top is very thin and does not seem to have supported a neck.

The "tea-pot" on Fig. 26.4 is largely restored and there is no proof that where the decoration stops on the right hand side a spout of this type should occur. A slight lifting of the rim edge at the point of fracture suggests it was a spout and not a handle however.

Small Jars. (Fig. 26.5-8). The one example of a small jar with red slip has already been referred to as a probable intruder in these levels (Fig. 24.1). The small jars illustrated on Fig. 26.5-8 indicate an increased tendency to upright necks and either have a light coloured slip or wash, or none at all. Fig. 27.6 with its row of incision at the neck has similarities of style with the bowl on Fig. 25.1, and both come from the main room.

It seems unlikely that the jar with perforated lug handles does not occur in Phase 2 and the omission may be due to chance. There are several examples in mixed contexts which may belong in Phase 2, but only further excavation could prove this.

It is curious though that all three stratified fragments (which come from two different find spots) have an almost straight neck and rim and it may be that this is typical of Phase 2 for small jars, though it does seem to be derived from a Phase 1 style also (Fig. 19.10). There were no stratified Phase 2 perforated lug handles fragments either, which seems to bear out the distinction.

Jars. (Fig. 27.1-11, Fig. 29.1-2). Phase 2 has as large an assortment of jars as Phase 1, and it is clear that the jar was the predominant form in the excavated areas at Iktanu in this phase. The majority of vessels in the main room of the Area A house were of this sort.

The shape is generally the same as for Phase 1, but with a greater variety of proportion and rim types (Fig. 27, Fig. 28 and Fig. 29.1-2). Nearly all jars have a flared rim, but, as in the range of small jars, there is one example with a very upright rim (Fig. 27.1) confirming the special popularity of this type in Phase 2. Most of the medium sized jars have a plain tapering rim similar to those of Phase 1, but there are some fairly subtle differences. On the whole the plain rims taper to thinner edges (Fig. 27.2-3); and there are a considerable number with squared or slightly knobbed rims (Fig. 27.4-9). The profile generally is less simple. An additional factor in Phase 2 are the occasional jar with a proportionately slender body (Fig. 29.2) as opposed to the very globular shape more common in both phases.

While no example has red slip, one example has a row of band combing (Fig. 27.11) on the shoulder, a peculiarly EB.MB decorative element which is not common at Iktanu. Another smaller jar (Fig. 27.10) has one of the very few knob lugs found on the site.

The range of large storage jars (Fig. 28) is very similar to that of Phase 1, in that the largest jars have a row of finger impressions at the junction of the neck and shoulder. The largest (Fig. 28.1) has a second band at the point of maximum girth. However, as in the medium jar types the Phase 2 storage jars have rather more elaborate rims than their Phase 1 fellows, there being a concave version (Fig. 28.1), a knobbed rim (Fig. 28.2) and a triangular rim (Fig. 28.3). These rims seem to be fairly distinctively restricted to Phase 2.

Jugs. (Fig. 26.9-10). Only one stratified example of a Phase 2 jug occurred, which is otherwise unparalleled at Iktanu. With its plain tapering

rim, strap handle and squat body it is familiar within the general context of the Phase 1 and 2 types, but the rather graceful neck is new. A surface find, the only vessel with complete rim surviving intact is illustrated to give the "type" jug (Fig. 26.10). With its band combed decoration it is probably Phase 2. Strap handles with incised decoration similar to those illustrated in Phase 1 (Fig. 19.17-20) undoubtedly belong in Phase 2 also.

Ledge Handles. (Fig. 29.3-11). All ledge handles in Phase 2 are of the envelope ledge type with the exception of the small plain ledge handle with incised decoration (Fig. 25.1). The only other type on the site to be found in the excavations was a plain ledge handle with finger impressions along the edge, and that was in a mixed Phase 1-2 context.

Most of the Phase 2 envelope ledge handles are large, with well pushed down flaps which usually join or overlap. However, there are a number of the type most popular in Phase 1 (e.g. medium sized and with gaps between smaller flaps) and the examples on Fig. 29 illustrate the range. The only general principle observed is that the larger envelope ledge handles with flaps touching or overlapping may be Phase 2, while the smaller varieties may be Phase 1 or 2.

One or two examples are noteworthy. Fig. 29.3 is so slightly folded as to be better described as pushed in. Fig. 29.8 is the only complete example of a two-flap envelope ledge from the site but it comes from a mixed context, as does Fig. 29.11, with four flaps. The two flap style is unique, but if more of the handles were complete the four flap type might be shown to be more popular. It also does not definitely occur in Phase 2.

B. The Survey Pottery from Transjordan.

This section deals with the pottery picked up on the surface of a

number of sites in Transjordan, and the comparisons that may be drawn with excavated and other published material from the same area. All pottery reproduced is hitherto unpublished and is mainly that found by the present writer. For the southern sites some reserve collections in the Palestine Archaeological Museum of unpublished material from surveys by Nelson Glueck and G. Lankester Harding are included, and their material is acknowledged in each case. References are given for the pottery which was published by Glueck, but on the whole this is not included. It is not presented as either a chronological or typological series, there are few drawings and it is sometimes wrongly attributed. If he has published a relevant type not found by the writer, then this will be referred to.

The sites are treated in geographical groups starting with the southern section, as there is considerable regional variation. As with any survey pottery, considerable caution is required for there is no check on material intrusive from earlier or later periods, and obviously different phases within the EB.MB period can be involved. Only a general comparison is therefore possible.

i) The sites south of the Wadi Mujib

Groups of pottery from three sites are illustrated (Figs. 30-32). The best known comparative sites in the area for this period are Bab ed-Dra', Lejjun and Ader,⁴ and for only the latter site has much comparative material been published by Cleveland⁵. Three phases were distinguished in Albright's

4. Sites are underlined in the text to indicate following discussion of the pottery from that site.

5. AASOR XXXIV-V, Figs. 13.1-12 Phase A; Fig. 13.13-19, and Fig. 14, Phase B; and Fig. 15 surface and Phase C. And see plates for wares.

excavation of the site, dated between 23rd-22nd and 19th centuries. Albright attributed Phase C to the EBA c. 2300-2100; Phase B to 2100-2000; and Phase A to post 2000 B.C. Only two base fragments from the trench in Phase C are drawn, and of the twelve shapes drawn for Phase A (dated EB.MB by Cleveland) all but two are immediately paralleled among the thirty odd sherds drawn for Phase B (also dated to the EB.MB by Cleveland). Any distinction between Phases A and B in the pottery is not clear therefore, though Albright⁶ originally stated that Phase C was characterised by wavy ledge handles, Phase B by folded wavy ledge handles (envelope type), and in Phase A ledge handles had almost entirely disappeared and were very degenerate. A considerable amount of the pottery of all Phases at Ader was red burnished ware. The cooking pot in Ader, Fig. 14.19 (Phase B) is immediately comparable to Iktanu Type 1A, which was particularly preferred in Phase 1, and there are also similarities with Type 2A. The majority of the holemouth vessels are of a plain type with thickened rounded rims, which appears to be very popular in the south, and seems to derive directly from the EBA tradition.⁷

The predominant type among the bowls at Ader is the inverted rim with exterior grooves which occurs in great variety on the southern sites as well as in Iktanu Phase 1 (Type 1 of the Red Slipped Medium Bowls and also in unslipped varieties, cf. Fig. 17.1-2, 11-12). Several of the other sherds published are generally recognisable in an Iktanu Phase 1 context (Ader Fig. 13.3-7 from Phase A, cf. Iktanu Fig. 17.14) and compare with vessels

6. BASOR 53 (1934) pp. 13-18.

7. For example, Jericho I, Fig. 68.23, p. 177, from Tomb A114 (EB III).

from el-'Aineh, Serareh and Feqeiges. Particularly notable in this respect are the Phase A and B vessels at Ader with round, incurved rims, which occur at all four sites (see Fig. 31.1, Iktanu Medium Bowls Type 7). The large bowl in Phase B at Ader, (Ader Fig. 13.18) compares generally with those of Iktanu (Type 3, Phases 1 and 2), and the large jar rims of Ader Phases A-B (Ader, Fig. 13.12, 14) are best paralleled in Iktanu Phase 2 (Fig. 28.3).

None of the Iktanu Phase 1 cup and small bowl types are in evidence but the grooved holemouth jar (Type 4) occurs on both sites (cf. Ader Fig. 13.17 and Iktanu Fig. 18.11).

Notable also at Ader is the common use of shallow body combing, finger moulding and single grooved lines, but no band combing. Finger impressed (Iktanu mixed context) and small flap envelope ledge handles (Iktanu Phase 1 in particular) are common (see Ader, pls. 22-24). It is noteworthy that one body combed sherd is attributed to the EBA Phase C at Ader, (Ader Pl. 19C) and that it also occurs in Tell Beit Mirsim Level J in Palestine.⁸

The development of the small flap envelope ledge handle from the pushed over wavy ledge type can clearly be seen on Ader pl. 22, and the body combing by inference was also a direct development from the earlier EBA phase.

Summing up the Ader pottery therefore, almost all parallels with Iktanu are with Phase 1 rather than Phase 2, and suggest that either Ader is entirely an early site, or that Phase 2 influences very rarely extended so

8. AASOR XII, pl. 1.14-15.

far south.

At el-'Aineh, Glueck dated the pottery to the end of the EBA and the beginning of the MBA (c. 2200-1800 B.C.).⁹ The sherds from the two parts of this site (Fig. 30.1-15) have been treated together here. The surface collection was very worn and the majority of rim fragments too small to draw. However, as this severely limited the type series from the site, a number of profile sketches (not measured drawings) are given to show the major omissions, and these represent the variations of the most popular shapes found.

All the ware was handmade, and about three-quarters was red slipped and usually burnished. There was one very small fragment (the first in Fig. 30.5) which may have had a red slip with reserved cream band on the exterior rim. Plain holemouth cooking pots were found, one with finger impressions around the rim. Body combed decoration was common; both the vertical fine combing found at Iktanu in both phases, but also rough horizontal and pattern combing which was not found at Iktanu. Finger moulded bands were also common, and there were six ledge handles of which four had small folded down flaps, and two had finger impressed edges, both of which types occurred at Iktanu and Ader.

Bowls and holemouth jars were more common than jars. In particular they were of Bowl Types 4 (Fig. 30.7 cf. Fig. 17.8) and numerous examples of Type 1 (Fig. 30.3-4). The small plain bowl (Fig. 30.2) is not exactly paralleled at Iktanu or Ader.

Again, there was a lack of band combing and over-lapping flap envelope

9. Expl. II, pp. 102-4, pl. 25B, 14-25. Glueck's "end of the EBA and beginning of MBA"; the French "end of Bronze I and beginning of Bronze II" are the equivalent of EBIV - EB.MB.

ledge handles and all Phase 2 characteristics, which suggests a closer relationship in time or culture with Phase 1.

The sherds from Khirbet es-Serareh II West (Fig. 30.16-23, Fig. 31.1-11)¹⁰ offer a more or less identical picture of largely red slipped and burnished fabrics with emphasis on the bowl types. The types most common at Ader, 'Aineh and Iktanu Phase 1 are repeated here with the further close parallel of a Small Bowl Type 6 (Cf. Fig. 30.16 and Fig. 16.16 both of which have a self slip). This is the southernmost example of an Iktanu type cup or small bowl to be noted so far, and the parallel is again with Phase 1. Fig. 31.5 from Serareh with matt red slip and incision also compares very closely with Fig. 18.8-9 (Iktanu Phase 1 holemouth Type 3 which have reserved cream slip technique, and without incision). This example however combines an early technique with band combing, and either is a later piece or an import and suggests a stage contemporary with Phase 2 in the north.

Feqeiges, the third survey site in this region¹¹ has a slightly more varied range (Fig. 31.12-15; 32). The Type 1 Medium Bowls resemble those of Iktanu Phase 1; Fig. 31.14-15 in particular being very close to the unslipped Fig. 17.12 with narrow grooving or scraping. The grooved holemouth Type 4 (Fig. 32.11) parallels Iktanu (Fig. 18.11). Fig. 32.3-4 are well known EBA types and may indicate earlier occupation on the site, or rather perhaps survival of an earlier type; as the rest of the pottery is homogeneously of

10. This site was not visited by the writer and the sherds illustrated are from the large Glueck Collection, unpublished, in the Palestine Archaeological Museum; for his visit, see Expl. III, p. 84.

11. Also not visited, and the sherds are those of Glueck in the PAM: see Expl. III, p. 94.

"EB IV - EB.MB" type, they have been included here.¹² Fig. 32.10 is band combed, the second example from the extreme southern sites.¹³ Whether this and the proportionate scarcity of red burnished sherds at this site indicates some later occupation is not certain.

The pottery from these southern sites is therefore very homogeneous, and parallels Phase 1 closely but in heavier wares and more limited typology, and with some features even more closely resembling EB III. There is considerable emphasis on bowl types, some of considerable size.

Very little pottery from Bab ed-Dra' has been published.¹⁴ Albright has illustrated a number of Iktanu Phase 1 types mixed with sherds of EB II-III, which was an important period in both town and cemetery on the site. The latest work by Lapp¹⁵ in the cemeteries at Bab ed-Dra' suggests that a type of pottery more closely resembling that of Phase 1 at Iktanu is associated with cairn burials and shaft graves but not with the settlement. This is an indication that a post-EB III nomadic element can be isolated at Bab ed-Dra'; but although Lapp has dated these burials to the twenty-third century, none of these groups has yet been published. Groups bought in the vicinity of Bab-ed-Dra' are said to contain four-spouted lamps which, though common in Palestine, only occur in Phase 2 at Iktanu.

12. In Expl. III, p. 259 and pl. 18.6, Glueck attributes a similar vessel to EB IV, but gives no provenance; also for the decoration on the Feqeiques example cf. Iktanu Phase 1 Fig. 22.13.

13. There is only one band combed fragment published in Expl. III, pl. 6.8, with burnished slip; but no provenance is given and it may not come from so far south as this.

14. BASOR 95; AASOR XII Fig. 1, p. 6.

15. (1966) pp.104-111; ed. J. Aviram Jerusalem Through the Ages (1968)pp.1-25.

The sherds illustrated in AASOR XII Fig. 1 appear to be a mixture of EB II-III broad rims, and EB III-IV rounded, incurved rims (Medium Bowls Type 7). The sherds in BASOR 95 show the same mixture in the profiles, but the complete jars are generally of the later types (e.g. the Holemouth jar Type 4 in centre bottom). Albright's sherds in general agree with Lapp's statements for the last two phases of occupation at the site.

ii) The sites north of the Wadi Mujib but south of Madeba.

Only sherds from the site at el-'Aqrabah are illustrated here but there is excavated material from Iskander and Ara'ir. Ara'ir and el-'Aqrabah, within three kilometres of each other on the northern lip of the Mujib exhibit considerable minor differences.

An excellent range of material from Ara'ir is published¹⁶ in two stratified phases. In the earlier (Level VIB) there appears to be evidence of semi-nomadic occupation, and the later (Level VIA) has remains of rather slight stone walls, but in both phases the excavated area was fairly small. The periods are dated by the excavator to c.2250-2050 B.C. and to 2000-1900 B.C.

The pottery from both phases is a development largely from the EBA of Transjordan (EBA pottery of the type found by Glueck et.al.) and the excavator considers that there is a direct internal evolution between the two periods he has isolated on the site. Distinctions between his periods lie in typological developments. The use of thick, heavy, dark red slip in the first period is contrasted with the use of a lighter yellow-red slip in the second. Both phases have a preference for irregular burnish and there are

16. E. Olávarri, "Fouilles a 'Arô'er sur l'Arnon" RB 76 (1969) pp. 230-259.

variations in slip not found on other sites, such as a burnished yellow slip.

Most of the forms illustrated for the earlier period occur in the later one, and the distinction lies only in the degree of popularity. The inverted rim bowl without grooves is said to be more popular in VIB than in VIA, and appears (Ara'ir Fig. 1.4) to include some bowls in the Type 7 Iktanu Medium Bowls category (cf. Fig. 32.5); and Ara'ir Fig. 1.6 seems to be related to the EBA type bowl of Feqeiques (Fig. 32.3). The grooved variety (Iktanu Medium Bowls Type 1) occur equally in Levels VIB and VIA. Ara'ir Type C (Ara'ir Fig. 1.18-21) includes bowls of Iktanu Type 1 and Iktanu Type 4 (Fig. 17.7 and 14). The Ara'ir Level VIB range also includes types closely paralleled at Iktanu not so far recorded further south. The Type 1 cup (Ara'ir Fig. 2.11) and the Type 3 small bowl (Ara'ir Fig. 2.10) so far have not occurred south of the Mujib. The carinated bowls of Ara'ir Fig. 2.5-6 also compare with Iktanu Phase 1 (Fig. 17.10). In the bowls and holemouth jars the resemblances are very close. The bowls are the commonest forms noted at Ara'ir, thus confirming a tendency noted in survey. The jars published (Ara'ir Fig. 2.12-17) do not have parallels at Iktanu.

The ledge handle evidence also confirms that observed elsewhere in the south, with pushed up (one only), semi-folded, envelope ledge (of small and medium spaced flap type only), pinch-lapped and vestigial types. The series has a certain amount in common with Ader C to B.

In Level VIA a typology also in general related to Phase 1 at Iktanu follows with minor changes, but there are additions. There are two sherds of band combing, there is a "profiled" jar rim (Ara'ir

Fig. 5.8-9) and two lamps (Ara'ir Fig. 5.16 and p. 255), all of which first appeared in Phase 2 at Iktanu. In particular there is a flat based cooking pot (Ara'ir Fig. 5.12) and the Iktanu range of cooking pots is missing. Those at Ara'ir seem to be directly derived from the EBA in Level VIB, and to foretell MBA types in Level VIA. The occurrence of these flat based pots in the EB.MB period, since Albright first claimed to have found them in TBM I-H, has been a vexed question. The EBA types of ledge handles disappear, and VIA has a vestigial type of ledge handle also.

These latter pieces and the very MBA type carinated bowls illustrated (Ara'ir Fig. 4.14, 17-19 and note in particular the horizontal burnish of No. 18) seem to support the late date the excavator has given to the end of the period at Ara'ir and to indicate a tenacious survival of EB III-IV traditions in the south with very few strong outside influences of a post 2200 B.C. date. In the later period only a few weak reflections of changes taking place in the north show the passage of time.

Olávarri considers his sequence starts shortly after the latest pottery at Bab ed-Dra'; and the differences to be noted only three kilometres away at el-'Aqrabah (Fig. 33) suggest that for the most part its pottery might just precede that of Ara'ir. The sherds from el-'Aqrabah also have close parallels with Iktanu Phase 1 and with the southern sites.¹⁷ Nearly all have a red burnished slip, but no reserve slip technique. Two examples of the jar type illustrated in Fig. 33.9 in

17. See pl.5B and Section II; and Expl. III, p. 113.

cooking pot ware were found and are paralleled at Ader in Phase B and Ara'ir VIB, but not at Iktanu. Three of the plain rimmed EBA type holemouth jars were found, none relating to the normal Iktanu type, and which also do not seem to be common at Ara'ir.

The ledge handle at the rim of Fig. 33.7 has a reasonable parallel in the north (Fig. 39.1) and ledges at the rim occur at Iktanu, Phase 1 (Fig. 17.12). The vessel to which it is attached is in similar style to Fig. 18.5 at Iktanu. The pushed up ledge handle is noteworthy in a large and homogeneous collection of sherds from this site (Fig. 33.10) which do not otherwise specifically indicate occupation of a period pre-dating the EB IV style, and is supported by the evidence from Ara'ir. There were three examples of envelope ledge handles with it, all of the small flap variety (Fig. 33.13). At el-'Aqrabah the preference in decoration is definitely for body combing, but also for moulded bands, stabbed incision and a horizontal single groove. Again there are no band combed sherds.

A comparison of these Aqrabah sherds with those of the Ara'ir typology shows that of thirteen 'Aqrabah sherds, six have parallels of a sort with Ara'ir VIB and there are rare traces of Ara'ir VIA (Ara'ir VIB = Aqrabah Fig. 33.1, 6, 8, 9, 10, 13; VIA = Aqrabah Fig. 33.11). The remainder are not closely paralleled however and as in general the sherds at el-'Aqrabah parallel early features at Ara'ir (particularly the pushed up ledge handle) they may date to a period slightly earlier than Ara'ir VIB (i.e. c.2300-2250 B.C.).

A considerable change is indicated in the sherds published from

the latest period at Iskander.¹⁸ Here sherds found associated in the same building are the types familiar in the south - red burnished bowls of Iktanu Phase 1 (Slipped Medium Bowls Type 1, see Iskander Fig. 1.10-11; and Medium Bowls Type 7, see Iskander Fig. 1.9); as well as features which are more readily associated with Phase 2 at Iktanu, such as common use of band combing on non-red slipped vessels, large envelope ledge handles with overlapping flaps (Iskander Fig. 1.13) and four-spouted lamps (Iskander Fig. 1.18). The squared profile of the flared jar rim (Iskander Fig. 1.17) and the plain squat shape of the thin-walled holemouth jars (Iskander Fig. 1.20 and cf. Phase 2 Iktanu Fig. 26.2-4) also recall the later period. The wavy ledge handled jar (Iskander Fig. 1.12) has no parallels in the later period and suggests, with the two Iron Age (?) sherds, that there is some disturbance in the upper level at Iskander.

It is thus difficult to decide what the position of Iskander level 3 might be; whether it is possible here also to show an "EB IV" phase continuing in the south to a period contemporary with Phase 2 at Iktanu or later, and then showing considerable northern influence; or whether it is rather a late mixed group arriving on a site with the debris of earlier occupants (at least EB III?) lying on the surface to be confused with their own, may be indicated in the final report.

In any case there is no evidence at present that the secondary penetration of EB.MB influence extends much south of the Wadi Mujib. Perhaps it is possible to say that Ara'ir, slightly further south,

18. ADAJ IV-V, p. 131, Fig. 1 Nos. 9-21 (not Nos. 7 and 14 which must surely be later intrusions). Expl. III. pp. 127-9, Fig. 47-8.

received some of these influences even later than Iskander and the trend is that of very slowly penetrating influences from the north; but more stratigraphic evidence from these southern sites is needed to prove it.

iii) Sites between Madeba and the Wadi Zerqa

Moving some 50 kilometres north on the Transjordan plateau from Iskander, the two groups of pottery illustrated here (Fig. 34.1-9 and Fig. 35) indicate considerable changes. Whether or not due to an accident of survey, the sherding of southern sites invariably produces a high proportion of bowls, and of northern sites a similarly high proportion of jars. The excavation at Ara'ir tended to confirm the southern preference at least.

The occupation of Khirbet Umm Rujm was dated by Glueck to EB IV - EB.MB¹⁹ and the site produced a fairly homogeneous collection of sherds which is quite representative of the central plateau ceramic in Transjordan. The collection illustrated is rather small as the sherds tend to be too small and worn to be worth drawing. (Fig. 34.1-9).

There are no sherds on the site with red slip or burnish, and in spite of the evident wear on the surface at least some traces should be preserved had it been in use. The ware, though occasionally resembling the plain slipped EB.MB wares of other areas with thinnish hand-made "gritty" fabric, is usually considerably heavier and coarser in grey and drab shades. It gives the impression that technique rather than good quality local clays is lacking and that the inhabitants of Umm Rujm lagged considerably behind their contemporaries in the Jordan

19. Expl. III, p. 184.

Valley, and to some extent, the north and south plateau also.

Of cooking pots, there were five of Iktanu Type 2A, one of Type 1A and one of Type 1D (Fig. 34.1) which compares rather well with the Phase 1 sequence at Iktanu.

There are no miniature bowls or cups, and only one small plain bowl (Fig. 34.2). Of the medium bowls, the main lack in the finds is of Types 1 and 7, both very popular EB IV forms in the south. The main medium bowl type is indicated by fragments of heavy straight sided bowls with plain rims, which were too fragmentary to draw (but cf. Fig. 37.13-14). Only one other type was recovered (Fig. 34.3) which compares with an EBA type and which has some parallels in the EB.MB at Iktanu Phase 2 (Fig. 24.7) and at other sites to the north and in the Jordan Valley (see Figs. 36.9; 39.16; 45.10-12).

The jars show slightly more variation, but it is a little doubtful that they all date to this period (there is late occupation on the site and the fragments with straw temper have no previous parallels). In the collection made at this site the great majority of sherds were of flat base fragments (29 fragments) and of pieces of envelope ledge handle (20 fragments). All the latter were of the folded ledge type, many with small, spaced flaps (cf. Fig. 22.7-8) and several medium sized well folded envelope ledge handles either with spaced or barely overlapping flaps (Fig. 34.7). None were particularly large.

Decorative elements favoured are body combing (7 fragments, Fig. 34.9), and moulded bands (11 fragments, Fig. 34.9). There was one fragment with incised groove, one with pattern combing (which is also found in Level VIB at Ara'ir) and one with band combing (Fig. 34.8).

The range of Umm Rujm sherds is therefore considerably different to that of the south. The lack of typical EB IV types and red slip and burnish make Glueck's attribution to EB IV curious; however the smallish size of the envelope ledge handles and the cooking pots suggest a stage contemporary with Phase 1 at Iktanu; while the appearance of band combing, the profiled jar rims and the lack of EB IV features suggest that the true phasing of this site should be near the beginning of Phase 2. The best comparative material comes from a site to the north, Mu'amariyeh.

In much the same area as Umm Rujm two tombs have been accidentally discovered in the course of public works and afford interesting comparisons. The first is the tomb group from Beitrawi (Fig. 35), the other is a published group from Amman, Jebel Taj.²⁰ As with so many Palestinian tomb groups, both have a rather formal repertoire of jars, (Beitrawi has three and Jebel Taj has five) and should be looked at in association with domestic pottery to gain any sort of balanced view of the ceramic of the period.

The Beitrawi group exhibits some contradictory features. The squat flat based jars belong happily in the Transjordan tradition, and the plain, only slightly flared rims compare closely with those of Iktanu Phase 1 (cf. Fig. 20.2-3, etc.). The characteristic body combing (Fig. 35.1), the medium sized spaced flap ledge handle (Fig. 35.1) and the stabbed decoration (Fig. 35.2) fit comfortably also in Phase 1. The curious handle on Fig. 35.2 has associations with the much earlier thumb

20. ADAJ XII-XIII (1967-8) pp. 68-69.

or column handle, mainly of EB I-II date.²¹ The dagger also is widespread within the period and can be early. All these features incline one to a reasonably early date in the EB.MB sequence, possibly to a period in north Transjordan more or less contemporary with Phase 1 at Iktanu. But brought in with these four objects was a single-spouted lamp, also said by the finders (roadworkers) to be from the same tomb. The single-spouted lamp is best known to appear in the MBA and its appearance in this group would thus suggest a date for the whole group at the very end of the EB.MB which is not in agreement with the conclusions reached above.²²

The Jebel Taj group has a more limited range but has various points of difference to the Beitrawi group, though in much the same area, and less than 25 kilometres upstream in the Zerqa Valley. The same globular

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21. Such handles occur in: Jericho EB I, LAAA XXII (1935) pl. XXXVI.14; Jericho "upper EBA levels", LAAA XXII (1935) pl. XXXI.24; Jericho EB I, Hennesy, pl. XI.13; Jericho EB II, Hennesy, pl. VI.58a; Sakkara First Dynasty, Hennesy, pl. XLV.1; Beit Sahur, Hennesy, pl. XLV.2-3; Jericho Tomb A127 (EB II), Jericho I, p.90, Fig.26.2.
22. The whole subject of single spout lamps occurring in EB.MB contexts is a vexed one. As well as the Beitrawi example there are five others in Palestine: Megiddo Tombs 217B and 877C2 - tombs with reuse; Hablet el-Amud (Mount of Olives) - brought in with an EB.MB tomb group by a policeman PEQ 1966 pp.74-75; Tell el-Halif - anciently disturbed tomb; and Lachish Group 1529, a cave pottery dump which includes at least two clear MBA sherds. In effect, none occur in controlled excavations of undisturbed deposits. However the possibility of their
(cont'd.)

shape and flat based jars are evident, and again they are not red slipped or burnished; but they are thinner walled, and the ledge handles are flatter. Three of the vessels have band combing. On the latter criterion in particular this group should be later than that at Beitrawi. It is also notable that four of the jars are jugs with broad strap handles, one at least incised (cf. Iktanu Phase 1 Fig. 19.13-20 but better Phase 2 Fig. 26.10 and at Tell Umm Hamad Gharbi Fig. 48.15). In addition, though the drawings are small, the rims appear to be more flared and "profiled" than those at Beitrawi, and relate more to the Phase 2 type at Iktanu.

Thus for the three groups discussed in this area just south of the Wadi Zerqa, the Beitrawi group appears to be the earliest (with a query about the single spout lamp), followed by Umm Rujm, and the latest group being that from Jebel Taj. Many of the typical features of EB IV are lacking in these groups, and as Glueck did not publish his evidence for attributing EB IV occupation to the plateau as far north as the Zerqa, it may be that the typical pottery of the south such as Medium Bowls Type 1, and red slip and burnish on Iktanu Phase 1 type vessels do in fact stop at a level somewhere south of Amman, and the contemporary early cultures of the north tend to be of the Beitrawi and Umm Rujm type.

iv) Sites on the Plateau north of the Wadi Zerqa

Very much on the southern border of this category, Tell er-Reheil ²³

being in correct context must be entertained. It is also notable in the context of the Beitrawi group, where the jars have heavier ware than is common for the type, that the lamp is also very heavy.

23. See Section II and Fig. 2; Expl. III, pp. 223-4, 266.

gives evidence of a much longer history of occupation than the sites discussed hitherto. The dangers inherent in attributing fragments of pottery to the EB.MB period are therefore greater. Though Glueck attributed the earliest occupation to EB IV - MB IIA (MB 1), there is certainly pottery of EB II-III on the site²⁴ and some of the shapes illustrated in Figs. 34.10-23 and Fig. 36 may well belong to the earlier period. This difficulty is most clearly shown in the six holemouth jars (Fig. 34.10-15) all in cooking pot ware except Fig. 34.12 which can be compared with Iktanu Phase 1 types but have no exact parallels. Some are not dissimilar to Proto-Urban²⁵ and EB I²⁶ holemouth jars and it is possible that some are of EBA date (in particular Fig. 34.10-11). On the other hand, there are plain holemouth jar rims at Umm Hamad Gharbi and Mu'amariyeh (see Fig. 44.5) and for the time being they are included. They all relate to Iktanu Type 2A.

Similar conditions apply to the jars from Tell er-Reheil and some of the more elaborate rims illustrated may belong to the MBA or later (especially Fig. 36.2-3). Many have direct parallels with Umm Hamad Gharbi and Iktanu Phase 2 (cf. Fig. 34.16 with 27.3; Fig. 36.1 with 28.1-2).

Of the bowls Fig. 36.4-5 are undoubtedly EB.MB; Fig. 36.4 has parallels at Umm Hamad Gharbi (Fig. 45.6), Mu'amariyeh (Fig. 42.2),

24. There are trumpet based jars, cf. Hennesy pl. VII.73, EB IIIA.

25. cf. Fig. 34.14 and Hennesy pl. III. 21.

26. cf. Fig. 34.13 and Hennesy pl. IV. 41.

Iktanu Phase 2 (Fig. 24.3), el-'Aqrabah (Fig. 33.4) and Meshra al-Abyad (Fig. 42.2). Fig. 36.5 is paralleled at Umm Hamad Gharbi (Fig. 46.9), in a mixed context at Iktanu, and perhaps at Tell Abu Hayet (Fig. 50.25). The type may be the nearest the north approaches to the Type 1 Medium Bowls (cf. Fig. 17.1).

Fig. 36.6,8,9 have parallels in the EB.MB but may also belong to EB II-III where Fig. 36.7²⁷ is probably at home. The same applies to the indented ledge handle (Fig. 36.12) which looks earlier than the thicker examples which occur at Iktanu and el 'Aineh (Fig. 30.14).

The parallels for Tell er-Reheil are widespread and suggest also that the occupation may cover a long period within the EB.MB. However most of the pottery can be associated with an earlier rather than a later period, the lack of band combing and big envelope ledge handles perhaps suggesting Phase 1 rather than Phase 2, and this is reinforced by a number of parallels with the southern sites.

In section II it was suggested that as this pottery was not identical with that of Umm Hamad Gharbi, the site of Tell er-Reheil was not likely to be the summer home of tribes lower down the Zerqa practising trans-humance.²⁸ However, there are strong links with Umm Hamad Gharbi and sites in the Jordan Valley, as well as with sites in the interior, such

27. cf. Hennessy, pl. VI. 63 - EB II; pl. VII.68, VIII.76 - EB IIIA; and pl. IX. 85 - EB IIIB.

28. e.g. the cooking pots at Umm Hamad Gharbi are nearly all of Type 1 (Fig. 44.15) and at Tell er-Reheil are all of Type 2.

as Mu'amariyeh to the north-east, and a considerable distance to the south. This reinforces the prospect, first suggested by the pattern of distribution of EB.MB sites, that major river valleys were routes well travelled by newcomers or pastoralists. The Zerqa in particular appears to have been used in this way.

Some thirty kilometres north-east of Tell er-Reheil is Mu'amariyeh, which provides a better closed group for comparison than the former site, there being only distinctively much later pottery to be found, and less debris overlying the early sherds.²⁹

The ware (Fig. 37, 38, 39.1-13) is coarser and on only very rare occasions shows traces of red slip. In both these points the ware resembles that at Umm Rujm, but the shaping of the vessels and the finish of the surface generally is the poorest of any EB.MB site seen. Even more than Umm Rujm, this site gives the impression of a group of undistinguished fringe dwellers. Both Umm Rujm and Mu'amariyeh are some distance from the main river valleys which perhaps supports the use of the river valleys as the main routes, and suggests isolation of sites in the hinterland.

Bowl rims were very difficult to find on the site and appear to be less common than jars. The ware of the holemouth jars differs little from that of other shapes, unlike the sharp contrast between cooking pot ware and ordinary ware at other sites. The impression given is of one crude fabric serving all purposes.

The holemouth jars (Fig. 37.1-7) are generally crudely made and

29. See Section II and Fig. 4; Expl. IV, pp. 82-84, pls. 28-29, Fig.

141.11-14; and unpublished collections of Glueck and Harding.

roughly finished, and are all of Type 2 (cf. Tell er-Reheil) and mostly conform to the Iktanu cooking pot shapes, though none have finger impressed bands. Unusual is Fig. 37.2 with band combing; this and the preference for non-concave rims and the very degenerate types may suggest they are later than Phase 1, but it could simply be a remote regional variation.

The cups and small bowls (Fig. 37.8-11) all have plain rims; perhaps also a late feature. The medium bowls (Fig. 37.12-16) vary between the very crudely shaped pieces already referred to in discussing the Umm Rujm pottery, and the two rather competent pieces (Fig. 37.15-16) are paralleled at Umm Hamad Gharbi (Fig. 45.6-13). Fig. 37.20 has already been referred to as a possible relation of a Type 1 Medium Bowl.

The straight rim jar (Fig. 37.17) is paralleled in Fig. 26.5. At Iktanu the type seemed more popular in Phase 2. Among the remaining jars, the commonest shape, which formed a high proportion of the Mu'amariyeh sherds, is the squat jar with wide mouth and short neck (Fig. 37.24-26, Fig. 38.1-10) which commonly had perforated lugs (Fig. 38.1). At Iktanu in Phase 1 the type was not common and usually has a narrower and deeper neck (Fig. 19.3-12). In Phase 2 jars with perforated lugs were even less common and the only example is thought to be a Phase 1 intruder (Fig. 24.1). The Mu'amariyeh broad low jar necks are not paralleled in Phase 2 either, so this appears to be a type which does not occur at Iktanu at all. In the rest of Transjordan, the jar from Iskander³⁰ with band combing is a reasonable parallel, and so perhaps re-emphasises that it is a latecomer to the south. Another isolated example is the Beitrawi

30. ADAJ IV-V, p. 131, Fig. 1.21.

jar (Fig. 35.4) which conforms more to the Iktanu Phase 1 shape and Mu'amariyeh Fig. 38.5 than to the more frequent curved type.

All other examples are found in the Jordan Valley and north Trans-jordan (Teleilat Umweis, Hammam West, East Ghor, Tell en-Nekheil and Tell Abu Hayet, but especially at Tell Umm Hamad Gharbi and el-Husn).

The large jars with moulded bands at the base of the neck (Fig. 38.18-19) are however reminiscent of Iktanu and the rims are more elaborate than is usual in Phase 1, though not exactly matched in Phase 2 (Fig. 28.1-3).

Decorative motifs at Mu'amariyeh consist of moulded bands, stabbing and incised grooves, band combing and very rarely crudely executed vertical body combing (Fig. 39.5-10).

Another feature of the Mu'amariyeh collection which seems to equate with the south in a later phase is the fragment on Fig. 39.11 which looks like a fragment of a flat based cooking pot of a type usually thought to belong to the beginning of the MBA.³¹

The ledge handles (Fig. 39.1-4) included one plain ledge handle and one envelope ledge with only two small flaps, both of which types occurred in Iktanu Phase 2 or Phase 2(?); the rest of the ledge handles on the site were of the small to medium flap variety, usually spaced. The only overlapping flap fragment of envelope ledge handle came from Area 3 (see Fig. 4), and with its thin gritty ware and wide ledge (Fig. 39.13) suggests the occupation on that part of the site might be even later than in Areas 1 and 2 where the remainder of the sherds were found.

31. Expl. IV, p.500, cooking pot rims; AASOR XII Tell Beit Mirsim I, pl.3.29; and cf. the Ara'ir evidence; and cf. Dever, footnote 65, who concludes from the evidence at Gezer that this type of cooking pot has been wrongly attributed to the EB.MB period.

The only published comparative group from the north is the later part of the cave deposit from el-Husn.³² As it is undoubtedly a tomb group, it offers very few bowl forms for comparison. This site, only about thirty kilometres north-west of Mu'amariyeh, but directly opposite the Beth Shan valley and a ford across the Jordan, at first sight offers a completely different range of vessels to all that we have seen in south and central Transjordan. The immediate points of difference are the painted vessels and the round based and pinched mouth shapes.

Points of comparison are:-

- a) el-Husn 1, painted cup, is not unlike the Phase 1 reserved slip cups at Iktanu (Fig. 16.2).
- b) el-Husn jugs 18, 19: cf. Iktanu Phase 1 red slip jugs with strap handle Fig. 19.13-14, but also an unslipped variety in Phase 2 (Fig. 26.9) which clearly continues at Iktanu in a developed form, or else indicates that northern influence continued coming south for a considerable period.
- c) el-Husn 24-44, squat jars with wide shallow necks and perforated lugs: cf. the Mu'amariyeh and Umm Hamad Gharbi types; presumably the el-Husn lugs are triangular in section also.

More general comparisons can be made between various techniques.

- d) el-Husn 29, 41, 56 and 57 (for 29 and 56 see Pl. I) are body combed in the technique common to nearly all EB IV and EB.MB sites in Transjordan.
- e) el-Husn 56-60 have envelope ledge handles of the large and nearly overlapping(?) type which may be later in Transjordan, or, perhaps, only in

32. PEFA VI (1953) pp. 1-13 and pl. 1.

the south?

- f) The painted technique has some resemblances to the Iktanu Phase 1 reserved slip technique, though without the trickle paint. The effect is similar, with its red or brown paint on cream or buff slip, and there are few other comparisons possible in our present knowledge of Transjordan.
- g) With the exception in particular of No. 56 and perhaps No. 57 at el-Husn, all the jars are of the fat globular kind common to Transjordan.

The main comparisons for the el-Husn group however quite clearly lie to the east and the north. The Megiddo parallels, especially in Tomb 1098A, listed by Isserlin in the el-Husn publication, remain the closest for the majority of shapes and for the painting technique, for the round bases, jugs and pinched mouths, and unpainted lug handled jars with incised slashes at the neck. The flat based pinched mouth jug is found with "tea-pots" at Megiddo³³ and a slightly squatter flat based pinch lip jug is found with a tea-pot type at Ma'ayan Barukh.³⁴ The pinched mouth jar of el-Husn 51-53 is found right through north Palestine and on the south Lebanon sites, allied to variations on the Megiddo assemblage, and further examples of the el-Husn painted jars and associated vessels occur in the tomb at Tiberias.³⁵

33. MT pl. 20, 9 from Tomb 912 A2.

34. 'Atiqot 3, Fig. 6-7.

35. V. Tzaferis, "A Middle Bronze I Cemetery in Tiberias, IEJ 18(1968) pp. 15-19, and Fig. 5 for pottery.

The contrast with the plateau sites to the south is fairly strong therefore; whether this is a further example of "ribbon development" along the river valleys is uncertain. But the links of Mu'amariyeh are more via the Zerqa to the Jordan Valley than to el-Husn; and those of el-Husn are to the Jordan Valley and the Beth Shan Valley.

Another interesting point is that there is no band combing on the vessels at el-Husn. In Transjordan this would indicate on the Iktanu and southern evidence that the group was fairly early. Lapp has stated that band combing in Palestine is confined to the region of Ajjul-Mirzbaneh-Jericho-Balata.³⁶ This is not quite accurate as it is found in the Negeb and Sinai, and though not common north of Balata, is found as far north as Beth Shan,³⁷ and Ma'ayan Barukh in the extreme north of Israel,³⁸ and rarely in the Lebanese cemetery groups. However Lapp does make the point that it is not common in the north. It belongs particularly to central and south Palestine, occurring in a late phase in Transjordan only. The floruit of band combing in the north is in the MBA (see Fig. 52.15-17). The lack of band combing at el-Husn need not therefore necessarily be regarded as a reason for putting the whole group early; it could simply be a reflection of northern influence.

If however, the comparison of the Iktanu reserved slip technique and the other parallels with Phase 1 are at all valid, it is likely that the el-Husn group is correctly placed in the early part of the period.

36. Dhahr Mirzbaneh p. 72, footnote 104.

37. Fitzgerald, Excav. 1921-23 (1931) pl.XXXV.1.

38. 'Atiqot 3, Fig. 6.4.

Other painted wares are found in the Jordan Valley, but not of identical type; but direct comparisons for the el-Husn group can also be found in the north (Fig. 53, 54.1-2) which will be discussed with the Syrian material.

v) Sites in the Jordan Valley

Returning from the plateau to our starting point in the south end of the Jordan Valley, the pottery found on the lowland sites also rather surprisingly shows some variation from both Iktanu and the highland sites.

The pottery from Teleilat Unweis,³⁹ near to the shores of the Dead Sea in bare, flat land, has been considerably affected by salt; but Fig. 39.12 is a rare example of a Type 2D cooking pot, which appeared to be restricted to Phase 2 at Iktanu. There is pottery on the site which Glueck attributes to EB IV, but which might be late EB III; Figs. 39.15-16 could belong to either, though the latter compares with Fig. 24.8; 36.9 and 32.7.

Moving on to the group of sites immediately north of Iktanu in the Wadi Kafrein area, sherds from three sites are illustrated on Fig. 39.18-20 and Fig. 40. Those from Tell Abu Qarf are too worn to be particularly diagnostic, but show typically Transjordanian forms.⁴⁰ Tell el-Hammam West⁴¹ has a greater variety of forms (Fig. 40. 1-20). The cooking pots belong to Iktanu Type 1A and 2B, both found in Phase 1 at Iktanu, together with the red slipped Medium Bowls Type 7 (Fig. 40.4). Fig. 40.5 parallels a Phase 1 Type 4 bowl, and there is a small fragment (not drawn) of an Iktanu Type 3b

39. Expl. IV, p. 400; Mellaart, ADAJ VI-VII, p.152 who also found EB II-III.

40. Expl. IV, pp. 382-3; and see Section II and Fig. 7.

41. For Hammam East, see Expl. IV, pp. 378-382; also Section II, Fig. 7.

bowl (see Fig. 17.6) and a Type 2 bowl (see Fig. 17.4). The large bowl Fig. 40.6 is paralleled in Phase 1 also (Fig. 18.2-5). Of the jars, only Fig. 40.10 suggests a later context with the squared and flared rim, but need not necessarily be later. All the decorative elements from both Hammam, Abu Qarf and Wadi Kafrein Site C (Fig. 40.21-23) fit reasonably into Phase 1, and there is no band combing. The envelope ledge handles are all of the small spaced variety. It is possible that Fig. 40.22-23 are earlier, possibly Chalcolithic.

The Wadi Kafrein sites thus indicate a very close relationship with Iktanu Phase 1. There is considerable EBA occupation at Hamman and possibly almost continuous occupation from EB III to EB IV.

Slightly further north on the next main wadi are the scatter of little sites at the mouth of the Shu'eib. The group of sherds on Fig. 41.1-14 is not large enough to give a fair impression of the date of the occupation, but are clearly well within the general framework of the EB.MB period.⁴² Again the lack of band combing, and the occurrence of small flap envelope ledge handles and the Type 1C cooking pot (Fig. 41.12) which did not occur in Phase 2 suggest an occupation more or less contemporary with Phase 1; but Fig. 41.3 suggests a more northern influence. Fig. 41.13-14 may both be earlier as they come from the EBA site at Tell el-Mustah. There is just enough left of the lamp to suggest that it had more than one spout.⁴³

⁴². See Fig. 6.

⁴³. cf. Fig. 41.13 with Expl. IV, p. 436, pl.16.3 (123.10) for holemouth with knob dated EB I.

The group from Meshra al-Abyad⁴⁴ is larger however (Fig. 41.15-24; 42; 43.1-13). Unlike Iktanu and Hammam, there are no red slipped or burnished wares (cf. remarks apropos the Umm Rujm pottery and the northern limit of EB IV); the common fabrics are cooking pot ware or the gritty fabrics with light slip comparable to Phase 2 and part of Phase 1, and to that of sites further up the Jordan Valley.

The cooking pots (Fig. 41.15-21) are of Types 1A, 1B, 1C and 2A, all found in Phase 1; Fig. 41.17 in particular parallels the shape of Fig. 15.7 in Phase 1 at Iktanu. However, several of these occur in Phase 2 also; but there is a notable lack of Type 2D, the Phase 2 main type.

The small bowls are all plain as in Phase 2; the medium bowls are also better paralleled in Phase 2 (Fig. 42.1 cf. Fig. 25.8, and 24.4; Fig. 42.2-3, cf. Fig. 24.5-6).

The large bowls are paralleled in both phases (Fig. 42.5 cf. Fig. 18.4; but cf. Fig. 42.6 and Fig. 25.8).

Jar rims are not very diagnostic but Fig. 42.14 does not occur at Iktanu, and has northern parallels. The perforated lug (Fig. 42.12) suggests a rather straight necked jar, not the Mu'amariyeh and northern type.

In the Museum in Amman, collected from Meshra al-Abyad by Mellaart during the Point Four survey, is a fragment of a strap handled jug which parallels the rim shape of Fig. 19.13 but in plain gritty ware. The handle, a broad flat strap, has a horizontal row of vertical slashes (cf. Fig. 19.17-19); the shoulder has a line of oblique slashes above a single groove, and it comes from a fat bodied vessel.

44. ADAJ VI-VII (1962) p.130, 138; see also Section II and Fig. 6.

Envelope ledges are of both small and overlapping types (Fig. 43.5-7). Decorative motifs at Meshra al-Abyad include the familiar range of moulded bands, stabbing, body combing; in Mellaart's collection there is a piece identical to Fig. 43.16 also. There was one fragment of band combing but as at Iktanu it is not very common.

The parallels with Iktanu are close, particularly with Phase 2. But in spite of the lack of red slip and burnish there are some relations with Phase 1 also, particularly in the cooking pots. It is possible that the people of Meshra al-Abyad may be at least partly contemporary with Phase 1 at Iktanu and influenced that group; and may be regarded as a part of the innovating influences which established Phase 2 at the southern site.

A very similar group of pottery reached the Museum in Amman during the East Ghor Canal Project work. (Fig. 43.14-19). Its exact provenance is not recorded, but it is obviously part of a very similar group to that of Meshra al-Abyad; apart from the complete small bowl it adds little to the Jordan Valley typology.

The largest collection of EB.MB pottery from the Jordan Valley, apart from the excavated material from Iktanu, is that from Tell Umm Hamad Gharbi.⁴⁵ (Figs. 44-49). Glueck has published a large series from this site also, which he first discovered,⁴⁶ but no apology is made for repeating his types now in a larger and organised typology; his excellent photographs of the fabrics should be referred to.

The importance of Umm Hamad Gharbi is threefold. First, it offers a large collection of almost exclusively EB.MB pottery. Second, it is

⁴⁵. See Section II and Fig. 5.

⁴⁶. Expl. IV, pp. 318-324; pls. 93-97 (153-155).

fairly homogeneous and suggests the settlement did not extent over a very long period. Third, this homogeneity does not seem to indicate a "two phase" occupation as at Iktanu.

The pottery is generally thinner and lighter than that of Iktanu and with one exception there is no red slip. The ware is fairly equally pink, cream or grey - green slipped gritty ware with a marked preference for cream and buff slip on the bowls and holemouth jars; and grey-green for the jars; an observation which appears to be valid for the Phase 2 series at Iktanu also.

Cooking pots (Fig. 44.1-6). The ware parallels that from Iktanu, and all the rim types found were of Phase 1 types (Types 1A, 1C, 2B) and the type pots of Phase 2 are missing. Fig. 44.6 may be a holemouth imitation of a cooking pot with its decorated surface, but is made of cooking pot fabric. Again, no flat bases in this fabric were discovered and they are assumed to have been round.

Lamps. One small lamp fragment with parts of two spouts was found. Its rounded base and diminutive size compare with the Phase 2(?) example at Iktanu (Fig. 23.8).

Miniature Bowls. There were none.

Cups. There is one example only (Fig. 44.8) which is very similar to the Phase 1 Iktanu type, but with incised line below the rim. It is almost identical with one from the tell at Jericho.⁴⁷

Small Bowls. Several of the varied types of Iktanu Phase 1 are missing and the large range at Umm Hamad is a variation of the plain tapered rims of Phase 2

⁴⁷. Kenyon, Amorites and Canaanites p. 22, Fig. 12.2.

type. The decoration is more varied and includes single grooved lines, fine body combing and stabbing. It is uncertain whether Fig. 44.14 has a stain on the exterior rim or a deliberate slip similar to Iktanu reserved cream slip ware. Small well folded envelope ledges with overlapping flaps are common on these bowls.

Fig. 44.9-15 are plain rims progressively more tapered (the pottery is very fine and delicate) and Fig. 44.16-17, and Fig. 45.1-4 have slightly knobbed, squared or pared rims.

Medium Bowls. The medium bowls on Fig. 45.5-13 and Fig. 46.1-11 are of very varied size; a considerable number are very wide and presumably rather shallow, but among the flat base fragments found on the site there are none of this diameter. The possibility that the wide bowls are either round based or very deep and tapering must therefore be entertained. On the whole the vessels are thin walled with rather light rims. They fall into the following categories.

- a) Plain squared rims (Fig. 45.5-7 and cf. the small bowls Fig. 45.1) are fairly common.
- b) Slightly concave knobbed horizontal rims (Fig. 45.8-13) are the most common type at Umm Hamad, and have parallels particularly to the north and north-east at Umm Rujm and Tell er-Reheil, and especially Mu'amariyeh (Fig. 37.15) and in Iktanu Phase 2 (Fig. 24.7).
- c) Outward sloping rims (Fig. 46.1-4) are fairly common, and are not paralleled at Iktanu.
- d) Inward sloping rim (Fig. 46.5-6 and cf. Glueck Fig. 154.8). These may be very fined-down forms of Medium Bowls Type 1(?).
- e) Rounded rims (Fig. 46.7-8) and cf. Glueck Fig. 153.16 and Iktanu

Phase 2 Fig. 24.3).

f) Inverted rim bowl (Fig. 46.9) which recalls the Iktanu Phase 1 Medium Bowls Type 1.

g) Incurved (Fig. 46.10-11) (cf. the widespread Iktanu Medium Bowls Type 7.)

h) Horizontal rim projecting both in and out, not found by us but cf.

Expl. IV, pl. 154.9 with parallels at Tell Abu Hayet, and Figs. 24.8; 39.16; 36.9 and 32.7.

Spouted Vessels. There are three vessels with open rim spouts (Fig. 46.12-14) all of which appear to be of the plain bowl category, and which are not unlike the black slipped fragment in Phase 1 at Iktanu (Fig. 18.12).

Holemouth Jars occur in plain tapered rim form, with incised decoration (Fig. 47.1-3) or the curious type (three examples and Glueck published another) with a double row of perforations just below the rim, and whose function remains unguessed (Fig. 47.4-6). The other holemouth jars (Fig. 47.7-8) follow the general rim shapes of the ordinary cooking pots, though in smaller sizes and finer ware - Type 2B, and notably Type 1D with a moulded band below the rim which has not been found among the Umm Hamad Gharbi cooking pots. Type 2D, restricted to Phase 2 at Iktanu, does not occur in either cooking pot ware or holemouth jars.

Jars also occur in great quantities, the majority having plain tapering rims. The following categories are indicated.

a) Straight vertical rim (Fig. 47.9-12), one of which should be in a small jars category. cf. Iktanu Phase 2, Fig. 26.5-7.

b) Plain tapered rim (Fig. 47.13-20, 48.3-4). The great majority belong in this category, and a large sample of the range is given.

c) Round rims, but almost neckless (Fig. 47.21; 48.1, 2, 8). There were

only three examples, and the type is already commented on as being common to Mu'amariyeh, el-Husn and the north Jordan Valley.

- d) Squared rims (Fig. 48.5-8), more notable in Iktanu Phase 2.
- e) Elaborate rims, (Fig. 48.9-11), cf. Phase 2 generally, but Nos. 9 and 10 are paralleled at Meshra al-Abyad (Fig. 42.14) and Tell er-Reheil (Fig. 34.21-22).
- f) Large jars (Fig. 48.12-14). There was one large plain sherd, and two of the Iktanu Phase 2 variety (cf. Fig. 48.12 and Fig. 38.16; cf. Fig. 48.13 and Fig. 28.1-2(?); and cf. Fig. 48.14 and Fig. 28.3).

Jugs (Fig. 48.15). There is only one example with a strap handle (cf. Iktanu fig. 19.13 Phase 1 and Fig. 26.10 Phase 2.)

Bases. The range of flat bases, including two body combed ones, are given on Fig. 49.1-6).

Ledge Handles (Fig. 49.7-14). These are very common on the site and of the following types:

- a) Plain, Fig. 49.7 cf. Phase 2 Iktanu.
- b) Finger impressed at edge (Fig. 49.8) cf. Iktanu mixed context, and the southern sites.
- c) Three flap envelope ledge handles (Fig. 49.9-10) of both spaced and overlapping flap variety.
- d) Four flap envelope ledge handles (Fig. 49.11-13) of both spaced and overlapping flap type.
- e) Five flap envelope ledge handles (Fig. 49.14), only one example, and with overlapping flaps.

In general the overlapping type and the range of the envelope ledge handles parallels Iktanu Phase 2 quite well.

Lug Handles (Fig. 49.15-20). All but one have a triangular section, and the exception may well be a chalcolithic type (Fig. 49.15). The number and the variety of sizes, suggests that they come from the jar types popular at Megiddo and el-Husn, but not in the south.

Decorative Motifs. Grooved lines, body combing, stabbing and finger moulding are all very common. There is no painted decoration, and very notably, considering the number of parallels with Iktanu Phase 2, there is no band combing. This must therefore confirm a northern influence suggested for the el-Husn pots, and that lack of band combing in the north is not a good chronological criterion. The cooking pots, which also more closely parallel Phase 1 at Iktanu, also suggest an earlier date.

The Umm Hamad Gharbi pottery has some slightly contrasting elements therefore. Although the majority of the parallels are with Iktanu Phase 2, there are some elements of Phase 1 type involved. The lack of band combing, an early feature in the south, may simply be the result of northern influence and not a chronological yardstick. There are clearly discernable parallels with the Mu'amariyeh group which is also thought to be late.

The occupation of the site may have spanned a considerable period, judging by its size; and it is perhaps easiest to consider the occupation in the same way as that of Meshra al-Abyad; partly contemporary with Phase 1, but an innovating influence paving the way for Phase 2, and mainly contemporary with it.

All the ware of EB.MB date from Tell en-Nekheil is of the gritty light slip variety without red slip or burnish. The site was not visited by the writer, and the sherds illustrated (Fig. 50.1-21) are the unpublished remains of Glueck's collection in the Palestine Archaeological Museum and

complement his published sherds.⁴⁸ It is another site with considerable later occupation so caution is required.

This group of sherds has a clear correlation with Iktanu Phase 2, particularly in the cooking pots as Fig. 50.1 is a Type 2D cooking pot, which was the type restricted to Phase 2 at Iktanu, and shows that the type was not confined entirely to the south Jordan Valley; and Expl. IV. pl. 72.4 and pl. 145.14 is of Type 1A which also probably occurred in Phase 2. The small and medium bowl types, and the envelope ledge handles, which, with one possible exception (Expl. IV. pl. 73.1, where the photograph shows the junction of the flaps to be broken and pl. 145.1 where the same specimen is drawn with spaced flaps) are all of the large overlapping flap type which was noticed in Phase 2. All three envelope ledge handles published by Glueck are restored with four flaps; of ^{the} unpublished remainder, probably two have three flaps and five have four flaps. The narrow plain ledge handle (Expl. IV. pl. 73.2 and 145.2) with shallow finger impressions also parallels Iktanu Phase 2 (Fig. 25.1), and Zaharet Umm el-Merar (Expl. IV, pl. 110.2) which has a perforated plain ledge handle.

Body combing and finger moulded bands are favoured above band combing (there is only one example Expl. IV, pl. 73.13). No painted pieces were found dating earlier than MB II or later. The large straight sided vessel (Expl. IV pl. 145.13 and 110.1) dated by Glueck to the MBA (his MB IIB-C) probably belongs there rather than with the two body fragments of similar type from Meshra al-Abyad (Fig. 43.11) and Mu'amariyeh (Fig. 39.11).

48. Expl. IV, pl. 72.1, 3-5; pl. 73; pl. 110.1; pl. 145.1-15, 18; and p. 307.

The jars, one of which Glueck published, are all of the flared rim variety with slightly more complicated rims than were noted in Phase 1 but were typical of Phase 2, at Iktanu, with the exception of Fig. 50.10 which is of the northern short, wide necked variety.

Although Tell en-Nekheil is fifty kilometres up the Jordan Valley from Iktanu, it offers a group very closely related to Phase 2 at the southern site, and in some respects the parallels are closer than those of Tell Umm Hamad Gharbi.

A few additional pieces are illustrated from Tell Abu Hayet⁴⁹ (Fig. 50.22-26), principally a Type 7 medium bowl (not slipped); and Fig. 50.25, the suggested northern form of a Type 1 bowl. Fig. 50.24 is a fragment with body combing. The piece illustrated in Fig. 50.23 is of uncertain date. The small bowl shape with plain rim is quite normal to EB.MB (cf. Fig. 44.9-10), but whether the trickle painting can be related to the el-Husn painted style is questionable. The sherds published by Glueck (Expl. IV, pl. 35-38, 130-131, 112.6, 115.6) include a considerable number of MBA (his MB II) and later fragments. The three fragments of band combed ware (pl. 35.9-11 Expl. IV) look rather like MBA pieces.

Of the clearly EB.MB pieces, the bowls on pl. 131.1, 5 and 9 are particularly typical (for 131.9 cf. Mu'amariyeh Fig. 37.14, and Meshra al-Abyad Fig. 42.1, although Glueck attributes it to "MB II"; e.g. MBA; pl. 131.3 is recognisable as a northern type jar).

Many of the Tell Abu Hayet features appear to be early, and although seven envelope ledge handles are illustrated, only two are sufficiently

49. Expl. IV, p. 259; ADAJ VI-VII, p. 144.

intact to show that the flaps do not overlap (Expl. IV, pl. 131.16 and 19).

The lamp fragment from Khirbet Beweib (Fig. 50.27) found by Glueck, is illustrated to complement the small collection published by him from this site,⁵⁰ which is further south than Tell Abu Hayet in the Jordan Valley and only three kilometres from Tell en-Nekheil. All the fragments illustrated are of normal EB.MB Jordan Valley types (including an assortment of envelope ledge handles with overlapping flaps and probably of late date) except for the small carinated bowl with painted decoration on pl. 17.4 and 123.3, dated by Glueck to (?) EB.MB. It does not compare very closely to either the el-Husn jars or to the Tell Abu Hayet piece (Fig. 50.23) but is hand made (on a site otherwise occupied only in the IA-Roman-Byzantine periods) and may well therefore belong to this period and extend the northern painted tradition. Its shape is not paralleled elsewhere either, though small carinated bowls do exist in the early part of the period (eg. Iktanu Fig. 17.10, Phase 1, but not very similar; and Ara'ir Fig. 2.5-6 Period VIB, the earlier phase and a slightly better parallel of the shape).

C) Some conclusions on the Transjordan pottery sequence

Before looking at some of the northern material in Lebanon and Syria, it would be as well to assess some of the inferences that can be derived from this collection, and briefly, its place in relation to the Palestinian pottery, though without going into detailed comparisons.

In the excavations at Iktanu two phases of pottery are distinguishable. The earlier is of a type generally described as "EB IV", with red slipped and burnished vessels on both heavy and "gritty" fabric, as well as numerous

50. Expl. IV, p. 296, pl. 17 and 123.1-7.

plain "gritty" ware vessels. The later phase, which is clearly largely derived from the first, is of a type generally described as "EB.MB", and is entirely of plain "gritty" wares. The first phase has strong parallels with sites in southern Transjordan where the pottery is regularly red slipped and burnished; but also with sites to the north and east where the wares are generally not red slipped and burnished. The related second phase appears to represent a triumph of northern influence or related northern people, who eventually penetrated, probably in irregular waves, at least as far south as Iskander and Ara'ir. The Iktanu sequence at least suggests that where EB IV type pottery exists it is likely to precede that of EB.MB; but in the extreme south of the EB IV territory (Ader, Feqeiques, etc.) the EB.MB influence appears not to have penetrated in its latest form.

The features that have led to naming the period "EB IV" are those that are recognisably derived from the normal EB III of Palestinian type, in particular the red slipped techniques.

However, in the type series from Phase 1 at Iktanu, these techniques are closely associated with the numerous innovations associated with EB.MB pottery and it is necessary to assess how much of the whole is derived, even if slightly altered, from the EBA, and what can be regarded as entirely new to Palestine-Transjordan.

The best known point of contact between the EBA and the EB.MB period is of course the ledge handle. Ledge handles are an exclusively Palestinian-Transjordan form throughout both periods, and make clear a vital point. Whatever else might be claimed as deriving from the north (and much of EB II - III pottery is common to coastal and inland Syria as well as Palestine), the EB.MB ledge handle, which is the most widespread and distinctive trait of the EB.MB period, must be a result of the fusion of new influences on the

old actually in the Palestine-Transjordan region. Logically therefore, other EBA traits common to both Syria and Palestine which appear in Transjordan and Palestine in the EB.MB period may have been developed locally, and not necessarily brought in from outside. The ledge handle thus indicates a period of contact at least, if not considerable intermingling between the EBA and the EB.MB peoples at the time of the latter's arrival.

Looking at the Iktanu Phase 1 and related pottery in particular, there are numerous such adoptions.

Ledge Handles. A more detailed investigation suggests that in this form alone EBA influence is considerable. G. E. Wright⁵¹ first worked out the chronological and typological range of ledge handles in Palestine, and an amended list is given by Hennesy.⁵² The range of Transjordan EB IV - EB.MB ledge handles taken in relation to this indicates:

a) The main type of ledge handle (the envelope ledge) is confined to the EB.MB period and is clearly derived from the pushed up form (Wright Form 1e) which occurs from Proto-Urban to the end of the EBA. and the pinch-lapped form (Wright form 1d) which occurs from the Proto-Urban to early EB III.

At Iktanu there appears to be a general sequence from a small flap type in Phase 1 to a big and overlapping flap in Phase 2 which tends to confirm this development; and there is similar evidence from Ader, and detailed evidence for such development from Ara'ir. The southern sites also indicate a late degeneration of the type see e).

b) Use of the plain ledge handle (Wright Form 1c) which occurs from late Neolithic to the end of the EBA must now be extended to the EB.MB.

c) The Thumb Indented form (Wright Form 1a) which is restricted to late Neolithic to EB II appears to be revived in at least Phase 1 contexts, and

51. PPEB pp. 48-49, 93-94.

52. Hennesy, p. 29.

this must suggest that it lingered on in Transjordan throughout EB III.

d) The wavy ledge handle and the pushed up ledge handle are found in the very earliest EB IV levels in south Transjordan.

e) The vestigial ledge handle is found in EB IV contexts in south Transjordan.

Cooking Pots. The holemouth cooking pot was in use from the very beginning of the EBA and some of the closest parallels for the Iktanu types emerge from the Jericho sequence at surprisingly early dates.⁵³ The EB IIIA and IIIB types⁵⁴ tend to have a rounded, not a concave rim, but rather more needs to be known of the EBA holemouth jar sequence to establish how directly derived from the EBA forms are the EB.MB types. The EB.MB holemouth cooking pot does not seem to occur in the north of Palestine, but this may be due to lack of publication and excavation of settlement sites. That it is common in central and south Palestine is shown by its occurrence at Jericho,⁵⁵ Wadi Idalya,⁵⁶ Dhahr Mirzbaneh,⁵⁷ Jebel Qa'aqir,⁵⁸ Lachish⁵⁹

53. eg. Hennesy, pl.III.21 Proto-Urban cf. Fig. 15.10; pl.IV.44 EB I cf. Fig. 31.2.

54. Hennesy pl.VIII.83 and IX.90 EB IIIA-IIIB: Kenyon, Jericho I p.177, Fig.68.23 from Tomb A114(B), EB III; Albright, in AASOR XII, p.5: "The cooking pot of the EBA seems nearly always to have been of the holemouth type".

55. PEQ (1952) Fig. 6.36-37; No. 36 appears to be Type 2A.

56. Not published.

57. Dhahr Mirzbaneh Fig. 18.3; Type 1D.

58. Dever, p.149, Fig. 4.11-14, Types 1A and 2A.

59. Fig.52.18 Type 2A and Fig.52.19 Type 2C; also Lachish IV, Group 1529.420-421, Type 2C.

and Tell Beit Mirsim;⁶⁰ and this may therefore, like the ledge handles, show strong EBA influence from central and south Palestine, rather than the north.

Four-spouted lamps. These may be regarded as an innovation, and in the EB.MB period occur at least from Hazor to Lachish in Palestine, and from el-Husn to Ara'ir in Transjordan. They are found on both settlement sites and in tombs, and they are almost as much as the envelope ledge handle, a type fossil of the period. The only real variation is between flat, round or flattish based types and this so far seems to have little geographical or chronological distinction. Round and flat based types are found simultaneously in the same tombs at Dhahr Mirzbaneh⁶¹, Megiddo and Gibeon; and in the same excavation phase at Iktanu. There is insufficient evidence on some points however; Lapp, on the Dhahr Mirzbaneh and Gibeon evidence, attempts to show a chronological priority for the round based lamps, but without much conviction. The el-Husn and Iskander lamps are flat based, but the Ara'ir Level VIA ones are rounded.

There are useful chronological pointers in the occurrence of a lamp of this kind at 'Ai⁶² where occupation certainly extends to a late phase of the EBA, and the occurrence of this lamp suggests contemporary contact with EB.MB groups who were perhaps already in the Jordan Valley and Transjordan (possibly with Phase 1, but lamps at Iktanu are so far only clearly known in Phase 2). The implication that Transjordan and possibly south Palestine

60. AASOR XII, p.5-6; pl.1.19-21, Types 2A and 2D? from Level J; pl. 3. 33-35 from Level I.

61. Detailed occurrences are listed by Lapp in Dhahr Mirzbaneh pp.59-63.

62. J. Marquet-Krause, Syria XVI, p.343; and Les fouilles de 'Ay (et Tell) 1933-1935, pl. LXIII.2123 and pl. LXXVIII.2123.

received stronger EB.MB influences before central Palestine should at least be entertained. The curious four-spout lamps in Tomb A and Tomb All⁴B at Jericho⁶³ date to EB III, and not the very end of it. The form suggests a very early development of this type in Palestine; or that it is a very early imitation of the EB.MB type and that EB.MB influence may be traced back at least as early as late EB III.

A number of lamps of this pinched bowl Jericho type came from the ed-Dra' cemetery,⁶⁴ presumably from the tombs of EB III date.

To some extent this view is reinforced by the contents of Tomb 351 at Jericho, to be mentioned below; and by the occurrence of an EB.MB type dagger at Tell en-Nasbeh, a site close to 'Ai, the occupation of which is also not considered to continue to the EB.MB period. The dagger⁶⁵ unfortunately has no objects associated with it in the publication, but the date of the tomb was considered to be EBA. There is another such dagger in Tomb F5 (late EBA) at Jericho.⁶⁶

63. LAAA XIX (1932) pl. XXVIII.15; and Jericho I, Fig. 67.14.

64. Dhahr Mirzbaneh, p. 63, n.23.

65. Nasbeh, I, p.264, pl.104.1, and Appendix E, p.277, from Cave Tomb 7.

The dagger appears to be copper, cold hammered. Possible other traces of EB.MB objects at Nasbeh are pl.11.171-172, Type 1A cooking pots (?) from under a ledge in the north-east necropolis; and Cave Tomb 5 produced a jar with "pushed up folded" ledge handles, (pl.8.123) which could be very much earlier, but compare with small flap envelope ledge handles.

66. Jericho I, p.174, Fig. 66.3.

These four objects, or groups of objects, suggest that the intermingling referred to in discussing ledge handles does take place to some extent in central Palestine, and perhaps provide evidence for a view that the arrival of the EB.MB groups in Palestine might have been more gradual than the destruction of cities like Jericho suggests, where in any case the decline of the town towards the end of EB III, indicated by bad and hasty repair of the defences, precedes the actual destruction.⁶⁷ This refers us back to a very early point in this study when a number of factors of wider implication contributing to the decline of EBA civilization were suggested.⁶⁸

Cups. These vessels are undoubtedly innovations. There are two not very similar examples in a late stage of the EBA at Jericho,⁶⁹ and at Lachish.⁷⁰ The best comparison for the Iktanu Type 2 cups are of EBA date however, at 'Ai and at Ur.⁷¹

Small Bowls. These are related to the cups to some extent, and to discuss derivations for the plain rim type would be invidious.

Medium Bowls are a more fruitful field for comparison however and deserve some attention.

The Medium Bowl Type 1 (Fig. 17.1-2), almost a type fossil of EB IV pottery, occurs in both red slip and non-red slip forms in Phase 1 but not in Phase 2 at Iktanu. Except in the tendency to have red slip and burnish,

67. Kenyon, Amorites and Canaanites, p.9.

68. pp.28-9 and Section II, Rainfall.

69. Jericho I, p.175, Fig. 67.11 and p. 58.

70. At Lachish cups occur in Cave 1519, in use in EB II-III and in the later stages of EB III.

71. Hennessey, pl.LVIII.2 from 'Ai; 5 from Ur; see p.70; there is also a poor parallel in Jericho Tomb A, LAAA XIX (1932) Pl.III.4.

this type does not appear to be derived from EBA shapes. The closest parallel is in Jericho Tomb 351,⁷² although this lacks the shallow exterior grooving, and is one of the typological features which has led to the late dating of the tomb group as a whole, and appears to join the small category of objects listed above under Lamps which incline the writer to the view that considerable intermingling may have occurred in the Jordan Valley at least, between EB and EB.MB groups, before the actual settlement of central Palestine by EB.MB peoples.

The Type 1 Medium Bowl appears to be confined to a distribution in south Palestine and south Transjordan in its red slipped forms, but to have usually non-red slipped relations in the north Jordan Valley and the north plateau (cf. Fig. 17.1, Fig. 46.9 and Fig. 50.25).

An exaggerated form was found at Jebel Qa'aqir.⁷³ Bowls of this type first appeared in Tell Beit Mirsim I (not J, which at least in the broad phasing of Tell Beit Mirsim indicates that they are not found right at the beginning of the period) and they are said to continue right through to Level F, giving them a longer history than in Transjordan.⁷⁴ Examples at Tell el-Ajjul⁷⁵ in the 100-200 cemetery also provide excellent parallels for Fig.17.2 at Iktanu, but the associated ceramic features of this cemetery, as at Tell Beit Mirsim, are often late, on Transjordan evidence. A fragment of a Type 1 bowl was found in the environs of Jericho, which was used as a sprawling camp or building site in the EB.MB period.⁷⁶ With the exception

72. LAAA XXII (1935) pl.XXXIV.9.

73. Dever, Fig. 4.1.

74. AASOR XII, p.11 and pl.3.24-5 and pl.4.7-11; AASOR XIII, p.65.

75. AG I Tomb 114, pl.37 Type 6R.

76. Courtesy of the finder, Mr. P. J. Parr.

of this fragment and Tomb 351, parallels for Phase 1 at Iktanu are notably lacking at Jericho. Type 1 Bowls also occur at Lachish in the 2000 cemetery and in Group 1529.⁷⁷

Type 1 is clearly an innovating EB.MB form; as is also Type 5 (Fig. 17.9), though it lacks Palestinian parallels.

Other medium bowl forms have a clear derivation from the EBA. Type 7 (with round incurved rim) is widespread in Transjordan and the Jordan Valley (probably Phase 1 at Iktanu, and found from el-'Aineh and the southern sites, to Tell Abu Hayet in the north Jordan Valley, as well as on the plateau at Tell er-Reheil), and has many early parallels in EB II and III.⁷⁸

As an EB.MB type it does not appear to extend into Palestine. It is one of the very few rim shapes which could be used to show EB.MB traditions continuing into the MBA.⁷⁹

The bowls illustrated from Feqeiques (Fig. 32.3) and Tell er-Reheil (Fig. 36.6) are fully in EBA tradition also, and are quite well paralleled at Jericho in EB IIIB.⁸⁰ Their earlier history is too well known to need

77. Lachish IV pl.66; 428, from T.2030; and pl.66; 401 Group 1529.

78. Hennesy, pl.VI.60 (EB II); pl.IX.87 (EB IIIB); pl.XIV.15 from Sanctuary A at 'Ai; Jericho I, Early Bronze Age Bowls Type Ela.

79. In particular the example found at Umm Hamad Gharbi by Glueck (Expl.IV, pl. 153.16) compares with Jericho 1, p.309, fig.115.4; and the Type 7 rims in general compare with Jericho Middle Bronze Age Bowls Type Alb and Alc.

80. Hennesy, pl.X.95b.

listing here.

Similar comments apply to the bowl type found at Umm Rujm (Fig. 34.3), at Tell er-Reheil (Fig. 36.9) and at Teleilat Umweis (Fig. 39.16). There are close parallels in EB IIIB Jericho for this type too, and the shape generally can be traced back to EB I.⁸¹ Though direct parallels do not occur at Iktanu, the large bowl rims may be derived from this form (cf. Fig. 18.1-4) and in Phase 2 there is a smaller bowl of similar type (Fig. 24.8).

Holemouth jars. This is a type which to some extent overlaps with cooking pots, and thus may show derived influence from the EBA. In particular, the plain-rimmed holemouths with rows of perforations from Umm Hamad Gharbi (Fig. 47.4-6) may be compared with a similar plain type with "hole for suspension" from Jericho Tomb A.⁸²

All the Phase 1 holemouths at Iktanu have shaped rims (Fig. 18.6-13), but in Phase 2 the preference is for plain rims (Fig. 26.2-4). Both phases have holemouth jars with spouts, which was a form current in the EBA,⁸³ but no direct parallels can be cited; in particular the plain but grooved rim holemouth of Phase 1 at Iktanu (Fig. 18.11), which is widely paralleled in Transjordan and Palestine, like the grooved Type 1 bowls, has no EBA parallels, and can be regarded as an innovating feature of the EB.MB.

81. Hennesy, pl. X. 98; and LAAA XIX (1932) pl. III.18-20, Tomb A.

82. LAAA XIX (1932) pl. VIII.1-2.

83. ibid., pl. VII.2 and 4, Tomb A.

Jars. For the ordinary jar form it would be invidious to cite parallels with the EBA. Both jugs and small, lug-handled jars occur earlier in Palestine.⁸⁴

Almost all features of the large jars have parallels in the EBA; the flat base, the globular body, flaring or fairly straight rims are ubiquitous. The moulded bands at neck and body,⁸⁵ the stabbed incision at the neck,⁸⁶ the use of ledge handles at the middle or just below the middle body;⁸⁷ and above all the use of body combing. Hennessy has traced the range of pattern combing on jars, especially those used in EB III Palestine and Fourth and Fifth Dynasty Egypt, "though there seems undoubted evidence that comb decoration was present through the entire period of the Early Bronze Age and still in use during EB.MB. Isolated sherds are difficult to place in

84. The small jars, like many of the cooking pots and the handled jar from Beitrawi (Fig. 35.2) appear to have their closest parallels with EB I or even PU shapes. Cf. the common northern jar type from el-Husn and Mu'amariyeh (Fig. 38.1 and 5) and Jericho I, fig. 14.9,12,13 from Tomb A94. The types only vary in the section and position of the handle.

85. Cf. Fig. 38.1 and Hennessy, pl.XV.25.

86. Cf. Fig. 48.7, 8, 11 and Hennessy pl.VIII. 84b EB IIIA; and LAAA XIX (1932) pl.VI.15, pl.VIII.17 from Tomb A.

87. Cf. Fig. 35.1 and Hennessy pl.XIV.17; LAAA XIX (1932) pl.VII. 12-14 from Tomb A.

the development of this fabric and it seems the only criterion is the shape of the jars".⁸⁸ Pattern combing is common to Syria as well, perhaps occurring there with greater frequency than elsewhere, and is also common in the Lebanon. Although there are occasionally sherds of rough pattern combed type in EB.MB contexts⁸⁹ the type that is common to all sites almost without exception in Transjordan and the Jordan Valley is a shallow, and usually fairly careful, oblique to vertical combing, best illustrated on Figs. 35.1 and 53.1, and to which the numerous other illustrated fragments conform. The stroke starts at the shoulder and is usually broken just above the point of maximum girth, and then continues again right to the base, or fades off just before. Occasionally it finishes with a horizontal curl (Fig. 49.5-6). It is usually broken off above ledge handles and starts again below. The technique is not uncommon on bowls also, but it never occurs on vessels with a red slip or burnish.

That this type of body combing is derived from Syrian and Palestinian pattern combing may be regarded as certain. Unlike the ledge handles, it cannot be said with certainty from which source it was derived, if not from both.

The points of contact between the EBA in Syria and Palestine and the EB.MB of Transjordan are therefore numerous. The production of a handmade ware is also common to both, though the rim treatment is separate in the EB.MB. There are two alternatives which may explain these borrowings. Either we are

88. Hennessy, p. 23 and pl. LX.

89. There is a fragment from Umm Rujm, and another from Ara'ir.

dealing with a people who had very few native pottery traditions and thus took over a great deal of what they found on their arrival; or with an incoming people, competent as potters with some fairly strong native traditions of their own, who co-existed in adjoining areas for some time, or inter-married with the EBA population. Considering the number of innovations at the beginning of the period, the latter alternative is preferred. Thus it should be possible to trace some of the native traditions and thus the origins of these peoples, by looking for parallels to the innovations. This will be attempted in the following sections.

D) The Pottery of Lebanon and Syria

i) The Lebanon

Considering the general poverty of the remains we have looked at to date, to start discussing the EB.MB pottery of Lebanon at Byblos seems something of a contradiction. But the negative relation of Byblos to the EB.MB of Palestine and Transjordan is illuminating in itself. There is no object at Byblos which can be clearly said to be imported from Palestine at this time, nor vice versa. This does not preclude an indirect relationship, which is equally important to the picture we are constructing.

Installation VI at Byblos, with an initial date c.2700 B.C., is a well planned town existing at a time of remarkable prosperity in Egypt which is reflected at Byblos itself. The stone buildings are neatly ordered, and the pottery typology is derived from that of the preceding period and relates to the general EBA horizon of the Levant. The architecture and ceramic are remarkably homogeneous for the whole period, and pottery shapes change little on present evidence. What evolution there is, is internal. This, and the very close connections with Egypt continue right up to the time of Pepi II.

Towards the end of this period⁹⁰ some houses of a new type with single rooms are built at Byblos and some new pottery types appear. But the real change comes after the total destruction of the town and temples by fire. Dunand dates this c.2150-2125 B.C. and associates the following period with a change so radical that it is only conceivable that there is a completely new order at Byblos. The old urban planning is completely lost, and the new type of pottery is fully entrenched.⁹¹ Dunand associates this conquest with an Amorite invasion, which is succeeded by a settling down period which he suggests is of short duration and is fully established c.2100 B.C. This Amorite invasion he associates with similar upheavals in the adjacent countries. It is presumably during this established "Amorite" period therefore that Ib-Dadi, the "ensi" of Byblos, is referred to in the texts.⁹² The two noteworthy points here are that the name is linguistically West Semitic, and that contacts between Byblos and Mesopotamia at this time reinforce the view that these newcomers have a north-eastern origin.

Whether one gives a short or a long chronology for the end of the reign

90. The date is somewhat disputed; c.2258 B.C. on the chronology followed here, but Hayes (Hayes, Rowton, and Stubbings, p.9) would put the end of Dynasty VI c.2177 B.C., and the excavator, M. Dunand, clearly prefers this lower date.

91. M. Dunand, "Byblos au Temps du Bronze Ancien et de la Conquête Amorite" in RB 59 (1952), pp. 82-90, pls. III - V for Installation VI, pl. VI for "The Amorite Conquest".

92. p. 11, n.33.

of Pepi II (c.2258 or c.2177 B.C.) the fall of Byblos is considerably later than a) events brought about by the end of the Early Dynastic III period in Mesopotamia c.2370 B.C., and b) the collapse of urban civilization in Palestine c.2350 B.C. (this date is based on the cessation of Egyptian imports in Palestine at the end of the Fifth Dynasty). This chronology indicates a much longer and more stable EBA period for the country within the hegemony of Byblos; and even if these outside influences were appearing at Byblos before the end of the period as the excavator contends, it suggests that though the invaders may bear some relationship to those in Palestine, in both time and geographical distance they need not necessarily be identical.

The pottery typology in general shows that they are not; the goblets and the cups by which they are characterized show that even though a common origin is quite possible, they have been subject to disparate influences and developments.

The innovating features which can be recognizably associated with those in Transjordan and Palestine are quite difficult to extract, given the form of publication.⁹³

Four-spouted lamps: Three examples have been illustrated in Byblos I, two of which have a flat base, while that of the third from a late level, is round; seven flat based examples are illustrated in Byblos II. They are attributed to Levels IV to XXXIII, but are concentrated in Levels XX to XXIV (cotes 24.20-23.20) which in the arbitrary stratigraphy of Byblos is mainly in the later part of Installation VI and the destruction period.

93. M. Dunand, Fouilles de Byblos I, II, Paris (1939, 1950, 1954).

This perhaps indicates that they appear considerably earlier than the destruction, but exact dating is impossible on present data. An indication of an early appearance however is the flat based four-spouted lamp attributed by Dunand to the EB II period.⁹⁴

Cups, in burnished fabric, of a type vaguely comparable to Iktanu Type 2 (Fig. 15.17) range between Levels XIX and XXVI, but the best parallels occur in Levels XXII⁹⁵ and Level XXVI,⁹⁶ a considerable number of which arbitrary levels pre-date the arbitrary level of the destruction.

It is only possible to say that some features resembling the EB.MB typology of Transjordan occur considerably earlier than either the period of the destruction, or the main phase of the logis monocellulaires, which themselves precede the deposition of objects such as the Montet Jar,⁹⁷ Jar 2132⁹⁸ and the deposits of the Champs des Offrandes. These deposits are now generally dated to the First Intermediate Period,⁹⁹ and their contents and date are very much in line with the objects and dates attributed by

94. RB 59 (1952) Dunand, pl.IV.

95. Byblos I, p. 321, Fig. 257.4404.

96. Byblos I, p. 345, Fig. 275.5149; pl. CLXVII. 5149.

97. Byblos et l'Egypte, pls. LX-LXXI.

98. Byblos I, pl. LXV.

99. Kenyon, Amorites and Canaanites p. 49; O. Tufnell, and W. A. Ward, "Relations between Byblos, Egypt and Mesopotamia at the end of the third millennium B.C. A Study of the Montet Jar", in Syria XLIII (1966) pp. 165-241.

Schaeffer to his "Porteurs de Torques".¹⁰⁰

At the earliest, a date c.2200 B.C. (using 2258 B.C. for the end of Pepi II, but c.2150 if 2177 B.C. is preferred) can therefore be given to these groups who at Ras Shamra and Qalaat er-Rouss, nearly 200 kilometres up the coast from Byblos, are associated with rough cist graves and, overwhelmingly, with metal objects; and who appear following the destruction of EB III towns. Very little pottery is associated with the metal deposits at Ras Shamra, with the notable exception of a band combed cup with loop handles, and a bowl. The band combing, a particular feature of EB.MB Palestine, but which on Transjordan evidence appears to be late, thus agrees with all the evidence so far for a date well into the Transjordanian EB.MB. The objects especially associated with these bronze or copper artifacts at Byblos show MBA characteristics developing, in particular the carinated metal bowls.¹⁰¹ Further evidence on the relative chronology of the "Porteurs de Torques" and the Jar Deposits at Byblos must be reserved for a brief discussion of the metal work in the next section.

Bearing in mind this sequence in north coastal Lebanon and Syria, we can briefly compare it with the evidence from the rest of Lebanon. Referred to in Section II were the cemeteries of EB.MB Palestinian type discovered in recent years in the foothills south of Beirut; found mainly in the Sidon region, they have however been located right across to the Wadi et-Teim (Rafid). None of this material is published, and it would be unethical to discuss it in detail here, but I am most grateful to the various excavators

100. Ugarit Moyen I, c.2100 - 1900 B.C. Strat. Comp. Fig. 56; Ugaritica II, Ch. II, pp. 49-120.

101. cf. Montet Jar, No. 605.

and owners for allowing me to see it.¹⁰² In contrast to the evidence from Byblos and Ras Shamra, we have here groups fully comparable to those of north Palestine.¹⁰³ The range is fairly extensive but the final assessment will have to await publication. G. E. Wright¹⁰⁴ has listed his preferences for the order of dating of the Megiddo EB.MB tombs, and many of the Lebanese features fall within his latest group, which he correlates with Tell Beit Mirsim H. This dating would fit the view expressed in Section II, that the Lebanese foothill cemeteries represent a relatively late and secondary move northwards from Palestine: that they are an offshoot of a well established group of EB.MB peoples in the Beth Shan - Megiddo - Hazorea area. Some of the Lebanese cemeteries may be earlier, but, given the lack of evidence from Byblos and Ras Shamra, it seems likely that they will also prove to be derived immediately from north Palestine. Apart from the possibility of a link with the north coast and the "Porteurs de Torques" in a metal trade, these units show no northern influences. The evidence would suggest that until c.2258 - 2177 B.C. Byblos exercised a reasonable control over the coastal routes and the adjacent Lebanese foothills and that the Palestinian groups did not move northwards until at about this time the power and prosperity of Byblos were interrupted, and her attention was afterwards taken up with

102. M. Roger Saidah, for the Sidon cemeteries; Mrs. N. Alameddine, for Khallet el-Khazen; and Prof. Hachmann of the German Expedition to Kamed el-Loz, for Rafid.

103. There are particularly close links with Tombs 877A and 41 at Megiddo.

104. G. E. Wright, ed. The Bible and the Ancient Near East
p. 87, Chart 4.

northern and north-eastern contacts; and the southern groups, having moved in at a relatively late stage of the Palestinian EB.MB period, remained established in a poor way, perhaps leading a nomadic or semi-nomadic existence in the foothills during the redevelopment of Byblos and only disappeared under the renewed prosperity of the Middle Bronze Age.

It is considered that a reflection of these events is visible in the Beqa' of Lebanon. During a survey in the summer of 1968, about thirty sites were visited throughout the whole length of the Beqa' and part of the Wadi et-Teim. The major purpose of this survey was to find EB.MB pottery if it existed in the Beqa', and attention was mainly focussed on the EBA and MBA sites listed by Copeland and Wescombe,¹⁰⁵ though a few new sites were discovered. The evidence obtained during this work was the same for the whole area.

The pottery of the Beqa' indicates a development separate to some extent from that of Syria, coastal Lebanon and Palestine. Hand-made pottery of a type comparable particularly to that of Hama K (i.e. pre-2400 B.C. on the excavators' dates) and to that of the Levantine EBA generally is readily discernable throughout the Beqa'¹⁰⁶ and appears to relate more closely to the Syrian ceramic than to that of Palestine.

Mrs. Wescombe and Miss Tufnell found a single ledge handle of

105. Copeland and Wescombe, Parts 1 and 2.

106. see Fig. 51: 1, cf. Hama K6-5, 3, J7; 2, cf. Hama J8; 3, cf. Hama K6, J8; 4, cf. Hama K10, K2, J8; 5, cf. Hama J7, J4; 6, cf. Hama K7, J8. For further material of similar type see Copeland and Wescombe, Parts 1 and 2.

Palestinian type at Tell Ahlé in the Beqa'¹⁰⁷ of "plain rounded form but the widest part is slightly turned up and pressed in", and we found another at Tell Ahlé, a flat plain ledge which may belong to the early Arab period when the site was also occupied. Another, straight ended, rather than sloping, was found at Tell Maqné and attributed to a similar late date. But these three examples, regardless of their date, are the sole examples known from the Beqa', and the Palestinian ledge handle is certainly not a typical form there.

Many wheel-made types of pottery paralleling those of Hama H (excavators' dates post-1900 B.C.) were also found.¹⁰⁸

But the pottery typical of Hama J is on the whole missing. Perhaps the most typical vessels of Hama Levels J8 to J1¹⁰⁹ are the horizontally painted cups, jugs and jars. Vessels so decorated occur in equal profusion, at, for example the large site of Qatiné on the Lake of Homs. Yet only fifty kilometres south of Qatiné, in the Beqa' of Lebanon, not a single sherd of this ware has been noted. This suggests either a political border

107. Copeland and Wescombe, Part II, p. 54.

108. See Fig. 52:1-17; 2, cf. Hama H5; 8, cf. Hama H; 9, cf. MBA tomb at Amman in PEFA VI, Fig. 8.75; 10, cf. Hama H; 11, cf. Hama H5; 13, 14 and 15, cf. Hama H; 17, cf. Hama H and MBA tomb at Amman, PEFA VI, Fig. 9.100.

109. Excavators' dates c. 2400-1900 B.C. (Hama, p. 85) and C14 dating of Hama J6 = 2310 $\pm$ 140; J5 = 2230 $\pm$ 120; J3 = 2210 $\pm$ 120 B.C., Hama pp. 281-2, and Radiocarbon Supplement, Vol, 2, p. 23.

on the lines of the modern Syrian-Lebanese frontier, or a gap in the occupation of the Beqa'; excavation would be necessary to clarify this point.

If the EBA of the Beqa' was prolonged by defending itself against the troubles affecting the adjacent countries this would explain the political frontiers. The EBA sites of the Beqa' are large and numerous, the territory is relatively small and presumably therefore the inhabitants were sufficiently powerful for their own defence. If this was the case one would assume some influences penetrating during the considerable time involved, and any traces of such influence were also carefully sought. Apart from the comparisons given for Fig. 51.1-6 (footnote 106) the nearest parallels are given in Fig. 51.7-21, and fig. 52.16. Fig. 51.7 may be a four-spouted lamp fragment, but there is hardly enough to be certain. This piece and Fig. 52.16, and another body fragment from Tell Serhan are made of a dark grey-black ware, with lighter tinges of brown to red. It is handmade, and almost metallic. Its nearest parallel is to the fabric of the Megiddo painted tea-pots, but those vessels are wheel-made. The four-spout lamp is found in Hama Levels J8-4, usually with a low disc or flattish base. Fig. 52.16 was included in the MBA sherds because of its very fine even combing, but is definitely hand-made. The bowl (Fig. 51.11) recalls the Transjordan Type 7; its disc base and poor wheel manufacture suggest however a date closer to the MBA. Fig. 51.8 was included as it recalled Iktanu Fig. 16.1, a miniature bowl, but the parallel is not very close. The same applies to Fig. 51.13 (cf. Fig. 17.7).

The sherds with body combing illustrated are all of rough pattern combing or diagonal combing; pattern combing was well entrenched in the Beqa' in the EBA and it is difficult to say whether these are just variations

of the EBA type, or relate to the later EB.MB tradition. As the north Palestine - south Lebanon EB.MB pottery does not appear to have body combing it rather supports the view that all these fragments are in the full EBA tradition, though the plain diagonal combing such as Fig. 51.21 is not uncommon, and here is allied to a strap handle, a form especially typical of the EB.MB. Fig. 51.18 is wheel-made; Fig. 51.17 is not quite of Transjordan EB.MB form; Fig. 51.19 is quite similar to hand-made EB.MB moulding; Fig. 51.20, with a painting technique similar to that of el-Husn,¹¹⁰ being wheel-made should perhaps be attributed to the MBA.

The case for an EB.MB influence in the Beqa' is not very strong but a mere influence would emerge much more clearly in excavation than surface survey. There are a few elements of the Beqa' assemblage which can be paralleled in Hama J, and suggest that there is no break in the occupation. It seems that the tomb at Rafid is the only clear evidence of contact with the EB.MB so far, and though it may be chance that this sole witness in a considerable area is on the southern part of the direct route to Palestine, it does rather suggest that the Beqa' was not deserted and these probably nomadic groups were restricted to the fringes of the fertile and agricultural central Beqa'.

In the north Beqa', in the vicinity of Hermel¹¹¹ and in the plain of Akkar¹¹² some work has been done on a variety of dolmens, tumuli and other

110. PEFA VI Fig. 1.2, etc.

111. M. Tallon, "Tumulus et Mégalithes du Hermel et de la Beqa' nord" in MUSJ XXXVI; and see also Tallon "Monuments mégalithiques de Syrie et du Liban" in MUSJ XXXV.

112. M. Tallon, "Les monuments mégalithiques de Mengez" in BMBeyr. XVII (1964) pp. 7-19, pls. I-VII.

megalithic remains. The finds from the Hermel region, as so often for remains of this nature, have had dates ranging through Arab, Byzantine, Roman, Iron Age, Middle Bronze Age and the Neolithic periods. At the Mengez sites in the plain of Akkar, where nearly 50 tombs or monuments were looked at, all of them previously looted, a considerable number of finds were made, including a Canaanite flint (from MSE 2). From the total thirty kilogrammes of sherds recovered from all the tombs, several main periods of Bronze Age occupation or use were deduced, one of which the excavator attributed to the MBA, and one vessel in particular (a cup from QM 1) he compared to an EB.MB type; but with its bands of blue paint below the rim, it would seem to belong to a date at least approaching the MBA. Some of this pottery can be vaguely fitted to a late stage of the period with which we are concerned, but it has no direct parallels as yet. Data on the wares is also lacking in the publication. The graves, which were mainly of a large cist type, perhaps should be attributed to a derived stage of the "Porteurs de Torques" group (?).

From the central Beqa' comes further evidence of possible nomadic traces at the site of Tell el-Ghassil approximately eighteen kilometres south of Baalbeck.¹¹³ At the base of a deep trench there were Chalcolithic

113. BMBeyr. XVI p.87 ff. Prof. Baramki most kindly gave me access to his collections in the Museum of the American University in Beirut. In the photograph of the jars from this level, the pottery seems very similar to that of Palestine; but all the pieces seen in the Museum are of the Hama H type. Other MBA evidence from the central Beqa', which links cist burials with the MBA, came from the brief excavations at Tell Hizzine (BMBeyr IX, p. 109). The graves contained pottery comparable to that of the MBA pottery from Kafr Djarra on the coast, and the site

sherds and above them evidence of buildings dating to the EBA. This was followed by a period without any architecture, but with a number of crude stone fireplaces. The pottery associated with these includes jars with band combing, which seems to parallel that of Hama H, being in all cases wheel-made. This further indication that in Syria and Lebanon band combing is associated with the wheel-made pottery of the MBA (or with the "Porteurs de Torques" at Ras Shamra) gives cause for thought about the relative chronologies of Syria and Palestine in the EB.MB and MBA. There is no clear evidence to show which area has priority, but band combing is a decorative motif ideally produced on wheel-made pottery. The present gap in the distribution of band combing between the south Palestine-Transjordan sites and the North Syrian coastal sites, the Beqa' and at Hama perhaps infers an independent creation in each area, though it seems a little unlikely.

ii) Syria

In looking for the source of earliest EB.MB innovations in Transjordan it is thus necessary to seek them in inland Syria, and here the important area of south Syria is still virtually unknown. Only one site, that of Khirbet el-Umbachi (and possibly Hebariye) has been excavated. As all pottery from the excavations in 1933 appears to be lost, our only evidence for the ceramic is in poor photographs.¹¹⁴ The identifiable EB.MB pottery includes four fragments of finger moulded bands, one sherd with raised bands with incision (MBA?), two sherds with rows of oblique parallel incisions, five

produced a statue fragment inscribed with the name of Sebekh-hotep IV (c.1700 B.C.).

114. AAS 4-5, pp. 59-76, pl.VII. 1-2.

body combed sherds (one pattern combed?) and three fragments of envelope ledge handles of well developed and over-lapping types. Others may be dated to this period, but there is certainly EBA pottery and possibly MBA pottery on the site as well. It is unfortunate that there is no means of isolating any of the extraordinary features of this site to any one period. It must suffice to say that in an area geographically comparable to the Negeb and Sinai; and perhaps also associated with round and rectangular pen-like stone buildings, as well as enormous quantities of animal remains, there are EB.MB sherds well to the north-east of any other known occurrence and only 90 kilometres from Damascus.

At Dera'a a series of cists, tumuli and various megalithic remains with mixed contents have been excavated, but only the major finds have been published.¹¹⁵ These appear to belong principally to the Middle and Late Bronze Ages. These megalithic remains lie in an area west of Dera'a station. Albright¹¹⁶ visited the splendid tell at Dera'a, where he claims to have found remains of all ages from the EBA to the present; but as this visit took place many years ago, this general statement may not include a clear recognition of EB.MB type pottery. He also speaks of the vast dolmen fields of south Syria¹¹⁷ covering thousands of acres between Banias and Quneitra.

115. J. Nasrallah, "Tumulus de l'Age du Bronze dans le Hauran" in Syria XXVII (1950) pp. 314-331.

116. BASOR 19, p. 16.

117. BASOR 19, p. 14.

The reason for the interest in the ruins of the Dera'a region lies in the jars illustrated on Fig. 53.1 and Fig. 54.2. The latter is a completely typical EB.MB jar with large envelope ledge handles: it is not of the very late type, and it extends the Syrian distribution of hand-made wares. The jar on Fig. 53.1, from the same area, has some different features. First, it shows many of the normal traits of EB.MB jars in Transjordan - a flared neck, globular body and flat base; it has completely typical body combing (cf. Beitrawi, Fig. 35.1). The painting is closely paralleled at el-Husn¹¹⁸, which suggests that the parallels for the el-Husn painted wares are to be looked for in south Syria. Second, it has atypical features, including a slight ridge at the base of the neck; loop handles on the body (though the strap section is very typical of EB.MB in the south); but most unusually, it appears to be coil-built, and traces still show in the walls. This technique is not obviously used in Transjordan and Palestine, and suggests that there may be a variant technique lying geographically between the hand-made wares of Transjordan-Palestine, and the wheel-made wares which occur to the north. The direct parallel for this jar is that from Tiberias¹¹⁹ which repeats every feature (including the coil building) except for the ridge on the neck.

Continuing this type of ware northwards, and filling a nicely intermediate position between Hama and the EB.MB of the south, are two jugs "from the region of Homs" (on Fig. 53.2-3). These jugs relate to the south in the following features: a) the slight strap handle on Fig. 53.2; b) the painted decoration,

118. PEFA VI, Fig. 1.8, which also has a second horizontal band of paint on the lower body, see pl. 1.8.

119. V. Tzaferis, IEJ 18 (1968) Fig. 5.11.

which is more like that of el-Husn than that of Hama, where comparable jugs first appear in Level J7, but with more elaborate and wheel-applied decoration; c) the pinched mouths, although these are in fact more "trefoil" than pinched, cf. the pinched mouth jugs of el-Husn and north Palestine; d) the fact that they are either poorly wheel-made, or possibly coil-built like Fig. 53.1.

The jugs mark what in fact seems to be an important boundary. In Hama Level J and all the northern sites about to be discussed, the pottery is a more sophisticated, finer, thinner fabric, almost invariably wheel-made, and derived from a tradition at least as old as the mid-third millennium and very widespread in north Syria. This hypothetical boundary compares closely with that suggested on geographical grounds in Section II.

The site of Hama, already referred to frequently as the most southern of the major sites of Syria so far excavated, should exhibit many of the innovating features of EB.MB Transjordan if the origin of the earliest arrivals in EB.MB Transjordan are to be sought in inland Syria. The answers to this search are somewhat contradictory, and the present writer is inclined to the view that this large town site on the main route from the north was to a large extent by-passed by the peoples migrating south; and for the following reasons.

The urban development of Hama J from sometime in the 24th century B.C. parallels that of other north Syrian towns, such as Tell Mardikh in Period 2.¹²⁰ The foundation of Hama J and Mardikh 2 are both dated c.2400/2300 -

120. Matthiae et al., Missione Archeologica Italiana in Siria; Rapporto preliminare della campagna 1964; -1965 (Tell Mardikh); - 1966 (Tell Mardikh), and P. Matthiae, Archaeology 24 (1971) Tell Mardikh Excav. 1967-8, pp. 55-61.

2000/1900 B.C., and can be regarded as part of a prosperous period in the Early Dynastic tradition which is established probably after the campaigns of the Akkadian kings. There is some evidence to identify Tell Mardikh with the town of Ebla captured by the Akkadians.¹²¹ There is violent destruction at the end of Period 2 at Mardikh; and at the end of Hama Level J5, after which there are four less prosperous levels.

The pottery of this period at Hama is characterized by numerous forms generally familiar, but made in the sophisticated urban pottery technique. As in the south, some of the main types are storage jars with wide flat base, straight neck and everted rim; four-spouted lamps, in use in Levels J8-J4; and in particular cups and goblets, which are the main form of the period. However, the main change from Hama K to Hama J is from the urban Levantine EBA tradition to that of north Syria - Khabur - Euphrates Early Dynastic tradition. Not all the local forms disappear, witness in particular the pattern combed jar in Hama J4¹²² and compare it to the evidence from the Beqa'.

This change appears to be comparable to that which is indicated at Byblos, in a related form. The logis monocellulaires level, with its cups and goblets and four-spouted lamps, traces of which appear before the destruction dated post-Pepi II, must be put not later than c.2300 B.C. regardless of the date of the end of the Sixth Dynasty. These two events, happening in coastal and inland Syria, but probably not in the Beqa', are two branches of a basically urban tradition re-establishing itself in the south, consequent on the break-up of the ED III world and the campaigns of Sargon, Naram-Sin

121. Matthiae, *Archaeology* 24 (1971) pp. 55-61.

122. Hama Fig. 85.3 E 969.

and possibly Lugalzagesi, in western lands. Its full establishment at Byblos happens later than in inland Syria both because the distance involved is greater, and because Byblos until the death of Pepi II was secure and prosperous in its relations with Egypt.

It is I think to the late Early Dynastic groups in north Syria, who are so far best known by their cemeteries, that we must look for the nearest parallels to the new features in the early Transjordan EB.MB period: to the Hypogeum at Til Barsip (which contains a homogeneous group, not to be divided into early and late uses of the tomb) and the smaller cist graves of Hammam and Amarna, which themselves are part of a widespread tradition going back to at least ED II.

Parallels of chronology and typology are closer with these groups in many respects than with the nearer southern urban societies. Migration from the north and north-east across the Syrian steppe, rather than transmission through urban societies and presumably urban states of central and north Syria seems to be indicated; and the site at Umbachi seems to confirm it at least geographically. The alternative is to see these people as the destroyers of the early towns of central Syria, e.g. of Hama K, who passed on leaving destruction in their wake, to similar activities in the south.

Chronologically it is the most satisfying sequence for the events in Transjordan and Palestine also. The Til Barsip group is firmly in ED III style, Hammam and Amarna mainly in ED II - III, though probably some later elements are included in these tomb groups acquired by purchase. A break-up of north Syrian civilization at the end of ED III c. 2370 B.C. and later gives a reasonable time lag for events which appear to start taking place in Palestine and Transjordan from c.2350 B.C. onward. Other events, including

the arrival of the "Porteurs de Torques" are demonstrably too late to partake in the initial phase. This initial phase however is not seen as a single event, but it does, in a historical sense, probably take place quite quickly, within fifty to seventy years of the downfall of the Sumerian states in Mesopotamia.

It is possible, I think, to demonstrate this in the pottery.

The character and date of the north Syrian pottery is quite well established. Taking the sequence at Mari as a dateable starting point in a strong Sumerian tradition, the "pre-Sargonic" levels include fine black ware¹²³ with plain flared goblets¹²⁴ and small jars with rilled rims;¹²⁵ spouted vessels,¹²⁶ including a tea-pot with a rilled rim.¹²⁷ There are also domestic ware jars with flat bases¹²⁸ though bases are generally ring or round. In the Early Dynastic levels, there are painted jars,¹²⁹ more small jars with rilled rims and a fragments of a tripod vessel with hollow feet.¹³⁰

These vessels are very closely paralleled to the north at Harran (also on the Euphrates) in the Phase ii (ED II - III level) and Phase iii

123. Mari I, Fig. 101;

124. Ibid., Fig. 101.378.

125. Ibid., Fig. 101.379.

126. Ibid., Fig. 103.

127. Ibid., Fig. 103.697.

128. Ibid., Fig. 106.861.

129. Ibid., Fig. 107.1549.

130. Ibid., Fig. 107 top middle.

(late ED to Sargonid level). Here the plain rounded goblet in "simple ware"¹³¹ dates from the very earliest Phase ii levels, and the "stoneware" goblet,¹³² which compares very closely to the black wares at Mari is also early. The popularity of this form is shown in its very wide distribution throughout the upper Khabur, the upper Balikh and the central Euphrates,¹³³ as well as in the duration of the plain cup - goblet tradition in this area.

The holemouth jar with rilled rim is also paralleled in a "stoneware" fragment.¹³⁴ The painted ware jars from Mari are the same as the "eggshell" or "early Khabur" types from Harran,¹³⁵ which, as at Mari, had an ED II - III date. The hollow foot fragment from a tripod vessel at Mari is also paralleled at Harran¹³⁶ where its context, and its parallels at Hammam,¹³⁷ Kara Kuzak¹³⁸ and Amarna¹³⁹ all indicate an ED II - III date as likely.

These two large and important sites show close-knit styles of urban communities over a very wide area of Syria in ED II - III. The same pottery is found with very little variation in the cemeteries. At Til Barsip,

131. Harran, Fig. 7.14.

132. Ibid., Fig. 7.37.

133. pp. 78-79 for distribution list, in Harran.

134. Ibid., Fig. 7.31.

135. Ibid., Fig. 8.43-45, p. 79.

136. Fig. 8.46 and pp. 85-6.

137. Hammam, pl. XXII.10-13;

138. Ibid., pl. XXV.b.

139. British Museum 1922.5.11.497.

particularly in the Hypogeum, identical pottery is found.¹⁴⁰ Both the small fat goblet¹⁴¹ and the straight flared type of goblet¹⁴² are found; small jars with rilled rims¹⁴³ similar to those from Mari; and holemouth tea-pots with rilled rims¹⁴⁴ though with basket handle. Jars usually have ring or round bases; the painted jars (of "early Khabur" type) are also found¹⁴⁵ as are numerous examples of the tripod vessels with hollow feet.

These characteristics are also found in the Hammam and Amarna tomb groups, the former having cylinder seals of ED II - III type with them.¹⁴⁶ Goblets,¹⁴⁷ small jars with rilled rims,¹⁴⁸ spouted tea-pot type jars,¹⁴⁹ painted "early Khabur" ware jars,¹⁵⁰ and tripod vessels with hollow feet¹⁵¹ are all associated.

It is obvious that these characteristic pottery forms are not identical

140. Also found in the smaller cist graves but the range and quality is

less as befits a poorer tomb; Til Barsip Tombs 1-4, pl.XXXIII.

141. Ibid., pl. XX.7.

142. Ibid., pl. XX.4 and Fig. 30.

143. Ibid., Fig. 32 centre right.

144. Ibid., Fig. 30 and pl. XXVI.9 and 10.

145. Ibid., Fig. 29, bottom centre.

146. Hammam, pl. XX-XXIV.

147. Ibid., pl. XXII.6.

148. Ibid., pl. XXIII.12.

149. Ibid., pl. XXII.4.

150. Ibid., pl. XXII.1-2.

151. Ibid., pl. XXII.10-13.

with the Hama J range (c.2400/2300 - 1900 B.C.), but there are points in common. Rilled rims and tripod vessels with hollow feet do not occur; but the plain goblet type is characteristic of the earlier levels (J8-J5) and did not occur in Level K; the imported Megiddo goblets are best paralleled in the type that appears in Levels J5 - J4. The vertical lug, which occurs in J7-J6 is paralleled at Til Barsip¹⁵² and at Hammam.¹⁵³ There are crude chalices and tripod vessels with solid feet which appear in Level J8 (there was a tripod vessel with solid feet in Level K5) which may be derived from the ED types. The wide pinch mouth jar of Til Barsip does not occur in early Hama J, but only a sophisticated "trefoil" type. A further characteristic which must be derived from the north at a contemporary period (e.g. the Sargonid period) is the painted decoration in combed reserve slip technique, which appears in J7, and in a developed stage in J6, which may be related to the "combed wash ware" at Harran,¹⁵⁴ from the Khabur sites and at Tell Chuera,¹⁵⁵ where it probably does not date from earlier than a late stage of ED III and mainly Sargonid.¹⁵⁶ It may also relate to the "smeared wash wares" of the Amuq I - J Phases.¹⁵⁷ The flat bases and most of the bowl

152. Til Barsip, Fig. 31, bottom left.

153. Hammam pl. XXII.9.

154. Harran pp. 83-85, and Fig. 8.47-53.

155. Ibid., pp. 83-85.

156. Hama in particular cf. Level J6 3G39 No. 4 and Harran Fig. 8.48; and Hama J7.3K320 No. 35/H10 cf. Harran Fig. 8.47.

157. Braidwood, Excavations in the Plain of Antioch I, esp. Fig. 345. 6 and pl. 89.5-7.

types in Hama J recall the EBA of the Levant and are more native to the south.

Thus at Hama in the beginning of Level J there appears to be a mixture of three traditions: one that is derived closely from north Syrian ED III; one from a more contemporary north Syrian late ED III - Sargonid tradition of combed painted wares; and a third that is native to the area. All three are found in urban traditions; and the development of J7 - J1 appears to be the result of stimulus from all three. Four-spouted lamps, appearing at the very beginning in Hama J8, may be the result of this fusion and they appear under similar conditions at Byblos; but there is no proof that they were not developed in Palestine, where they are also found very early. The low disc and flat bases on lamps in the Hama repertoire suggest however that it was at home with the wheel made fabrics there. One other interesting point is that they do not definitely appear in Phase 1 at Iktanu, nor in Level VIB at Arair, nor at Ader; but early types resembling the pinched rim bowls of EB III Jericho are said to occur at Bab ed-Dra'. The lamps may therefore be associated with the urban tradition, and be a borrowing from or a development of the Syrian and Palestinian towns, only reaching the groups influenced by semi-nomadic incomers at a later stage.

A pottery group not mentioned so far is that from the shaft tomb IV at Qatna.¹⁵⁸ Geographically between Hama and Homs, it should be expected to show features relating more to the EB.MB of Palestine and Transjordan than do those of Hama, if the hypothetical border south of Homs is correctly assumed. However, the group is an odd one. It may be that the estimated high number of burials (between forty and eighty) were deposited over a fairly long period (the careful observations of the excavator suggest they

158. Qatna Tomb IV, pl. XLV-XLVIII.

were not deposited simultaneously, and that earlier burials were pushed to the side to accommodate later ones), and that this disguises some variation in pottery date. However, the pottery has little in common with that of Hama J apart from being wheel-made. Its parallels do seem to lie with the south, but are not very strong. The closest parallel is Tomb 41 at Megiddo, the square shaft and three irregular chambers of which also parallel the square shaft and three niches of Qatna Tomb IV. There are no parallels for the single loop handle of Qatna¹⁵⁹ but the spouted vessel¹⁶⁰ relates to the "Syrian painted style" ware jar at Megiddo.¹⁶¹ The non-handled Type A jar at Qatna¹⁶² is roughly paralleled at Megiddo.¹⁶³ The plain tea-pot in Megiddo Tomb 41¹⁶⁴ is well paralleled by Qatna Type D,¹⁶⁵ and the small very plain cup in Megiddo Tomb 41¹⁶⁶ is also found in Tomb IV at Qatna.¹⁶⁷ But the Palestinian features of Megiddo Tomb 41 are not paralleled.

G. E. Wright suggests that Tomb 41 at Megiddo is the latest in the Megiddo series.¹⁶⁸ The faint wheel rilling on the Qatna pottery suggests an almost degenerate form of the Hama J combed paint. Some of the jars from

159. Ibid., pl. XLV.70, Type B and very common.

160. Ibid., pl. XLV.68.

161. MT Tomb 41.5.

162. Qatna, pl. XLV.64.

163. MT Tomb 41.6.

164. Ibid., Tomb 41.4.

165. Qatna Type D, pl. XLVI.53 etc.

166. MT Tomb 41.2.

167. Qatna Tomb IV, pl. XLVII.273.

168. G. E. Wright, The Bible and the Ancient Near East, p. 87, Chart 4.

Tomb IV¹⁶⁹ bear a resemblance to those of Hama H in shape, and perhaps incision.¹⁷⁰ On the other hand, the shape of the flared beaker from Qatna¹⁷¹ is very similar to that of the "stoneware" ED III type at Harran;¹⁷² but its small lug is very Palestinian in type,¹⁷³ and on the whole the cup compares reasonably well with those in Lachish Group 1529;¹⁷⁴ which had numerous MBA sherds associated with it.

The beakers found at Qatna¹⁷⁵ are also comparable to the one from Stratum XIV at Megiddo,¹⁷⁶ which was found with a plain rimmed bowl with a plain ledge handle¹⁷⁷ and a flat based lamp,¹⁷⁸ all features which are paralleled in Phase 2 at Iktanu, and compare with the plain bowl from Qatna.¹⁷⁹

There are therefore fairly good reasons for attributing the group to a late stage in the Palestinian sequence, as well as connecting it fairly closely to the Palestinian region and perhaps to the unknown south Syrian pottery. This view is confirmed in the metal work to which we shall turn

169. Qatna Tomb IV, pl. XLVIII. bottom left and top right.

170. Hama, Level H5, Fig. 110 Nos. 3F336 (6) and 3D581 (12).

171. Qatna Tomb IV, pl. XLVII. 91.

172. Harran Fig. 7.37.

173. Megiddo II, Fig. 9.12 Locus NE 5162, St. XV; and Fig. 15.14, Locus N=T.5130, St. XIV.

174. Lachish IV, pl. 66, Nos. 403, 409, 416.

175. Qatna, pl. XLVII.167 bis and 40 bis.

176. Megiddo II, Fig. 15.8, locus N 13, SWcorner.

177. Ibid., Fig. 15.17.

178. Ibid., Fig. 15.22.

179. Qatna Tomb IV, pl. XLVII. 167 bis.

shortly; and generally Qatna Tomb IV should be disregarded as an innovating source for the early EB.MB of Transjordan, though it may well be part of a later influence seen particularly in Palestine.

Other French excavations in the Hama region can also be satisfactorily related to various stages of the Hama sequence and to the Qatna Tomb IV group.¹⁸⁰

Briefly, and dealing with the settlement sites first, they appear to date to the following periods.

Tell Masin,¹⁸¹ approximately twenty km. north of Hama, has pottery paralleling that of Hama J, probably contemporary with the whole sequence at the latter site, which includes trefoil mouth jugs and the early painted goblets of simple shape. The town at Masin at this period appears to have suffered two or three destructions (cf. the destruction of Hama J5), and was followed by a town with typical Hama H pottery.

Khan Sheikhoun¹⁸² is 40 km. north of Hama and the pottery appears to be comparable with that of Hama J5 to Hama H, rather than with any earlier Level J material. There are developed-type painted goblets of Hama J5-J8, and typical Hama H wavy combing on deep-lipped bowls.

The third settlement is that of Qadesh or Tell Nebi Mend¹⁸³ on the

180. For a map of the location of most of these sites, see Hama, Fig. 1.

181. Comte du Mesnil du Buisson, in Berytus II, p. 121 ff.

182. du Mesnil du Buisson, Syria XIII, (1932), pp. 171-185, and pottery on pl. XXXVI.

183. M. Pézard, Qadesh; and Syria III, p. 89 ff. "Mission archéologique à Tell Nebi Mend (1921)", which does not include the lowest level.

southern shores of the Lake of Homs, where three early levels called "Syro-Hittite". "Syro-Phoenician" and "Amorite" (the lowest) were discerned.

The first is principally Iron Age, the second Middle to Late Bronze Age and the lowest appears to be quite closely related to Hama H, with incised wares¹⁸⁴ which include most of the decorative motifs of band combing in Palestine and Transjordan in the EB.MB, but on wheel-made wares. The jugs illustrated from the lowest "Amorite" levels at Qadesh¹⁸⁵ have close parallels in the MBA in Palestine.¹⁸⁶

The cemeteries of shaft graves from the Hama area have pottery of a similar date. The earliest (of early Hama J date) are probably those of Dnebi Tomb 3 and Selimiye el-Khodr Tomb A, followed by Dnebi Tomb 1. Ada and Osmaniye Tomb 1 also appear to belong in this general group.¹⁸⁷ In a later category belong the group of tombs from Tell 'As,¹⁸⁸ a site $4\frac{1}{2}$ km. west of Khan Sheikhoun. The pottery seems to be of late Hama J to early Hama H style, and Tomb 1 in particular is possibly slightly earlier than Qatna Tomb IV. The other tomb groups from Tell 'As do seem to compare fairly well with the Qatna group.

184. M. Pézard, Qadesh, pl. XXXV. Figs. 2-4.

185. Ibid., pl. XLI.

186. Jericho I, p. 377, Fig. 150.1 and Jericho II, Fig. 167.2, p. 342.

187. du Mesnil du Buisson, "Compte Rendu de la Quatrième Campagne de Fouilles à Mishrifé - Qatna" in Syria XI, (1930) pp. 146-163, p. 161 and comparative chart in particular.

188. du Mesnil du Buisson, Syria XIII (1932), p. 185 ff.

The pottery from the Hama region therefore seems to indicate no stronger contacts with the south than have already been noted in the Hama sequence, and simply enlarge our knowledge of central Syria in the late third, early second millennia. The tomb types however will be referred to in Section VI.

E) Sources for the innovating features in the EB.MB pottery of Transjordan

Apart from the lamps, a questionable case, the majority of the innovating features of the early EB.MB of Transjordan do not seem to be derived directly from the Hama region, and in any case some of the sources for the Hama sequence appear to be post ED III. But in direct comparison there are many points to note between the Til Barsip - Hammam - Amarna groups, located right across the whole northern reach of the Fertile Crescent, and the innovating features of the Transjordan EB.MB. (p.205).

Cups. For Type 1 at Iktanu (Fig. 16.2-6) there are general parallels with the cups of Byblos and Hama J; but others with plain rims are found at Amarna,¹⁸⁹ and with tapered rim at Hammam,¹⁹⁰ Tell Jidle¹⁹¹ and Til Barsip.¹⁹² Parallels for Type 2 at Byblos and the references to EB III parallels listed by Hennessy¹⁹³ have already been referred to, the closest parallel being the example from Ur.

189. Fig. 54.4.

190. Fig. 54.5.

191. Mallowan, Iraq 8, Fig. 9.11, Level 5, attributed by him to the Sargonid period.

192. Til Barsip Fig. 29. middle, Fig. 30 lower right, and pls. XX. 3-12, XXI. 1 - 5.

193. Hennessy, pl. LVIII, esp. No. 5.

Medium Bowls. Iktanu Phase 1, Types 1 and 5, were both regarded as innovations at the beginning of the period.

The Type 1 bowl, with the inverted rim and exterior grooves is quite well paralleled in the ED II-III Tombs 1-3 group from Hammam¹⁹⁴ and its penetration into Transjordan is perhaps traceable in detail from the early (?) site at Tell Abu Hayet in the north Jordan Valley where a non-red slip example (Fig. 50.25) most closely resembles Fig. 54.6 from Hammam. Slightly further south at Tell Umm Hamad Gharbi (Fig. 46.9) an example which could be a little later occurs, though it is unusual for the site in having a dark pink-red slip. This perhaps connects it with the normal southern Type 1 bowls at Iktanu and elsewhere throughout the south (Fig. 17.2). The smoother kinds, such as those from the plateau sites in the north, at Tell er-Reheil (long occupation?; Fig. 36.5) and at Mu'amariyeh (a late site?; Fig. 37.20) may be a later variant altogether in Transjordan, which only penetrated slowly into the hinterland away from the river valleys.

The Type 5 bowl, (Fig. 17.19) is rather well paralleled from the Amarna pottery (Fig. 54.7), and generally in the Hypogeum at Til Barsip.¹⁹⁵

Holemouth Jars Type 4 with grooved rims (Fig. 18.11 and 19.2) can be paralleled at the Til Barsip Hypogeum¹⁹⁶ and at Mari.¹⁹⁷

In general the grooved or rilled rim in north Syria appears at this

194. Fig. 54.6 and cf. Fig. 17.2.

195. Til Barsip, Fig. 30 centre bottom.

196. Ibid., pl. XXVI. 9 - 10.

197. Mari I, pre-Sargonic level, Fig. 103.697, which also has a plain flat base.

date to be the nearest parallel for that on a number of vessels in Trans-jordan. Apart from the Medium Bowls Type 1, and the Holemouth Jars Type 4, there are a number of sites with grooved jar rims. They occur at Tell Umm Hamad Gharbi,¹⁹⁸ the East Ghor,¹⁹⁹ Meshra al-Abyad²⁰⁰ and Tell er-Reheil.²⁰¹ These rims are found particularly on the type of jars and bottles illustrated on Fig. 54.8 and Fig. 54.10 from Amarna. They are common at Mari²⁰² and at Tell Jidle,²⁰³ and at other sites including the Til Barsip Hypogeum.²⁰⁴

The rilled rim at Til Barsip is also associated with a pinched mouth jug,²⁰⁵ which is similar to those in the el-Husn - Megiddo assemblage but which there lack the rilled rim. Neither the rilling, nor the wide pinched mouth jug type is found in Hama Level J, where the sophisticated "trefoil" mouthed jug is in use.

The ordinary jar type of Transjordan, with the narrow neck and everted rim is also generally paralleled at Til Barsip, Amarna²⁰⁶ and elsewhere; as is the jar type with short wide neck common in north Transjordan.²⁰⁷

198. Fig. 48.9 - 10.

199. Fig. 43.15.

200. Fig. 42.14.

201. Fig. 34.21 - 22.

202. Mari I, pre-Sargonic level, Fig. 103.379; Early Dynastic level Fig. 107, top middle.

203. Iraq 8, Fig. 12.16 Level 5.

204. Til Barsip, Fig. 30 centre left.

205. Ibid., Fig. 32 bottom left and right.

206. Fig. 54.9.

207. Til Barsip, Fig. 29 bottom.

Small Jars (Fig. 19.3 and 10) which could only be paralleled at a much earlier date in the EBA sequence, have a rough parallel at Til Barsip.²⁰⁸

Bottlenecked jars with a pair of loop handles²⁰⁹ have a rather remote parallel at Til Barsip.²¹⁰

While the entire repertoire is not transported to the south, a sufficient number of the innovating features noted in Transjordan are accounted for in these parallels to suggest that people of this north Syrian area are the newcomers with strong native traditions who arrive, mingle with and probably intermarry with the EBA population in south Syria and Transjordan to create an early phase of the EB.MB.

The four-spouted lamps, which do not exist in the north Syrian tradition, provide further support for this view in their absence from Phase 1 at Iktanu and Ara'ir Level VIB, in that the earliest influences are not those of Hama Level J.

However, many later features remain unaccounted for, such as band combing. Here it is more difficult to arrive at a firm answer. Although band combing is a relatively late and feeble feature in Transjordan, it becomes very popular in Palestine where there is no clear stratified sequence, but where it is also very rare in the north. As the re-assessment of the Palestinian typology is not the main purpose of this study, the problems of inter-relating the pottery of the sites of central and south Palestine will not be further discussed. However, in this survey we have noted band combing at various dates

208. Til Barsip, Fig. 31, lower left, and pl. XXVI. 4.

209. el-Husn, PEFA VI, Fig. 1.8.

210. Til Barsip, Fig. 32 top left.

in Syria: at Ras Shamra arriving with the "Porteurs de Torques" c. 2100 B.C.; in the Beqa' of Lebanon, and at Hama in an MBA context, dated c.1900 B.C. but perhaps this is too late and c.2000 B.C. would be a more reasonable date.²¹¹ In Egypt "scrabbled wares"²¹² appear in the Sixth - Eighth Dynasties, but are popular in the Ninth Dynasty. In the Seventh - Eighth Dynasties standing jugs with spouts, dummy spouts and "scrabbles" begin, but otherwise the ware develops from that of the Sixth Dynasty.²¹³ This suggests that it is an innovation in Egypt at a period more or less contemporary with its arrival in the north, and rather than being an export from Egypt to Palestine, it probably comes from the north originally. But the gap in the north of Palestine remains to be filled.

If the "Porteurs de Torques" with loop handled cups and incised horizontal and wavy band combing can be connected with very similar material in Palestine,²¹⁴ and with a date c.2100 - 2000 B.C., then the direction of

211. A tendency to raise this date is shown at Mardikh, where the excavator (Matthiae, Archaeology 24 (1971) pp. 55-61) places the transition from Period II to III at c.2000/1900 B.C.

212. G. Brunton, Qau and Badari II (1928) pl. LXXXVIII. 92c, 92f, 93k, 6th - 8th Dynasties; pl. XCI, 92g-z, pl.XCII. 93c-t, 9th Dynasty.

213. G. Brunton, Qau and Badari I (1927), p. 73.

214. cf. Ugaritica II p.52, Fig. 19.5 with: Megiddo II, Fig. 16.16 from locus 4009, St. XIIIIB (not band combed); Jericho, PEQ 1952, Fig. 6.45 with no handles; Lachish IV, Group 1529 Nos. 397, 404, 410, none with handles, while the group has MBA material; Tell Beit Mirsim Level H, in AASOR XIII, p. 103, pl. 3.1,3,8, a level which also shows MBA material.

This type occurs in Level I as well, but seems to be slightly less common; el-Metabe (Iktanu area) see Mallon, Biblica X (1929) pl.III.2, also without handles.

late innovations from the north-east could be shown. However, there is insufficient evidence to demonstrate this and only a very tentative suggestion will be made. If the first influences of "scrabbled ware" in Sixth Dynasty Egypt can be placed at the very end of the period and shown to be derived from Egyptian contacts in Syria, and subsequently re-exported to south Palestine, then the lack of band combing in north Palestine would be explained. The weakness of this suggestion lies in the initial chronology, as it suggests that the Egyptians were still in contact with Syria at the time of the arrival of the "Porteurs de Torques" (which contradicts the Byblos evidence) or that the "Porteurs de Torques" were appearing in Syria north of Byblos in the time of the Sixth Dynasty, i.e. before c.2258 or c.2177 B.C. This suggestion clearly is very tenuous chronologically. An alternative is to suggest that small groups of nomadic people using band combed techniques arrived directly from the north; finding others already strongly entrenched in north Palestine (the Megiddo - el-Husn people), they passed on to the south leaving few material traces behind them, and settled among the inhabitants of central and south Palestine, who were the remnants of the EB III population, already strongly influenced by the changes in the Jordan Valley and south Transjordan.

In general the later EB.MB pottery evolves directly from the earlier, and it may be sufficient to show new influences appearing, rather than new people.

Other attempts have been made to trace the origins of band combing in Palestine. Most recently Dever has summarized his own and other work on the subject in a brief article.²¹⁵ Some points in his analysis are so briefly stated that clearly we must await his detailed publication²¹⁶ to

215. Dever, p. 145.

216. Ibid., p. 144.

assess his views fully. In his references to Albright's view that the "incised ware of Palestine did not arise from the Syrian class till late in the history of the latter"²¹⁷ there is some difficulty in distinguishing between band combing, face combing, single line incision and stabbing. "This view (Albright's) seems generally accepted and would place all the incised and band combed wares in Palestine at the end of the sequence. We propose rather that the use of incision or combing as a decorative motif precedes the incision through paint or "reserved slip" technique, and that it broke off comparatively early in Syria and enjoyed a separate and expanded course of development on its way to Palestine. (In Syria incision or combing never became dominant as it did finally in Palestine, paint remaining the preferred decoration.)"²¹⁸

Albright's remarks in reference to the painted wares of Hama J being followed by the band-incised wares of Hama H reflect the situation which has been previously discussed. Dever appears to assume that Albright refers to all incised techniques, not just band combing, and proposes that "incision and combing" (i.e. non-band-combed forms ?) are earlier, with which the evidence from Iktanu and Transjordan would agree. However, as we demonstrated above, various forms of incision, stabbing, pattern combing, etc., have a long previous history in Palestine and it is therefore unnecessary to postulate that these forms "enjoyed a separate and expanded course of development on its way to Palestine" from the north. His remarks on incision and combing never

17. Albright, AASOR XVII, pp. 15-6.

18. Dever, p. 145.

becoming dominant in Syria presumably do not refer to pattern combing or to the band combing at Hama H, Tell Nebi Mend, etc. (?) This proposal is followed by some remarks on the Syrian "caliciform" in general and a final reference to "the later imitative technique of band-combing" which "marks the indigenous and fully developed MB I (EB.MB) wares of Palestine". It is here assumed therefore that he also regards the band-combed technique as late, though he does not specify who or what is being imitated.²¹⁹ If he is suggesting that band combing developed from Syrian face combing, single line incision and stabbing techniques somewhere "in this vast unknown area" (i.e. south Syria and Transjordan) then there is as yet no evidence from north Transjordan or south Syria to confirm it. The tendency noted so far, as stated above, is that band combing was far more popular in central and south Palestine and Hama H and to a lesser extent in Phase 2 Iktanu and the later stages of Transjordan generally, and therefore we must return to the suggestions and chronology for its origins in Palestine discussed above.

219. Of particular note in his conclusions on the dating of the Palestinian EB.MB pottery is Dever, p. 160, footnote 73, "wheel-ribbed wares, particularly the lug-handled carinated cups and some of the similar bowls from Megiddo, L. 4009; Tell Beit Mirsim Strata I-H; and Lachish 1529" are early, in contrast to our belief that these groups are probably late. However, the crucial point here is that this appears to refer to a date early in Dever's MB I, i.e. c.2100 B.C., rather than his EB IV. Thus his dates and mine for band combing (and Albright's) probably coincide, though I would probably put his "early wheel ribbed wares" later than he does.

Some further reflections on this subject will be discussed with the metalwork.

In conclusion therefore, the pottery of Transjordan shows a very marked change at the end of EB III with the establishment of new settlement patterns and a pottery which shows the effects of Akkadian disruption of ED III peoples in the north central section of the Fertile Crescent. The arrival of the latter in an area which also had long-established native traditions led to the newcomers adopting much of what they found. That they did not bring the technique of wheel-made pottery with them, nor many elements of northern civilization, suggests that the people who moved southwards did so over several generations. Alternatively, that they came from the fringes of the northern civilizations, not from the great cities such as Mari and Harran, and perhaps did not even form part of the group who buried their dead in the Hypogeum at Til Barsip, but may rather have been nomadic or semi-nomadic groups, who had seen and used wheel-made pottery without actually having made it themselves.

The chronology is such that the latter interpretation is more to be favoured, particularly as there is considerable evidence for a population that was at least semi-nomadic in the early EB.MB of Transjordan, as opposed to the earlier urban groups of EB III. The horizontal rim smoothing might then be regarded as a compromise attempt to produce a wheel-made vessel. The increasing thinness and lightness of the ware also suggests a more sophisticated background than that of the generally heavy EBA wares. These groups appear to by-pass cities such as Mardikh and Hama, and it may be that they passed through before the establishment of Hama J; or that they were the destroyers of Hama K, and perhaps of urban EB III society in Trans-

jordan and Palestine, if destruction must be postulated rather than decline.

A secondary influence c.2100 - 2000 B.C. is suggested which principally affects Palestine; but there is less clear evidence for its origins, partly owing to the still uncertain nature of the sequence in Palestine. It is suggested however, that this new influence should be related to the "Porteurs de Torques" who appear to be a part of the formative influences of the "Montet Jar Period" at Byblos, and to those influences which lead to the settlement of Hama H and the contemporary occupation of the Beqa' of Lebanon. In Syria, these influences were developed by the local population c.2000 B.C., particularly at Byblos, into the full MBA. This secondary development however, did not reach Palestine until a little later, probably being very gradually introduced from c.1900 B.C. onwards. During this introductory period, in our terminology MB I, the final phases of the EB.MB were absorbed or disappeared in the face of the re-establishment of urban life and mass production techniques, which simply swamped a more primitive and probably semi-nomadic way of life. The full establishment of this new period occurs in MB II in our terminology.

Summarized, c.2350 B.C. a change from EB III to EB.MB and EB IV is evident in Transjordan, which was largely affected by the end of the ED III period in the north Syrian area; but which shows an even balance between new elements and retained EBA traditions, and therefore a mixed indigenous and north Syrian population.

Second, the development of these same peoples, particularly in Palestine, due to new influences c.2100 - 2000 B.C.

Third, the end of a relatively primitively organized society in the face of a Syrian-developed MBA c. 1900 B.C.

I make no attempt to create a new terminology to fit any of these suggestions. "EB IV" is a useful term to describe a pottery type which has at least regional significance, and one which probably has a chronological significance if used in relation to regional developments. As this period is most clearly related to the EB.MB period, and contains innovations which can only be attributed to that period, I prefer to include it as part of the Intermediate Early Bronze - Middle Bronze Age rather than attempting to push it back into the Early Bronze Age. Until a much closer definition of the archaeological criteria applicable to the period after 2350 B.C. can be reached, I consider it unwise to attempt to create further definitive terms; and consider working within the present framework possible.

SECTION IV THE METAL WORK

As very few metal artifacts of the EB.MB period have been found in Transjordan no reliable conclusions can be drawn on the basis of present information, and attempts to arrange a definite relative chronology had much better await further evidence. A brief account of the few known pieces and of the comparative material in Palestine and Syria is all that will be attempted.

In the el-Husn tomb there are two examples of unperforated pins with curled heads,¹ illustrated in Fig. 55.1-2; and at Beitrawi there is a dagger (Fig. 35.5) of the general type referred to in the pottery section as being found in late EBA contexts in Palestine. This type is also exceedingly common in EB.MB Palestine. It is found at Bab ed-Dra',² both in EBA tomb groups (four examples) and also in EB.MB groups acquired by purchase at the same site.

Materials and Technology of EB.MB metal work

None of the Transjordan objects have been analysed and the published evidence on this subject from Palestine is rather scanty. The Nasbeh dagger³ was analysed as copper and no tin or arsenic were recorded. The final technical process of manufacture was cold hammering. A similar report was made on four objects from Lachish,⁴ where the objects were shown to be

1. el-Husn, pl. 1.81-82.

2. Lapp, Archaeology 19 (1966) p. 107.

3. Nasbeh, Vol. I, pl. 104.1 and p. 264; Appendix E, pp. 277-9.

4. Lachish IV, Appendix D, pp. 328-331.

almost pure copper with a trace of arsenic. A typical EB.MB dagger without provenance was analysed with similar results, i.e. copper and cold hammered.⁵ The same situation has been found at Megiddo.⁶

That copper was generally rough cast and finally cold hammered is born out by the groups of rough cast ingots and tools found at Har Yeruham,⁷ Lachish in the 1500 area⁸ and particularly at Jericho where a cache of copper objects was found in a typical EB.MB band combed lug-handled jar.⁹ The actual objects include a fenestrated axe-head of early type, and flat celts. No. 9, a flat axe, was analysed and shown to be arsenical copper.¹⁰ Many EB.MB metal objects are therefore assumed to be copper; though some evidence is accumulating to show that the fenestrated axes may be bronze.¹¹

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5. Information included courtesy of Mr. I. M. Blake.
 6. MT, pp. 160-162.
 7. Yediot 27, pp. 284-292 and plates; these ingots did contain a very low percentage of tin.
 8. Lachish IV, pl. 21, Nos. 11-15.
 9. E. Sellin and C. Watzinger, Jericho, pp. 116-119, abb. 104-5, objects 1b to 16, and for the jar, pl. 22.2a.
 10. For further remarks on the use of copper in the EB.MB, see Dhahr Mirzbaneh, p. 50.
 11. Verbal communication from B. Rothenberg; see also Dhahr Mirzbaneh, p. 50, n.1 and p. 91, n.35, where Lapp states that metal objects on the Phoenician coast are bronze rather than copper. Whether this indicates that ordinary EB.MB metal work is of copper, or arsenical copper, and only imported objects from the Phoenician coast (possibly of late EB.MB date) are bronze, is not yet clear. Objects from the "Porteurs de Torques" graves have been analysed and they are bronze; Ugaritica II, p. 64.

However, as relatively few objects have yet been analysed all metal objects in this section will be referred to as bronze, unless there is specific evidence to the contrary.

Bronze Objects from Transjordan and the Comparative Material from Palestine and Syria.

Bronze is quite common in EB.MB Palestine and is known from at least twenty sites (see Appendix C). The most typical forms are the daggers and javelins, and their general range is discussed by Kenyon¹² and by Lapp.¹³

The dagger illustrated from Beitrawi (Fig. 35.5) conforms to Kenyon Daggers Type C.¹⁴ This is a long "sword-like" dagger (the Beitrawi one is about 34.5 cm. in length, and one from Jericho about 32 cm.) with marked shoulders and mid-rib, and a concave tang. The Jericho example has six rivet-holes and that from Beitrawi may also have six but they are rather differently placed with two right at the top of the tang. They are also rather corroded. The Jericho Type C daggers occur in the Dagger and Composite Type tombs at Jericho, but not at Lachish, Megiddo or Ajjul, though Lapp compares them to Ajjul Types IV and V.¹⁵ The best parallel otherwise is the dagger from Deir el-Belah,¹⁶ and the types in Gibeon Tombs 50 and 52.¹⁷

The EBA dagger published by Lapp, from "Funerary Building A41" at

12. Jericho II, pp. 46-49.

13. Dhahr Mirzbaneh, pp. 50-54.

14. Jericho II, Fig. 22.6 and Jericho I, Fig. 70.9.

15. Dhahr Mirzbaneh, p. 50.

16. AG IV, pl. XXVIII. (J) 298.

17. J. B. Pritchard, The Bronze Age Cemetery at Gibeon.

Bab ed-Dra,¹⁸ is different to the Beitrawi type, being flatter, with almost no shoulder and only four rivets. It is very similar to the EBA examples from Jericho Tomb F5¹⁹ and Nasbeh,²⁰ and to the EB.MB Type A from Jericho²¹ which occurs in Dagger Type tombs only, where they were the most popular form. They are also found in Megiddo Tomb 1101 B Lower which is early EB.MB.²² This leads to some speculation on whether the Dagger Type tomb people inherited directly the very late EBA tradition of central Palestine, thus placing this group at the head of the EB.MB sequence at Jericho; a possibility which Miss Kenyon also seems to favour, though she stresses that there is as yet no definite evidence for a chronological sequence among the tomb types.²³

The type series of Palestinian EB.MB bronze objects is not restricted to daggers and javelins. It includes fenestrated axe-heads, in particular one from Ma'abarot in a closed tomb group,²⁴ where, as at Jericho, the axe was associated with a lug-handled jar with band combing.²⁵ These jars suggest the date of the type should not be earlier than c. 2100 to c. 2000 B.C.

18. Archaeology 19 (1966), p. 107.

19. Jericho I, Fig. 66.3.

20. Nasbeh Vol. 1, pl. 104.1 from CT7.

21. Jericho II, pp. 46-48, Fig. 22.1.

22. MT pl. 86.4.

23. Jericho I, p. 182.

24. IEJ 19 (1969) pp. 174-177 and Fig. 2.

25. IEJ 19 (1969) Fig. 3.1 for Ma'abarot; and Sellin and Watzinger, Jericho pl. 22.2a.

and this is also suggested by the generally Phase 2 Iktanu parallels with the Jericho tell pottery.

The broad type of fenestrated axe from Megiddo Tomb 84,²⁶ Jericho and Ma'abarot are perhaps earlier than the narrower example from the rebuilt north wall of Megiddo Temple 4040²⁷ when compared to the still narrower "duck-bill" type of the MBA proper, and with the very wide open types of the EBA from which the type is almost certainly derived. These early types occur both in Palestine²⁸ and in north Syria²⁹ and add to the growing body of evidence for continuity of traditions within the whole area in the second half of the third millennium.

The only example of this type known from Transjordan is that from Dera'a,³⁰ from a cist grave where it appears to be associated with MBA-LBA

26. MT pl. 173.5.

27. Megiddo II, pl. 182.3, Stratum XIV.

28. Jericho I, Fig. 66.1 Tomb A114 B, late EBA; and Tell el-Hesi, F. G. Bliss, A Mound of Many Cities; and K. M. Kenyon, "A Crescentic Axehead from Jericho and a Group of Weapons from Tell el-Hesi", in the Eleventh Annual Report of the Institute of Archaeology, University of London, 1955, pp. 1 - 9.

29. F. Hančar, in Eurasia Septentrionalis Antiqua IX (1934) Fig. 16d; said to come from one of the cist graves at Amarna, British Museum No. 116050. It is nearly 25 cm. long, 8 cm. wide, and has bent ends to attach it to the haft. Although its dating evidence is poor, it is clearly a very early type, and probably Early Dynastic.

30. Nasrallah, Syria 27, (1950) pp. 314-331.

objects. This example has a socketted haft and has various parallels of post-EB.MB date, including some ceremonial gold axes from Byblos.

Apart from these axes, there is at Jericho a considerable range of small rivets, plain pins, nails and bands, clearly attachments and fittings from larger, now perished objects in the EB.MB tombs.³¹

Plain pins and rivets also occur in the Hablet el-Amud tomb³² and plain pins are found in Gibeon Tombs 47 and 48,³³ at Jebel Qa'aqir³⁴ and Dhahr Mirzbaneh. These plain pins may have had separate wooden or metal tops and their distribution and variations are discussed in some detail by Lapp.³⁵

It is however, only in the north of Palestine and Transjordan that more elaborate pin types have yet been found, in particular at el-Husn, Megiddo, Ma'ayan Barukh and Hazorea. The most southern example is at Dhahr Mirzbaneh. The distribution alone therefore suggests these are of northern origin.

The only two Transjordan examples of pins come from el-Husn (Fig. 55.1-2); they are both fairly long and have simple curl heads. This type of pin has an exceedingly wide distribution, both geographical and chronological and cannot on its own be definitely dated. It occurs also in Palestine where the earliest example is a rather curious short, curl headed pin with shoulders

31. Jericho II, Fig. 32, p. 64 for examples.

32. ADAJ VII-VIII, pl. XXXVI. 8-12.

33. J. B. Pritchard, The Bronze Age Cemetery at Gibeon.

34. Dever, Fig. 3.10-12.

35. For one of these pins with the top preserved, see Anati, Palestine Before the Hebrews, p. 369, from Hazorea; and for Lapp's discussion, Dhahr Mirzbaneh, pp. 54-56.

which was found in Sanctuary B at 'Ai (Fig. 55.3). There are various EB.MB parallels also, at Dhahr Mirzbaneh (Fig. 55.4), Hazorea (Fig. 55.5), Ma'ayan Barukh (Fig. 55.6) and Megiddo (Fig. 55.9).

The other pin types from EB.MB Palestine are illustrated on Fig. 55 also. These divide generally into a broad shaft headed type with circular perforation, and a type with hemispherical knob head and elongated perforation. The dating of these pins within the EB.MB period in Palestine is based on the dating of the pottery on stylistic grounds only. The evidence for the curl headed pin is earliest (EBA) and the el-Husn group on Trans-jordan evidence is thought to be early EB.MB (see the pottery section); that from Dhahr Mirzbaneh should be well into the developed EB.MB (i.e. Lapp's Intermediate Bronze II) and perhaps post-2000 B.C. The chronological distribution is therefore wide. The Ma'ayan Barukh pin (Fig. 55.6) is quite similar to those from el-Husn, but some of the pottery from this site³⁶ is possibly a little later than that from el-Husn.

The excessively long pins (34 and 36 cm.) with broad shaft heads and circular perforations that also come from Ma'ayan Barukh (Fig. 55.7-8) seem to be extreme developments of the similar but cruder Megiddo pin (Fig. 55.10) from Tomb 1101 B Lower, which is generally agreed to be very early in the period. However, the pins from Megiddo Tomb 1014 B Lower (Fig. 55.12-13) vary from all the others in both type of head and in having an elongated perforation. They are associated with one of the small plain carinated cups³⁷

36. e.g. tea-pot in Ma'ayan Barukh, Fig. 6.4, and goblet, in Fig. 6.7, in 'Atiqot 3.

37. MT pl. 102.8.

which probably date post-2100 B.C. and with a very early MBA (MB I) juglet.³⁸ These two vessels were resting on top of a small pile of bones in the tomb chamber and the pins were found amongst the bones. The excavator suggested that these bones represented a contracted burial, but it may well have been disarticulated. It is possible that these objects are falsely associated with each other, for the tomb had two periods of use, in the course of which it was extended from four to five chambers. Chambers C and D were empty, Chamber A had a normal collection of Megiddo EB.MB pottery. There is no evidence to show when the tomb was extended, or whether the empty chambers represent subsequent disturbance. However their emptiness, and the extension of the tomb suggest that the tomb was prepared for further burials which did not take place. It is very speculative to wonder whether the presence of the MBA juglet provides the answer; that the contents of Tomb 1014 B Lower indicate one of the very last EB.MB burials that took place at Megiddo, and the juglet is the forerunner of a new order, which included new burial customs and thus led to the abandonment of the whole tomb. These pins would then date to the latest stage in the EB.MB period.

There are however far too few pins in EB.MB contexts in either Trans-jordan and Palestine to make a reliable type series for comparison with the Syrian material, and the following comparisons can only be regarded as tentative.

The bronze pins from Hama Level J (there are none illustrated from Hama Level K) show that pins with circular perforations appear in J8,³⁹ curl

38. MT pl. 102.9.

39. Hama, Fig. 58, 3E 840.

headed pins, and broad curl headed pins in J7,⁴⁰ conical headed pins with round perforations in J6⁴¹ and hemispherical knob headed pins with elongated perforation first appear in J5⁴² but the narrow slit perforation is more typical of J3 and J2.⁴³ The broad shaft headed type is first found in J2, with elongated perforation.⁴⁴

Comparing this sequence with that suggested for the Palestinian pins, the curl headed type is found in Levels J7-4, but there seems to be a type with shoulders in J7,⁴⁵ and which has this feature in common with the EBA example from 'Ai (Fig. 55.3). There is also a plain curl headed pin in J7⁴⁶ similar to the round, fairly large el-Husn type (Fig. 55.1-2). A not very close parallel for the Ma'ayan Barukh broad shaft headed type (Fig. 55.7-8) occurs in J2,⁴⁷ and although there is a parallel for the Megiddo type with hemispherical head and elongated perforation (Fig. 55.12-13) in J5⁴⁸ the examples from J1 are perhaps closer,⁴⁹ with thicker necks, and more

40. Hama, Fig. 62, 3E 119 and 3E 828.

41. Hama, Fig. 64, 3C 675.

42. Hama, Fig. 74, 3C 668.

43. Hama, Fig. 93, 3C 682, 3C 681; and Fig. 98, 3C 685, 3C 683-687.

44. Hama, Fig. 98, 3C 685.

45. Hama, Fig. 62, 3E 846.

46. Hama, Fig. 62, 3E 119.

47. Hama, Fig. 98, 3C 685.

48. Hama, Fig. 74, 3C 668.

49. Hama, Fig. 103, 3C 687 and 3C 680.

marked angle at the perforation.

These hemispherical headed pins with elongated perforation continue in use at Hama in Level H5,⁵⁰ and it is clear that the chronological parallel for this pin type could equally well be at this period. It is also clear that the elongated perforation succeeds to a round perforation completely during the late Hama J - early Hama H period.

The general sequence of pin types suggested for the north Palestine area is thus confirmed in the Hama sequence; and notably the Hama H sequence has some part in this tradition too.

The sites in the vicinity of Hama have some comparable metal objects. The groups which were thought to be earlier in the Hama J sequence on the basis of the pottery, were Dnebi Tombs 1 and 3, and Selimiye el-Khodr Tomb A; and for these no metal work is mentioned.⁵¹ At the settlement of Masin, where some of the pottery was thought to be early in the Hama J sequence, the pins published are the broad curl headed pins remarked in Hama J7 - 4.⁵²

The groups dated later than Hama J5 (on the basis of the pottery) are Khan Sheikhoun (for which site no metal is illustrated); Tell 'As,⁵³ where Tomb 1 had a collection of pins including types with nail head and elongated perforation (cf. Hama J3-H5), knob head with round perforation (cf. Hama J8-6), curl headed (cf. Hama J7 - 4), and broad curl headed (cf. Hama J7 - 4), which suggests a date about Hama J5 at the earliest, and perhaps later.

50. Hama, Fig. 109, 3C 669, 3C 678, and 3C 671.

51. Syria XI, p. 161.

52. Berytus II, p. 121 ff.

53. Syria, XIII, pl. XXXIX.

Tomb 2 at Tell 'As⁵⁴ had a broad shaft headed pin with diamond shaped perforation which has no direct Hama parallels. Tomb 3⁵⁵ had a broad curl headed pin type (cf. Hama J7 - 4) as well as a plain type. In general these tombs suggest a Hama J5 - 3 range of pins.

The pins from Qatna Tomb IV⁵⁶ are of three types. The first is a conical headed pin with bent head and slightly elongated perforation which compares closely with that from Hama J6⁵⁷ which has a rounded perforation and should therefore be earlier; and with a conical headed pin with straight head and elongated perforation from Hama H5⁵⁸ which may be slightly later.

The second type from Qatna Tomb IV has a broad shaft head which is similar to those at Ma'ayan Barukh, but which has an elongated perforation, and therefore should be later. The best parallels at Hama are in Level J2 and H5. The Qatna type, as at Ma'ayan Barukh, is noticeably long (three examples of 29 cm. length).

The third type at Qatna is the ubiquitous curl headed pin.

The Qatna Tomb IV group thus conforms fairly well to the late date (Hama J - Hama H) assigned to it on the basis of the pottery.

Further north and east are the pins from Til Barsip and the Sajur Valley graves. At Til Barsip⁵⁹ there are three pins, the curl headed type (Fig. 56.2);

54. Ibid., pl. XXXIX.

55. Syria XIII, pl. XL.

56. Qatna, pl. XLVII.

57. Hama, Fig. 64, 3C 675.

58. Hama, Fig. 109, 3C 672.

59. Til Barsip, pl. XXX. 3, 4, 6.

a type with hemispherical knob bent over, and elongated perforation; and one with a spherical knob head, also bent over.

The toggle pins found in the graves at Hammam and Amarna provide less certain data, as these were all purchased groups and small objects such as pins may easily be dissassociated from their contexts. At Hammam the objects were said to have come from four graves, and these contained in all 13 toggle pins. They are of considerable variety⁶⁰ and include pins with sub-spherical, domed and nail heads, elongated and circular perforations, and bent and straight heads, as well as one of the flat topped broad shaft headed types with diamond shaped perforation, roughly similar to Ma'ayan Barukh (Fig. 55.7), Hama J2 - H5 and Qatna Tomb IV.

Most of these types can be paralleled in the south at varying dates, and it is difficult to say whether the elongated perforation tradition in pins starts earlier or is at home in the north, and is only gradually adopted in the south; or whether pins of various dates are included in the purchased groups. However, the Til Barsip pin with elongated perforation suggests that the type is early.

Similar evidence comes from the Amarna graves. As in those from Hammam, an excessive number of toggle pins are said to have come from single graves - e.g. there are said to be two cist grave groups from Amarna, one containing seven pins, and the other four. There are also another 24 toggle pins from Amarna in the British Museum⁶¹ which are not specifically attributed to grave groups. The impression generally is that these collections are simply part of

60. LAAA VI, pls. XX.b and XXI.c.

61. British Museum Nos. 116064 - 116088.

random clandestine grave digging on a large scale, and cannot be regarded as reliable dating groups until there is further evidence to support them.⁶² However, there is a considerable amount of material which shows close links with both Ur and Mesopotamia on the one hand, and with south Syria and north Palestine on the other, suggesting that well established traditions were common to both, and which re-emphasizes the probable debt of the southern areas to the region of north Syria for innovations in metal work as well as in pottery; and indicate that the source of these innovations in Palestine need not be sought for further afield.

The curl headed pin is not common in north Syria but occurs at Amarna⁶³ (Fig. 56.1) as well as at Til Barsip (Fig. 56.2) and Alawiyyeh.⁶⁴

The broad shaft headed type (cf. Ma'ayan Barukh Fig. 55.7-8 and Megiddo Fig. 55.10) is found with elongated perforation in Hammam Tomb III (Fig. 56.3) and with round perforation at Alawiyyeh.⁶⁵ Even closer to the Ma'ayan Barukh types are those from Amarna illustrated in Fig. 56.4-5, and a pin in the British Museum, the provenance of which is said to be Betéter in Lebanon (see Fig. 56.6).

The very varied remainder of the Amarna-Hamman-north Syrian range is made

62. For which see Woolley's comments in LAAA VI, p. 87, "A vast amount of plundering is going on."

63. British Museum No. 116084.

64. British Museum No. 115908, length 10.5 cm.

65. British Museum No. 115904, length 16.5 cm; No. 115905, length 14 cm; No. 115909, length 14.3 cm.

up particularly of spherical knob and dome headed pins, often with the head bent over, and with both circular and elongated perforations, as at Til Barsip. The bent headed variety is uncommon in the south (the only examples being those with conical head and circular perforation in Hama J6, and a conical head and an elongated perforation in Qatna Tomb IV) but occurs commonly in the Royal Graves at Ur, where they can be found in gold with carnelian head, as well as in bronze.⁶⁶ Nail headed, and thistle (or pomegranate) headed pins also occur quite commonly in these north Syrian graves. Mixed. with them are a number of fluted and animal headed types whose date is unclear, but which have no southern parallels in the EB.MB period. They are said to come particularly from the cist graves at Amarna.

The coastal traditions of Byblos and Ras Shamra show some contrasts with this range. Schaeffer has attempted to work out a chronological series for the Byblos pins⁶⁷ and in this series also the curl headed pin is shown earliest (Level XXXII, dating from the Installation VI period);⁶⁸ second in his series is the broad shaft headed pin with circular perforation (from Level XXX, see Fig. 56.7)⁶⁹ which is comparable to the pin from Ma'ayan Barukh (Fig. 55.8); and third is a hemispherical knob headed type⁷⁰ similar to that of Megiddo (Fig. 55.12-13) with elongated perforation. As these distinctions are based on arbitrary excavation methods at Byblos, it is difficult to decide whether this order is significant in chronological terms

66. C. L. Woolley, Ur Excavations Vol. II, Plates; pl. 231 Pins Type 7.

67. Strat. Comp., Fig. 66-68 and pp. 64-5.

68. Strat. Comp., Fig. 68.41.

69. Ibid., Fig. 68.40.

70. Ibid., Fig. 63.39.

(all examples referred to come from between Levels XXIX and XXXII); but in Schaeffer's series two points are notable. First, that the curl headed pin has chronological priority, as in the south; and second, that elongated perforations are much more common than circular perforations, but here also circular perforation may occur slightly earlier. Many types in the series are familiar; the broad curl headed pin⁷¹ compares with that of central Syria and Hama J7-4; the broad shaft headed type with elongated perforation in Level XXIII⁷² (Fig. 56.8) compares with those that appear in Hama J2 and H5. Very many of these Byblos pin types can be compared with pins from Amarna, especially those with grooving on the shaft.⁷³ However, at Byblos, as in the south, the bent headed type is uncommon.

The most striking pins of the "Montet Jar Period" at Byblos, though retaining many features of earlier pins in Schaeffer's series, such as horizontal grooving on the shaft, exhibit some considerable differences (see Fig. 56.9-10). First, although some of the knob headed pins of earlier date are not dissimilar, the heavy and often biconical head of this type with its smooth junction with the shaft, is very distinctive. Second, the fine "herring bone" incision is almost entirely new. Third, the pins usually have a very small circular perforation and as there is sometimes a small metal loop preserved in the hole (see Fig. 56.10) it seems likely that a loop was a regular feature which has normally perished. This is a feature more commonly seen in MBA pins⁷⁴ and thus suggests that a late date for its intro-

71. Ibid., 68.32.

72. Ibid., Fig. 68.28.

73. Strat. Comp., Fig. 66-67 for various grooved pin types.

74. e.g. Kenyon, Amorites and Canaanites, p. 63, Fig. 33.

duction (i.e. not before c. 2100 B.C.) is correct, and also that the makers of these pins subsequently played an important part in developing MBA fashions in coastal Syria. Fourth, the type is generally thicker and sturdier than its predecessors.

All these features, except the fine "herring bone" and horizontal incision are found on pins at Ras Shamra in Ugarit Moyen 1⁷⁵ ("the Porteurs de Torques", c. 2100 - 1900 B.C.) (see Fig. 56.11) and also at Qalaat er-Rouss.⁷⁶ These three groups are also linked by direct parallels in other bronze objects such as "watch-springs", "torques", fenestrated axes, small human figures and biconical beads.⁷⁷ Except for the axes and perhaps the beads, none of these things occur in Palestine. The nearest parallels to the south appear to be in such groups as Qatna Tomb IV, but they are not very close.

In comparison with the Palestinianian EB.MB pin types, this "Porteurs de Torques" type has no direct parallels and the former seem to derive from earlier types occurring at Byblos and Hama and further north. The pins in Palestine and Transjordan may therefore, as does the pottery, show their earliest links north to inland Syria, and a secondary wave of influence from the same direction. The links with coastal Syria show more directly with a final wave of developed MBA types c. 1800. B.C.

75. The lack of "herring bone" incision on the Ras Shamra pins is odd when the European parallels (which often do have it) cited by Schaeffer are considered.

76. Ugaritica II, p. 86, Fig. 38.

77. These links are discussed in detail in Kenyon, Amorites and Canaanites, p. 36 ff.

SECTION V. STONE OBJECTS

As in the pottery, there is considerable homogeneity in the types of ground and chipped stone artifacts found on EB.MB sites. There are four main categories of tools, i) flints, ii) grindstones, iii) perforated stones and spindle whorls, and iv) mortars, which can be conveniently treated in that order.

i) Flints

The normal flint industry of Palestine from the Proto-Urban period to the Late Bronze Age is the "Canaanean". The Beersheba and Ghassulian Chalcolithic groups have fan scrapers made in this technique, but otherwise have a separate technology. The Canaanean blade is found earliest in the south of Palestine at Site H in the Wadi Ghazze.

The Canaanean industry appears to be derived from the north-east and was perhaps originally a north Mesopotamian technology, though it is widespread in Syria also.¹ It has a considerable history in the north as well as in Palestine.

The typical Canaanean EBA blade is of simple triangular or trapezoidal section with characteristic butt; it is often of considerable length, and usually slender. The EBA sickle blade at Lachish² and Jericho³ usually consists of one of these blades with the ends snapped off to leave the central section approximately 5 cms. long. At Jericho these were clearly hafted longitudinally. Lustre sometimes occurs on both edges at Lachish, showing

1. Hennesy, p. 44.

2. Lachish, IV, Appendix C, J. Waechter, p. 325.

3. Garstang, LAAA XXII (1935) pl. LVI. a. 2-8.

that when these hafted tools became blunt the blade was reversed. The edges were not usually retouched. At Lachish there were both wide and narrow blade types, the latter usually being preferred for sickles. Long blades were sometimes employed intact but the lustre shows that they were then used for woodworking or activities other than harvesting cereals.⁴

A similar technique and size of tool is found in the Middle Bronze Age.⁵

The range of flints at Iktanu is very limited. All pieces are of fine ground chert which has a good "bite" and needs no retouch until the first edge has been blunted by use. There are very few waste flakes to suggest that these tools were worked on the site. The implication is therefore that flint making was a specialized industry, carried out at either specific places near flint sources, or limited to particular centres.

In Phase I at Iktanu there is very little evidence to show what technological process was involved. Only four pieces of flint were found (none are illustrated), two being rather poor fragments of cores, possibly the part of an old core knocked off to create a new striking platform. The other two pieces were hardly more than waste flakes, but may have been used. One perhaps was a graver.

Phase 2 is rather more productive. In the EB.MB period an identical technique to that of the EBA was used to produce a typically Canaanite but generally broader and longer blade. In contrast to the EBA practice

4. Garstang, LAAA XXII, pl. LVI.a. 9 - 10.

5. J. Crowfoot, LAAA XXIV (1937), pl. VI. 1-6 and 9-12.

the entire blade was used as a sickle.

The only flint tools found in Phase 2 are these sickle blades. Fig. 57.1, 2 and 3 are fine examples of typically Canaanite type blades, though only number 3 is complete. The other eight pieces found on the site are from mixed contexts, but are all of the same tradition (Fig. 57.4-7). The percentage of used blade tools as opposed to flakes or other tools is therefore extremely high.

The type is very uniform in use also. Of the sickle blade fragments, eight show use on both edges, in five cases one side being more heavily patinated than the other, and in three cases use being about equal on both edges. Only the four cortex backed blades were not reversible. Several show considerable retouch, and one fragment has been neatly resharpened on both edges but broken before reuse. Fig. 57.3 in particular shows that the blade was used whole, not broken into segments for hafting, and all incomplete blades have been broken after use.

Patina is continuous right along the used edges to the butt, except on the reversible blades where the less patinated edge tends to have two to three centimetres left. This is so for the only four butt fragments of blades that have survived, and indicates that only the platform end was used as a handle, either directly held in the fingers (an uncomfortably small area to hold for a day's work) or hafted from the end. If the handle was straight this would allow for easy reversing of the blade. However there is no direct evidence for handles and if the sickles were hafted in wood and bitumen no traces remain on the tools, though pieces of bitumen were found in the excavation (the Dead Sea providing a nearby source).

The broad spread of lustre is that which would come from harvesting

cereals or reeds which are cut right through, rather than wood-working. That only one graver(?) was found, which shows no clear traces of use, and no borers or scrapers, also suggests that the emphasis on use of flint artifacts was harvesting cereals, etc. rather than working wood or hides.

A comparable group of flints comes from Tell Umm Hamad Gharbi (Fig. 58.1-13). A higher proportion than at Iktanu show lustre on one edge only. The platform ends again show no patina indicating that they were held or hafted in the same manner as at Iktanu. There were no traces of bitumen, but these were all surface finds and therefore weathered.

Only one chisel and a few flakes were found, the rest being sickle blades. Once again, the complete blade was in use, rather than hafted fragments.

In contrast with the large and well-formed blades from Iktanu and Umm Hamad Gharbi are the scrappy collections from Mu'amariyeh, Umm Rujm and other plateau sites. Umm Rujm has produced one undistinguished broad used flake and one waste flake. Rather more flint was found at Mu'amariyeh. The collection included two sickle blades which may be Canaanite but which lack the diagnostic butts; one flake, two scrapers, one good borer on a very crude flake and some blade fragments.

There is nothing that is certainly Canaanite at Mu'amariyeh, and such butts as are found are not clearly Canaanite. It could be a very poor local industry of Canaanite type using local stone sources. Only the borer and two blades (which show lustre on one edge only and have cortex on the other) are of fine chert. The remainder are very poor quality stone and show no lustre and little retouch. Glueck illustrates two nondescript fragments from the site.⁶

Glueck illustrates a number of flakes from sites occupied in the EB.MB

6. Expl. IV, pl. 28.4-5.

period,⁷ mainly short blade fragments which may be of Canaanite type, but this is uncertain as there are only photographs, with no descriptions or drawings, and the butts are invisible. It is notable that nearly all fragments of straight blades illustrated by him also come from the Jordan Valley sites.

Small collections of worked flints were found by the present writer on nearly twenty sites ranging from el-Aqrabah in the south to Tell Sheikh Mohammad in the north (see Appendix C), and in all cases consisted of rather heavy, short, flake tools, insufficiently diagnostic to merit further comment. Present evidence suggests therefore that the fine, large sickle blades are restricted to the Jordan Valley and do not occur until Phase 2, but this position may well be altered by further excavation on the plateau.

This chronology is supported by the little evidence available from excavation in the south of Transjordan. At Ader flints seemed to die out after Phase C.⁸ This compares closely with the evidence from Ara'ir where "silex grossièrement façonnés" occurred in Level VIB but are not recorded in Level VIA.⁹ On both sites only a very limited area was excavated. Several worked flints including a fine blade were found at Iskander, but whether they came from EBA or EB.MB levels is not indicated.¹⁰

The evidence of EB.MB date for flint artifacts from Palestine is also fairly sparse. The EB.MB sickle blades at Jericho are readily recognisable

7. Expl. IV, pl. 28.4-5; 59.1-3; 112.1,3,6,10,12-25; 113.3,8,11,21,22;115.3.

8. AASOR XVII, p. 13.

9. RB (1969), p. 231.

10. ADAJ IV-V, (1960), pl. XIV.2.

in technique, size and lustre as identical to those from Iktanu; and as distinct from those of the EBA.¹¹ The parallels between Iktanu Phase 2, Umm Hamad Gharbi and the Jericho tell are extremely close. The flints from outside this area show some variation.

At Tell Beit Mirsim there is a fine series of blades with trapezoidal section, and at least one with triangular section, which again appear to have Canaanite butts¹² very like those of Iktanu. The only blades of this type with clear stratigraphic context¹³ came from Stratum H, though Albright thought that some with uncertain contexts might have been from earlier levels, and published those of Stratum H as characteristic of Strata J to H. The Tell Beit Mirsim evidence is therefore very similar to that from Iktanu in favouring a later date for this type.

At Lachish the evidence is not so clear. The typical EBA short sickle blade is present, but the sickle blade of the later "Caliciform" period¹⁴ is different from that of Iktanu, being broader and less straight and with "typical blunting retouch up the back of the blades". They generally have more continuous retouch than at Iktanu. The pieces illustrated have a triangular section rather than the more usual trapezoidal type found at Iktanu.

11. The opportunity for direct comparison of the Jericho and Iktanu material was afforded by Mrs. J. Crowfoot-Payne, to whom I am most indebted.

12. AASOR XVII. pl. 45.18-24, and AASOR XII, pl. 5.31.

13. AASOR XII, pl. 14 and AASOR XVII, p. 13.

14. Lachish IV, Appendix C, p. 325 ff. and pl. 19.8-15.

At Jebel Qa'aqir¹⁵ flints in Canaanite technique were found in the caves and in the cairn tombs associated with the second phase on the site.¹⁶ The pottery of the site is comparable to that of Lachish 1529 and TBM I - H and thus is probably more to be compared with Phase 2 at Iktanu in date, if not in typology. The flint blades resemble those of Lachish "Caliciform" more than those of Tell Beit Mirsim Level H and Jericho. Blades and sickles of Canaanite type also occur at Megiddo in Strata XIV - XIII A,¹⁷ and very similar types are found at Byblos.¹⁸

G. E. Wright¹⁹ found at Beth Shemesh that the "typical Canaanite knife, flint arrowhead and fashcraper die out at the end of EB IV or the beginning of MB I (EB.MB)". The evidence from Iktanu Phase 1, Ader C - A, Ara'ir VIB - VIA and Tell Beit Mirsim J - I may well support this observation; but the evidence from Iktanu Phase 2, Umm Hamad Gharbi, the Jericho tell and Tell Beit Mirsim H suggests that the Canaanite blade was subsequently revived in excellent form, in the finest traditions of EBA technology. The stimulus behind such a revival is not at all clear, and the Lachish and Jebel Qa'aqir evidence may indicate a variant on the tradition.

15. Dever, Fig. 3.1-3, 5,6.

16. Flints may be found in the first Phase at Jebel Qa'aqir but this is not recorded in the preliminary note published to date.

17. Megiddo II, pl. 167.3-6, 9.

18. Byblos I, pls. CXIII, 3768, 6072, 3769, 6009; pl. CXIV. 6015.

19. AASOR XVII. p. 13.

The conclusion however is that a late stage at least of the EB.MB period shows a revived tradition and cultural link with the traditions of the EBA, following an earlier stage when these traditions appear to be very degenerate.

ii) Grindstones

A typical pair of upper and lower grindstones from Tell Iktanu is illustrated on Fig. 59.1A-1B. They are almost certainly of Phase 2 date, and were found together in the same room. All other fragments from the site (three in all) were unpaired and unstratified surface finds. All were of fairly smooth limestone and all are approximately sub-rectangular, though one example was very nearly square with rounded corners. The size is usually similar to that on Fig. 59 and thus the fragments of the lighter and smaller rubbing stone are recognisable. The rubbing stones are occasionally a more elliptical and even shape than that illustrated.

There is therefore evidence for the most primitive form of flour milling at Iktanu, which combines with the sickle blade evidence to show agricultural pursuits at a simple level.

Fragments of similar tools were found in the course of the survey; at Mu'amariyeh a piece of a top rubbing stone was found, but it was of basalt as might be expected when the closeness of the basalt sources of south Syria is considered.

A rather thin and small elliptical fragment of a rubbing stone was found at Tell Meshra al-Abyad, in this case of limestone.

This class of object is rarely referred to from other excavated sites, and no similar shapes have yet been illustrated though grindstones were

found at Har Yeruham in the Negeb.²⁰

iii) Perforated stones

There are two categories - a) large perforated stones, and b) spindle whorls.

a) Two ring stones have been found in the excavations at Iktanu varying in diameter from approximately 10 to 12 cm. They are of soft, white limestone, fairly roughly shaped, and probably bored from both sides but the stone is too soft to retain traces of the method. Both examples came from high levels and may be Phase 2. None definitely came from Phase 1 (see Fig. 59.2).

The use of these objects is debateable though various suggestions can be made and many rejected for a variety of reasons.

1) Loom weights. They are rather heavy and a perforated baked clay loom weight would achieve the same purpose without the labour of boring the hole in stone.

2) Tent weights. At Iktanu these rings are found among houses, but semi-nomadic people living in houses in the winter might well store their summer equipment in the house. How useful these objects would be in the pitching of a tent, except perhaps as a central ridge weight, is debateable.

3) As door attachments, e.g. upper socket for the hinge, or for catching a cross bar to bolt the door. Neither explanation is very satisfactory as a leather thong would probably be more efficient in both cases.²¹ It is unlikely to be an upper or lower hinge socket as there is no trace of horizontal wear on the hole; and the existence of a recognisable socket stone of irregular shape and without the hole pushed completely through, in the north doorway (?) of the house in Area A tells against another type being in use

20. M. Kochavi, Yediot 27, p. 284 ff.

21. C. Singer, E. J. Holmyard and A. R. Hall; A History of Technology Vol. I,

simultaneously. A large socket stone of the latter type (but for a post) was also found in the period 3 courtyard at Iskander.²²

4) The lack of horizontal striations also suggests they were not used as a disc to turn a vessel in potting.

5) Net sinkers, for river fishing. At Iktanu there is the perennial Wadi Hesban, and ten kilometres away the Jordan River. However, these ring stones are found also on sites on seasonal wadis only.

6) Stone rings of similar type but later date (MBA - LBA) have been suggested as (worn out?) mortars.²³

7) Digging stick weights. This explanation at least attributes their use to an agricultural occupation for which there is independent evidence (cf. sickle blades and grindstones).²⁴ The lack of traces of use, apart from general battering, would agree with this function; as well as the weight/size/strength ratio perhaps being worth the effort of boring the hole. The very primitive level of technology (dating back to the Palaeolithic period in this case²⁵) is in agreement with the other agricultural artifacts.

Examples of these ring stones are also found in the MBA tombs at Jericho.²⁶

Other ring stones are found at Mu'amariyeh, where there is a basalt one with clear biconical perforation preserved in the harder stone; at Tell Umm Hamad Gharbi, where there is one of white limestone, very similar to those from Iktanu, and also a smaller example only 7 centimetres in diameter where

22. ADAJ IV-V, p. 130.

23. Pézard, Qadesh pl. XXXIV. 2.1,2,4.

24. Singer et al. p. 59.

25. Ibid., p. 502. 26. Jericho II, p.259, Fig.123.3. Tomb J37 and p.273.

the hole is not pushed completely through, though it is worn on both sides to within 2 mm. Rather than placing this isolated example in a separate category it seems best to consider it as a tool found by the maker to be too small for the function for which it was intended at an advanced stage of manufacture, and so thrown away. There is another fully bored through from Tell Sheikh Mohammed. Glueck illustrates a further example which is only seven centimetres in diameter from Tell Umm Hamad Sherqi,²⁷ one from Tell Abu Hayet which is about 8 cm. in diameter,²⁸ and one that is only 4 cm. in diameter and perhaps therefore a spindle whorl, from Zaharet Umm el-Merar.²⁹

Two examples of ring stones were found in the Jericho Tombs.³⁰ These were respectively 10 and 13 cm. in diameter and thus very similar to those at Iktanu.

b) Spindle Whorls. At Iktanu a few round perforated pottery discs of small diameter are the only objects which might be called spindle whorls. There are comparable pieces from Jericho³¹ in the EB.MB tombs, at Jebel Qa'aqir³² in the second phase of the settlement and at Ader in Phase B.³³ Well made stone spindle whorls are found on other sites in Transjordan. Two were picked up

27. Expl. IV. pl. 101.2, 156.3.

28. Expl. IV. pl. 35.5, 131.18.

29. Expl. IV, pl. 72.2, 145.16.

30. Jericho II, p.60, Fig. 29.1-2. Tombs N4, M5, both "Pottery Type".

31. Ibid., p. 72, Fig. 38.1-8.

32. Dever, Fig.3.8 from Cairn No. 4.

33. AASOR XXXIV-XXXV, pl. 24.A.

at el-'Aqrabah³⁴ and two similar examples came from Iskander.³⁵ At Megiddo these stone whorls are found from St. XX - XIIIIB³⁶ and the type seems therefore to be that of the EBA which continues right through to the early EB.MB sites in Transjordan also.

iv) Mortars

The two fragments of rough basalt bowls from Iktanu are probably mortars (Fig. 59.3,4). The rough exterior shows small skill and it is clear that only the interior was used and important. In both cases it is smooth and shiny with use. No pestles were found at Iktanu but a fragment of a basalt poulder was found at Iskander.³⁷

These were the only basalt objects found at Iktanu. One came from the main Phase 2 living room, and the other was a surface find. There were no basalt fragments in a Phase 1 context. They complete the range of stone implements known so far to be in use in the EB.MB period in Transjordan.

34. One was 3 cm. in diameter, the other 1.9 cm.

35. ADAJ IV-V, pl. XIV.3 and p.130.

36. Megiddo II, pl. 171.1-14.

37. ADAJ IV - V, p.130, pl. XIV.3.

SECTION VI THE GRAVES

In many respects the evidence from Transjordan, Syria and Lebanon for EB.MB graves and burial customs is even less satisfactory than that for metal objects. Information on this subject cannot be obtained from surface survey, and the consequence of many of the known graves being chance finds is that there are almost no plans or reliable records of what was actually found. Only very recently have the first graves of this period been properly excavated, and the information from these excavations is not yet fully available.

Thus a summary of burial practices for the region is largely confined to the distribution of tomb types, rather than comparative evidence for more detailed burial practices such as the manner in which the body is disposed, type of offering or number of bodies in each grave.

Generally speaking, two main features of EB.MB burial practices are notable. First, in contrast to the fairly normal EBA practice of multiple (up to hundreds) of burials in caves or artificial underground chambers, the EB.MB practice is normally to have one, or at most two to three burials in each grave. Second, as more information becomes available, the tremendous diversity of EB.MB grave types is apparent. This may be found to be true for the EBA also when more evidence for the countries adjoining Palestine becomes available, as for example, at Bab ed-Dra' where so far unique "charnel houses" or "funerary buildings" are the normal EBA grave,¹ but there are also shaft graves with slab-lined entry-ways, a stepped shaft tomb with stone lined chamber, a rectangular cist grave and a line of tholoi,

1. P. W. Lapp, "Bab edh-Dhra', Perizzites and Emim" in J. Aviram, Jerusalem Through the Ages, p. 9-10, pls. II.2 and III.1-2.

all of which have been discovered to be part of the EBA tradition. In some of these grave types not even the principle of multiple burial is adhered to.

As there is such great diversity of grave types in the EB.MB period the most convenient comparative method is to deal with each known grave type in turn, regardless of location. Though it is recognised that the geographical distribution of each type is likely to be enormously extended as more evidence is forthcoming, some attempt will be made to relate the various traditions.

1) Shaft Tombs.

As shaft graves are the best known form of EB.MB grave in Palestine, they make an appropriate starting point. The shaft grave tradition appears in Transjordan also, where two of the EBA shaft tombs with slab-lined entry-way and multiple articulated burials had normal EB III pottery mixed with EB IV pottery. These two tombs show therefore a strong degree of continuity between the EBA and the EB.MB, but the relationship of the EB III and EB IV pottery is not clear as none of this material is yet published.²

At least twenty-six sites in Palestine and south coastal Lebanon have shaft graves (see Appendix C) and they are distributed from the area south of Beirut in Lebanon to Ajjul in south Palestine, and from Ma'ayan Barukh in the upper Jordan Valley to Jericho in the south. There is considerable minor variation amongst the large numbers of individual graves, but tombs with round and square shafts occur throughout this whole area, as do tombs with one, or with more than one chamber. Not infrequently all these features are found in the same cemetery, again with no clear regional preference

2. Lapp, Ibid., p. 9.

except that a considerable number of round shaft grave cemeteries are concentrated in the central highlands of Palestine, but even there they are not the exclusive type.

The shaft grave tradition has a long history. At Bab ed-Dra' shaft graves are the ordinary grave of the Proto-Urban period,³ and perhaps also at Jericho at the same time.⁴ They are the normal grave type in the MBA when EB.MB shaft graves are not infrequently reused (at Jericho and Gibeon in particular). The EBA tombs at Jericho are denuded caves which may have had shafts, and there are certainly occasional EBA shaft graves at Bab ed-Dra'. This tradition may therefore be continuous for 1500 years at least in Palestine.

The most conspicuous examples of the EB.MB period are the well cut square shaft tombs at Megiddo.⁵ The "normal shaft tomb" at this site (of which eight examples were found and excavated) had a square shaft opening onto one side of a square chamber with one more square chamber opening off each of the other three sides. There were fifteen examples of "abnormal shaft tombs" which did not quite conform to this very regular pattern, and three rather amorphous shaft tombs which did not fit the square shaft tomb pattern at all.

Fairly direct parallels for this tomb type have long been recognised in the cemeteries of shaft tombs dug by du Mesnil du Buisson at Tell 'As, Qatna, Dnebi, Tell Ada and Osmaniye in central Syria. The eight tombs at Tell 'As⁶ include several with plain rectangular chamber. Qatna

3. Ibid., pp. 6-8.

4. Jericho I, p. 17.

5. MT, p. 135 and e.g. plan of Tomb 989.

6. du Mesnil du Buisson, Syria XIII, p.185 ff., pl. XXXIX.

Tomb IV⁷ was similar to some of the "abnormal shaft tombs" at Megiddo in having a square shaft leading to an irregular chamber with three irregular niches, and may be a degenerate form of the "normal shaft tomb" type of Megiddo. These tombs at Qatna and Tell 'As are thought to date c.2100 - 2000 B.C. (see Pottery Section), and probably reflect a central Syrian variant on the shaft tomb tradition affecting north Palestine at about this time. It is interesting to note that in Qatna Tomb IV the multiple successive burials recall those of EBA Palestine. There was very little evidence about the disposal of the dead in the Tell 'As graves.

The patterns of use of shaft tombs in the Levant are therefore very intricate, and a similar picture can be shown to exist for almost every other type of burial in Palestine and Transjordan. All the major types of graves recur again and again in different places and at different times, and a very detailed knowledge of the whole area will be necessary before we can hope to sort out a definite pattern for any particular place and time.

2) Cave Burials

In one sense this type of grave is related to the shaft grave type as any of the latter which are damaged or denuded so that the shaft can no longer be observed automatically fall into a less well defined "cave" classification. This section ought therefore to be sub-divided into "real" and "possible" caves, even without going into further groups of natural, natural but artificially extended, and completely artificial caves.

a) Definite Cave Burials

There is clear evidence for this at el-Husn⁸ in north Transjordan where

7. du Mesnil du Buisson, Le site archéologique de Mishrifé-Qatna.

8. el-Husn, pp. 1-2.

9. MT, p. 135 ff.

a cave with earlier occupation was re-used for burials in the EB.MB period; at Megiddo⁹ where four tombs in caves were found, in particular Tombs 1101 - 1102 where a series of inter-connecting natural caves with EBA domestic occupation were reused for EB.MB and Early Iron I burials; some confusion exists about the dating of a similar cave at Tell el-'Asawir¹⁰ at the southern end of the Megiddo pass. There is a "cave" with an EB.MB burial at Tell el-Halif¹¹ just south of Tell Beit Mirsim; and EB.MB sherds in a cave south-west of Jerusalem at Mugharet et-Taouamin¹² may have come from either funerary or domestic use.

As noted by the excavators at Megiddo, cave burial continues an EBA tradition in Palestine, and there were fourteen (i.e. multiple) burials in Tomb 1101 B - 1102 Lower at Megiddo. These practices were superseded by those of the square shaft tomb types, which also, unlike the majority of EB.MB shaft grave burials, put more than one body in each grave. The bones from el-Husn were fragmentary, but that "skulls" were found also indicates a multiple burial practice.

There is therefore some evidence for continuity from the EBA of a multiple burial tradition in caves in at least the early part of the EB.MB period. The evidence is not very clear beyond north Palestine and north Transjordan, but may extend into the south Palestinian highlands. The EB.MB jar from the vicinity of a cave at Khallet el-Khazen in south Lebanon should also be mentioned in this context, though there is no evidence that it was funerary. A similar situation is briefly reported from a fallen in

10. Yeivin, RB LXII (1955), p. 84; and Dothan, IEJ III. p. 263.

11. RB 74 (1967) pp. 77-8.

12. R. Neuville, JPOS 9 (1929) p. 117; JPOS 10 (1930) p.72 and Fig. 23.

cave at Khirbet et-Tuleil in north Israel.¹³

b) (?) Shaft Grave - (?) Cave Burials

Into this category falls the tomb from Jebel Taj in Amman,¹⁴ a cave burial found by civil defence workers who may have destroyed the shaft before finding the chamber; the cave itself seems to have been artificially cut (2 x 2 m. and semi-circular in shape) which may indicate that this was originally a shaft tomb. The bones were also disturbed at the time of discovery. The pottery from this tomb was thought to date to a late stage of the EB.MB (see Pottery Section).

3) Pit Burials

A unique type of EB.MB burial occurs in the cemetery of Tell Bir el-Gharbi in the Esdraelon Plain.¹⁵ The graves were simple oval pits cut into the rock. There is at present no parallel for this type of grave in Trans-jordan, though simple pit graves are found in Palestine at a later date.

The rest of the EB.MB grave types have been described under various headings as cairns, tumuli, cists, dolmens, built tombs and megalithic tombs. The central unit of all these types is cist-like, whether placed above or below ground level. This tradition is also clearly associated with single or few burials and may be the contemporary influence which led to single burials in shaft tombs at this period in Palestine. Again the minor variations in types are considerable, and it is difficult to classify the graves in this group. An attempt is made to confine the types to a) cairns

13. IEJ 4, p. 127 and RB LXII (1955) p.89.

14. ADAJ XII-XIII (1967-8) pp. 68-9.

15. IEJ 12, p.143; and RB 70 (1963), p. 566.

and tumuli, e.g. cists surrounded by a ring of stones and/or covered with a heap of stones, b) cist graves which appear to lack tumuli but which vary from quite small graves with slabs at top and sides to elaborately constructed and rather large tombs, and c) dolmens, which are in several features related to both the previous categories, but which are justly described as megalithic tombs.

4) Cairn or Tumulus Burials

Burials of this type are found in the EB.MB period at Bab ed-Dra'. "In the excavations we have encountered four cairn burials of this phase, and it is clear that the stone pile was placed directly upon a single, articulated burial with legs lightly flexed. In each instance the shallow cist was cut into a tomb of an earlier phase".¹⁶ That these graves had four-spouted lamps with them may suggest that they belong to the Iktanu Phase 2 - Ara'ir VIA period.

Comparable graves are found in south Palestine and the Negeb, perhaps also in Sinai. Tumuli have been excavated at Har Yeruham¹⁷ where two rather similar types were recognised.

Type 1 (90% of those found) consisted of a stone laid circle, six to seven metres in diameter in the centre of which a rectangular cist was built. In this the body was laid on an upper floor, and the grave goods on a lower one. The space between the cist and circle was filled with flat stones and debris. This was the earlier type, and was contemporary with

16. Lapp, Ibid., p. 10.

17. M. Kochavi, Yediot 27, see Fig. 2, pls. 14.2 and 15.3.

square houses and the earlier phase of settlement.

Type 2 was also a stone circle, four to five metres in diameter, with a cist rising to one metre in height. The body and grave goods were disposed as in Type 1. Type 2 was associated with round structures in the settlement which are characteristic of small Negeb settlements generally. Also at this site was a "high place" which was enclosed by a stone wall.

The last feature is a further link with the site at Jebel Qa'aqir, nearly 40 km. to the north. Here, among various features of a two period settlement is an enclosed rocky plateau with several crude "standing stones". Dating to the second phase of settlement were numerous cairn tombs, one of them about fifteen metres across. "Neither cairn produced any contents except for a few MB I (EB.MB) objects and sherds, although the larger one had a rather elaborate inner structure, including a mysterious 'tower'."¹⁸

These three groups at Bab ed-Dra', Yeruham and Qa'aqir are clearly part of the same tradition. A further group which may be included, though for which there is no dating evidence, comes from the cemeteries near Tell Iktanu. A short distance south-east of the tell itself on the shallow slopes near the plateau foothills is a row of four cemeteries divided from each other only by shallow wadis. They were first noted by Mallon as groups of cemeteries "au sud du chemin de Madaba, jusque vers Wādy Ayūn Mūsā".¹⁹

Both Mallon and Stekelis²⁰ at various times carried out considerable work among the great numbers of cists, tumuli and dolmens which abound in

18. Dever, p. 146 and pl.15.

19. Mallon, Biblica 10 (1929) p.214, p.224 ff, pl.II.4, III.1-2; and TG I, p.152 ff.

20. M. Stekelis, Les Monuments Mégalithiques de Palestine, Archives de l'Institut de Paleontologie Humaine, Memoire 15 (1935, Paris); and M. Stekelis "La necrópolis megalítica di Ala-Safat" in Ampurias 22-23, (1960-1).

the area around the Hesban and the Adeimeh, and it was from these Iktanu cemeteries or that of el-Metabe²¹ that Mallon thought the band combed carinated cup that he was offered probably came.²² This type of cup is not paralleled in the excavations at Iktanu, and with its prolific band combing and carinated wall it may well belong to a post-Phase 2 period, for which there is no settlement evidence.

In hopes of discovering whether these cemeteries were those of the EB.MB inhabitants of the tell at Iktanu some work was done in the cemeteries in 1966.

The four cemeteries, which were called A, B, C and D in order from north to south, each include nearly an acre of closely set graves. Cemetery A is the smallest and is separated from B only by a shallow dry stream bed. Cemeteries C and D had large stone built graves with stone rings at or near the centre of the cemetery, the largest of which, in Cemetery D, had a round central cist whose internal diameter alone was two metres.

In all these four cemeteries with their hundreds of graves, not a single one appears to have escaped looting.

Nine graves in Cemetery B were excavated and only one undistinguished sherd was found either on the surface or inside the graves. There was not even a bone to be seen.

As can be seen in Fig. 60, the graves were of two types. Graves 1-4, 7-9 are identical to the Chalcolithic (Ghassulian) types found by Stekelis

21. cf. Expl. IV, p.387 and J. L. Schwauger in ADAJ X (1965) "1962

Study of Three Dolmen Sites in Jordan" p.5 ff.

22. Mallon, Biblica 10 (1929), pl. III.2.

and Mallon at Teleilat Ghassul²³ and the orientation of the small cists (as in Fig. 60, Graves 2-4) in rows running north-south but with the graves oriented east-west, is identical.

Graves 5-6 are oriented differently, and also vary in having a more elaborately constructed and paved larger cist, and in having a ring of boulders around the outside. These graves were both set over towards the eastern edge of cemetery B. The parallels in construction and orientation between these two graves and Tumulus 1 at Yeruham²⁴ are very marked, though Graves 5 and 6 at Iktanu were dug into the ground surface and Tumulus 1 at Yeruham seems to be set directly on it.

Any conclusions on the closer dating of these Iktanu graves must obviously await other evidence, but tentatively it can be suggested that there is a link between Phase 2 or post-Phase 2 burial customs in the Iktanu cemeteries and those of the Negeb, and Bab ed-Dra'.

5) Cist Graves

This is a category based on rather unreliable data in Transjordan and for which there appears to be no evidence in Palestine. The Transjordan evidence comes from the Beitrawi grave (see Fig. 35). "In the course of cutting a new road between Zerka and Sukhneh in the western slopes of the hill where the ruins of Beitrawi lie, labourers of the Public Works Department found an Early - Middle Bronze tomb constructed of stones. Pottery vessels were recovered, but unfortunately no drawings or photographs were made, and the labourers removed everything before the arrival of the representative of the Department".²⁵ No stone circles have been noted in the

23. TG I, p. 154.

24. M. Kochavi, Yediot 27, Fig. 2, p. 289.

25. ADAJ VI-VII, (1962), p.111. Mr. P.J. Parr comments that he has seen a sketch plan of this grave, but it does not seem to exist now.

immediate vicinity²⁶ and it is assumed that this was a small rectangular grave lined with rough stones.

The only comparable material in Transjordan is the grave found by Lapp at Bab ed-Dra', with a rectangular cist about two metres long with walls lined with small stones and capped by flat slabs.²⁷ This he includes with the EBA grave types, though it may be the same tomb described elsewhere²⁸ as a "hypogeum" which was totally robbed of all contents except an articulated torso.

The grave at Rafid in south Lebanon is of this type however, and is larger than that at Bab ed-Dra', being three metres in length, with slab walls and roof.

This grave forms an intermediate link to the cist graves of the north, in particular that of the Hypogeum at Til Barsip.²⁹ This rectangular built grave with square shaft and stone-lined passage way (cf. various features of EBA graves at Bab ed-Dra') had a chamber with stone-lined corbelled walls capped by very large slabs. It housed two articulated skeletons with lightly flexed arms and legs lying on their right sides. The tomb was larger than that at Rafid, being nearly $5\frac{1}{2}$ metres in length. It was associated with four small cist graves, each side of which consisted of a single slab, and which usually housed single burials.³⁰

26. A stone circle 23 metres in diameter at the EB.MB-Byzantine site of Khirbet el-Hawaya on the south side of the Zerqa was noted by Glueck (Expl. III, p. 217).

27. Lapp, ibid., pp. 9 - 10.

28. Lapp, Archaeology 19 (1966) pp. 104-111.

29. Til Barsip, and Strat. Comp. Fig. 9, pl. XIX.

30. Til Barsip, pl. XXXII and Strat. Comp. pl. XX.

That the cist grave type is widespread in north Syria was part of Woolley's discoveries in the Carchemish area.³¹ In his period II "we find cist graves built up of great rough stone slabs, the graves are large, measuring c.2.50 x 1.00 m; they are roughly oriented N. x S..... the body is laid on its side in a contracted position". In periods III and IV he found that cist graves continued in use but were no longer placed below the floors of houses in the earlier style of the jar burials, but were grouped in cemeteries away from the settlements. "There is no regular orientation; the body is not contracted but extended at full length". He puts the Hammam graves in Period III and Amarna in Period IV.

The graves of the "Porteurs de Torques" at Ras Shamra in Ugarit Moyen I³² can barely be included in this category of cist graves, for they are simply burials surrounded and partially covered with stones. They appear to contain single burials also.

6) Dolmens

This category of tombs in the Levant has been the special study of a number of archaeologists, and the numerous difficulties associated with the dating of these tomb types are well known.

Earlier this year Dr. Claire Epstein³³ excavated a number of dolmens in the Jaulan of Syria and found them to be that rare case, unlooted dolmens, and dating to the EB.MB period. This is the first evidence definitely associating dolmens with this period and thus joins other evidence which indicates that these grave types were used or reused in various periods from

31. LAAA VI, p. 88 ff.

32. Ugaritica II, p. 49 and Strat. Comp. pl. V.

33. Personal communication to Dr. K. M. Kenyon.

the Neolithic to the Roman period. The vast dolmen fields of south Syria have already been referred to (see Section III D), as has the work of Mallon, Stekelis and Schwauger among the dolmens of the south Jordan Valley.³⁴

Dolmen fields are very widely distributed throughout the Transjordan area, and as well as in south Syria and the Jordan Valley can be found in the region of Mu'amariyeh (the eastern limits of EB.MB distribution) as well as in the Madeba area. South of this limit the major megalithic remains appear to be rows of standing stones as at Lejjun,³⁵ Ader,³⁶ Iskander,³⁷ Bab ed-Dra',³⁸ Hajr Mansub and el-Megheirat.³⁹ All of these monuments have been associated with the EB IV - EB.MB period, though there is usually later occupation on all sites. At Jebel Qa'aqir in Palestine however, Dever appears to have definite evidence that this association is correct.⁴⁰

That a further element of megalithic remains are to be associated with the EB.MB peoples in their burial rites and religious customs appears to be conclusively established. The megalithic remains of north Lebanon and their date have also been referred to in Section III.

34. See footnotes 19 - 21.

35. Expl. I, p. 44, pl. 9.

36. Expl. I, p. 47.

37. Expl. III, pp. 127-9, Fig. 47-8.

38. W. F. Albright, The Archaeology of Palestine, p. 78, and see p. 64.

39. Expl. I, p. 33 and 47; Expl. III, pp. 137-8; and Mereighat TG I, p.155, p. 158, and pl. 63.4-9.

40. Dever, p. 146.

Appendix C gives some indication of which sites are most intimately associated with dolmens and other megalithic remains.

The megalithic grave category concludes this brief survey of tomb types of the EB.MB period as known at present. The barest outline suggested is that in the early part of the period in north Palestine and possibly north Transjordan and central Palestine there is a practice of multiple burial in caves which continues directly from EBA traditions. This was replaced at Megiddo by multiple burials in shaft tombs which clearly are related in both shape and multiple burials to those in central Syria at approximately the same date. In the rest of Palestine the normal burial custom became single or few interments in shaft graves of not quite such regular pattern, which have prototypes in, for example, the Proto-Urban and EBA periods at Bab ed-Dra', where however the custom was for multiple burial.

The single burial custom which is most commonly associated with the EB.MB period may have arrived with a tradition of cist burials which, as with various innovations in the pottery already noted, seems to be widespread in north Syria from at least Early Dynastic times. The burials at Til Barsip, as in the pottery, offer several features in common with innovating burial customs in Transjordan.

There is insufficient evidence yet to date the appearance of cist burials in Transjordan. The Beitrawi group was generally thought to belong to a Phase 1 Iktanu stage, and this should be early in the sequence. Lapp had various grave types in the EBA period at Bab ed-Dra', including "tholoi" which may suggest that some of these influences arrived even earlier than the beginning of the EB.MB period.

A final comment on EB.MB graves types is to make reference to subsequent burial customs in the MBA, especially MB I (in Kenyon terminology). The remarkable factor is that all EB.MB tomb types recur in this period. To make reference to only a few of these is sufficient indication of some continuity of traditions between the EB.MB and the MBA.

1) Shaft Graves. These are the normal tomb type for MBA Palestine also, and frequently include reuse of EB.MB shaft tombs, as at Jericho⁴¹ and Gibeon.⁴² That the type is widespread is shown by the Royal Tombs at Byblos in the early second millennium⁴³ and in other cemeteries on the south coast of Lebanon. The continuity of the Megiddo and Qatna Tomb IV square shaft tomb type is shown in Qatna Tomb I, which has a degenerate form of this tomb with a square shaft, irregular chamber and single large niche. The multiple successive burials of Qatna Tomb IV are also found in Tomb I. The pottery of Tomb I is typical of the MB I period⁴⁴ and it is clear that Qatna Tomb IV and Tomb I are part of a continuous tradition in Syria in spite of radical changes in the pottery.

A multiple square chambered type to note in relation to that at Megiddo is at Neby Rubin with early MBA pottery.⁴⁵ The continuity of the

41. Jericho I, p. 306, Tomb J3, Group I.

42. J. B. Pritchard, The Bronze Age Cemetery at Gibeon, Tomb 63.

43. O. Tufnell, "The Pottery from Royal Tombs I - III at Byblos", in Berytus XVIII (1969) pp. 5-33, for an excellent summary.

44. du Mesnil du Buisson, Syria 8 (1927), Mishrifé-Qatna.

45. L. A. Mayer, PMB 2, pp. 2-7, "A Bronze Age Deposit from a Cave near Neby Rubin (Jaffa District)".

single burial tradition in shaft graves is noted at Tel Aviv.⁴⁶

2) Caves. Caves were used for MB I burials at Wadi et-Tin⁴⁷ five kilometres south-south-east of Bethlehem, and perhaps at Sin el-Fil near Beirut.⁴⁸

3) Pits were in use as MBA graves at Dharat el-Humraiya,⁴⁹ again with single burials. At Tell Farah single crouched burials and burials in jars in simple pits were found in the MBA.⁵⁰

4) Cairns and Tumuli are used by people making MBA artifacts at Baghouz on the central Euphrates⁵¹ and in the south Jordan Valley.⁵²

5) Cist Graves. Plain cist graves are found among the tumuli at Baghouz,⁵³ and cist graves of the MBA have already been referred to at Tell Hizzine in the Beqa' of Lebanon.⁵⁴

The most elaborate types, recalling those of Til Barsip, are those at Ras Shamra which the excavator considered were first used in Ugarit Moyen II, but continued to be used until LB II.⁵⁵ Similar types under houses are found

46. J. Kaplan, Atiqot (1955), "A Bronze Age Cemetery near Tel Aviv Harbour".

47. L. H. Vincent, RB 54 (1947) "Une grotte funéraire antique dans l'ouady et-Tin".

48. Chéhab, Mélanges Syriens II, p.810.

49. J. Ory, QDAP 13.

50. de Vaux, RB 55 (1948) The second campaign at Tell Farah.

51. du Mesnil du Buisson, Baghouz, Tombs 203, 209.

52. R. Neuville, "La nécropole mégalithique d'el-'Adeimeh" in Biblica 11, pp. 249-265.

53. du Mesnil du Buisson, Baghouz, Tomb 206.

54. B. M. Beyr IX, p. 109.

55. Strat. Comp., pl. VIII.

on the tell at Megiddo.⁵⁶ These have multiple burials. A brick built tomb on the tell at Jericho, dated to MB I is also reported.⁵⁷

Simple stone lined cist graves are found in Palestine at Ras el-'Ain⁵⁸ and at Gezer⁵⁹, both of which groups date to MB I, and contained single burials.

6) Dolmens. Already mentioned are the findings of Père Nasrallah at Dera'a. These may belong in this category or under tumuli.⁶⁰ There are also the dolmen tombs of various periods, including the MBA, found by Tallon at Menez in north Lebanon.⁶¹

This evidence perhaps supports the view that the EB.MB population was not wiped out at the end of the period, but that it was absorbed into the new order of mass production and urban life that evolved fairly rapidly; they may have retained some of their old traditions in the new age, and burial customs are among the most conservative of all. Thus some odd traditions of single burial and grave types in the generally multiple burial shaft tomb tradition in MBA Palestine may well show these survivals; though in the new urban age, as in the previous EBA urban period, multiple burials were the practical and accepted custom.

56. Megiddo II, Stratum XII, Area BB, T 3095.

57. K. M. Kenyon, "Excavations at Jericho - 1956" in PEQ (1956), p. 81.

58. J. Ory, QDAP 5,6.

59. R. A. S. Macalister, The Excavation of Gezer, I, Fig. 158, Tomb III (30).

60. Nasrallah, Syria XXVII (1950) pp. 314-331.

61. M. Tallon, "Les monuments mégalithiques de Menez" in BMBeyr XVII (1964) pp. 7-19, pls. I-VII.

SECTION VII TENTS AND HOUSES

This chapter, as its title implies, deals not just with the structures of the EB.MB period, but also with the evidence for less substantial dwellings. Ephemeral homes such as tents and bothies leave little permanent trace of their existence, and archaeologically their presence is often difficult to establish. If a site is used only once for pitching a tent, only special circumstances will preserve the traces, but if the same site is used for generations the chances of recovering the evidence are far greater.

In proportion to the slightness of these tents, the evidence is slight, and it is proposed to consider this first before turning to the subject of the buildings.

A) Tents and Camp-sites

There is no evidence to show whether the flimsy shelters inferred from the evidence listed below were of woven textiles or of reeds or light brushwood, but for convenience they will be described as tents. Nobody has yet excavated an EB.MB site and found evidence for the use or type of tent, but their use is inferred from the following rather varied observations.

i) Camp-sites. The sites of Mu'amariyeh (see pp. 100-104 and Fig. 4) and Tell Umm Hamad Gharbi (see pp. 104-107 and Fig. 5) have already been described in detail and the latter particularly seems to establish conclusively that the site is that of a very sprawling and short-lived camp-site spreading out from a central "tell". At both sites the "tell" appears to have no buildings either, and it is suggested that this central part of the site was used by successive generations, or for a shorter period but all the year round as a permanent camp-site, while the greater spread was used for a short time or occasional periods only - e.g. at a time when a large number of

people were migrating for an extraordinary reason, in the first case; or for an annual event such as a tribal gathering taking place for a few days or weeks only, in the second case.

Other sites in Transjordan which show similar features are 'Ain Mehna and Tell Abu Habil. 'Ain Mehna near Ajlun¹ where only one EB.MB sherd has been found, is a strong spring where today the flocks of a wide surrounding area are watered. Glueck found sherds of several periods, but no traces of settlement of any, and perhaps anciently it was simply the temporary stopping place of pastoralists on the move on the edges of the high timbered country of Ajlun.

Tell Abu Habil² is another Jordan Valley site consisting of a low grey mound where Glueck found a number of clear EB.MB sherds. However in the excavations by de Contenson³ no EB.MB level was distinguished and his conclusion was that "occasional finds of Early Bronze, Middle Bronze and Iron Ages are quite possible, but in these times the settlement shifted to some other place of the vicinity", and he otherwise ignores the EB.MB finds from the site. This suggests that there was EB.MB occupation of a slight, camping type above the main Chalcolithic levels, which were too shallow and denuded to be detected.

The small scattered EB.MB sites which spread out from the sites of EBA settlements on the Kafrein and the Shu'eib (pp. 111-112) may also have been partly of this nature.

As well as these four Jordan Valley and two north plateau sites,

1. Expl. IV, pp. 227-9.

2. Expl. IV, pp. 275-6, pls. 12-14.

3. H. de Contenson, "Three Soundings in the Jordan Valley" in ADAJ 4-5 (1960) p.47.

there is one site in the south where camping occupation of the period has been noted. At Bab ed-Dra' Lapp⁴ mentions a final phase of occupation of the site after the destruction of the EBA town when the newcomers merely camped over the site without rebuilding the town, leaving behind them a scatter of sherds not associated with any structure.

This generally quite numerous spread of sherds not associated with structures is a phenomenon common to all these sites, and suggests that the makers of this pottery, which included quite large and numerous vessels, were not always on the move, but perhaps travelled slowly over relatively short distances and only at considerable intervals, perhaps seasonally. It may be that not all the pottery travelled with its owners, but the larger vessels were left to await the next season. In other words, these people may well be semi-nomads, and as the evidence for the houses to be discussed shortly suggests, probably moving among sedentary people in villages, if they are not the occupants of houses themselves in winter.

There is similar evidence from Palestine. At Jericho, "all over the surrounding slopes to the west and north of the tell, in the cemetery areas, traces of occupation of this period are found, of which the evidence is abundant pottery but only the scantiest remains of structures".⁵ Miss Kenyon suggests this camping occupation around the tell may precede the building of houses on the tell itself, and thus show a slow development of sedentary habits on the part of the newcomers.

A similar situation is inferred from the very slight information published to date for Khirbet Kerak⁶ which is said to have a thin scatter

4. Lapp, Archaeology 19 (1966) pp. 106-107.

5. K.M. Kenyon "Excavations at Jericho, 1954" in PEQ 1954, p.56.

6. B. Maisler, M. Stekelis, M. Avi-Yonah, "The Excavations at Beth Yerah (Khirbet Kerak) 1944-1946" in IEJ 2, pp. 165-173, 218-229.

of EB IV as well as EB.MB sherds (and if so is the only site in the north to have EB IV sherds) but which are not associated with buildings.⁷ Albright has briefly commented on the extent of this EB.MB site; "it covers an area extending some two kilometres along the shore under remains of the Hellenistic Age".⁸

ii) Evidence from excavated settlement sites.

The second type of observation is a more negative one. It refers to the number of sites of this period where excavations have found occupation debris but no houses. The pitfall in this type of evidence is that in most cases the area of excavation is limited and there may possibly be houses on another part of the site.

Sites in this category in Transjordan are Ara'ir⁹ where in the earlier Level VIB, layers of black earth with ash and bones alternated with thin layers of wind and rain deposited fine yellow earth, which the excavator suggests is evidence for semi-nomadic occupation of a seasonal nature. It was in the next phase at this site that the houses were built. The neighbouring site of el-'Aqrabah (see pp. 96-98) where the pottery was thought to be slightly earlier than that of Ara'ir VIB there was also no trace of any structures whatsoever.

In Palestine, similar evidence is forthcoming from Tell et-Tabayiq

7. P. Bar-Adon, in IEJ 3 (1953) p.132, IEJ 4 (1954) pp. 128-9, found EB.MB city walls, etc., but in a final season reported in IEJ 5 (1955) p. 273, that these remains were Hellenistic.

8. W. F. Albright "Remarks on the Chronology of EBIV-MBIIA in Phoenicia and Syria-Palestine" in BASOR 184 (1966).

9. Ara'ir, p. 230.

on the extreme north coast¹⁰ where a small settlement of three levels dated respectively EB I, EB II-III and EB.MB were excavated, and in the EB.MB levels no houses were found. Further south at Shechem there were EB.MB graves and a few sherds on the tell, but no structures or proper occupation were discerned.¹¹ At Lachish also at this period, the few sherds on the tell were not generally associated with structures.¹²

iii) Graves but no settlements

Another feature which suggests a nomadic population is the presence of graves in areas where no settlement sites have yet been located. This refers in particular to the Lebanon, where the south coast cemeteries and the grave at Rafid in the Wadi et-Teim contain the sole traces of pottery of this type. At Rafid in particular where a number of nearby sites have been carefully searched, not a single sherd of the types numerous and characteristic in the grave itself has yet been found. This suggests a people travelling through the area fairly rapidly, and not settling even for a season in the vicinity.

iv) Caves

A category which perhaps points in the same direction is occupation of caves. People who live in tents or lead semi-nomadic lives do occasionally occupy caves, especially in a wet or cold winter. No caves with EB.MB occupation debris have yet been reported in Transjordan or the Jordan Valley; but there are a number in Palestine and perhaps in Lebanon (the Khallet el-Khazen cave). In Palestine there is clear evidence for this at Wadi

10. 'Atiqot 2, p. 88.

11. Dever, p. 159, n.64.

12. Lachish IV, p. 41 ff. and p. 45.

Idalya¹³ where the complete cooking pots indicate domestic rather than funerary use; at Jebel Qa'aqir;¹⁴ as well as at Lachish and Tell Beit Mirsim. Dever, in describing the cave occupation at Jebel Qa'aqir gives copious references to the Lachish and Tell Beit Mirsim material,¹⁵ and writes "of at least a regional pattern of settlement by cave-dwellers in MB I (EB.MB). There are no springs within about two miles of the site, and that, plus an occupation exclusively in caves and open cave terraces, points to no more than seasonal settlement. The inhabitants were probably semi-nomads who range the northern Negev with their flocks in winter, coming north into the hills only when forced to in summer, just as the Bedouin of the Negev still do". The cave occupation at Jebel Qa'aqir appears to be associated with rectangular buildings as well, but clearly the forthcoming fuller account will elucidate this.

Rothenberg¹⁶ found no particular centre of EB.MB settlement in the Kadesh-Barnea area and considers it unlikely that any city like centre ever existed. In general the round and rectangular structures typical of the Negeb are thought to belong to semi-nomadic pastoralists.

The cave at Mugharet et-Taouamin¹⁷ can also be recalled in this context, but whether it was domestic or funerary in use is not known.

v) Burial customs

The final category of observations relies mainly on the evidence first

13. RB (1965) 72, pp. 405-409, and Dhahr Mirzbaneh, p. 63.

14. Dever, pp. 146-147.

15. Dever, p. 147 and n.11, n.77, n.2 and n.79.

16. B. Rothenberg, God's Wilderness, p. 42.

17. JPOS (1929) 9, p.117; JPOS (1930) 10, p.72 and Fig. 2.B.

noted by K. M. Kenyon. At Jericho, various features such as disarticulated burial, groups of distinctive grave types allied with distinctive burial customs of restricted distribution have convincingly been shown to belong to a number of tribes who are partly nomadic in character, but have family or ancestral burial grounds to which they return to bury their dead.¹⁸ One group in particular (in the "Dagger Type" tombs) buried their dead without pottery offerings which suggests that they were fully nomadic. It seems unlikely however, that only one group entirely refrained from using pottery in a society which generally seems to have used it in some quantity.

There is thus considerable evidence for nomadic or more probably semi-nomadic groups, but this should not be allowed to overwhelm the evidence for a more sedentary population, which will be briefly reviewed to balance this picture of life in the EB.MB period.

B) Houses.

This sub-heading has been chosen deliberately to emphasize the fact that there is as yet no certain evidence for buildings of other than simple domestic character. The single query is at Megiddo, and this will be referred to last.

i) Transjordan

The starting point for this subject in Transjordan can again be at Tell Iktanu where considerably more evidence is available than at any other site, and which is worth considering in some detail therefore.

The plan on Fig. 11 offers one of the very few comprehensive indications of what an EB.MB settlement looked like. It is clear that "village" is a

18. Jericho I, especially p. 185, pp. 180-185.

better description than "town", but there is a reasonably well organized layout. The main features are:

- a) the lack of any defensive wall. This could neither be traced on the ground (cf. pl.13) nor does the spacing of the houses indicate the density that normally develops behind town walls. The house walls appear to end at irregular levels all round the base and lower slopes of the hill, with numerous street or passage outlets to the surrounding countryside. The outer house walls are of the average width (30-50 cm.) normal on the lower slopes of the site.
- b) there is hardly any trace of terracing. All the walls follow the natural slope of the hill and the streets are steep or flat accordingly. The streets running down the slopes show evidence of considerable erosion.
- c) there is a fairly regular layout of streets, all about $2\frac{1}{2}$ -3 m. in width. Those running roughly north-south (there are about eight shown in Fig. 11) radiate slightly from the top of the tell. Those running east-west are not so clearly defined and may often be little more than passages separating houses.

The surface of these roads is the natural gravel. The steepness of many of them, and the rather numerous sharp angled bends allied to the very irregular surface on the steep stretches suggests that they were more for the use of pedestrians, human and animal, than for wheeled traffic.

- d) the houses were all rectangular, none appeared to be of an extra size or of more elaborate construction than its fellows, all had very large courtyards which perhaps suggests that the flocks were brought in at night.

It is clear even from this plan of surface remains that at least two phases of construction were involved, and the excavation of Area A revealed

distinct differences in the building techniques of Phase 1 and Phase 2.

In both phases however, the same inferences can be made. That this is the sprawling village of a principally sedentary population of at least 160 households who have fairly uniform and strong traditions in their building techniques, type of house, layout of village and thus almost certainly of social customs and organization. No one appears to be much better off than his neighbour.

There is some indication that these traditions weaken between Phase 1 and Phase 2.

Building techniques, Phase 1.

Though the evidence for this section is primarily based on the excavation of Area A, Area B and other surface indications show that the differences between Phases 1 and 2 are likely to be constant for the rest of the site.

The house in Phase 1, Area A (Fig. 12) is approximately rectangular. Most of the southern section was a large open courtyard, approximately 15 x 12 m. with numerous pits, and several small irregular rooms placed against the perimeter walls. Apart from one small room (2 x 2 $\frac{1}{2}$ m.) on the north side of this courtyard, there was no living room; and this is therefore assumed to have been to the north on the other side of the corridor, on to which it probably had access, as well as to a small porch with a zīr, by way of a doorway with a socket stone in Wall Q3.

This phase had very neat construction techniques. The walls were still standing in some places to a height of 40 cm., and were laid directly onto the natural gravel without a foundation trench. They were constructed

of an inner and outer row of untrimmed wadi boulders of medium to small size chocked with small pebbles. The courses are evenly laid, and occasionally there is a slight vertical batter. There was no evidence that these stone walls were ever very much higher, for there was very little stone debris and the fill inside the houses was largely clean and rather solid yellow earth which almost certainly came from the weathering of a terre pisée superstructure. There was no trace of brick, but there was some evidence from Area B that the stone base may have had a rough mud plaster.

These rather narrow walls, usually approximately 30 cm. in width, ran unsupported for long distances, for example Wall A for at least 20 metres. Presumably to give stability to the foundations large boulders were incorporated in the base at fairly regular intervals, and were also usually placed at the base of corners. (For a typical stretch of Phase 1 wall, see the bottom courses in pl. 18A, and for a "corner stone" see Fig. 12, the western end of Wall P of which only a single course was preserved.)

In spite of these precautions, it is clear that the longer stretches of walls occasionally did collapse (Walls A2-3, L3 for examples). In Area B and generally on the steep lower slopes the walls tended to be wider (about 50 cm. in width) and built of larger boulders. This may simply be to counteract the steeper slopes and because larger boulders were obtainable with little effort from the nearby bed of the Wadi Jarafa. These walls on steep slopes also seem to have been bedded in shallow foundation trenches.

There was no evidence for roofing materials in this phase.

Building Techniques Phase 2.

It seems fairly clear that in Phase 2 the Area A house was confined to

the Phase 1 courtyard area and several walls were built at the north end to create new large living rooms (see Fig. 13). The main living room was approximately 5 x 5 m. and there were two lesser rooms to the west. All the Phase 1 walls still standing were reused, but where these had to be built up again, or new walls built (as in Walls F and D2) the change in technique is very marked. Instead of the neatly placed small boulders in even courses, there is now a clumsy single row of stones, often of a rather crumbling conglomerate. Nowhere does more than one course of this survive (for examples see the top course in pl. 18A, pl. 18B and front walls in pls. 16 A-B. In pl. 16B compare Wall D2 in foreground with the corner of Phase 1 walls G and D1 on the right; the Phase 1 "corner stone" can just be seen at the bottom of this angle on the lip of the hearth).

This may suggest that there was only one course originally, and there is almost no stone debris in the collapse levels of this phase. Thus the people of Phase 2 show less skill and knowledge than their predecessors in choosing and building in stone, and are perhaps influenced by the techniques of less stony areas. In Phase 2 also, the debris of clean solid yellow earth in which there was only one very crude lump of earth to hint at mud brick, suggests there was a *terre pisée* superstructure. This is also indicated by the Phase 2 step against Wall B3, which, as well as indicating a doorway of which no other traces remain, suggests that the door was in the mud superstructure and not cut through the stone base. The step only became necessary in a late stage of Phase 2 when the living room floor was worn down below the top of the Phase 1 debris. The ground level in the passage on the other side of the wall was higher as it did not suffer the

same wear and tear as the living room, and so a step on that side was never necessary.

The stone slab in the centre of the main living room bore no trace of ash or burning and is presumably therefore a base for a column to support the roof. The scarcity of cooking pot fragments in this room also suggests that it was not a hearth. Three very small fragments of unbaked clay with reed impressions in the upper debris of the main living room suggest that the roof was of poles supporting a clay and reed thatch.

The entrance to the courtyard seems to be rather unskillfully placed in the south-west corner of the living room, and there was no trace of a socket or door.

Other sites with definite evidence for buildings are listed in Appendix C. South of the Yarmuk in Transjordan, of the seven excavated settlement sites of this period, four have produced evidence of buildings, and occasionally ruins, which are probably of this date, have been noted on the surface, as at Tell Meshra al-Abyad.

In the south there is some poorly described evidence from the small sounding at Ader.¹⁹ The bottom level was below a level designated Phase B (and was therefore Phase C and EBA?) and had a mud brick wall on a foundation of small stones. Only one course remained and it had a thick coat of plaster (cf. Phase 1 Iktanu). Above, certainly in Phase B, there was a lot of fallen "adobe brick". Perhaps of Phase A date above were the remains of a rectangular building on one course of stone foundations with possible traces of a mud brick superstructure. Its width is unknown because there is a

19. Ader, pp. 79 - 88.

printer's error in the text. The Ader evidence therefore indicates that there appear to be three phases of mud brick buildings usually on single course stone foundations, the latest of which was rectangular. The latter feature compares with Iktanu generally, and the single course of stone foundations may parallel those of Iktanu Phase 2.

Further north at Ara'ir²⁰ there are slight traces of a building in the later level VIA with two walls of a single stone thickness. This perhaps suggests the Iktanu Phase 2 technique.

Fuller evidence comes from Iskander²¹ in Period 3. Period 3(1) with its foundation trench three metres wide and 2 metres deep for a defensive wall or terrace wall has no parallel at Iktanu. The Period 3(2) Trench I house at first sight seemingly bears little relation to the buildings at Iktanu, but it has several points of comparison. The stone walls at Iskander are more massive (.75 m. wide) than at Iktanu and the heavy cobbled floor is unlike the light earth and pebble floors at Iktanu. The courtyard (2.50 x 4 m.) is much smaller, but it also has small areas partitioned off. On the other hand, its size is not much less than that of the Phase 2 "living room" at Iktanu and the central socket stone at Iskander is paralleled by the central roof column base at Iktanu.

Another point of difference however is that Period 3(2) walls at Iskander have survived to a height of 1.50 m. suggesting they were entirely of stone. This may simply be an environmental difference, but it varies also from the practice at Ader.

20. Ara'ir, pp. 230-259.

21. Iskander, pp. 129-130.

In the upper levels of Trench II at Iskander three or four phases of occupation were uncovered and a similar situation to that at Iktanu is described, with walls of rectangular structures some 9.50 x 7.50 m. visible on the surface.

There are therefore a few parallels between Iktanu and Iskander to suggest some common building traditions.

The only other evidence comes from the extreme north, where at Abu Naml²² in "the Early Bronze Age IV level the foundations of a building consisting of three rooms and an inner court" were found. Glueck, who subsequently saw the pottery from this site²³ found it to be entirely EB.MB (cf. the evidence from Khirbet Kerak for EB IV pottery).

In Syria, the date of the structures excavated at Khirbet el-Umbachi²⁴ is not clear and so these cannot be included here. This very scattered evidence is insufficient to show any clear lines of development, beyond rectangular buildings and courtyards being preferred, and the evidence from Palestine does not particularly clarify the situation.

Although not yet fully published, the most detailed evidence comes from the tell at Jericho, only 20 km. from Iktanu.²⁵ Three superimposed layers of rectangular buildings were found to sprawl over the whole slope of the tell. Unlike those at Iktanu they were terraced, but were also built without foundation trenches, with a single course of stone foundations resting directly on the ground. The walls were built up of one thickness of

22. Sha'ar ha-Golan, in IEJ 2, pp. 252 - 3.

23. Expl. IV, p. 141.

24. AAS 4 - 5, pp. 59 - 76.

25. Kenyon, in PEQ 1952, p.65 and pl. XIV.2; 1953, p. 90; 1954, p.55 ff and pl. XIII; 1955, p. 115 and pl. XVIII. 2.

greenish brick. The single course of stone base compares with Iktanu Phase 2 (as with various other parallels cited between the Jericho tell and Iktanu). There was no trace of a defensive wall at Jericho, a feature in common with both phases at Iktanu. There was a socket stone in the doorway of at least one room (cf. Iktanu Area A).

In south Palestine and the Negeb and Sinai a number of sites have structures but there is insufficient evidence to fully understand the traditions involved. In Sinai and the Negeb small round stone structures are common,²⁶ and are comparable to those in the later phase at Har Yeruham.²⁷ In the earlier phase at Yeruham²⁸ there are rectangular multi-roomed structures either with central column bases or with rows of column bases along the central axis of the room. At this site the rear walls of the houses are said to link to form a type of defensive wall. (For a general view of rectangular house and column of the earlier phase at Yeruham, see pl. 4B).

Similar rectangular houses occur at Jebel Qa'aqir in the early phase, but are not yet fully published. Other rectangular houses were found at Lachish, which may be of this date. "Straggling house walls which remain on the denuded upper terrace in the North-West Settlement. Where the soil is deeper on the lower terrace, the foundation courses of a building were preserved which had contained at least a dozen rooms".²⁹ The plan of this shows stone walls two to three courses thick and up to a metre in width.

26. B. Rothenberg, God's Wilderness, pp. 61-62, Ruweiset el-Akheider.

27. Yediot 27, p.284 ff., see main site plan, particularly Area C.

28. Ibid., particularly Area B.

29. Lachish IV, p. 41 ff. and pl. 2-5, 95: Grid XII. G 18/19.

The buildings are rectangular. Except perhaps for a slight wall and a few sherds there appeared to be no EB.MB houses on the tell itself at Lachish.³⁰

Although Albright considered that the preservation of deep deposits of black earth and some wall fragments was due to the presence of city walls in Level H, which were subsequently demolished by the builders of the MBA walls,³¹ the actual evidence from Tell Beit Mirsim is very slight. There are a few fragments of stone and mudbrick walls and masonry walls at cave entrances only preserved in Level H, and parts of a cobbled floor in Level I.

Further north similar poor evidence was found at Bethel.³² Although a blood-stained "high place" and temple in the north-west area were dated to this period, there seems to be little evidence to show that the temple is not simply the foundations of the MB II North-west Gateway and some of the evidence published on the dating of this and nearby structures is very confusing, particularly the statements on the dating and development of the EBA, the EB.MB and MBA periods; and on the survival of the "temple" through MB IIA.³³ In Area I in 1934³⁴ two wall fragments running parallel were found and dated to this period, but they were reused in the MBA and presumably what is shown in the plan is the final MBA wall. They appear to be 80 cm. wide.

30. Ibid., p. 45.

31. W. F. Albright, "The Excavation of Tell Beit Mirsim. II. The Bronze Age pp. 14-16, AASOR XVIII.

32. J. L. Kelso et al. "The Excavation of Bethel (1934-1960)" in AASOR XXXIX (1968).

33. Ibid., paragraphs 93-98.

34. Ibid., pp. 22-23.

The only other site where there are probably buildings of this period illustrated is Megiddo, and there the evidence is very unclear. Several attempts have been made to reconstruct the stratigraphy on the tell at this period, particularly that of the most important buildings, the temples.

K. M. Kenyon³⁵ has suggested that the Altar 4017 is EB III (Phase D), the twin temples 5269-5192 (Phase E) may possibly be EB.MB if they are not also EB III, and the original and reconstructed form of temples 4040 are EB.MB.

I. Dunayevski³⁶ after some further work on the site concluded that the entire temple complex as well as the Altar 4017 dated to the EBA, but unfortunately this work is not fully published.

A very recent study by T. L. Thompson,³⁷ while agreeing with Kenyon's dating of Altar 4017 and Temples 5269 and 5192, has attempted to prove that the original and reconstructed 4040 temples belong to the MBA.

While there is no evidence from sites beyond Megiddo to support Kenyon's case for a series of monumental structures to be dated to this period, the tombs and imported vessels at Megiddo indicate that the history of this site is not likely to be identical to that of south Palestine and Trans-jordan; and such buildings might perhaps be built either early in the period under continued EBA influence, or very late under the influence of the central Syrian towns. Thompson's case is based on very close analysis of

35. "Some notes on the Early and Middle Bronze Strata of Megiddo" in EI V (1958) pp. 51-60, and Amorites and Canaanites pp. 31-32.

36. I. Dunayevski and A. Kempinski in IEJ 16 (1966) p. 142.

37. "The dating of the Megiddo Temples in Strata XV-XIV" in ZDPV 86 (1970) pp. 38 - 49.

groups which it would be tedious to repeat, but which are based on uncertainties in the stratigraphy of the site which still leave the position not fully resolved. His case is weakened by an attempt to show that the fenestrated axe-head in the rebuilt Temple 4040 wall is not of EB.MB date, when it is however quite well dated to this period (see Section IV, where it was however suggested that it might be slightly later than those of Jericho and Ma'abarot). I prefer, on purely comparative grounds, to consider that the rebuilt 4040 temple is perhaps the only EB.MB temple and that the others are in an EBA tradition and pre-2200 B.C. at least. The question should however probably remain open until further evidence is forthcoming.

Only Miss Kenyon has made a detailed attempt to associate the domestic buildings with the temple plans, and it can only be noted that all buildings are rectangular, and some of them are of the slighter and more straggling type of the EB.MB period, as for example in "Phase G" on the lower terrace.³⁸

There is therefore considerable evidence for simple rectangular buildings over most of Palestine and Transjordan, as well as evidence for more transient occupation. No uniform trend is observable; at some sites a building phase precedes a camping phase (e.g. Jebel Qa'aqir), at others the reverse is indicated (e.g. Jericho and Ara'ir). At Iktanu there are houses throughout, at Umm Hamad Gharbi there may only have been a camp-site. A situation of considerable flexibility is indicated and perhaps two major trends are observable. Earliest, there may be an EBA influence with an urban tradition, which tends to break down under nomadic infiltration; and subsequently, as at Jericho, a few of these semi-nomadic groups begin to

38. Kenyon, Ibid., p. 58.

settle. With the loss of the old building traditions, their results are the poorer buildings to be seen on the tell at Jericho and in Phase 2 at Iktanu.

Throughout the period however, there is clearly a fairly sedentary element in the population of people who probably spend the greater part of their year in agricultural pursuits. Whether there are fully nomadic groups contemporary with them, or whether the buildings are those of people who camp in spring and summer pastures, is not clear.

SECTION VIII CONCLUSIONS

A) Some other aspects of the EB.MB period

Some aspects of our knowledge of the EB.MB people have been missed in this study, as so far we have dealt with only the major topographical and archaeological features. Some remains of a very slight nature allow us almost as large a glimpse of the way of life at this period, even if they offer us less for a comparative chronology.

Pastoralism

It is only in very recent years that much attention has been given to bone recovery from domestic levels in excavations and clearly when some of the more recent work is published our knowledge should be substantially increased. Jericho is again the foremost source of information.¹ In the EB.MB tombs, particularly the Outsize Type, various animal bones were recovered and convincingly shown to be the left-overs of some kind of funerary feast or offering. The bones were mostly those of sheep and goat, though there was one fragment of ox, and perhaps some of pig. On the tell, throughout the Bronze Age, there were remains of goat and sheep, ox, pig and gazelle. Sheep and goats occurred in greater numbers than any other species throughout this time. The number of gazelles hunted for food decreased from the EBA as

1. Jericho II, Appendix J, pp. 694-696, and Appendix K, pp. 697-703.

J. Clutton-Brock, "The primary food animals of the Jericho Tell from the proto-Neolithic to the Byzantine period" in Levant III (1971) pp. 41-55. J. Clutton-Brock, "Carnivore remains from the excavations of the Jericho Tell" in G. W. Dimbleby and P. J. Ucko (ed.), The Domestication and Exploitation of Plants and Animals, pp. 337 - 345.

did the size of animals from the Neolithic period (due to domestication?). The most significant factor otherwise was the sharp increase in the numbers of cattle in the MBA, in comparison with the numbers recorded in the EBA. No statistics for the EB.MB period are given in this section of the report, and thus it is not clear whether this sudden increase affected the EB.MB period as well. However, the Jericho evidence shows that sheep, goats, pigs and cattle were domesticated in the EB.MB, and the gazelle was hunted.

The bone evidence from Iktanu depends on a very much smaller amount of material. All bone recovered from the excavations was in very small fragments and there is some evidence to show that after it had been in the cooking pots and on the table, it was thrown to dogs; what is left is only what then survived for 4000 years less than 50 cm. from the surface. There were 48 identifiable fragments² which were analysed as 75% sheep and goat (both species being identified in rare instances), 17% bos (small cattle, probably domesticated, not primigenius), 5% gazelle (and/or antelope type) and there was one fragment of dog(?) and a piece of human bone.

Most fragments come from the Phase 1 levels, but this may be fortuitous and due to all Phase 2 levels being so close to the surface. The only possibly significant points were that all gazelle fragments came from Phase 2, perhaps showing a greater dependance on hunting, but the sample is too small to be certain.

The bone percentages indicate at least domesticated sheep, goats and cattle, and perhaps dogs, with gazelle indicating a hunting element in the

2. My most grateful thanks are due to Dr. I. W. Cornwall who identified these fragments.

economy. Dr. Cornwall points out that the percentage of bone on domestic sites relies heavily on what was slaughtered for food, and this may favour the smaller sheep and goats, while cattle, because of their value in providing milk, may have escaped such regular slaughter.

The flocks at Iktanu may well have been housed at night in the large courtyards of each household.

Other published evidence is rare, though at both Yeruham³ and Jebel Qa'aqir⁴ pastoralism and flocks are referred to. At Ara'ir⁵ goat bones were found in Level VIB.

The only other site, which can hardly be ignored in this context, even if the dating evidence is unclear, is Khirbet el-Umbachi.⁶ The analysis of bones from the calcined bone layers of an estimated herd of 40,000 animals showed that the majority were small cattle (bos brachyceros). A fragment of bos primigenius was also identified and the remainder were sheep (fat-tailed sheep, ovis aries or ovis platyura syriaca) and goats (hircus mambrinus). All species were thought to be domesticated. The pottery from the site was EBA, EB.MB and MBA.

There is therefore considerable evidence that cattle as well as sheep and goats were typical of the EB.MB economy, and it is interesting to note that this evidence has some illustration in the texts.

The Egyptian evidence is threefold. It concerns first the story of

3. B. Mazar, "Middle Bronze Age in Palestine" in IEJ 18 (1968) p. 68, n.6.

4. Dever, p. 147.

5. Ara'ir, p. 230.

6. AAS, 4-5, pp. 59-76; analysis of C. Gaillard.

Sinuhe⁷ who lived among cattle owning tribes in Upper Retenu (south Syria?). The Shechem expedition under Sen-Wosret III (1878-1843, see chart below) brought back "Syrian" cattle as loot, and there is also some evidence for similar activity in the Twelfth Dynasty (see p.33).

Admittedly all this evidence is late in our period and early in the MBA, and may particularly reflect the enormous expansion of cattle breeding in the MBA as shown at Jericho.

Père de Vaux⁸ noted that the Biblical evidence indicates that the Patriarchs acquired cattle only after they had been in Canaan for some time, and cattle are never mentioned in the texts concerning Mesopotamia and Laban. He also pointed out that cattle involve a more sedentary form of semi-nomadism.

To postulate that cattle played an important part in the EB.MB period as well as sheep and goats, particularly in the northern or well-watered areas thus seems reasonable, and also that sheep and goats were more important in the drier marginal areas of the south.

Agriculture

The evidence for vegetable staples in the EB.MB period is also in a fairly early stage of research, and again Jericho has provided a striking amount of the available evidence.⁹ As well as two varieties of barley and

7. Admittedly the text of the Sinuhe story is late, but it is considered to be fairly sound evidence for the period it refers to; see p. 32 and chart below.

8. RB 56 (1949) p.6 ff.

9. M. Hopf, "Plant remains and early farming in Jericho" in P. J. Ucko and G. W. Dimbleby (ed.) The Domestication and Exploitation of Plants and Animals, pp. 355-359.

three varieties of wheat including emmer and einkorn, peas, lentils and chick-peas were all found at this period on the tell.

It is also notable in the chart given by Hopf, that neither in quantity nor in range do the cultivated vegetable species of EB.MB Jericho approach those of the EBA and MBA, even though there was very little tell material of the latter period found in Jericho in the Kenyon excavations. This further indicates cultivation of fruit and vegetables in the EB.MB period was practised much less intensively than in the preceding and succeeding urban periods, and these statistics therefore favour the accuracy of the remarks in Section II apropos comparative distribution of sites at these periods in comparison with rainfall limits.

No evidence of this type was recovered at Iktanu except that grindstones and sickle blades indicate the cultivation of cereals. At Ara'ir Level VIB¹⁰ carbonised wheat grains were found in the basal pits. At Har Yeruham carbonised olive stones were recovered¹¹ and seasonal agriculture is referred to.¹²

The Egyptian texts of the Sixth Dynasty¹³ mention "fig trees and vines" (c. 2320 - 2280 B.C.); and Sinuhe (c. 1960 B.C.) says that in Upper Retenu they had figs, grapes, wine, honey, olives, fruit, barley and emmer (see p. 32).

10. Ara'ir, p. 230.

11. IEJ 13, p. 141.

12. For an indication of seasonal agriculture, see also sites with flints listed in Appendix C.

13. Uni's expedition, see chart below, and Section I.

Religion

This sub-heading suggests an attempt will follow to resolve the imponderables of religious beliefs at this period; without textual evidence this is obviously impossible. But two main points should be noted, which in themselves have wider implications.

i) The only clear evidence for some form of religious belief, apart from the act of careful disposal of the dead in graves, is of menhirs, which the Jebel Qa'qir and south Transjordan evidence suggests can be reliably associated with this period. Religious customs of the living are thus positively only associated with outdoor monuments, with so far a single reservation for the Megiddo temples. The evidence from the southern part of the country is thus in agreement with the practices of a non-urban society.

ii) Figurines of this period offer both positive and negative points of comparison with religious beliefs elsewhere. First, the only figurines known at this period in Palestine and Transjordan are crude and usually small clay figures of quadrupeds. They occur at the following sites.

Iskander,¹⁴ a fat quadruped with perforation in the back. Length 16 cm.

Iktanu, a very small fragment of grey baked clay, which may be part of a quadruped.

Har Yeruham,¹⁵ figurines of horned animals.

Megiddo,¹⁶ a small yellow clay quadruped, with perforation in the middle of the back (cf. Iskander) and small hole in the tail.

Length 4.5 cm.

14. ADAJ 4-5 (1960) pl. XIV. 1.

15. Yediot 27, pl. 15.1-4.

16. MT, pl. 86.7, Tomb 1101 B Lower.

These of course may be, and probably are, just toys; but given the importance of pastoralism in the EB.MB economy, the question of whether they have a prophylactic or other symbolic role should be considered.

At Hama these quadruped figures are found in every level from K8 to H5, that is, throughout most of the third and early second millennia - a surprisingly enduring toy. One example in K5 has a perforation and is 11 cm. long,¹⁷ and recalls that of Iskander. At Hama, these are associated with baked clay "human" figurines, which occur regularly from Level J8 onward (though there are examples of early types in Levels K7-6). From Hama J6 onwards, they are also associated with "chariot wheels" (again there are early occurrences in K5 and K3).

It is notable that neither of these objects is found in Palestine or Transjordan in the EB.MB period. This implies two points

a) that the analysis of the pottery of EB.MB Transjordan is correct in giving very few direct links with the Hama "urban" tradition in the Akkadian period, and b) that if these objects do have a cult significance this aspect of it was not transmitted to the south. Dever refers to the "cultural links" of the Hama J - Amuq J (his "MB I" in Syria) period of which "hawk-beaked" female figurines and clay "wagon wheels" form a part.¹⁸ He includes in this horizon Til Barsip Hypogeum, and the tombs in the region of Carchemish, as well as the Akkadian - Ur III levels at Chuera, Brak 3-2 etc., thus rather uncomfortably telescoping the dates of material which we would regard as ranging from ED III to Ur III. That the "wagon wheels"

17. Hama Fig. 46, 4A 488.

18. Dever, p. 138, and pp. 156-7, n.43.

and human figurines do not occur in the EB.MB in Palestine and Transjordan we would regard as further evidence of the separate development of the southern region with innovating influences of a type prior to the establishment of Hama J8. Whether these objects indicate different religious beliefs or different games they are a further indication of a distinctly separate development in the south which goes back again to a very early date in a local (i.e. Levantine) tradition, as well as to an ED III north Syrian one.

Thus Dever's consideration of the European parallels of chariot wheels¹⁹ and the views of Gimbutas fall into the same category as Schaeffer's "Porteurs de Torques" and their European parallels; neither are clearly related to the Palestinian EB.MB and their place and role will be further discussed below.

A further point in this discussion of the lack of "human" figurines of the Syrian type in Palestine is to note that if they are associated with religion in Syria, then their absence from Megiddo is perhaps a point against postulating a Syrian influence leading to the building of the temples at this date.

Some of the main features of the EB.MB way of life therefore, seem to include a strong bias in favour of semi-nomadism, though there are probably two tendencies observable in the use of houses, the first due to the lingering traditions of the EBA, and the second due to a tendency for nomads to settle in a fertile area. The result shows itself as a mixed society with houses and camp-sites, with clear indications in both types of at least seasonal agriculture producing wheat and cereal crops and harvesting olives and legumes; and numerous herds of cattle, sheep and goats and perhaps pigs, to indicate pastoralism. The equipment of these people is simple, but both

19. Dever, footnote 43, pp. 156 - 7.

plentiful and adequate. At times in both flint and pottery it rises to a reasonably high technical and aesthetic level. There are indications of strong tribal or family associations among both villagers and nomads; and some suggestion that these groups are inter-changeable (e.g. the abandonment of Iktanu Phase 2 with much of the equipment intact in the houses). There is indication of strong and conservative tradition in both burial and religion.

Allied to this simple pastoral and agricultural theme are the bronze objects. It is notable that there are few tools, almost all the pieces found appear to be weapons and ornaments, but this may be a bias of burial custom. As the bronze objects are the only element of their economy which was imported, probably in ingot or rough cast form (from Sinai or the north?), it suggests that they were particularly valued, and the weapons may have had a strong social value as well. Miss Kenyon has emphasized this particularly for the Dagger Type Tomb people at Jericho.²⁰ The only known pictorial representations of EB.MB people are the graffitti at Jericho of two figures standing with long javelins(?) in one hand and shield in the other.²¹ These, and the fenestrated axes, javelins and daggers suggest that the individual warrior was an important person in some groups at least of this society, and recalls again the story of Sinuhe, who had to prove himself in single combat against a challenging rival chieftain.

B) Comparative Studies of the EB.MB Period

In recent years there has been a considerable renewal of study of the

20. Amorites and Canaanites, p. 15.

21. Jericho I, p. 138, and p.140, Fig. 76.7.

evidence of this period from Palestine. Amiran, Albright, Tufnell, de Vaux and Kenyon among others have put forward the results of their studies, and in turn have had their results summarised and further views put forward by Lapp, Dever and others. Lapp attempted a summary of most of the relevant work to 1965, and Dever has attempted a vast comparative study of the Syrian material though his views are so far only published in the form of a very brief article and a mass of footnotes. There seems little point in resummarizing in detail all the earlier studies and therefore only the salient points will be reviewed. The first point to clarify is that of terminology and chronology. Dever has used the term "MB I" to describe the period 2100 - 1900 (as he explains on the last page of his article), which accepts Albright's original terminology, but not his present chronology. The present position appears to be as follows.

Amiran, MB I, 2250/2200 - 1900/1850; followed by MB IIA.

Albright, EB IIIA - EB IIIB (= EB III - EB IV), 2600 - 2200; MB I, 22nd century for "Family B", 21st century for "Family C", 20th - 19th centuries for "Family A"; followed by MB IIA.

G. E. Wright, EB IIIB, 24th - 22nd centuries; MB I, 21st - 20th centuries; followed by MB IIA.

Kenyon, Inter. EB.MB, 24th - 20th centuries; followed by MB I.

Lapp, IB I, 2300-2050; IB II, 2050 - 1900/1850; suggests leaving out MB I as it is now a confusing term, and following IB I-II immediately with MB IIA.

Dever, EB IV, 2400/2300 - 2100; MB I, 2100 - 1900 or 2150 - 1850, followed by MB IIA. But he has suggested that we should at present use a compromise term "EB IV/MB I", and in future divide this into

two phases as in Lapp's IB I-II.

There are two basic fallacies in all these terminologies except those of K. M. Kenyon and P. W. Lapp. The first refers to the fact that innovations and marked changes in way of life which are brought in c.2350/2300 B.C. in Transjordan continue, though with further later innovations, to c. 1900 in Palestine and Transjordan, and thus make a definable period in which EBA characteristics are found throughout. The secondary stage is one in which elements of "proto-MBA" (by which I intend influences which led to the development of the "full" MBA on the Phoenician coast, as described by K. M. Kenyon) are introduced c. 2100 B.C.

The second fallacy refers to the fact that this period cannot be divided into a chronologically successive EB IV - EB.MB or EB IIIB-EB.MB because in some areas the "early" EB IV is not found at all, and in others it continues to the very end of the period, and this makes nonsense of such a terminology.

The period as a whole must be divided chronologically according to regions rather than typologically, and until we have much firmer stratigraphic evidence from Palestine as a whole, and from north Transjordan and south Syria in particular, it seems thoroughly unwise to authorize more rigid terms. EB.MB is a clear descriptive term, and EB IV a useful adjective to describe a pottery typology within it, though its use cannot be defended otherwise. In contrast, the use of MB I for the period is misleading, but has developed in a quite reasonable manner from the fact that the pottery from Tell Beit Mirsim Level H which first gave rise to the terminology, is among the latest in the period, and therefore most like that of the succeeding MBA.

Amiran's study²² with its typological and chronological division of EB.MB into Families A, B and C expressed the view that considerable Akkadian influence, though not direct parallel, is apparent in the Palestinian EB.MB pottery; and also that there is a clear relationship between the EB.MB and the MBA pottery in Palestine. The Family divisions have already undergone several revisions. Albright²³ pointed out that Family A (band combing etc.) should be the latest instead of the earliest group and proposed the order B, C, A with other minor revisions. Lapp²⁴ showed that there was considerable confusion and overlapping of types within the Families, and Dever²⁵ has suggested further revisions of "C-early A-B-late A", all of which indicates startlingly clearly the lack of stratified material on which the studies are based.

The position taken in this study has already been indicated by showing innovations in Transjordan from north Syria at the end of ED III c. 2350 B.C., rather than Akkadian c. 2250 B.C., and that there is considerable overlap in influence from the EBA to the EB.MB in Palestine, as opposed to the sharp break postulated by Amiran.²⁶ Further, that there is a much less direct contact between EB.MB and MBA pottery than Amiran suggests,²⁷ though there are definite traces of the earlier population continuing in the later period, very occasionally shown in the pottery, but particularly in the tomb types.

22. IEJ 10 (1960) pp. 204-225.

23. BASOR 168, pp. 36 - 42.

24. Dhahr Mirzbaneh, p. 82.

25. Dever, p. 139.

26. IEJ 10, p. 205.

27. Ibid., Fig. 1, p. 206.

We are generally in agreement with Amiran therefore that the EB.MB people did not simply vanish c. 1900 - 1800 B.C., as opposed to Dever's view,²⁸ who considers that there was no contact at all between the two periods, and even considers the possibility of a gap in occupation between EB.MB and MB I.

In a general comparison of the figure on p. 204 of Amiran's article and the pottery parallels discussed in Section III, there is a sharp contrast in chronology in that Qatna Tomb IV and Tell 'As Tombs I-VII are equated with Hama J8-J5 and Dnebi Tomb I as Amiran's early period; and that Dnebi Tomb III is associated with Hama J4-J1 in her later period. That we are agreed with Albright and others in placing the band combed groups later than for example the el-Husn group of Family C, is clear; and though Dever's position is not yet presented in detail, the Transjordan evidence is in general agreement with his proposed revision (Family C earlier than B) though we shall return to this later.

Albright's position²⁹ can be summarized on three main points. i) His EB IIIA-IIIB (2600 - 2200 B.C.) suggests a clear following through of EBA tradition at the beginning of the period with the Bab ed-Dra' material as the Transjordan branch of this dating to 23rd - 22nd centuries. In Palestine this is succeeded by MB I in the 22nd century by Amiran's Family B, and in the 21st century by Family C. Family A, in which he agrees with Amiran in seeing a clear Akkadian influence, he places 21st/20th-19th century, and suggests the lower date should be c. 1800 to include Thuthotpe at Megiddo (see chart below).

28. Dever, p. 144.

29. Principally in BASOR 163 "Abram the Hebrew. A New Interpretation"; BASOR 168, pp. 36-42; and BASOR 184, pp. 28-33.

ii) He considers that the inhabitants of Palestine at this period are Amorite in a Babylonian sense (e.g. westerner, West Semite, rather than Ur III MAR.TU ?).

iii) He has postulated that these people were the organisers of a vast network of donkey caravans, the direction of whose routes resulted in the establishment of the Negeb and Sinai settlements. This has been referred to in Section I together with de Vaux's rejection of his arguments (see pp. 37-38). Lapp also disagrees on the basis of archaeological evidence³⁰ as there is no evidence of trade. The only proviso to be made in this respect is that copper was traded. A further point against Albright however is the bone evidence; no equid bones have yet been found on EB.MB sites, either in tombs or on the tells, though this may simply mean that the donkey was not slaughtered for food. All the environmental evidence discussed above is however also incompatible with trade on a wide scale.

Albright has been definite in his view that the Jericho tell material is later than that in the tombs, and is comparable to Tell Beit Mirsim Level H.

G. E. Wright has noted the continuity of traditions from the EBA and recently³¹ has suggested that EB IV should be called EB IIIB and dated 24th - 22nd centuries. To this period he attributes Megiddo Tombs 1101-2 Lower, some of Glueck's Transjordan material, some Bethel and Beth Shemesh sherds, and indicated that they are contemporary with Dyn. VI in Egypt, Hama J, Amuq I and the Akkadian period.

30. Dhahr Mirzbaneh, pp. 91 - 92.

31. G. E. Wright (ed.) Essays in Honour of W. F. Albright, p. 87; and JAOS 91 (1971) pp. 276-293, review article of Kenyon and de Vaux.

de Vaux, as well as Albright has emphasized the question of the patriarchs and their connection with the history of the early second millennium.³² Both place and personal name evidence leads him to the equation of Amorites and Patriarchs, and to note the similarity in description of Asiatics in Egyptian texts, the way of life in EB.MB Palestine and the Mesopotamian descriptions of the MAR.TU.

Kenyon has suggested that the people who invaded Palestine at the end of EB III were nomadic or semi-nomadic pastoralists whom she also identifies as Amorites and suggests their presence in Palestine is brought about by disturbance among the Amurru in the Akkadian period.³³ The dating of the period is from at least the 24th - 20th centuries, and culminates in a period of complete nomadic control c. 2181 - 1991 B.C.³⁴ The Transjordan evidence indicates that the break with the EBA at the beginning of the period is not as sudden as she suggests, and also that the degree of nomadism is perhaps slightly over-emphasized for the whole region on the basis of the Jericho evidence. Although there is no evidence for defences, there is more evidence for houses, even if of poor type. There is undoubtedly however, a tremendous social change in the direction of semi-nomadism, which must be largely attributed to the new elements in the population. It is to this tribal organization in society that she attributes the cause of typological variation in the pottery. Miss Kenyon has also concluded that there is literary evidence (place names and biblical) to support the presence of a

32. de Vaux, "Les patriarches hébreux et l'histoire" in RB LXXII (1965) pp. 5-28; and summary in Dhahr Mirzbaneh, p. 87.

33. Amorites and Canaanites, p. 34.

34. Posener, Bottéro and Kenyon, p. 61; Amorites and Canaanites, p. 34.

non-Semitic element in the population at this time, whom she connects with the advances in metallurgy in coastal Syria in particular, and which probably derive from the north-east, north Anatolis and the Caucasus. This influence may be that of tinkers and gipsies rather than large scale population movements.³⁵ On the basis of parallels in metal work and a small amount of pottery of this period in coastal Syria with that of central Syria and north Palestine, and the parallel evidence of a stratigraphic break in both areas which is followed by a change from urban to nomadic traditions, she would raise the dates of the "Porteurs de Torques" at Ras Shamra and the "Montet Jar Period" at Byblos to the late 23rd - early 22nd centuries and give these groups a direct influence on changes in Palestine by way of central Syria.

This contradicts the pottery and metal work sequences which have been suggested in the previous sections of this study. In particular the comparison of the Ras Shamra - Byblos pins (Fig. 56.9-11) with those of Megiddo Tomb 1101 B Lower (Fig. 55.10)³⁶ both of which have been discussed in Section IV, appears to relate two different types, the "broad shaft headed" pin of north Syrian - north Palestinian tradition, and the coastal Syrian heavy, often biconical headed pins. There is considerable evidence to show that those of Megiddo should be earlier than those of Ras Shamra. Also, the early dating of the "Porteurs de Torques" stretches the "Montet Jar Period" at Byblos and the period of the developing MBA to a considerable degree; over two centuries c. 2200 - 2000 B.C., a period for which there is otherwise not a great deal of evidence. The third point to be made is that

35. Posener, Bottéro and Kenyon, p. 59; Amorites and Canaanites, p. 42.

36. Amorites and Canaanites, p. 44.

the single band combed vessel of the "Porteurs de Torques" is part of a tradition that is generally agreed to arrive late in Palestine; and which is late on Transjordan evidence. Its floruit in central Syria begins c.2000 B.C. at Hama H, though probably in a developed form which is again paralleled in MBA Palestine, post-1900 B.C., obviously as a result of renewed Syrian contacts.

The chronological links suggested between north Palestine and central and north Syria (Qatna, Tell 'As and Brak) supporting this chronology are fairly vague, c. 2200 B.C. and thus in any case later than the beginning of the period c.2300 B.C. in Palestine.

The evidence presented for an Intermediate EB.MB period in Syria again slightly over-emphasizes the nomadic element and ignores the strong urban tradition present in Syria, at Harran, Mardikh and Hama which in spite of various destruction levels indicate there is almost a continuous history of settlement in the late third - early second millennia. That nomadic elements are not uncommon throughout the subsequent MBA is however, equally clear, and are known from both archaeological and literary evidence, e.g. Baghouz and Mari. However, the employment of the term EB.MB in Syria perhaps disguises a considerable number of different groups under a term already subject to debate in Palestine. Dever also now includes the material from Hama J - Amuq J etc. under the heading "MB I"; material which has good parallels with the north Syrian Akkadian and later periods, but with few direct links to north Palestine and to the period post-2100 B.C. which he there describes as MB I. Whether all these groups, plus the "Porteurs de Torques" can be included in an EB.MB period when they have even less contact with the period 2350 - 2100 B.C. is debateable. In any case, an

an attempt to describe the archaeology of Syria in terms of a still rather uncertainly defined Palestinian classification seems premature and confusing.

Dever's study³⁷ is concerned with the wider aspects of an "MB I" period in the Near East c. 2400/2300 - 1850 B.C. "From the beginning of the period, the mass of recent data illustrating the end of the Early Bronze Age all across the Near East (and even into the Greek mainland), in most regions circa 2400 - 2300 B.C. at the latest, gives us for the MB I era a convenient terminus post quem".³⁸ This is a period coeval with the Akkadians, the Gutti, Ur III and Isin-Larsa in Mesopotamia, and associated with events in Egypt from Dynasty VII onwards. In Palestine the period commences with a "long gap", but in Transjordan the picture may be otherwise. "The uniqueness of Bab edh-Dhra' may be due simply to the fact that it is precisely to Transjordan and the Negev - the fringe areas of the country - that one must turn to trace the vestiges of this elusive culture, and these areas are as yet barely known. It is significant that to the north, particularly along the bend of the Orontes in Syria, we have a growing body of material from the EBIV/MB I horizon". It is in such statements as this that it is obvious we must await his fuller evidence, which will clarify his views, such as the nature of the EB IV material along the bend of the Orontes in Syria.

Much of this part of his summary is speculative and confessedly awaits evidence from Transjordan; and thus the major part of the work is concerned with a study of the links of north Palestine with Hama J and sites further north, and a reassessment of the Palestinian typology on the basis

37. Dever, especially pp. 135-145, 147-150.

38. Ibid., p. 136.

of this evidence. In his present brief study there appears to be considerable condensing of the chronology of the north Syrian material which is difficult to reconcile with the views expressed so far in this study. The chart³⁹ for example includes Til Barsip and the Sajur Valley graves with Qatna Tomb IV, Tell 'As Tombs I-III and the later part of Hama J in the 21st century B.C. "As the goblets and other "caliciform" vessels which are the hallmarks of Hama J are increasingly well known from other sites in Syria and can be shown to be identical to certain imported vessels in the multi-chambered shaft tombs at Megiddo and in sherds from Hazor XVIII we have an indisputable link between central Syria and northern Palestine at the very beginning of our period" - referring of course to the beginning of the "MB I" period in Palestine, not Syria, and there is little further reference to the "EB IV" period.

A preliminary discussion of the "cultural unity" in the area from Hama to Ur in the late third millennium leads on to a discussion of the sequences worked out by Amiran and Albright and the views of Kenyon. A "typical reconstruction" of the period⁴⁰ is then given, and his arrangement of the Palestinian sequence. This includes the date of the imported pots in the Megiddo tombs being early in the sequence, and contemporary with Hama J5 to J2, and the suggestion that the only Palestinian material which might be earlier is that of Megiddo Tombs 1101 B - 1102 Lower. His sequence is most clearly indicated in Fig. 2 and we are generally in agreement with it, though there are a few points of difference. His pre-2100 B.C.

39. Ibid., p. 143, Fig. 2.

40. This reconstruction involves invasion by Amorites, at first nomadic, and then gradually settling down in the "MB I", followed by urban acceleration in "MB IIA" c. 1875 - 1850.

we consider condenses wrongly the Transjordan material. The evidence from Ara'ir VIA suggests that there is contact not only with late band combed groups, but with the MBA as well, and thus should be placed towards the end of his series; a considerable amount of Glueck's material should also be later. He appears to limit the shaft graves at Megiddo to early 21st century, while we would consider that there is evidence that they were in use for a considerable period probably right up to the end of the EB.MB. His dating of Ma'ayan Barukh accords with that discussed for the metal objects from the graves in Section IV.

Comparative views on origins of the band combed tradition have already been referred to in Section III and Dever offers no further explanation for the development of this except for a "period of 'incubation' somewhere on the fringes of Syria/Palestine before it emerged in Palestine proper, probably via Transjordan and Jordan Valley sites such as Jericho".⁴¹ The lack of evidence to support this in either north Palestine or north Transjordan, or indeed Transjordan generally has been discussed, and various alternative suggestions made.

Dever supposes that "the 'Amorites' who were semi-nomadic steppe-dwellers deliberately avoided sustained contact with the great urban centers of Syria" which has parallels with the conclusion reached in this study for the events c. 2350 B.C. and the EB.MB innovations in Transjordan, and this leads Dever to the similar conclusion that "somewhere in this vast, unknown area, the intrusive culture must have come in contact with the indigenous population of Palestine - perhaps the survivors of the destroyed

41. Dever, p. 145.

Early Bronze sites in the heartland of the country - with its own ceramics clearly in decadent Early Bronze tradition, so that the end product is obviously a hybrid. The basic MB I ceramic repertoire thus consists of Early Bronze survivals, but with features which reflect the influence of Syria - albeit at one remove."⁴²

His work therefore agrees in many features with that of Albright and Amiran, particularly over the Akkadian influence, but accepts much closer links for the whole period with the EBA. He also goes into considerable detail in the comparative study of the material, and clearly we must await the detailed study of the metal work. That other links are not much stronger than had previously been recognised is also suggested.

Lapp's work,⁴³ as well as summarizing much of the foregoing evidence, was particularly concerned with two other questions i) local evidence, especially that from Bab ed-Dra', and ii) the evidence for non-Semitic origins for the people of the EB.MB.

i) Local evidence. Lapp stressed the point that although the links with Syria showed north Palestine in contact with the north, the Syrian typology in general is very much richer than that of Palestine.⁴⁴ He describes Palestine at this time as a "vast backwater"⁴⁵ where the Amorites who invaded at the end of EB III settled down in isolation. "Here can be seen the character of the Amorites when left to themselves".⁴⁶ However, he then

42. Dever, p. 145.

43. Dhahr Mirzbaneh, especially Ch. VIII, pp. 86 - 116.

44. Ibid., p. 89.

45. Ibid., p. 91.

46. Ibid., p. 93.

goes on to question this identification of the newcomers. A rather elaborate argument is presented, at first in favour of there being a non-urban element in the EBA population (largely on the basis of shaft tombs as well as charnel houses being found in EBA contexts at Bab ed-Dra') but subsequently he infers from this that "the EB urban centers were citadels in a land which was still largely given over to nonurban life",⁴⁷ and thus, when the minority of urban people were defeated "there was a natural return to nonurban life", thus strengthening a case for a nomadic element without further evidence. Lapp suggests that the EB.MB newcomers assimilated this nonurban population ("what happened to the urbanists is not the problem of this discussion"). The indigenous EBA population Lapp suggests was West Semitic⁴⁸ but he favours the view that the newcomers were not Semitic (based on rather slender evidence in each case) and were metallurgists probably coming from the north or west in 24th century and later.⁴⁹ The main points of his views are therefore that the non-urban element is also part of the tradition of EBA Palestine and even earlier in the Chalcolithic.

ii) Evidence for foreign origins. This controversial arrangement of rather slight evidence is followed by a search for the origins of the non-Semitic invaders in distant and therefore probably non-Semitic areas.

The list of comparisons between EB.MB Palestine and the Western Mediterranean given is impressive⁵⁰ and will not be repeated here. Lapp

47. Dhahr Mirzbaneh, p. 96.

48. Ibid., p. 97.

49. Ibid., p. 98; there is no detailed analysis of different types of metal objects, all metal objects from late EBA onwards are regarded as part of a metallurgy phase.

50. Ibid., pp. 101 - 109.

states that he started with the view that this was the most likely source of influence, but ended by rejecting it. "Another characteristic of the Mediterranean links is that the links never include the entire assemblage of evidence. Palestine may have several striking links with Sicily at a certain point, but other disparate elements are always in the majority The few parallels which have been cited are striking, but their rarity is just as striking".⁵¹ "In fact, the character of the Mediterranean links points rather in the direction of an origin outside the Mediterranean world".

This problem has also involved other scholars in its various aspects. O. Tufnell⁵² has pointed to a number of features which the Beaker cultures of Europe and the Western Mediterranean world at this time have in common with the EB.MB period.

Lapp then turned suddenly to some completely fresh evidence. He found an assemblage which he considered had enough parallels to satisfy the conditions he found lacking in the Mediterranean, in a group from central Asia.⁵³ The material published in this article comes from at least six groups of tumulus cemeteries, most of which had been robbed prior to the excavations. The tombs belonged to two phases, some of the later phase tombs actually being superimposed on the earlier ones. Only the material from the later graves is published here (the other, belonging to the Bronze Age, was being studied by B. Z. Gamburg). All the pottery

51. Ibid., p. 110.

52. O. Tufnell, in The World of the Bible (Catalogue prepared for the Centenary Exhibition of the PEF in co-operation with the BSAJ) pp. 32 - 33.

53. V. I. Kozenkova, "Monuments funéraires de Ferghana de premiers siècles de notre ère" (in Russian) in Soviet Archaeology, 1966:1, pp. 211-226.

from this later group, with a single exception, was wheel-made, and was associated with two iron knives and an iron belt buckle. The excavator cites numerous parallels for grave types, pottery and metal, as well as showing that the graves are later than the Iron Age sherds (5th-3rd centuries B.C.) found in the packing of the mounds. All the parallels are for the 1st - 6th centuries A.D., and there is evidence to indicate that the graves are those of a sedentary agricultural population at that time.

There seems no good reason to doubt the chronology given by the excavator and to accept Lapp's view that these graves should be dated on the basis of parallels with the Palestinian EB.MB period. Thus the following section,⁵⁴ where Lapp attempts to trace the route of these people to Palestine, will not be pursued here except to note further that there appears to be no evidence to connect the EB.MB inhabitants with invasion from the sea (see Section II), which is the final stage of the circuitous route suggested by Lapp.

However, other suggestions have been made for the arrival of newcomers on the scene at this period. The first was that of Schaeffer⁵⁵ where parallels in metal objects found in the "Porteurs de Torques" graves have been followed into central and western Europe. The most recent suggestions in this respect have been made by Gimbutas⁵⁶ who has recognized "Kurgan"

I am greatly indebted to Dr. J. Málek of the Griffith Institute, Oxford who translated this article for me.

54. Dhahr Mirzbaneh, pp. 112 - 113.

55. C. F. A. Schaeffer, Ugaritica II, Ch. II.

56. M. Gimbutas, The Prehistory of Eastern Europe (1956); Bronze Age Cultures in Central and Eastern Europe (1965); and a paper given at the Conference on Mycenaean Studies, Sheffield, 1970.

elements from north of the Black Sea in the EB.MB of Palestine. These Kurgan peoples, who have many features not observed in Palestine including horses and vehicles, also possessed considerable knowledge of metallurgy. In 1956 Gimbutas traced their progress to the Baltic Sea coastland. "The reason for this vast expansion could be, among others, the increasing dessication of the steppe caused by the onset of the Sub-Boreal climate period, which started at the fourth quarter of the third millennium B.C.". ⁵⁷ In 1965 she wrote "the great expansion during the second half of the third millennium B.C. of the Kurgan Pit-Grave people from the Eurasiatic steppes. A new people may have arrived no later than 2300 - 2200 B.C. in the eastern Balkans, the Aegean area, western Anatolia, central Europe, all of the western and eastern Baltic area and central Russia. There is no other possible explanation of the great changes in cultural configurations and developments than an invasion of new people who were responsible for the disintegration of old European cultures and for the creation of a new set of cultural groups. The Kurgan people must also be considered as playing an important role in the rise of local metallurgy, since they probably brought with them metallurgical knowledge obtained in the Caucasus". ⁵⁸ In 1970, she attributed the destruction of sites in EH II Greece, Anatolia (Troy II, Polatli II, Beycesultan XIII, Tarsus) and EBA Syria - Palestine to Kurgan IV peoples. "The destruction of the East Mediterranean cities, completed during the course of the 23rd century B.C. was ascribed by Dr. Kenyon to nomads; among whom, she hypothesized, the Amorites were predominant.

57. Gimbutas, (1956), p. 168.

58. Gimbutas, (1965), p. 213.

However, there is no evidence of the Amorites or their activities before the 21st century B.C., and an alternative identification is strongly suggested by barrows of Kurgan appearance which are known from the Levant as far south as the Negev desert in Israel". She also speaks of the parallels in EB.MB shaft tombs and burial customs with the Kurgan IV burials found north of the Black Sea.⁵⁹

Her conclusions are that "the North Pontic Indo-Europeans of the Kurgan IV period must have been established sea-farers, frequenting or plundering many places in the Aegean, East Mediterranean, Ionian and Adriatic seas. Their activities there continued for at least several centuries and ended in the destruction of Mediterranean cities at about 2300 B.C."

I find this ever accumulating vast sweep of people from the Baltic to the Negev very difficult to believe; and although a few parallels of broad typology may be cited, the groups involved are very different. For example, there is no evidence for sea-farers and "vikings" in Palestine, but sea raiders are quite difficult to trace. A later parallel cited by Gimbutas are the "Sea peoples" - but these have literary, pictorial and archaeological support.

A more satisfactory explanation involving only one or a few aspects of the Kurgan IV groups is to see new influences accompanying the diffusion of new metal working techniques. Gimbutas⁶⁰ lists three main metal working

59. Gimbutas, "Evidence of Indo-European (Kurgan IV) culture in the Aegean, Ionian, Adriatic and East Mediterranean areas at c. 2600 - 2300 B.C." Sheffield Conference on Mycenaean Studies, 1970.

60. Gimbutas, 1965, Fig. 1.

areas: Ia-b, Carpathians, south Germany and Bohemia; II, Caucasian (north-east corner of the Black Sea); and III, the southern Urals.

Piggott⁶¹ lists two centres of early copper working beyond the Aegean, one in eastern Europe centred on Transylvanian ore deposits and the other in Iberia. "In both instances, the impetus to develop this novel technology must have come from outside, and in the contemporary circumstances, a broadly Anatolian or Aegean origin is almost inevitable and has archaeological support".

A Caucasian metal working centre would thus have tremendous influence on both the east (Mesopotamia and Syria) and the west, including other metal working sources. Whether these centres are sufficiently related to explain the parallels of such groups in Spain as the javelins of the "Dolmen de la Pastora" in Seville,⁶² which M. Almagro compares to javelins at Ajjul, Duweir, Kara Hassan and the Caucasus, is not a subject to be entered into here. Schaeffer's "Porteurs de Torques" and Kenyon's "gipsies" or "tinkers" from the Caucasus fit well into the diffusion of such techniques, and may well have involved relatively few people exercising considerable influence on technology and fashions.

C) Conclusions

At the end of Section III it was concluded that the pottery of the early EB.MB period in Transjordan showed a mixture of EBA traditions and innovations

61. S. Piggott, Ancient Europe, p. 73.

62. M. Almagro, "El Ajuar del Alcor (Sevilla). Sus paralelos y su cronologia", Trabajos de Prehistoria V, Madrid, 1962.

from the north Syrian area at the very end of the ED III period c. 2370 - 2350 B.C., and it was suggested that these new elements arrived as a result of early Akkadian campaigns and perhaps even those of Lugalzagesi. In north Transjordan, this resulted in the establishment of a largely "non-red slipped or burnished" tradition, which immediately succeeded the EB III period; and in the south of a "red slipped" EB IV tradition which preserved an even more obvious number of EB III traditions. Some of these changes are reflected in a late stage of the Palestinian EB III period, and are allied to a period of considerable decline in that area, brought about by various factors: Egyptian invasion (see Section I) and perhaps slight decrease in rainfall and thus agricultural production (see Section II). This general decline is notable in the last stages of the EB III town at Jericho before the destruction; and at Lachish, where there is no evidence that the EBA city was destroyed by fire - "it appears rather to have suffered desertion and decay",⁶³ and where, it is suggested, the EBA inhabitants continued a poor existence even after the arrival of the newcomers. Thus the end of EB III in Palestine was due not so much to conquest, as a gradual failure of an urban society depending largely on agriculture, for a variety of reasons, including Egyptian campaigns and invasion from north and east.

There is an overlap between EBA and EB.MB not just in the pottery, but in some burial types (see Section VI), in flint technology and probably in spindle whorls (see Section V) and a variety of other features.

In Palestine this early period is represented by Tell Meit Mirsim Level J in the south, and probably Megiddo Tomb 1101 B Lower etc., in the

63. Lachish IV, p. 45.

north. In mountainous central Palestine the degenerate EBA period perhaps lasted longer, and is indicated only by a few traces at 'Ai and Nasbeh, and Tomb 351 at Jericho etc. In Transjordan it is represented by Iktanu Phase 1, Ara'ir VIB and probably sites such as Tell Abu Hayet in the north, and the other early sites referred to in Section III.

At a contemporary stage in central Syria, the rebuilding of urban sites was influenced very faintly by late ED III traditions, and more strongly by the developing urban traditions of the Akkadian period. At Hama for example, traces of both these influences (ED III in Levels J8-J7, Akkadian in Levels J7-J6 onwards) are apparent, and are increasingly strongly in the north Syrian Sargonid period tradition - the painted wares for example. But these developments at Hama are also accompanied by many of the old Levantine EBA traditions, again suggesting considerable continuity in the population. At Byblos, although some of these new influences are apparent, the Levantine EBA survives until c. 2258 - 2177 B.C.

Palestine and Transjordan appear to have developed in isolation from these urban Akkadian traditions until c. 2150 - 2100 B.C. As well as the destruction of Byblos, Hama J5 was destroyed post - c. 2230 B.C. and it is after this date that central Syrian influences are apparent in north Palestine. By this date the south Transjordan EB IV/EB.MB seems to have strongly influenced south Palestine. The cemeteries at Jericho, which are all part of the non-band combed type but without the southern red slip tradition, indicate that central Palestine was probably fully EB.MB. In north Transjordan the el-Husn group probably represents a culture well entrenched over north Palestine as well.

At Iktanu, Phase 1 was succeeded by Phase 2 which is definitely related

to the first group, but with many significant changes. This relationship is important to the understanding of the sequence as a whole in Palestine and Transjordan at this date - it indicates that in spite of the changes, there was a basic continuity throughout the whole EB.MB period. It may not be necessary to assume an influx of new people, but to postulate that the population at the beginning of the EB.MB period was ethnically largely unchanged at the end.

During this second part of the period various strains of old and new EB.MB traditions were dispersed throughout Palestine and Transjordan. One of the principal features in south Palestine and the Negeb is the mingling of the old EB IV with band combing as in Tell Beit Mirsim I. The band combed tradition spreads over central Palestine where there was no previous EB IV tradition, probably in direct succession to the very latest EB III inhabitants. This tradition penetrated central and southern Transjordan as far as the Mujib (Ara'ir VIA), but there is so far only one sherd (from Feqeiques) to show that it went further south. It occurs with EB IV traditions in the south, but at Iktanu and central Transjordan the red slip tradition seems to die out.

The band combed tradition seems never to have affected north Palestine and north Transjordan, and this may be because the central and south Syrian influenced groups were by that time too solidly entrenched.

The development of this tradition in the south is seen most characteristically at Tell Beit Mirsim Level H and the Jericho tell. Its origins are not clearly distinguished (see Section III) nor is the date of its establishment allied to any absolute chronology, or clear stratified sequence in Palestine. That these traditions continued in regional isolation

right to the start of the MB I period c. 1900 B.C. is suggested by, among other things, the pottery of Ara'ir VIA and the occurrence of EB.MB tomb types in MBA Palestine (see Section VI). That the indigenous element in the EB.MB population is of long standing is suggested not only by the immediate parallels with EB III, but by many comparable features in Transjordan as early as the Chalcolithic (Ghassulian) period, when not only are many features of the pottery repertoire familiar, but the economy in general appears to be very similar. The absolute chronology of all intermediate phases in the EB.MB period is very difficult to establish, as apart from Megiddo and north Palestine, there are no direct outside contacts with the neighbouring countries, and there is considerable regional isolation within Palestine and Transjordan themselves.

Phase 2 at Iktanu has some points in common with the north - the band combed loop handled tea-pot (Fig. 26.4) is very like a vessel with single grooved lines from Ma'ayan Barukh Tomb II.⁶⁴ Dever dates the Ma'ayan Barukh tombs somewhere in the 21st century⁶⁵ which is similar to the date for the pins from these tombs suggested in Section IV, i.e. about Hama J2. Phase 2 at Iktanu has band combing, but not in the prolific style that is found on the Jericho tell, or even on the cup bought nearby by Mallon. Neither does Iktanu Phase 2 have some of the very late features of Ara'ir VIA, or any of the developed carinated forms of north and south Palestine. To suggest that Iktanu Phase 1 is to be dated within the period c. 2275 - 2150 B.C. and Phase 2 c. 2100 - 2050 B.C. is very much a guess; but would

64. Amiran, IEJ 10, Fig. 3.6.

65. Dever, p. 143, Fig. 2.

fit with a suggested introduction of band combing c. 2100 which is found in more developed forms c. 2000 B.C.

The final question therefore, is can these people be identified from present literary evidence, whether as Amorites or otherwise. A chart has been drawn up to recapitulate some of the events significant for this question, which were discussed in Section I (see following page). The question hinges in part on whether the inhabitants are largely descendants of the EBA population or newcomers. It has become fairly clear that perhaps a majority of the inhabitants c. 2300 in Palestine were still the EBA inhabitants, and in Transjordan a very large element of the EBA population probably inter-married with the newcomers.

Kenyon (on the basis of the Semitic traditions suggested by the 'Ai Sanctuary), Isserlin (see p. 40) and Gelb (see p. 20) among others are agreed on both archaeological and literary evidence, although this evidence is slight, that most of the EBA population of Palestine was probably West Semitic; though there are clearly minority elements within this population who probably were not. e.g. the Khirbet Kerak pottery tradition from eastern Anatolia. Speiser (see p. 40) on the evidence of place names thinks they were not Semitic. It is here accepted that this majority West Semitic population was likely. The newcomers to Transjordan c. 2350 - 2300 B.C. belong to a population with long standing Early Dynastic period north Syrian traditions, who probably lived in the regions along the central Euphrates and its tributaries, and brought with them nomadic or semi-nomadic traditions.

The population of north-west Syria at this time, in close proximity to the Caucasian areas may well have been more diverse ethnically speaking.

B.C.	Egypt	Palestine	Byblos	West Amurru	Syria	Mesopotamia
2500						2550 Martu attested.
2400			2470 Sahure's ship.			
2300	2350 end of Dyn. V 'Aamu attested.	2350 end of Egyptian imports in Palestine.	2350 Una's ship.		Mardikh 2 Hama J	Lugalzagesi. 2370 Sargon, 2350 campaign Naram-Sin
2200	c. 2258 - 2177, end of Dyn. VI	2320 - 2280, Uni's campaign.	End of contact with Egypt.			Shar-kali-sharri, 2250 Martu.
2100	2160 end of Dyn. VIII 2130 Dyn. XI					2111 Ur III.
2000	2040 Unification Action in Sinai?		2050 Ib-dadi, "ensi" of Byblos.		Hama H	Amar-Suen. 2003 end of Ur III.
1900	1991 Dyn. XII 1971 in Sinai?	The Prince's Wall 1967 campaign to S. Palestine? 1960 Sinuhe	1929-1895, object of Amenemhet II		1960 Sinuhe	
1800	1897 Beni Hassan Execration texts.	1878-1843, Egypt. campaign to Shechem. Thutnotpe, Megiddo	1820-1795, Abi-Shemu I	Alalakh VII	Iasmah-Adad, c. 1810	1895 Dyn. I Babylon.
1700	1786 Dyn. XIII Neferhotep I, 1740-1730.		1795-1780, Yapi-Shemu-Abi	Amurru	1782-1759, Zimri-Lim.	1792-1750 Hammurabi.

Gelb and Wiseman both consider there were populations of non-Semitic character in this area pre-2000 B.C. However, in the Mari period it is clear that a West Semitic population is widespread and of long standing, and for Mari itself, this is indicated as early as the Early Dynastic period (see p. 6).

That there was probably a non-Semitic element on the Syrian coast c. 2100 B.C. who bring Caucasian metallurgical influences may be indicated archaeologically at Ras Shamra by the "Porteurs de Torques" and at Byblos in the "Montet Jar Period". However, this influx of new people may have had most effect on the coastal Syrian population, and been confined to little more than new influences in isolated Transjordan and Palestine.

The story of Sinuhe in the 20th century (see pp. 31 - 32) and the Execration Texts in the 19th - 18th centuries (see pp. 33 - 35) indicate that south Syria and Palestine at these periods were primarily West Semitic, but there is some doubt whether the names in the Execration Texts indicate Amorite (e.g. old West Semitic) or innovating Canaanite (e.g. a related West Semitic language developed primarily in the Phoenician coastal area and associated with MBA traditions of the second millennium in Phoenicia and Palestine). Egyptian texts from the Sixth Dynasty talk of 'Aamu - Asiatics (see p. 31) and it is tempting to associate these people with the Amorites; but the first Egyptian reference to a country of Amurru (Amor, see p. 35) is c. 1300 B.C.

There is therefore considerably more evidence for suggesting that EBA and EB.MB Palestine are West Semitic than that they are non-Semitic; though it is agreed that from very early times there are bound to be non-Semitic elements assimilated to the population. Lapp has attempted to associate ~~some~~ other diverse elements of the Biblical tradition with his EB.MB non-

Semitic groups, and concluded that the most likely identification was with the Perizzites; other Biblical groups have been identified at various points, as in Rothenberg's identification of Har Yeruham (Tell Rekhme) with the "Negev of the Jerahmeelites".⁶⁶

The question whether the EB.MB population can be described as Amorite presents a further stage of speculation, and we propose to conclude with some arguments for, and some against this hypothesis.

Arguments in favour of an Amorite identification

- i) The MAR.TU are noted in the Mesopotamian texts as early as c. 2550 B.C., which allows plenty of time for their penetration to the south, c. 2350/2300 B.C.
- ii) "Foreign" MAR.TU throughout Ur III are described as nomadic or semi-nomadic, for example, they are never associated with cities, their customs as described are not those of sedentary peoples; but envoys are sent to them, suggesting they have centres where they can be negotiated with. This compares closely with the semi-nomadic tradition of EB.MB Palestine, though Ur III evidence is comparatively late. These conditions closely fulfil the conditions described in Section IIIE for the newcomers to Transjordan c. 2350 B.C., e.g. associating with central Euphrates ED III traditions, but not an integral part of them. That the nomadic MAR.TU had a tendency to disperse and settle is suggested in the texts by the founding of the "secondary" Amurru homeland east of the Tigris (see p. 17).
- iii) Their location is never clearly defined in Early Dynastic, Akkadian or Ur III texts, though it is generally agreed to be mainly west of Mesopotamia.

66. B. Rothenberg, God's Wilderness, pp. 16 - 18.

Buccellati defines their homeland as north Syrian (see p. 14) particularly the Jebel Bishri area, on the basis of Shar-kali-sharri's battle at Basar; Kupper defines it rather more widely as the "syro-arabic steppe" (see p. 15). They are in Ur III mentioned particularly in association with Mari and Ibla (cf. Matthiae's evidence for Mardikh-Ibla would put MAR.TU contacts right from the Euphrates to the region south of Aleppo), as well as with Dilmun (Bahrein?).

This must lead to some questioning of the extent of the area in which they are known to have wandered. The very name by which they are described is associated with the concept "west" (see p. 13). That most Mesopotamian dealings with them are in the Jebel Bishri area (which fits the kur MAR.TU "highland of the Amorites" description) may simply be an indication that this is the closest geographical region in which the Akkadian and Ur III Dynasties and Gudea came into contact with their homeland, and that therefore it is simply the nearest tribe of larger groups who are most frequently described.

Such groups on the fringes of Mesopotamia, may well have been considerably affected by Akkadian expansion in north Mesopotamia c. 2370 B.C.

iv) These tribes and the Sajur Valley groups must have been considerably influenced by riverine topography; and a point noted particularly in the distribution of EB.MB sites in Transjordan is the way in which settlement patterns appear to follow the main river valleys (see Section II).

Arguments against the Amorite identification

i) The main evidence for the MAR.TU particularly emphasizes the location in the Jebel Bishri area and offers no conclusive evidence for these people being part of larger groups of MAR.TU covering great areas of north Syria.

- ii) The semi-nomadic tribes who have a very wide range of territory in the Mari period, are all individually named and are never referred to as Amorite, though they are clearly West Semites. The suggestions made above would make the equation MAR.TU/Amorite = West Semitic nomads.
- iii) The 19th century (Kupper) and 14th - 13th century (Kupper, Gelb and Egyptian evidence) definition of the territory of Amurru in the west is in the Beqa' to Damascus region. This area is only on the fringes of the present EB.MB distribution map, so topographical evidence suggests that the northern borders of the groups we are discussing ended at the point where later Amurru began. It should be noted that this kingdom of Amurru may be a political entity, and the biblical evidence supports an Amorite element in the population of Palestine at a later date at least.
- iv) There is no clear literary evidence to answer this question and therefore all hypotheses based on present evidence must be regarded as speculative.

APPENDIX A. ALPHABETICAL LIST OF SITES WITH REFERENCES

(A) TRANSJORDAN AND SYRIA

- kh. Abu Habil Expl.IV, pp.275-6; figs.112:10, 115:3,
121:1-25, 122:6-18; pls. 12-14.
ADAJ IV-V (1960), p.31ff.
ADAJ VI-VII (1962), p.137, p.144.
- kh. Abu Hamed Expl.III, p.196
- t. Abu Hayet Expl.IV, p.259, figs.112:6, 115:6, 130-
131; pls. 35-38.
ADAJ VI-VII, p.144.
- t. Abu Kharaz Expl.IV, p.263-6
ADAJ VI-VII, p.144.
- kh. Abu Khirqeh Expl.III, p.129-130.
- Abu Naml BJPES X: 4, pp.98-104, esp. p.100.
" XI, pp.17-21.
Expl.IV, p.141.
IEJ II, pp.252-3.
- t. Abu Qarf Expl.IV, p.382-3.
- kh. Abu es-Salih MittmannSite 114.
- kh. Abu Tineh RB 47 (1938) p. 414.
Expl.III, p. 236.
- kh. Abu Zebna Expl.III, p. 225.
- kh. el-Adasiye MittmannSite 3.
- Ader Expl.I, p. 45-7.
BASOR 14: p.10; 51: 17-8; 53: p.13ff.
AASOR XXXIV-XXXV, p. 79ff, esp. figs. 13-5,
pls.19C, 22-24.
- t. el-'Ain Expl.IV, p.84-5, pp.465-6, p1.59.
- 'Ain Mehna ZDPV 48, p.325.
Expl.IV, pp.227-9, p.102.
- 'Ain Reshouny RB 47, p.415.
- el-'Aineh Expl.II, pp.103-4.

Amman - See Jebel Taj

kh. Amriye

Mittmann Site 206

el-'Aqrabah

Expl.III, pp.113-4.

kh. el-'Aqrabah

Expl.III, p.113.

'Ara'ir

Expl.I, p. 49.

E. Olávarri "Fouilles a 'Arô'er sur
l'Arnon" in

RB 76 (1969) pp.230-259.

Dhahr Mirzbaneh, p.95.

Dever, p.150.

Arqub Umm Tell - see Umm Tell

Bab ed-Dra'

BASOR 14, pp.6-7; 95; 189; pp.12-41.

AASOR VI, pp.58-62; XII, fig.I; p.6.

Expl.I, p.5.

Archaeology XIX (1966) pp.104-111.

P.W. Lapp, "Bâb ed-Dhrâ', Perizzites and
'Emim" in Jerusalem through the Ages, ed. by
J. Aviram (1968) pp.1-25.

RB 1966, pp.556-561.

Dhahr Mirzbaneh, pp.94-5.

kh. Balu'ah

RB 1932, pp.417-44.

Albright, The Archaeology of Palestine p.79
and p.186, pl.12.

Expl.I, pp.53-5, p.1.

Expl.IV, p.60.

PEFQS (1934) pp.56-63.

RB (1933) pp.353-365.

JAOS (1936) p.129.

el-Beheirah

Expl.IV, p.67.

Beitrawi

Expl.III, p.209-210.

ADAJ VI-VII (1962) p.111.

kh. Benat

Expl.III, p.219-220.

kh. Beweib

Expl.IV, p.296, fig.123: 1-7; pl.17.

kh. el-Bireh

Expl.III, pp.213-4.

- el-Birketen
Mittmann Site 251.
Expl.IV, pp.57-60.
- t. Braz
Shu'eib - Heshban Survey.
" " "
- t. Braz East
Mittmann Site 58.
- kh. Dabulya
BASOR 19, p.16.
- Der'aa
Expl.IV, p.97.
RB LV (1948) p.81ff.
Syria XXVII (1950) pp.314-331.
Syria XXIX (1952) pp.403-5
Damascus Museum.
- kh. ed-Duweir
BASOR 19, p.17.
Expl.IV, pp.140-1.
BJPES X: 4 (1943) pp.99-100.
" XI (1945) pp.3-4
- kh. Fahil (Pella)
Expl.IV, pp. 254-7; pl.113:22.
- t. Faqqas
Expl.III, p. 220.
- Feinan
Expl.II, p.32ff.
ZDPV 57, pl.19.
- Feqeiques
Expl.III, p.94.
- Freiwan
Expl.I, p.58.
- t. el-Fuhar
Mittmann Site 14.
- Gamulta
Mittmann Site 76.
- Ghor es-Safi
ZDPV 57 (1934), p.204 and fig.21A.
Expl.II, p.8.
- t. el-Hammam East
Expl.IV, pp.378-382
TG I, pp.150-151.
- t. el-Hammam West
Shu'eib - Heshban Survey
- t. el-Hammeh
Expl.IV, p.137-140.
Wright, Pottery of Palestine from the
Earliest Times to the end of the EBA, p.60.
BASOR 97, p. 19.
AJA (1935) p.26, p.330, fig.5: 1-7.
Sukenik, The Ancient Synagogue of Tell el-
Hammeh, p.18.

- t. el-Harabe Mittmann Site 142.
kh. Hassan Expl.IV, pp.174-5.
kh. el-Hawaya Expl.III, p.217.
Hebariye AAS 4-5, pp.59-76.
t. Hejaj RB 47, p.411.
Expl.III, p.236.
Heraqla Expl.IV, pp.105-6.
t. Hilya Mittmann Site 33.
el-Husn PEFA 6 (1953) pp.5-8.
t. Iktanu TG I, p.151 and pls. 61-2.
Expl.IV, p.394.
Dever, p.150, p.163.
Lapp, Biblical Archaeology and History
p.73, pl.13.
Imtaleh Shu'eib - Heshban Survey.
Iskander Expl.III, pp.127-9, fig.47-48.
ADAJ IV-V, (1960), p.128-136.
t. Janubeh Expl.III, p.219.
Jebel Taj ADAJ XII-XIII (1967-8) pp.68-9.
Jerash Expl.IV, pp.57-60, pl.8: 2,7.
kh. Juret el-Khazneh Expl.III, p.229
Kerdaba - see er-Reseifeh
kh. el-Khabiah Expl.III, p.230.
kh. Khandaq RB 47, p.406.
Expl.III, p.236.
Kom Yajuz Expl.III, p.178-9, fig.58.
Expl.IV, p.74.
el-Lehun Expl.I, p.48.
Lejjun Expl.I, p.44, pl.9.
kh. Magid Mittmann Site 7.
kh. Mashmil Expl.II, p.104, 107.
el-Megheirat Expl.I, p.33, 47.
Expl.III, pp.137-8.
TG I, p.155, pl.63: 4-9, p.158 (Mereighat).

- el-Meidan ZDPV 49, p.480.
Expl.IV, p.116.
Schumacher, Northern Ajlun, pp.167-179.
- t. el-Meqberek Expl.IV, p.261ff; pl.67, 113:I, II; 142:
12-19.
ADAJ VI-VII, p.144.
- kh. Merqab 'Azn Expl.IV, p.68.
- kh. Meshobesh Expl.III, p.228.
- t. Meshra al-Abyad ADAJ VI-VII (1962), p.130, 138.
(?) Expl.IV, p.363.
- el-Metabe Biblica X (1929), pl.III.2; p.214 ff.
Expl.IV, p.387.
TG I, p.154.
ADAJ X (1965) p.5 ff.
- t. el-Mgeyir Mittmann Site 10.
- kh. Mis'ar Expl.I, p.58.
- el-Misna Expl.I, p.62.
- kh. Momghareh Expl.III, p.218.
- t. el-Mu'allaqa Mittmann Site 12.
- Mu'amariyeh Expl.IV, pp.82-4.
- Muntar Zibdeh Expl.IV, pp.110-1.
- t. Mustah Shu'eib - Heshban Survey.
Expl.IV, pp.368-70.
- Naur Amman Museum.
- kh. Nebi Yusha RB 47, p.408.
Expl.III, p.236.
- t. en-Nekheil Expl.IV, p.307, fig.145: 1-15, 18; pls.72-
73, 110: 1, 112: 1.
- en-Nimrah Expl.III, p.213.
- Nimrin Shu'eib - Heshban Survey
- t. Nimrin " " "
Expl.IV, pp.367-8.
ADAJ VI-VII, p.150.

- kh. el-'Oreimeh
 t. el-'Oreimeh
 Osara
 Qanaza
 t. el-Qelaya
 t. el-Qos
 kh. Qurn el-Kibsh
 er-Reheil
 t. er-Reheil
 kh. er-Reqa
 er-Reseifeh

 kh. er-Rufaiseh
 Rujm el-Beida
 Rujm el-Gauwet
 Rujm el-Kom
 Rujm Nebi Hadad
 Rujm Sa'ab
 Rujm Umm el-Qleib
 Rujm el 'Asaigh
 kh. er-Rumman
 t. es-Saidiyeh

 kh. Sakhara
 kh. es-Serareh II West
 kh. or t. Sheikh Mohammad

 Sha'ar ha-Golan - see Abu Naml.
 Shiham
- Expl.III, pp.229-230.
 Expl.III, pp.228-9.
 Mittmann Site 156.
 Mittmann Site 23.
 Expl.IV, p.290.
 Expl.IV, p.297, figs.143-4, pls. 68-71.
 Expl.II, p.111, p.123, pl.25A: 1-13.
 Expl.III, pp.210-1.
 Expl.III, pp.223-4, 266.
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AASOR XII, p.12.
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 Expl.III, pp.205-6, pl.14:2.
 Expl.I, p.7.
 Expl.III, p.238.
 Mittmann Site 108.
 Expl.IV, pp. 66-7.
 Expl.III, pp.214-6.
 Mittmann Site 77.
 Expl.I, p.57, pl.13.
 Expl.III, p.230.
 Expl.III, pp.224-5.
 Expl.IV, p.290 ff; figs. 146-149: 1-10;
 pls. 74-78.
ADAJ VI-VII (1962), p.144.
ADAJ VIII-IX (1964), p.96.
 Expl.III, pp.217-8.
 Expl.III, p.84.
 Expl.IV, p.248 ff. figs. 126-7; pls. 115:
 10, 25-27.
ADAJ VI-VII, p.144.
 refs. Expl.I, p.1-2, p.60.
BASOR 14, p.9; 49, p.28; 84, p.9.

- RB (1932), p.434, pl.XIV, fig.1.
 Albright, Archaeology of Palestine, p.79
 and pl.11.
- Sibya ZDPV 49, p.419.
 Expl.IV, p.193, 448-9; pl.33.
- Site VI BEPES X (1944), p.11.
- Site XI " " "
- Site XIV " " "
- kh. es-Suwari Expl.III, p.222.
- kh. Sweimeh Biblica X (1929) p.219.
 Expl.IV, p.398.
ADAJ VI-VII, p.152.
- kh. et-Tabaq Mittmann Site 53.
- t. et-Tahun Expl.IV, p.384.
 Shu'eib - Heshban Survey.
- kh. et-Teim Expl.I, p.33.
- et-Teleil Expl.III, p.200.
- Teleilat Umweis TG I pp.148-9.
 Expl.IV, p.400.
ADAJ VI-VII, p.152.
- kh. el-Umbachi AAS 4-5, pp.59-76.
- kh. Umm el-Abar el-Garbiye Mittmann Site 325.
- Umm el-Amad Expl. I, p.33.
- kh. Umm el-Guzlan Mittmann Site 81.
- t. Umm Hamad Gharbi Expl.IV, p.83, 202, 318 ff.; pls.93-97,
 figs. 153-5.
ADAJ VI-VII, p.136.
- t. Umm Hamad Sherqi " " " pls.98-107, 115:5;
 figs. 156-162.
- t. Umm er-Riglen Mittmann Site 15.
- kh. Umm Rujm Expl.III, p.184.
- kh. Umm es-Sedeirah Expl.III, p.82.
 Expl.IV, p.74.
- Umm Tell BASOR 35, p.12.
 Expl.III, pp.235-6.

- kh. Umm Yanbuteh Expl.III, p.236.
 RB 47, p.408.
- kh. Wad'ah Expl.III, p.213.
- Wadi Kafrein Site C Shu'eib - Heshban Survey.
- Wadi Kafrein Site D " " "
- t. Ya'amun BASOR 35, pp.11-12; 68, p.21, no.21.
 Expl.IV, pp.106-7.
 Expl.III, p.265.
- kh. Yariha es-Semaliye Mittmann Site 333.
- Zaharet el-Bedd ZDPV 49, p.406.
 Expl.IV, p.202, 511, pl.109.
- Zaharet Umm el-Merar Expl.IV, p.276 ff. figs. 145;46-7, 163:
 10-13; pls. 72: 2, 6; 110.
- Zambut Meleik Expl.IV, p.108.
 ZDPV 49, p.433.
- t. ez-Zgey Mittmann Site 191.

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- horvat Abrektas IEJ 16 (1966) p.143.
- t. Abu Hureirah BASOR 163, pp.47-8.
- Affula JPOS XXI (1948) pp.1-79.
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- Ai Syria XVI, p.343.
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- 'Ain Hachbai Copeland and Wescombe, Part II, p.19
 Lebanon Survey.
- 'Ain Karem BASOR 71 (1938) pp. 27-34, fig. I: 5-6, and
 fig. 2: 5-6.
- Ain es-Sultan - See Jericho
- t. el-'Ajjul AG I-IV.
 ADAJ III, pp.41-55.
- t. 'Amal IEJ 12, p.147.
 RB 70 (1963) p. 571.

- t. el-'Asawir (Arruboth) RB LXII (1955) p.84.
IEJ III, p.263.
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 p. 372.
- Azor IEJ 10, fig. 2: 3.
Atlas of Israel IX/2 (F).
- Barqai IEJ 10, p.215; 16, p.143.
Atiqot 1969
Atlas of Israel IX/2 (F)
- t. el-Beda Mittmann Site 338.
- t. Beit Mirsim AASOR XII, XIII, XVII.
- Beit Sahur BASOR 71 pp.27-34, fig.2: 1-4; fig.2: 1-4.
 "Hansler, Das Heilige Land LIII (1909) p.32.
 Saller, Liber Annuus XII (1961-2), p.162.
Dhahr Mirzbaneh, p.33, 66-7.
- Benayah IEJ 10, p.215, note 28; p.208; fig.2: 5,
 18, 19, 20.
- Beth Shan Rowe, The Topography and History of Beth
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 Tomb in the vicinity of Beth Shan.
- Beth Shemesh BASOR 71, p.32.
- Beth Yerah - see kh.Kerak
- Bethany RB XI (1914) p.439, fig.9.
Dhahr Mirzbaneh, p.38.
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 p. 353.
- Bethel BASOR 29; 139 p.5; 164 p.5.
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Atlas of Israel IX/2 (F) tel Bira?
- t. Bira - see t. Bir el-Gharbi?
- Bittir Liber Annuus XII, p.154, fig.I: 10.
Dhahr Mirzbaneh p.67.
- Bna'foul Dhahr Mirzbaneh p.89.
- Chhim R. Saidah.
- Deir el-Belah AG IV, pl. XXVIII, XXIV, 298.
Dhahr Mirzbaneh, p.50.
- Dhahr Mirzbaneh Lapp, The Dhahr Mirzbaneh Tombs.
- kh. Duheishe BIES 21, part II, p.200, fig.2.
- kh. el-Ful - see Jebel Qa'aqir (Atlas of Israel IX/2 (F)).
- Gerar - see t. Abu Hureirah
- Gezer BASOR 71, p.29.
- t. el-Ghassil BMBeyr. XVI, p.87 ff.
- Gibeon J.B.Pritchard, The Bronze Age Cemetery at Gibeon.
- ha-Goshrim Yediot 30 (1966) pp.98-109, pls.7-8.
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- Hablet el-Amud ADAJ VIII-IX (1961) p.77 ff.
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- t. Hajar el-Abyad Dhahr Mirzbaneh p. 89.
- t. el-Halif RB 74 (1967), pp.77-8.
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- t. el-Hammeh Mittmann Site 337.
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ADAJ VI-VII, p.154.
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- Hazorea IEJ 10, p. 215.
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- Jericho Jericho I, 11.
PEQ 1952, p.65, 70, pl. XIV.2.
 " 1953, p.90.
 " 1954, p.55 ff. pl.XIII.
 " 1955, p.115, pl. XVIII.2.
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 Sellin and Watzinger, Jericho, p.108 ff.
 Garstang, LAAA. 1932-1937.
- Jerusalem - see Hablet el-Amud, Dphel.
- khirbet Kerak IEJ 2, pp. 165-173, 218-229.
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- Kfar Monash IEJ 12, p.144.
RB 70 (1963) p.563.
- khirbet Khalil Dever, p.150.
- Khallet el-Khazen Copeland and Wescombe, Part II, p.42.
- khirbet el-Kirmil Dever, p.146.
- Korazim Dever, p.150.
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- kh. Kufin R.H.Smith, Excavations in the Cemetery at Kh.Kufin, Palestine, T2,3 lower, pp.18-16, pl. X-XII.
- Lachish Lachish IV.
- Ma'abarot IEJ 17 (1967) p.119; 16 (1966), p.143;
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RB 80 (1968) pp.268-9. pl. XXXIVA.

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BMBeyr XVII (1964) pp.7-19, pls. I-VII.
Meron
Qadmaniot II (1969) pp. 38-44.
Dever, p.150.
t. Misqa
Expl. IV, p.422, pls. 88-90.
Mugharet et-Taoumin
JPOS (1929) 9, p.117; 10 (1930) p.72, fig.2B.
t. en-Nasbeh
Bade, Nasbeh I, p.264, pl.104:I and
Appendix E, p.277.
Nazareth
IEJ 13, p.145.
Qadmaniot II (1969) pp.38-44.
t. Neba'a Faour I
Copeland and Wescombe, Part II, pl.8a-d.
Olivet - see Hablet el-Amud.
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Qadesh
Qadmaniot II (1969) pp.38-44.
Dever, p.150.
Rachimaya
R. Saidah.
Rafid
German Expedition to Kamed el-Loz.
er-Ram
Dhahr Mirzbaneh p.67.
khirbet er-Ras
Dever, p.146.
Ras Tawil
Dhahr Mirzbaneh p. 67.
IEJ 10, p.208, fig. 2: 11.
t. Regev - see t. Harbaj? (Atlas of Israel IX/2 (F)).

- Rosh ha-Niqra - see Tell et-Tabayiq.
- kh. Samieh - see kh. el-Marjameh.
- Sarafend-Baissariye R. Saidah.
- t. Serhan Copeland and Wescombe, Part II.
- Shechem Dhahr Mirzbaneh, p.72.
Dever, p.159.
- Sidon AUB Museum and Beirut Antiquities Market.
- Silwan - see Hablet el-Amud.
- t. Sippor IEJ 13, p.338.
RB 71 (1964) p.399, map p.390.
- t. es-Sultan IEJ II, p.109.
- t. et-Tabayiq Atiqot 2, p.88.
IEJ 2, p.142.
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- Tel Aviv IEJ 10, fig.2:13.
- Teqoa' Liber AnnusXII, p.154, fig.1:6.
Dhahr Mirzbaneh p.67 and p.74.
- Tiberias IEJ 8 (1968) pp.15-19, fig.5 and pl.I.
- kh. et-Tuleil RB LXII, (1955) p.89.
- t. Umm el-'Amdan Mittmann Site 342.
- Wadi Bayr Dhahr Mirzbaneh p.89.
- Wadi Idalya RB 1965 (72) pp. 405-409.
Dhahr Mirzbaneh p.63.
- Wadi Leimun Dhahr Mirzbaneh p.89.
Copeland and Wescombe, part II, p.161.
- Yasur - see t. Bir el-Gharbi.
- Yavne - see kh. Duheishe? Atlas of Israel IX/2 (F).
- Ya'ne Yam IEJ 2, p.108.
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- Yazur Lachish IV, p.171.
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XA	<u>BASOR</u> 137, p.11.
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XE	<u>BASOR</u> 138, p.9. <u>IEJ</u> 13, p.141. <u>Yediot</u> 27 (1963) p.284 ff. <u>Qadmaniot</u> II (1969) pp.38-44. Rothenberg, <u>God's Wilderness</u> , pp.16-18.
XF	<u>BASOR</u> 138, p.10.
XG	<u>BASOR</u> 138, p.24.
XH	" " , p.25.
XJ	" " , "
XK	<u>BASOR</u> 138, p.20. Rothenberg, <u>God's Wilderness</u> , p.21.
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XO	" " , p.13.
XP	" " , p.14.
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XS	" " , p.17.
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XV	<u>BASOR</u> 142, p.29.
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YD	" " , p.14.
YE	<u>BASOR</u> 159, p.8.
YF	<u>BASOR</u> 145, p.14.
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YL	<u>BASOR</u> 145, p.20.
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YU	" " , p.10.
YV	" " , p.10.
YW	" " , p.8.
YX	" " , p.11.
YY	<u>IEJ</u> 8 (1958) p.248.
YZ	" " " p.248.
XAA	" " " p.249.
XAB	" " " p.249.
XAC	" " " p.247.
XAD	" " " p.249.
XAE	" " " p.249.
XAF	" " " p.248.
XAG	<u>IEJ</u> 9 (1959) pp.142-3.

XAH	RB 1967, pp.94-96.
XAJ	" " " "
XAK	Rothenberg, <u>God's Wilderness</u> , p.34.
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ZA	Rothenberg, <u>God's Wilderness</u> , p.34, pp.36-39. Woolley and Lawrence, <u>The Wilderness of Zin</u> , p.41 and p. 75.
ZB	Rothenberg, <u>God's Wilderness</u> , p.34, 36-9.
ZC	" " " , " "
ZD	<u>BASOR</u> 163, p.37. Rothenberg, <u>God's Wilderness</u> , p.58.
ZE	" " " , p.34.
ZF	" " " , "
ZG	<u>BASOR</u> 163, p.37. Rothenberg, <u>God's Wilderness</u> , p.60 ff.
ZH	" " " , pp.57-8.
ZJ	" " " , p.34, 37, pp.39-46.
ZK	" " " , p.135, pl.51, 52 notes. <u>PEQ</u> (1970) Site 355, p.26.
ZL	<u>PEQ</u> (1970) p.24 and p.8, fig.2; p.10, fig.4. Site 337.
ZM	<u>PEQ</u> (1970) Site 341, p.24; p.8, fig.2; p.10, fig.4.
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ZO	Rothenberg, <u>God's Wilderness</u> , p.34, pp.40-1.
ZP	" " " , " , pp.40-1.
ZQ	" " " , p.34, pp.40-1.
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ZU	" " " , p.34, p.41.

- ZV Rothenberg, God's Wilderness, p.34, p. 41-2.
- ZW " " " , p.34, p.42.
- ZX " " " , pp. 34-35.
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- ZY Rothenberg, God's Wilderness, p.34, p.40.
- ZZ " " " , p.34, p.40.
- ZAA " " " , p.34, p.39.
- ZAB " " " , p.34, pp.39-40.
- ZAC " " " , p.34, p.37.
- ZAD Gardiner, Peet and Cerny, The Inscriptions of Sinai,
Part II, p.31.
- PEQ (1970) Sites, 344, 344A, p.25.

APPENDIX B.List of EB.MB Sites by Area Letter Index.A-B North of the Yarmuk.

AA Abu Naml (Sha'ar haGolan)
 AB Dera'a (?)
 AC Khirbet ed-Duweir
 AD Tell el-Hammeh (?)
 AE Tell Mardashiyeh (?)
 AF Site VI (Maisler and Yeivin)
 AG Site XI (Maisler and Yeivin)
 AH Site XIV (Maisler and Yeivin)
 AJ Hebariye (?)
 AK Khirbet el-Umbachi

C-D North of the Zarga.

CA Tell el-'Ain
 CB 'Ain Mehna
 CD el-Beheirah
 CE Tell Faqqas
 CF Khirbet Haṣṣan
 CG Heraqla
 CH el-Husn
 CK Tell Janu'beh
 CL Jerash
 CN el-Meidan
 CO Khirbet Merqab 'Azn
 CP Mu'amariyeh
 CQ Munṭar Zibdeh
 CS Tell er-Reheil
 CT Khirbet er-Reqa'
 CU Rujm el-Beida (Rujm Umm Isa)

CV	Rujm el-Kom
CW	Şibya
CX	Umm Tell (Arqub Umm Tell)
CY	Tell Ya'amun
CZ	Zaharat el-Bedd
DA	Zambut Meleik
DB	Khirbet Abu eş-Şalih
DC	Khirbet el-'Adasiye
DD	Khirbet 'Amriye
DE	el-Birketen
DF	Khirbet Dabulya
DG	Tell el-Fuhar
DH	Gamulta
DJ	el-Harabe
DK	Tell Hilya
DL	Khirbet Magid
DM	Tell el-Mgeyar
DN	Tell el-Mu'allaq
DO	Osara
DP	Qanaza'
DQ	Rujm el-Gauwet
DR	Rujm Sa'ab
DS	Khirbet eş-Tabaq
DT	Khirbet Umm el-Abar el-Garbiye
DU	Khirbet Umm el-Guzlan
DV	Tell Umm er-Riglen
DW	Khirbet Yariha es-Semaliye
DX	Tell ez-Zgey

E-F North of the Mujib.

EA	Khirbet Abu Hamed
EB	Khirbet Abu Khirqeh
EC	Khirbet Abu Tineh
ED	Khirbet Abu Zebna

EE	'Ain Reshouny
EF	el-'Aqrabah
EG	Khirbet el-'Aqrabah
EH	'Ara'ir
EJ	Khirbet Benat
EK	Khirbet el-Bireh
EL	Beitrawi
EN	Khirbet el-Hawaya
EO	Tell Hejaj
EP	Iskander
ES	Khirbet Juret el-Khazneh
ET	Khirbet el-Khabi'ah
EU	Khirbet Khandaq
EV	Kom Yajuz
EW	el-Lehun
EX	el-Megheirat
EY	Khirbet Meshobesh
EZ	el-Metabe - Iktanu Cemeteries (?)
FA	Khirbet Momghareh
FB	Naur
FC	Khirbet Nebi Yusha
FD	en-Nimrah
FE	Khirbet el-'Oreimeh
FF	Tell el-'Oreimeh
FH	Khirbet Qurn el-Kibsh
FJ	er-Reheil (<u>or</u> Khirbet Jebel el-'Asi)
FK	er-Reseifeh (<u>or</u> Kherdaba)
FM	Khirbet er-Rufaiseh
FN	Rujm Nebi Hadad
FO	Rujum el-'Aṣa'igh
FP	Khirbet er-Rumman
FQ	Khirbet Sakhara
FR	Khirbet es-Suwari
FS	Khirbet et-Teim

FT et-Teleil
 FU Umm el-'Amad
 FV Khirbet Umm Rujm
 FW Khirbet Umm Yanbuteh
 FY Khirbet Wad'ah
 FZ Jebel Taj

G-H North of the Hesa.

GA Ader
 GB el-'Aineh
 GC Bab ed-Dra
 GD Khirbet Balu'ah
 GE Feqeiques
 GF Freiwan
 GG Lejjun
 GJ Khirbet Mis'ar
 GK el-Misna
 GN Rujm Umm el-Qleib
 GO Khirbet es-Serareh II West
 GP Khirbet Umm es-Sedeirah
 GQ Shihan

J North of Aqaba.

JA Feinan
 JB Ghor es-Safi
 JC Khirbet Masmil

K-L East Jordan Valley.

KA Khirbet Abu Habil
 KB Tell Abu Hayet
 KC Tell Abu Kharaz
 KD Tell Abu Qarf
 KE Khirbet Beweib

KF Tell Iktanu
 KG Tell el-Meqberekh
 KH Tell Meshra el-Abyad II
 KJ Tell en-Nekheil
 KK Tell el-Qelaya
 KL Khirbet Fahil (Pella)
 KM Tell el-Qos
 KO Tell es-Sa'idiyeh
 KP Tell Sheikh Mohammad
 KQ Teleilat Umweis
 KR Tell Umm Hamad Gharbi
 KS Tell Umm Hamad esh-Sherqi
 KT Zaharet Umm el-Merar
 KU Tell Nimrin
 KV Khirbet Sweimeh
 KW Tell Braz
 KX Tell Braz East
 KY Tell Hammam East
 KZ Tell Hammam West
 LA Imtaleh
 LB Mustah
 LC Nimrin
 LD Tell et-Tahun
 LE Wadi Kafrein Site C
 LF Wadi Kafrein Site D

Q Lebanon.

QA 'Ain Hachbai
 QB Bna'foul
 QC Chhim
 QD Tell el Ghassil
 QE Tell el-Hajar el-Abyad (?)
 QF Khallet el-Khazen
 QG Majdalouna

QH Mengez
 QJ Tell Neba'a Faour I
 QK Rachimaya
 QL Rafid
 QM Sarafend-Baissariye
 QN Tell Serhan
 QO Sidon region
 QP Wadi Bayr (?)
 QQ Wadi Leimun
 QR Tell ez-Zeitoun

R-S North of the line of the Haifa - Hamadiyeh Railway.

RA Tell Bir el-Gharbi (Yasur)
 RB Hazor
 RC Ma'ayan Barukh
 RD Nazareth
 RE Tell et-Tabayiq (Rosh Hanniqra)
 RF Khirbet et-Tuleil
 RG Tell el-Harbaj
 RH Khirbet Kerak (Beth Yerah)
 RK Ha-Gosherim
 RL Hanita
 RM Tell Harashim = Khirbet et-Tuleil (?)
 RN Korazim
 O Meron
 RP Tiberias

T-U Jordanian Palestine.

TA Beit Sahur
 TB Bethel
 TD Gibeon
 TE Hablet el-Amud (Olivet)
 TG Jericho
 TH Khirbet Kufin

TJ	Tell Misqa
TK	Tell el-Beda
TL	Bethany
TM	Bittir
TN	Dhahr Mirzbaneh
TO	Khirbet el-Ful
TP	Tell el-Hamme
TQ	Khirbet el-Marjameh
TR	Ophel
TS	er-Ram
TT	Teqoa' (Tekoa, Khirbet et-Tuqu')
TU	Wadi Idalya
TV	Tell Umm el-'Amdan
TW	Ras Tawil (Khirbet Ras et-Tawil)
TX	Shechem (Balata)
TY	Tell en-Nasbeh

V-W Central Israel and the Gaza Strip.

VA	'Affula
VB	'Ain Karem
VC	Tell el-Ajjul
VD	Tell 'Amal
VE	Azor
VF	Barqai
VG	Tell Beit Mirsim
VH	Benayah
VJ	Beth Shan
VK	Beth Shemesh
VL	Khirbet Duheishe
VM	Tell Abu Hureirah
VN	Gezer
VO	Hazorea
VP	Kfar Monash
VQ	Lachish

VR Megiddo
 VU Tell Sippor
 VW Tell es-Sultan
 VX Tel Aviv
 VY Yavneh Yam
 VZ Mugharet et-Taouamin
 WA Tell el-'Asawir
 WB Yazur
 WC Deir el-Bel'ah
 WD Tell el-Halif
 WE Horvat Abrektas
 WF Ma'abarot
 WH Yavne

X-Y Negeb South of Beersheba (070)

XA Khirbet Beqerah (Glueck Site 66)
 XB Khirbet Beqerah II (Glueck Site 80)
 XC Khirbet Beqerah III (Glueck Site 79)
 XE Khirbet Rekhmeh (Yeruham) (Glueck Site 120)
 XF Negeb (Glueck Site 123)
 XG " (Glueck Sites 147, 147a, 147b)
 KH " (Glueck Site 149c)
 XJ " (" " 152)
 XK Khirbet Birein (Glueck Site 164b)
 XL Khirbet er-Reseisiyeh (Glueck Site 178)
 XM Negeb (Glueck Site 179)
 XN " (" Sites 184a, 184b)
 XO " (" Site 185)
 XP " (" Sites 186, 186a)
 XQ " (" Site 186b)
 XR " (" Sites 186c, 186d)
 XS " (" Site 188a)
 XT " (" " 200)
 XU " (" " 201)

XV	Khirbet Medhbeh (Glueck Site 209)				
XW	Negeb (Glueck Site 234b)				
XX	"	(	"	"	273)
XY	"	(	"	"	297)
XZ	"	(	"	"	301)
YA	"	(	"	"	303)
YB	"	(	"	"	305)
YC	"	(	"	"	307)
YD	"	(	"	"	308)
YE	"	(	"	"	308b)
YF	"	(	"	"	310)
YG	"	(	"	"	311, 311a, 311b)
YH	"	(	"	"	329)
YJ	"	(	"	"	339)
YK	"	(	"	"	345)
YL	"	(	"	"	346)
YM	"	(	"	"	349)
YN	"	(	"	"	369)
YO	"	(	"	"	372)
YP	"	(	"	"	373)
YQ	"	(	"	"	410)
YR	"	(	"	"	421)
YS	"	(	"	"	436, 436a)
YT	"	(	"	"	437)
YU	"	(	"	"	439)
YV	"	(	"	"	440)
YW	"	(	"	"	441)
YX	"	(	"	"	452)
YY	"	Evenari <u>et al.</u> Site 15			
YZ	"	"	"	"	" 22
XAA	"	"	"	"	" 24
XAB	"	"	"	"	Sites 30-31
XAC	"	"	"	"	Site 33
XAD	"	"	"	"	" 37
XAE	"	"	"	"	" 39
XAF	"	"	"	"	" 45

XAG Negeb Ramat Matred Plateau
 XAH " Nahal Ahdar
 XAJ " Nahal Avnon

Z Sinai.

ZA el-Muweilah I (085.5 - 010)
 ZB el-Muweilah II (086.8 - 010.5)
 ZC 'Ain Qudeis I (098.5 - 000.8)
 ZD Jebel el-Halal (Bir el-Hadeira)
 ZE 'Ain Qudeis II (099.2 - 002.3)
 ZF 'Ain Qudeis III (101.4 - 002.5)
 ZG Sidr el-Heitan (Ruweiset el-Akheider)
 ZH Bir el-Hasana
 ZJ 'Ain el-Qudeirat I (097.1 - 008.9)
 ZK Serabit el-Khadem
 ZL Rothenberg South Sinai Survey Site 337
 ZM Rothenberg South Sinai Survey Site 341
 ZN Rothenberg South Sinai Survey Site 343
 ZO 'Ain el-Qudeirat II (097.2 - 007.7)
 ZP 'Ain el-Qudeirat III (100.7 - 006.6)
 ZQ 'Ain el-Qudeirat IV (096 - 007.1)
 ZR 'Ain el-Qudeirat V (095.6 - 007)
 ZS 'Ain el-Qudeirat VI (096.3 - 006.7)
 ZT 'Ain el-Qudeirat VII (095.7 - 005.8)
 ZU 'Ain el-Qudeirat VIII (098.3 - 005.4)
 ZV 'Ain el-Qudeirat IX (095.2 - 004.3)
 ZW 'Ain el-Qudeirat X (095.6 - 003.4)
 ZX el-Quseimeh I (090.9 - 008.2)
 ZY el-Quseimeh II (093.3 - 007.8)
 ZZ el-Quseimeh III (092.4 - 007.4)
 ZAA el-Quseimeh IV (091.5 - 006.8)
 ZAB el-Quseimeh V (092.6 - 006.5 or 005.5?)
 ZAC el-Quseimeh VI (093.2 - 004.2)

APPENDIX C. Chart collating information on EB.MB sites.

The following abbreviations are used in the chart.

Column 1: t = tell, kh. = khirbet etc.

Column 2: 0 = settlement

+ = cemetery

? = site of uncertain date, or insufficient evidence for 0 or +.

Column 4: B = evidence for buildings.

C = evidence for campsite.

Column 9: r = round based lamp.

f = flat based lamp.

s = single-spouted lamp.

x = four-spouted lamp, but no information given about the base.

Column 14: S = Shaft grave.

P = Pit grave.

C = Cave.

Column 15: r = round shaft graves.

s = square shaft graves.

Column 16: 1 = single chamber shaft graves.

X = multiple chamber shaft graves.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Megalithic remains.
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Face combing.	Band combing.	Flints.	First founded.	Grave types.	Round or square shaft.	Number of chambers.	
<u>North of the Yarmuk River</u>																
Abu Naml	o	No	B				x				x	Palaeo.				
Damascus Museum							x		x							
Dera'a	?											EBA	Cist			Dolmens
kh. ed-Duweir	o											EB.MB				
t. el-Hammeh	?											EB I				
Hebariye	?											Chalco.				
t. Mardashiyeh	?															
Site VI	o						x					EB-EB.MB				
Site XI	?															
Site XIV	o						x				x	EB-EB.MB				
kh. el-Umbachi	o	No	?		x		x		x			Chalco.?				
<u>North of the Zerqa River</u>																
kh. Abu es-Salih	o											EB.MB				
kh. el-Adasiye	o											EB.MB				
t. el-'Ain	o	No			x							Chalco.				Dolmens
'Ain Mehna	o	No	C									EB I				
kh. Amriye	o											EB I				
el-Beheirah	o	Yes										EBA				
el-Birketen	o											EB I				
kh. Dabulya	o											EB.MB				
t. Faqqas	o	Yes										EBIV-EB.MB				
t. el-Fuhar	o											EB II				
Gamulta	o											Neo.?				
el-Harabe	o											EB.MB				
kh. Hassan	o	Yes					x		x			EB I?				Dolmens
Heraqla	o	Yes			x				x			EB I				
t. Hilya	o											EB I				
el-Husn	+			x	x		x	f	x		x	EB I	C			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Negolithic remains.
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Flints.	Band combing.	Face combing.	First founded.	Grave types.	Round or square shaft.	Number of chambers.		
t. Janubeh	o	Yes										EBIV-EB.MB					
Jerash	o				x					x	x	Chalco.					
kh. Magid	o											EB.MB					
el-Meidan	o											Chalco.?					
kh. Merqab 'Azn	o	Yes										EBA					
t. el-Mgeyir	o	No										EB I					
t. el-Mu'allaqā	o	No										EB.MB					
Mu'amariyah	o	No	C		x		x			x	x	x EB.MB					Dolmens
Muntar Zibdeh	o											EBA					
Osara	o											EB.MB					
Qanaza	o											Palaeo.					
t. er-Reheil	o	Yes					x			x		EB II					
kh. er-Reqa	o	No										EB.MB					
Rujm el-Beida	o	Yes										EBIV-EB.MB					
Rujm el-Gauwet	o											EB.MB					
Rujm el-Kom	o	Yes										EBA					
Rujm Sa'ab	o											EB I					
Sibya	o				x							EB I					
kh. et-Tabaq	o											EB III					
kh. Umm Abar Gharbi	o											EB.MB					
kh. Umm Guzman	o											EB II					
t. Umm Riglen	o											EB.MB					
Umm Tell	o	Yes										EBIV-EB.MB					
t. Ya'amun	o											EBA ?					
kh. Yariha es-Semaliye	o											EB.MB					
Zaharet el-Bedd	o	Yes			x		x			x	x	EB.MB					Dolmens
Zambut Meleik	o	Yes										EB.MB ?					
t. ez-Zgey	o											EB.MB					

1 Name of site.	2 Type of site.	3 Natural defences.	4 Occupation.	5 Metal found.	6 Pottery published.	7 Painted teapots.	8 Envelope ledges.	9 Lamps.	10 Face combing.	11 Band combing.	12 Flints.	13 First founded.	14 Grave types.	15 Round or square shaft.	16 Number of chambers.	17 Megalithic remains.
<u>North of the Mujib River</u>																
kh. Abu Hamed	o	Yes										EBIV-EB.MB				
kh. Abu Khirqeh	o	No										EBIV-EB.MB				Stone circle
kh. Abu Tineh	o											EBIV-EB.MB				
kh. Abu Zebna	o											EBIV				
'Ain Reshouny	o											EBIV-EB.MB				
el-'Aqrabah	o	Yes			x		x		x		x	EBIV-EB.MB				
kh. el-'Aqrabah	o	No										EBIV-EB.MB				
'Ara'ir	o	No	CB		x		x	r	x	x	x	EBIV-EB.MB				Stone circle
Beitrawi	+o	Yes		x			x	s	x			EB.MB	Cist			
kh. Benat	o	Yes										EBIV-EB.MB				
kh. el-Bireh	o	Yes										EBIV-EB.MB				
kh. el-Hawaya	?											EBIV-EB.MB				Stone circle
t. Hejaj	o											EBIV-EB.MB				
Iskander	o	No	B		x		x	f		x	x	Chalco.				Menhirs
Jebel Taj	+						x			x			S? C?		1	
Juret el-Khazneh	o										x	EBIV-EB.MB				
kh. el-Khabiah	o											EBIV-EB.MB				
kh. Khandaq	o	Yes										EBIV-EB.MB				
Kom Yajuz	o	Yes			x		x					Chalco.?				
el-Lehun	o											late EBA				Stone circle
el-Megheirat	o				x							Chalco.?				Dolmens
kh. Meshobesh	o	Yes										EBIV-EB.MB				
el-Metabe	+				x							Chalco.?	Cist			Dolmens
kh. Momghareh	o	Yes										EBIV-EB.MB				
Naur	?											EB.MB				
kh. Nebi Yusha	o											EBIV-EB.MB?				
en-Nimrah	o									x		EBIV-EB.MB				
kh. el-'Oreimeh	o	Yes										EBIV-EB.MB				

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Face combing.	Band combing.	Flints.	First founded.	Grave types.	Round or square shaft.	Number of chambers.	Megalithic remains.
t. el-'Oreimeh	o	Yes										EBIV-EB.MB				
kh. Qurn el-Kibsh	o	Yes			x		x					EB-EB.MB				
er-Reheil	o	Yes					x		x		x	EBIV-EB.MB				Dolmens
er-Reseifeh	o	Yes			x		x		x			EBIV-EB.MB				
kh. er-Rufaiseh	o											EB.MB				
Rujm Nebi Hadad	?	Yes										EB.MB				Dolmens
Rujm Asaigh	o						x					EBIV-EB.MB				
kh. er-Rumman	o	Yes										EBIV-EB.MB				
kh. Sakhara	o											EBIV-EB.MB				
kh. es-Suwari	o	Yes										EBIV-EB.MB				
kh. et-Teim	?	No										EBA?				
et-Teleil	o	Yes										EBIV-EB.MB				
Umm el-Amad	o											EB.MB				
kh. Umm Rujm	o						x		x	x	x	EBIV-EB.MB				
kh. Umm Yanbuteh	o											EBIV-EB.MB				
kh. Wad'ah	o											EBIV-EB.MB				
<u>North of the Hesa River</u>																
Ader	o	No	B		x		x		x			EB III				Menhirs
el-'Aineh	o	Yes			x		x		x			EBIV-EB.MB				
Bab ed-Dra'	+o	No	C	x	x			x				Chalco.	S.Tumuli			Menhirs
Balu'ah	o						x					EBIV-EB.MB				
Feqeiqes	o								x	x		EBIV-EB.MB				
Freiwan	o	No										EBIV-EB.MB				
Lejjun	o											EBIV-EB.MB				Menhirs
kh. Misar	o	No										EBIV-EB.MB				
el-Misna	o											EBIV-EB.MB				
Rujm Umm Qleib	o											EBIV-EB.MB				
kh. Serareh II	o						x		x	x		EBIV-EB.MB				
Shihan												Stele of uncertain date.				
kh. Umm Sedeirah	o											Chalco.?				

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Face combing.	Band combing.	Flints.	First founded.	Grave types.	Round or square shaft.	Number of chambers.	Megolithic remains.
<u>North of Aqaba</u>																
Feinan	o											EBIV-EB.MB				
Ghor es-Safi	+				x							EBIV-EB.MB?	Cist			
kh. Mashmil	o	No										EBIV-EB.MB				
<u>East Jordan Valley</u>																
kh. Abu Habil	o	No	C		x		x					Chalco.				
t. Abu Hayet	o	No			x		x		x	x		EB.MB				
t. Abu Kharaz	o	Yes										EB I-II				
t. Abu Qarf	o	No					x		x		x	EBIV-EB.MB				Dolmens
kh. Beweib	o	No			x		x	f	x			EB.MB				
t. Braz	o	No					x		x			EB.MB				
t. Braz East	o	No					x		x			EB.MB				
East Ghor	?						x		x							
kh. Fahil (Pella)	o											EB.MB				
t. Hammam East	o											EB I				Dolmens
t. Hammam West	o	No					x		x			EB I				Dolmens
t. Iktanu	o	No	B		x		x	fr	x	x	x	Chalco.	Tumuli?			Dolmens
Imtaleh	o	No					x					EB.MB				
t. Meqbereh	o	No			x							EB I				
t. Meshra al-Abyad	o	No	B				x		x	x	x	EB.MB				Stone circle
t. Mustah	?	No						?				Chalco-EBA				
t. en-Nekheil	o	No			x		x		x	x	x	EB.MB				
Nimrin	o	No									x	EBA				
t. Nimrin	o											EB.MB?				
t. el-Qelaya	o	No										EB I				
t. el-Qos	o	Yes			x		x		x			Chalco.				
t. es-Sa'idiyeh	o	Yes			x		x		x			Neo.				
kh. Sheikh Mohammad	o								x	x		EB I				
kh. Suweimeh	o											EB.MB?				Dolmens

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Face combing.	Band combing.	Flints.	First founded.	Grave types.	Round or square shaft.	Number of chambers.	Neolithic remains.
t. et-Tahun	o						x				x	EBA?				
Teleilat Umweis	o	No									x	Chalco.?				Dolmens
t. Umm Hamad Gharbi	o	No	C		x		x	r	x		x	EB.MB				
t. Umm Hamad Sherqi	o	No			x		x		x		x	Chalco.				
Wadi Kafrein Site C	o						x		x		x	Chalco.?				Dolmens
Wadi Kafrein Site D	o						x		x		x	Chalco.?				Dolmens
Zaharet Umm el-Merar	o	Yes			x		x		x			EB.MB				
<u>Lebanon</u>																
'Ain Hachbai	o								x			EBA?				
Bna'foul	+			x									S	r?	X	
Chhim	+					?	?				?					
t. el-Ghassil	o	No	C		x						x	MBA ?				
t. el-Hajar el-Abyad	?															
Khallet el-Khazen	?		ave				x					EBA				
Majdalouna	+						x				x					
Mengez	+											EB I	Dolmens			
t. Neba'a Faour	o											EBA				
Rachimaya	+					x										
Rafid	+					x							Cist			
Sarafend	+						x						S?			
t. Serhan	o							?	?	?		EBA				
Sidon																
Wadi Bayr	?															
Wadi Leimoun	+			x		x							S			
t. ez-Zeitoun	o	Yes			x					?	?	EBA				
<u>North of the line of the old Haifa-Hamadiyeh Railway</u>																
Beth Yerah - see kh. Kerak																
t. Bir el-Gharbi	+o					x						EB.MB	P			
ha-Goshrim	+				x								S	s	1X	

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Name of site.	Type of site.	Natural defences.	Occupation.	Metal found.	Pottery published.	Painted teapots.	Envelope ledges.	Lamps.	Face combing.	Band combing.	Flints.	First founded.	Grave types.	Round or square shaft.	Number of chambers.	Megalithic remains.
kh. Kufin	+				x		x	f	x	x		Chalco.	S	r	1	
kh. el-Marjameh	o											EBA				Megaliths
t. Misqa	o				x		x				x	Chalco.				
Mount of Olives - see Hablet el-Amud																
t. en-Nasbeh	?											Chalco.				
Ophel	?															
er-Ram	?															
kh. er-Ras	+															
Ras Tawil	?				x					x						
Shechem	o+	No	C?	x						x		Neo.	S	r		
Teqoa'	+												S	r		
t. Umm 'Amdan	o											EB I				
Wadi Idalya	o	Cave						x		x		EB.MB				
Central Israel																
horvat Abrektas	+												S			
t. Abu Hureirah	o											EB.MB				
'Affula	o				x		x			x		Chalco.				
'Ain Karem	+				x					x						
t. el-Ajjul	+			x	x		x			x		EB.MB	S	rs	1(X)	
t. 'Amal	+												S		1	
t. el-'Asawir	+											Chalco.	C			
Azor	?				x											
Barqai	+			x												
t. Beit Mirsim	o	No	CB		x		x	x	?	x	x	EB III				
Benayah	+				x					x						
Beth Shan	+o			x	x		x	x	x	x		EBA	S		1	
Beth Shemesh	?															
Deir el-Belah				x												
kh. Duheishe	o											EB.MB				

[illegible]