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Tell Hadidi: One Bronze Age Site Among Many in the Tabqa Dam Salvage Area

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This article presents the results of the excavations at Tell Hadidi in Syria between 1974 and 1978. It concentrates on the Bronze Age remains, in particular the Early Bronze Age sequence not presented in detail in previous reports. It is now possible not only to elucidate a complete sequence of the periods at Tell Hadidi but also to fill in the basic outline with significant detail in many chronological phases. The sequence at the beginning of the Bronze Age provides a particularly important bridge between earlier Protoliterate remains and the beginning of the Early Bronze Age tradition. Stratified diagnostic sherds define the EB I and EB II phases and provide solid links to other excavated sequences. A large corpus of tomb pottery fills out the basic stratified sequence for EB III through EB IV and provides significant material with which to refine a rich ceramic inventory. Limited but valuable evidence for parallels with different regional traditions are noted. The Middle and Late Bronze Age sequences, reported previously, are reviewed only briefly.

his article reviews the Bronze Age remains from the Milwaukee Public Museum's excavations at Tell Hadidi in the context of the neighboring sites excavated in the salvage projects necessitated by the construction of the Tabqa Dam and the resulting Lake Assad. As the lake water rose, many villages had to be relocated (Bounni 1979), including the village of Hadidi and our original base of operations (fig. 1). The site of Hadidi has been more fortunate than others, since only a small area on the south has been flooded. Life continues on the side away from the river as it was before the waters rose, but the major ferry crossing at Hadidi no longer exists. More than 19 Bronze Age sites have been surveyed or excavated in the northern part of the lake area, within a 20mile radius of Tell Hadidi (Dornemann 1985).

The earliest stratigraphic sequence was encountered during the last season of excavations in the south-central area of the high tell in Area RII. Here the site's first stratum was defined in nine architectural phases within four distinct levels. In

contrast to earlier building techniques at neighboring sites, which used *riemchen* bricks, larger rectangular mud bricks were used in the construction here. The location of the buildings shifted over time so that the area excavated initially was inside a room, while in Level 4 the exposure was primarily outside. The building entrance was flanked by two buttresses and two small benches (fig. 2).

Early Bronze II, III, and IV remains were badly destroyed by Middle Bronze Age intrusions, and by Islamic pits and walls that came down directly on Early Bronze I features. Final analyses of the loci and associated finds have yielded a good separation of artifacts. The only stratified EB II and EB III loci on the site came from Stratum 2 in this area. The Stratum 3 wall segment from EB IV, shown in fig. 3, was all that remained of that period in Area RII, although that stratum is well documented elsewhere on the site.

The early pottery from Area RII and the lowest fills elsewhere on the site are particularly significant. The occupation of the extensive site of



Fig. 1. General view of 1974–75 headquarters building and expedition compound, partially submerged in 1976.

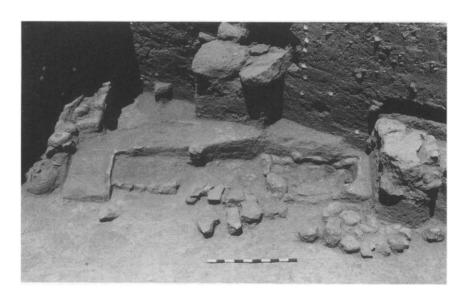


Fig. 2. The highest Stratum 1 EB I structure in Area RII on the south side of the high tell, photographed from the southeast.

Hadidi began at this point as a major new urban undertaking, continuing the extraordinary tradition of the nearby Protoliterate sites. Dominating the horizon southwest of Hadidi is the high point of Jebel Aruda, where Dutch archaeologists van Driel and van Driel-Murray (1979; 1983) excavated an impressive temple precinct and associated residences. Farther south, the German expeditions (Heinrich, et al. 1969; 1970; 1971; 1973; 1974; Strommenger 1979) and Belgian expeditions (Finet 1979) excavated portions of a well-fortified city at Habuba Kabire-Tell Qanas. The architectural remains, pottery, and small finds are related to the Mesopotamian tradition, well known in particular at Warka and Susa (Perkins 1949).

It is difficult not to use the term Protoliterate when referring to the remains from Habuba and

Jebel Aruda because of the close parallels with the southern Mesopotamian materials; but in doing so we are extending the use of this terminology to a very distinct area. The problem of period definition is even more acute for the Tabga Dam area than for a wider Syrian context. Phase F in the Amuq has long been seen as contemporary with Protoliterate A and B of Mesopotamia (Watson 1965: 73-75, 82), but it also represents an assemblage that stands in a long continuum of local traditions. Enough characteristic features exist to tie it firmly to other areas, but those foreign features do not dominate the local components of the assemblage. The quite sophisticated ceramic assemblage of the Tabqa Dam area (Sürenhagen 1978), in contrast, shows a decided domination by features that have a Mesopotamian orientation, while it is difficult to



Fig. 3. A segment of a wall foundation, oriented east-west, and patches of associated floors preserved in the center of the plot, Area RII, photographed from the west. These later pits and foundations left little evidence of EB II-IV occupation levels.

articulate fully the local components which, for lack of striking continuity with the past, seem to be secondary.

Amuq G, placed opposite the Protoliterate C and D horizon, represents a developed Syrian ceramic tradition that basically has left behind the chaff-faced simple ware productions of the beginning of Amuq F, and developed as its basis the grit-tempered simple wares that continue through the third millennium B.C. Again there is a contrast with the Tabqa Dam area that this time goes in the opposite direction of the previous phase. In the Euphrates River Valley, the Mesopotamian features continue at first but gradually disappear as a local repertoire of far more limited forms becomes dominant. Regional variations between the Euphrates Valley and the coast are clear but we are inclined to see in the Tabqa Dam area materials confirmation of the Braidwoods' observations in their division of site levels between Phases F and G (Braidwood and Braidwood 1960). The question of whether or not the Mesopotamian features, like the beveled-rim bowls, indeed begin toward the end of Phase F and continue into the beginning of Phase G, highlights a critical problem. Should a change be made, for instance, by attributing Levels 20-18 at Tell Judeideh to Phase F rather than to Phase G (Algaze, in press)?

We are inclined to accept the original proposal, with beveled-rim bowls continuing into Phase G. In Mesopotamia, beveled-rim bowls continue through Eanna Level IV at Warka, but not through Level III, and they are said to continue later at Nippur and elsewhere but not in the same quantities as earlier (Hansen 1965: 202-7). The Uruk sequence seems to parallel the situation in Amuq G, and at Habuba, Aruda, Hadidi Stratum 1, and Phases A-F in sounding IIA at Tell Sweyhat in the Tabqa Dam area.

Given the predominant local character of the Amuq materials, it is appropriate to use the Early Bronze Age I terminology, which is basically consistent with the terminology used north and south of Amuq. The same terminology is appropriate for the assemblage characteristic of Hadidi Stratum 1, Sweyhat A-F, Halawa Tell B, and elsewhere (to be discussed below), but not for the earlier materials from Habuba Kabire and Aruda. Protoliterate terminology can be applied to the earlier phase, since Strommenger's assessment of the Habuba-Aruda materials (Strommenger 1980: 485-86) fits well with the Protoliterate A and B parallels and seems to demonstrate a strong break with the previous traditions.

We cannot downplay the Mesopotamian influences but can we be certain that here indeed is the manifestation of an expansive intrusion from Mesopotamia, reaching up into Anatolia along the Euphrates River? The existence of Mesopotamian colonies cannot be accepted until more is known of the dynamic impact that the spread of new technologies, methods of communication, and urbanism had on the settlements and cities of the Tabga Dam area. The immediately preceding phase is not yet well defined, and was not encountered in the excavations in the Tabqa Dam area. The contrast between the latest material from Shams ed-Din Tannira (Seeden 1981) and Habuba Kabire South is striking, but it may be misleading because we lack evidence for intermediate materials. Does the Protoliterate assemblage totally dominate and alter the local assemblage, or has it been recast as the local expression of that culture? What stamp does it leave on subsequent cultural phases? Do traditions resume that were temporarily submerged in the Protoliterate period? Does the Hadidi Stratum 1 assemblage overlap to any significant degree with what was present at Habuba and Aruda?

The limited material from Stratum 1 in Area RII and Tell Hadidi presents, throughout the four building phases, a strong component (about 40 percent) of beveled-rim bowl sherds (figs. 4:1-6, 10-13, 39-44; 5:1-4, 27-30), as well as sherds with incised cross-hatching, reserved slip, and redburnished decoration (fig. 10:7-10, 18-20), and a few specific jar rim forms that continue the previous tradition (figs. 4:7, 26 and 6:7-9). The small round-bottomed bowl forms (figs. 4:15-18, 36; and 5:6-9, 31-34), the simple cups and bowls with slight out-turned rims (figs. 4:24, 37; 5:10, 11, 35, 37), and the variety of simple, neckless, shortrimmed jar forms (figs. 4:25, 27, 28, 38; 5:13-16, 19, 24, 36; 6:1-6, 13) provide the ceramic component that continues into Stratum 2. A specific style of comb-incised bands seems to be a characteristic surface treatment of this phase (figs. 4:9 and 10:26-31). If the beveled-rim bowls and the forms related to the earlier tradition are removed, the assemblage is the same as that at Sweyhat in phases A-F of Sounding IIA (Holland 1976: figs. 4, 5), at Tell B at Halawa (Orthmann 1981: 44-48, plates 56, 57), at Mumbaqat in Level 4 of Steinbau I (Orthmann and Kühne 1974: Abb. 4-6) and probably at Tawi, El Qatar, Tell el Hajj, and Selenkahiye. Only Mureybit, and possibly Tawi and Shams ed-Din Tannira, provide materials contemporary with those at Habuba and Aruda.

Area R, unfortunately, represents only part of the repertoire of the earliest materials from Hadidi. These must be augmented by finds from elsewhere on the site but unfortunately none were found associated *in situ* with contemporary architectural remains. In Area H sherds of this phase were found in a small sounding beneath the lowest floor level; in Area B some were in similar context but more were in the fill layers of the Middle and Late Bronze Age defense system (fig. 21). The same was true in Area J on the river side of the tell, while in Areas M and O the artifacts were disturbed by recent tomb robbing.

Many areas of the site provide additions to the collection of beveled-rim bowl sherds (fig. 10:1-5) but Area B adds a clay cone (fig. 10:13) and Area M contained the fragment of a bent spout (fig. 10:6). Those discoveries raise the question of possible earlier materials at Hadidi but the Amuq F-G model is more likely. From Areas B, J, M, and O came characteristic sherds of multiple-brush painted decoration (fig. 10:14, 15, 17, 22, 24), which occurs in Amuq G and H (Braidwood and Braidwood 1960: figs. 222-26, 275-79), and a sherd with wedge and circle incised decoration (fig. 10:25), also similar to decorated sherds found in the Amuq (Braidwood and Braidwood 1960: figs. 220, 221, 274). Smeared wash is present in those areas (fig. 10:8-10) but one sherd, along with one from Area RII, would have to be considered grain wash (fig. 10:11, 12; Amiran 1969: 41-42). Combincised bands, which decorate jars with rims similar to that of fig. 4:7(=10:23), are found in Period VI at Kurban Hüyük (Algaze, in press: plate 2:L, M; 4:B), with other forms present in Hadidi Level 1. A considerable number of other rims, pierced triangular-lug handles, bent spouts, and other features characteristic of the Habuba-Aruda assemblage were found in Kurban Hüyük Period IV as well.

If, as indicated, the distinctive sherds of Hadidi 1 that relate to the Protoliterate A and B assemblage are removed, the repertoire of forms found at other nearby sites remains. In that context there seems to be no reason to suppose that an earlier settlement ever existed at Hadidi. Given the size of the Stratum 1 settlement at Hadidi, it is difficult to conceive that many of the sites in the immediate vicinity could have been contemporary. Clearly Jebel Aruda does not continue later, Habuba and Qanas are significantly reduced in size; and Hadidi, Sweyhat, Halawa, Mumbaqat, El Hajj, El Qatar, and Selenkahiye continue as major sites through significant portions of the Bronze Age. A valid reconstruction of the area's settlement sequence

can realistically be attempted only when all the relevant materials have been published.

Stratum 2 at Hadidi is even more poorly represented than Stratum 1. It is, however, of equal significance when analyzed in connection with Halawa and other sites. Only the first layer associated with this stratum did not contain forms that became common in EB III and IV (figs. 6:21-38, 7:1-22). The later layers (figs. 7:23-9:25) provide our earliest examples of out-rolled bowl, cup, and jar rims (figs. 7:23, 24, 26; 8:2, 3, 29, 30, 39, 40; 9:8, 10, 19) but continue the earlier tradition of cups and bowls (fig. 8:17-26), and jars (figs. 7:31, 34; 9:3-5; 9). This seems to provide a transition from the EB I-II materials to the EB III-IV materials. but the amount of material that has been studied in detail is small so that this assertion remains tentative.

The presence of fine, low, ring bases as a unique feature (fig. 6:35, 36 = fig. 10:32, 34) is significant and provides concrete parallels elsewhere as the beveled-rim bowls did earlier. In Amug H, where such bases occur, they are found on "cyma recta profile" cups (Braidwood and Braidwood 1960: fig. 269: 9-12). This profile had been noted at Tell Chagar Bazar in Level 5 (Watson 1965: 77) and has a similar small ring base. It occurs also in Level V at Kurban Hüyük (Algaze, in press: pls. 7:B, C; 8:H, L), in the Karababa Dam area on the Euphrates in southeastern Turkey. At Qalat el Mundiq (Apamea) in the Orontes Valley such bases occur on similar cups and also on jars (Balty 1981: fig. 18:12, 13, 15, 16). At Hadidi two bases are found, and angular or more upright versions of the characteristic rim forms (fig. 6:22, 23, 33, 34). In one case the base and rim may belong to the same cup (fig. 6:23, 35). At Hadidi this form is a development of the out-turned cup form, like fig. 6:30-32, where the vessel side has been straightened and flared out slightly. The similarities of profile and base are clear enough, however, to place the beginning of Hadidi 2 opposite Amuq Phase H.

On the same horizon in the Tabqa Dam area is the material from Tell B at Halawa (Orthmann 1981: 44-48). Though this material is similar to that at Hadidi 1 and Sweyhat A-F, it has form variations characteristic of the development into Hadidi 2. The "cyma profile" is present (Orthmann 1981: plate 56:16, 18, 19, 22, 23) but not the ring base. The selection of sherds published so far is small. Included among this material is a red-brick burnished ware bowl, equally characteristic of a

phase subsequent to Hadidi 1 (Orthmann 1981: plate 56:7). This bowl strengthens the link with the Amug H horizon as an example of the Amug "redblack burnished ware" category. Though no complete forms of such ware are found at Hadidi, scattered red-burnished, straw-tempered sherds with dark gray or black cores are found (fig. 11:1-3; 6-8), as well as a few heavily burnished black sherds with black cores (fig. 11:9, 10). It is quite possible that these represent a phase that once was better represented at Hadidi but was virtually removed by later building operations. Probably related to the same ceramic tradition are the large storage vessels with gray or black burnish on the outside and gray to pink to orange on the inside, from Hadidi (fig. 11:4, 5, 11-14). Such vessels clearly represent cultural continuity with an area that stretches to the west and east, and date at the earliest to the end of Amuq Phase H. They may be considered a component of the beginning of the EB III tradition, post Hadidi Stratum 2, Level 1, rather than earlier. Parallels are well known from many sites, including Tell Khuera; and the comparative literature is cited by Kühne (Kühne 1976: 99–103, Abb. 383–89, plate 38).

The comparison of pottery forms between Hadidi and Halawa indicates a continuous tradition like that of Amuq Phase G to H. Looking for parallels at other Syrian sites, it is essential to reexamine the Hama K materials that have been, and still are, difficult to interpret satisfactorily without considering the levels a mixture. From Level 6 through 1, beveled-rim bowls exist together with red-black burnished ware forms (Fugmann 1958: figs. 46, 49, 54). Elsewhere in Syria the redblack burnished ware follows use of beveled-rim bowls by a considerable period, so that contemporary use of such vessels should not be expected. Clearly they belong in the Amuq G-H, Hadidi 1-2, and Halawa Tell B horizons, though greater precision is difficult. Publication of the ceramics from beneath Palace G (Mardikh IIB1), discovered on the acropolis at Tell Mardikh, will greatly clarify the picture. The field sorting contained beveled-rim bowl sherds, cup forms, and sherds decorated with comb-incised bands characteristic of Hadidi. Only a small selection of sherds, assigned to Mardikh IIA, has been published so far (Mazzoni 1985: fig. 7). Ras Ibn Hani provided materials of the Hadidi 1-2:1 horizon and the small selection of published sherds includes characteristic profiles. The body sherd with combincised decoration indicates that it is contemporary

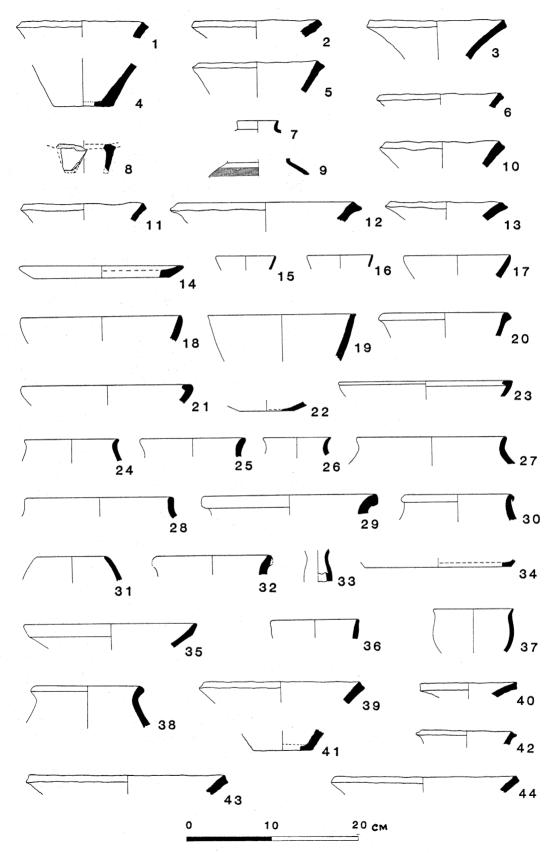


Fig. 4. Profiles (including major selections of beveled rim bowl sherds) from RII, Stratum 1, Level 1: 1-9; stratified EB I bowl and jar forms, Level 3A: 10-31; Level 3B: 32-34; Level 4A: 35-38; Level 4B: 39-44.

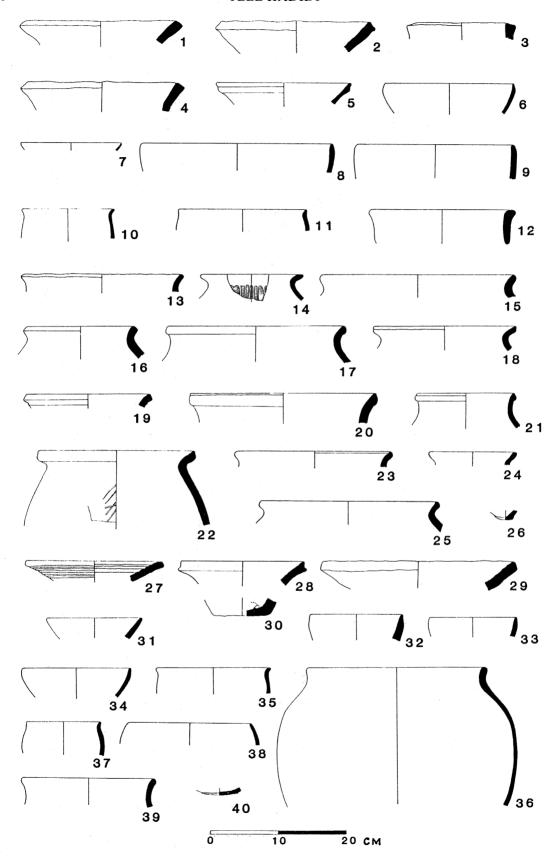


Fig. 5. Stratified EB I bowl and jar profiles from RII, Stratum 1, Level 4B: 1-26; Level 4D: 27-40.

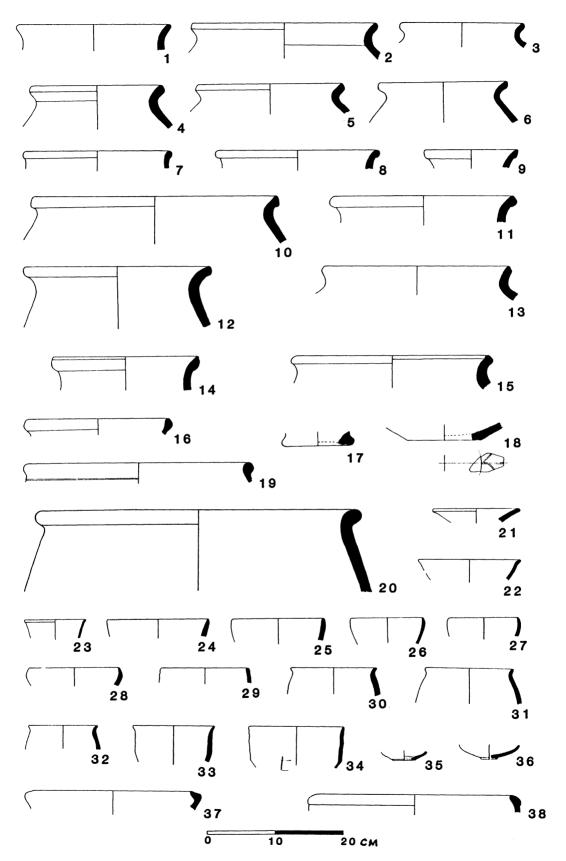


Fig. 6. Stratified bowl and jar profiles from RII, Stratum 1, Level 4D: 1-20; the most diagnostic EB II profiles from Stratum 2, Level 1: 21-38.

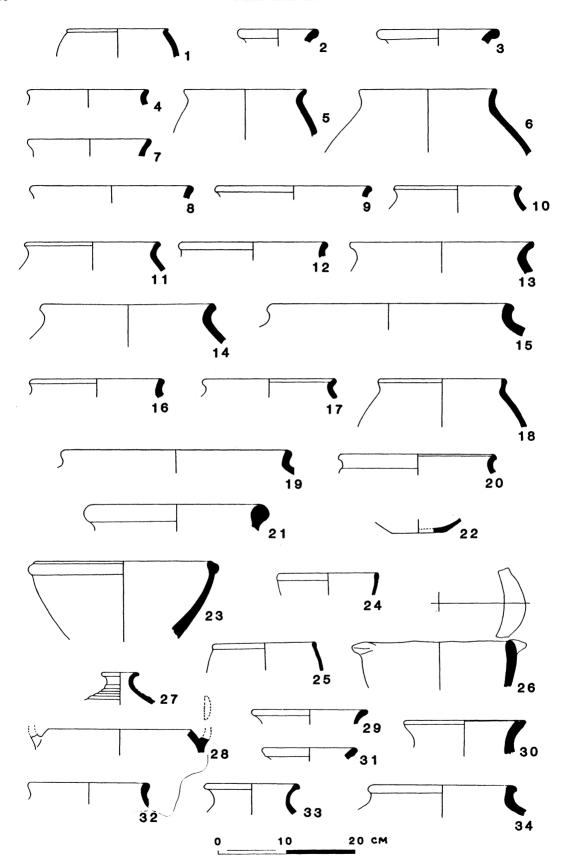


Fig. 7. EB II bowl and jar profiles from RII, Stratum 2, Level 1: 1-22; early EB III profiles from Stratum 2, Level 2A: 23-34.

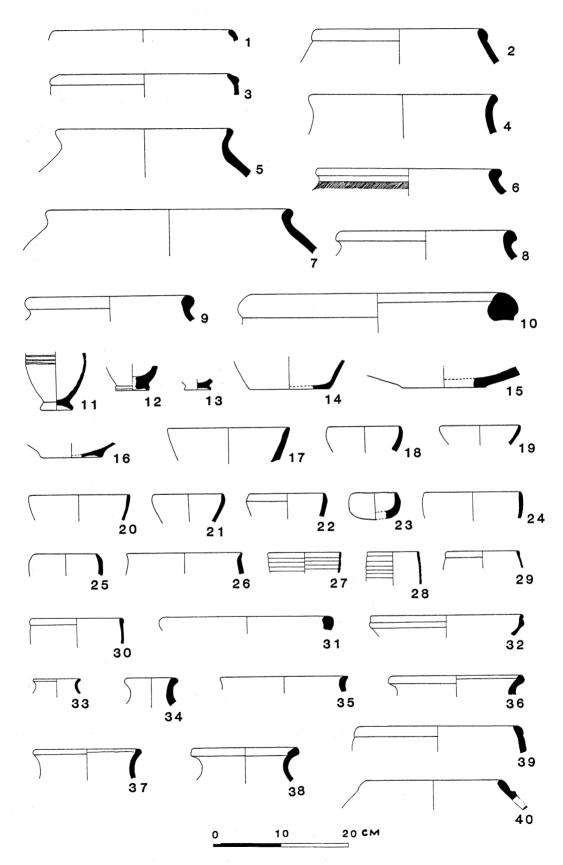


Fig. 8. Diagnostic early EB III bowl, cup, and jar profiles from RII, Stratum 2, and Level 2B: 16–40.

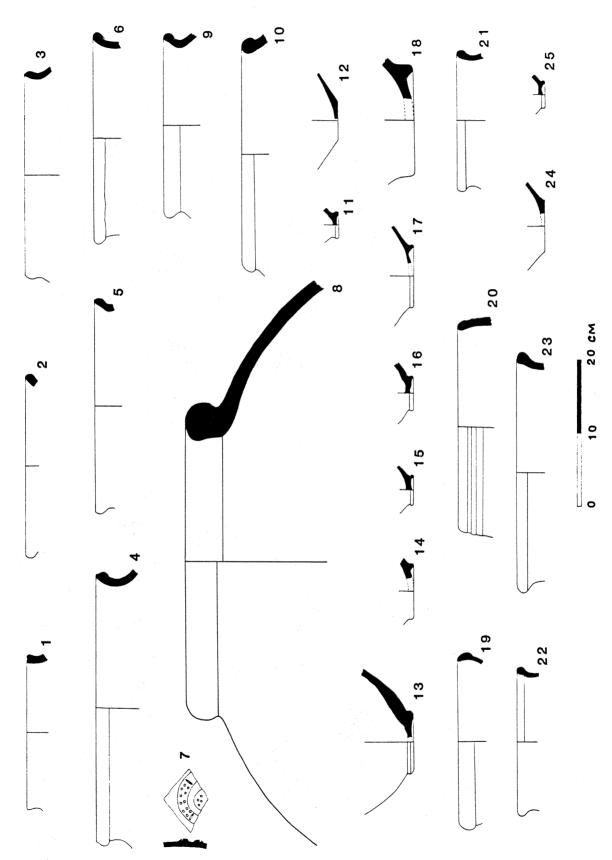


Fig. 9. Primarily jar and base profiles of EB III from RII, Stratum 2, Level 2B: 1-18; Level 3: 19-25.

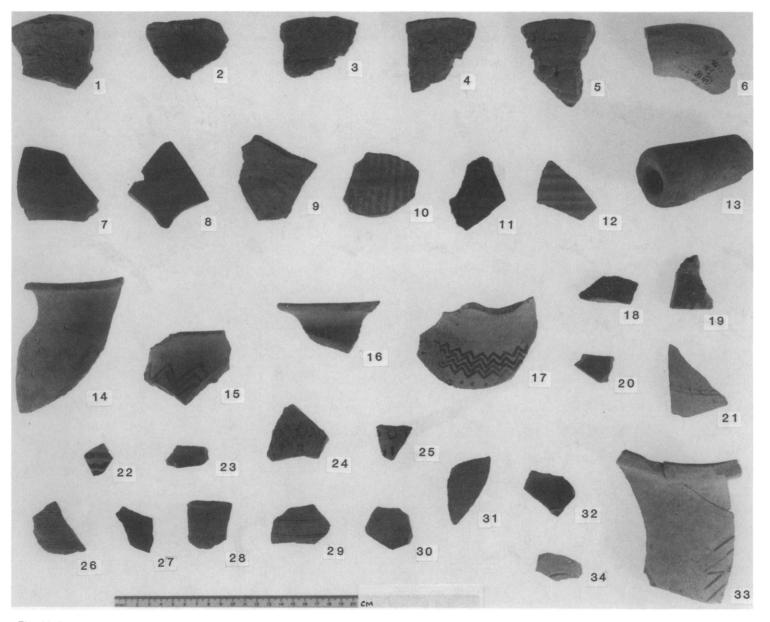


Fig. 10. Stratum 1 pottery of EB I-II from various areas of Tell Hadidi. Area B: 5, 7–11, 13, 14, 17, 19, 25; Area F: 4; Area H: 1–3, 31; Area J: 24; Area M: 6, 22; Area O: 15, 30; Area R: 12, 16, 18, 20, 21, 23, 26–29, 32–34.

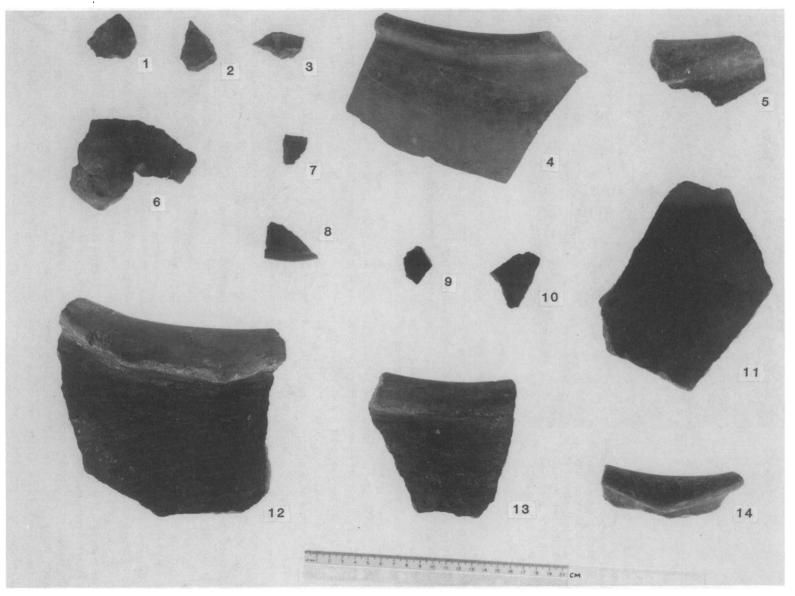


Fig. 11. Early Bronze II-III red-burnished sherds, from surface of low tell: 1–3, 6–8; black-burnished sherds from Area B: 9; Area L: 10; sherds from gray-black burnished storage vessels with triangular lug handles, from Area B: 14; Area L: 5, 13; Area M: 4, 11, 12.

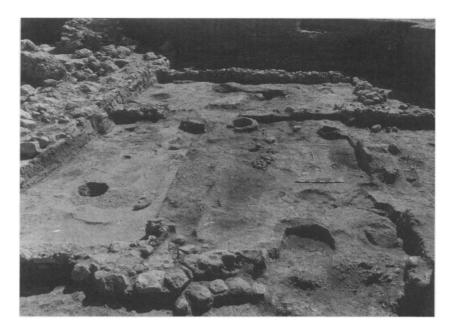


Fig. 12. Remains of the initial phase of a multiroom early Bronze Age building, constructed on virgin gravel in Area B, photographed from the west. The floors were constructed beneath the levels of the base of the wall foundations and are better preserved than the remains of the walls.

at least with Hadidi 1 (Bounni et al. 1979: fig. 2). Clearly much more exists of that critical phase in the history of ancient Syria but very little has been exposed in archaeological excavation.

Publication of the Leilan and Brag sequences should help to refine the pottery sequence of northeastern Syria (Weiss: 1984; 1985a; 1985b; Oates 1982; 1985). The continuing excavations at Tell Khuera have not yet reached such early levels so we cannot say how far east across the Jezireh the Tabqa Dam area assemblage may have extended. The "cyma profile" cups of Chagar Bazar 5 provide one indicator, but the "Ninevite 5" ware is the major ceramic indicator of the developing Early Bronze assemblages of that area. As in the west, the Mesopotamian beveled-rim bowl was a hallmark of the previous assemblage in the horizon from Nineveh 3 and 4, Nuzi IX-VIII, Grai Resh IV-II, Leilan IV, and the Braq Eye Temples; but the exact positioning of that horizon in relation to the phases of the Protoliterate is still difficult. The Leilan sequence and the recent Braq excavations (Fielden 1981; Oates 1982) will help to refine that period in the eastern Khabur and Assyrian areas and in their connections to the west. The Dutch excavations of Hamman et-Turkman on the Balikh River are beginning to close the gap between the Khabur area and sites to the west (van Loon 1983; 1985). Oates has indicated two Uruk phases at Braq. The earlier was contemporary with the Proliterate A and B horizons and with the Jebel Aruda-Habuba materials; the second was a late Uruk, Proliterate C and D horizon that would be contemporary with "Jemdet Nasr" and Hadidi 1.

In the next chronological horizon, in all other areas where virgin gravel was reached the architectural remains dated to Early Bronze III or IV. At Hadidi a longer though very shallow sequence was encountered on the low eastern portion of the tell, while a late Early Bronze III-Early Bronze IV building in Area B represented the major exposure on the northern edge of the high tell (fig. 12). In Area B the latest layers of the Early Bronze Age sequence were removed with materials dated to the Middle Bronze Age. In that level were found impressive stone-built tombs and simpler tombs cut into virgin gravel; the artifactual groups found there contained complete forms that augmented the finds from the Early Bronze Age stratified sequences (Dornemann 1979: figs. 7-15). Almost all of the tombs had been robbed, and it has been a long, arduous task to recover as much as possible of the original inventory of each tomb.

Tomb I from Area L (Dornemann 1979: fig. 10) contained the largest inventory and had obviously been used and reused over a long period. As the reconstruction of the pottery vessels progressed, it became evident that there was a greater range of pottery types than we expected. Between the ex-

cavated tombs and stratified layers on the tell, it seems that the Early Bronze Age sequence at Tell Hadidi is fairly complete. We have yet to determine how long the EB III sequence extends and to define a complex of materials for the end of EB IV.

Using mostly materials from the LI tomb (figs. 13-18) we can pick up the sequence with EB III forms. Simple cups (fig. 15:24, 25) that continue the EBI tradition are well represented. Similar cups are well documented from the western Khabur area in Kühne's publication of pottery from Tell Khuera (Kühne 1976). Equally characteristic of the period are the globular, round-bottomed teapots (fig. 18:9, 10, 12), well illustrated from the tombs at Selenkahiye and Halawa (Orthmann 1981: plates 59:19, 22; 62:35, 71:7). Kühne's definition of a class of Early Bronze Age wares as "metallic ware" (Kühne 1976: 33–72) takes on new meaning in light of the Tomb LI materials. The broad "metallic ware," as defined by Kühne, can be subdivided into four distinct groups. None of those "metallic ware" subdivisions can be associated with the well-known EB II-IV metallic wares of the coastal areas and Palestine (Kantor 1965: 15-16) and designated Abydos ware (see Amiran 1970: 59-66). Only occasional examples of such wares occur at Hadidi and neighboring sites, and they are imports. A first subdivision of "metallic ware" consists of fine—at times bordering on egg-shell thin-jars, chalices, bowls, and cups, and somewhat heavier ringburnished bowls (figs. 13:1-15; 21-24; 14:1-6, 9, 10). A second subdivision is the red, narrow-linepainted jars and chalices, represented in greater quantity at this point at Hadidi than at any other site (fig. 14:16-20; Dornemann 1979: fig. 13:1-5, 11-14, 16, 17, 20, 21, 24-26, 29, 30). Gray-black burnished bottles and jars are part of a third subdivision, represented by a wide variety of forms at Hadidi (fig. 15: 1-19); many of them have parallels at Mari (Parrot 1956: figs. 100, 101). A fourth subdivision consists of a group of globular burnished jars with a dramatic change of color from black to red-orange or dark gray-black to tan, from the top to the bottom of the vessel (fig. 14:11-13). Such jars are also found at Mari (Parrot 1956: fig. 106:877). Red, narrow-line-painted jars are also found at Mari (Perrot 1956: fig. 107:1548, 1549) and at Terqa (Kelly-Buccellati and Shelby 1977: figs. 24:TPR4 60; 25:TPR4 62, TPR4 63).

North of Hadidi, the Hypogaeum tomb at Til Barsib, which has been known for many years (Thureau-Dangin and Dunand 1936: 96-119, plates

20-31), shows the continuity of the pottery tradition north along the Euphrates as well as to the south. The primary distinction of Kühne's "metallic ware" defines a geographical area that includes this stretch of the Euphrates at least as far as Carchemish, but then extending north and east to Haran and at least to the western portion of the Khabur triangle (Kühne 1976: maps 1, 2, 4).

Parallels to the simple ware cups from the LI tomb (fig. 15:20-25) are well represented in the Amuq repertoire (Braidwood and Braidwood 1960: figs. 313:1-7; 115:3-6; 1-3; 339:18-24). Corrugated goblets (fig. 13:14,15) have parallels at other Euphrates Valley sites. The goblets, of course, have been used as a point of contact with Palestine but this form and its variations, so well known at Hama (Fugmann 1958: figs. 62, 64, 65, 74, 75, 85, 93), Amug (Braidwood and Braidwood 1960: figs. 313:8-12; 338:5-11, 15, 16; 339:25-36) and Mardikh (Matthiae 1981: fig. 16), span at least seven centuries. The surface finds from Mardikh represent the hallmark shape and decoration for cups at the end of the sequence (Matthiae 1981: fig. 21), also well represented at the end of Hama J (J₅-J₁; Fugmann 1958: figs. 74, 85, 93, 98, 103, 106) and in Amuq Phase J (Braidwood and Braidwood 1960: figs. 324:4-6; 344:9-11, 13-16), but are not well represented in the Euphrates Valley. Diagnostic imports occur in EB III-IV contexts at various Euphrates Valley sites but are extremely rare. The Hadidi LI tomb does contain a variety of other late Early Bronze forms, illustrated by imported vessels with tall, narrow spouts (fig. 14:7, 8) paralleled in form at Hama (Fugmann 1958: figs. 74, 85, 98) but in wares common to the coast. Other characteristic late forms of the Early Bronze sequence are represented in the Hadidi tombs, including form variations of the red, narrowline-painted jars (fig. 13:17, 18), other teapot or spouted jar forms (fig. 18:13-16), and multipleribbed rims on bowls (fig. 16:18, 19, 23) and jars (figs. 14:1-7, 11:13; 16:26; 18:5-8, 14).

Another late EB III-EB IV tomb group from Hadidi (figs. 19, 20) contains variations of the normal forms for Hadidi cups (fig. 20:14, 19, 21) and jars (figs. 19:23; 20:16, 17, 20). They may represent variations that were of short duration in the Hadidi tradition; or they may come from a related tradition in one of the neighboring cultural areas, as represented in the materials from Mardikh II B 2 (Matthiae 1981: fig. 16; Mazzoni 1985: fig. 3:2, 4, 5, 11). Only four vessels with the

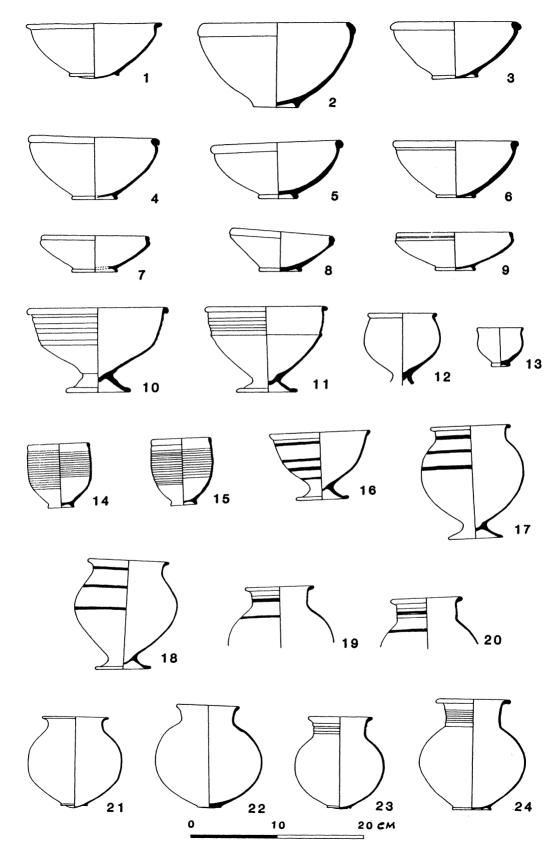


Fig. 13. Profiles of EB III-IV metallic ware bowls, cups, chalices, and jars from Tomb LI.

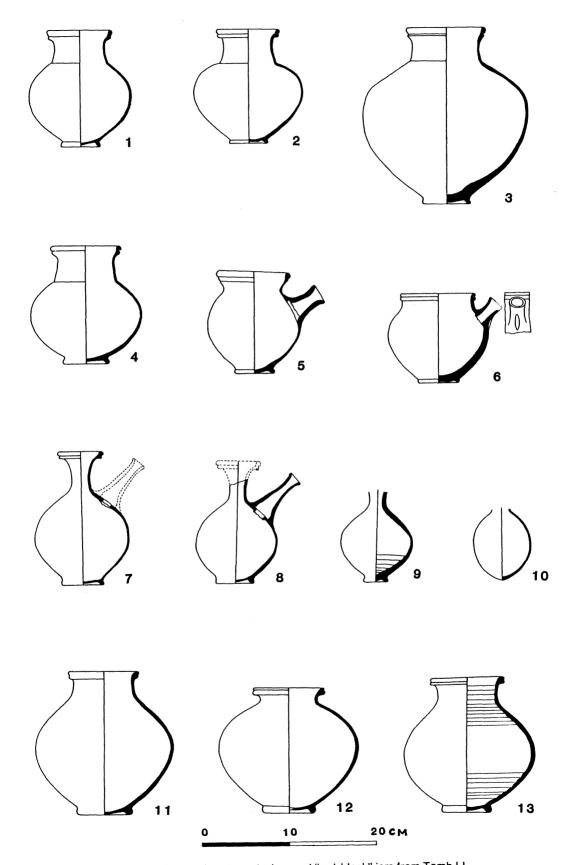


Fig. 14. Profiles of EB III-IV metallic ware jars, teapots, jug, and "red-black" jars from Tomb LI.

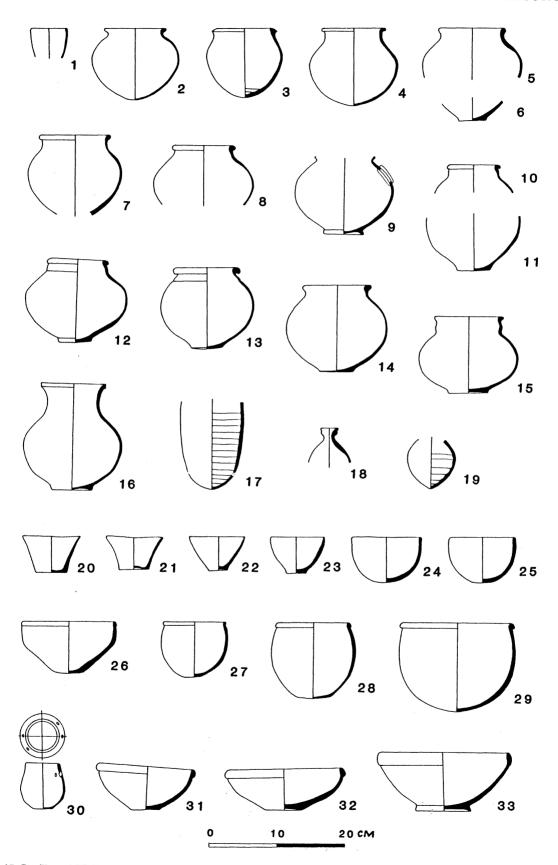


Fig. 15. Profiles of EB III-IV metallic ware vessels and simple ware cups and bowls from Tomb LI.

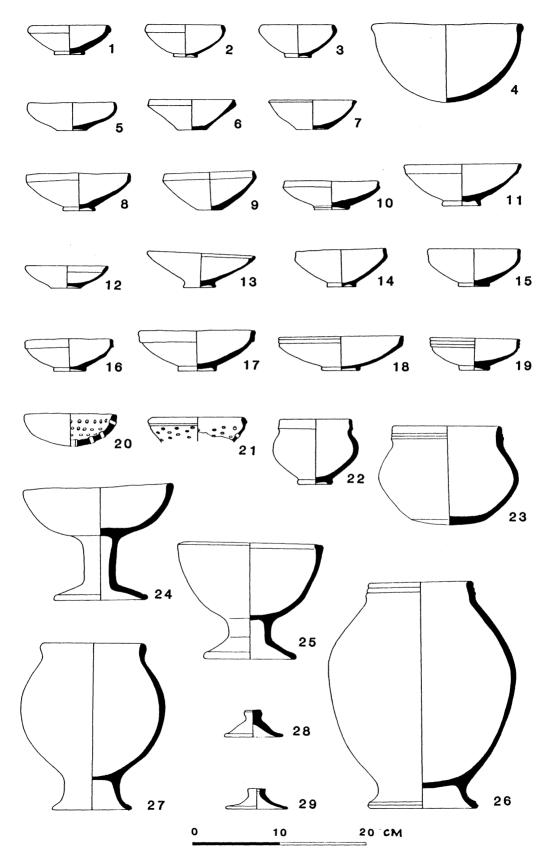


Fig. 16. Profiles of EB III-IV simple ware bowls, strainers, chalices, lids, and jar from Tomb LI.

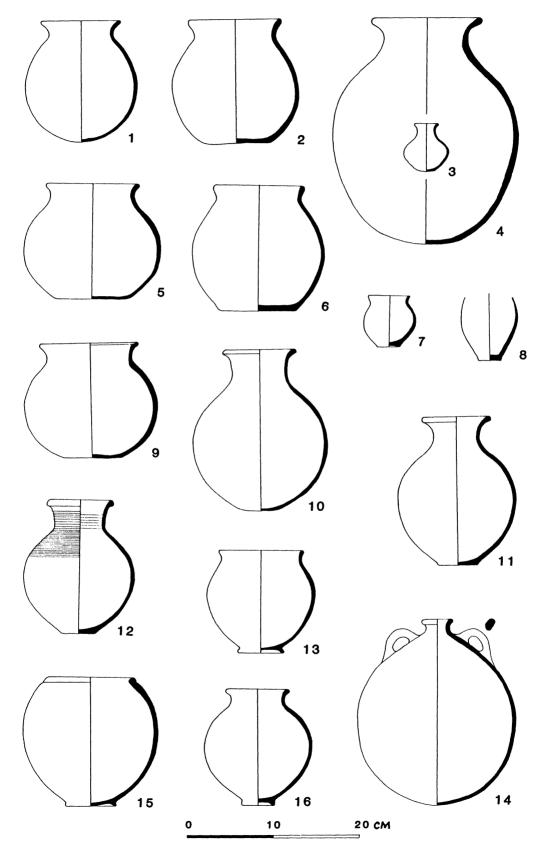


Fig. 17. Profiles of EB III-IV simple ware jars from Tomb LI.

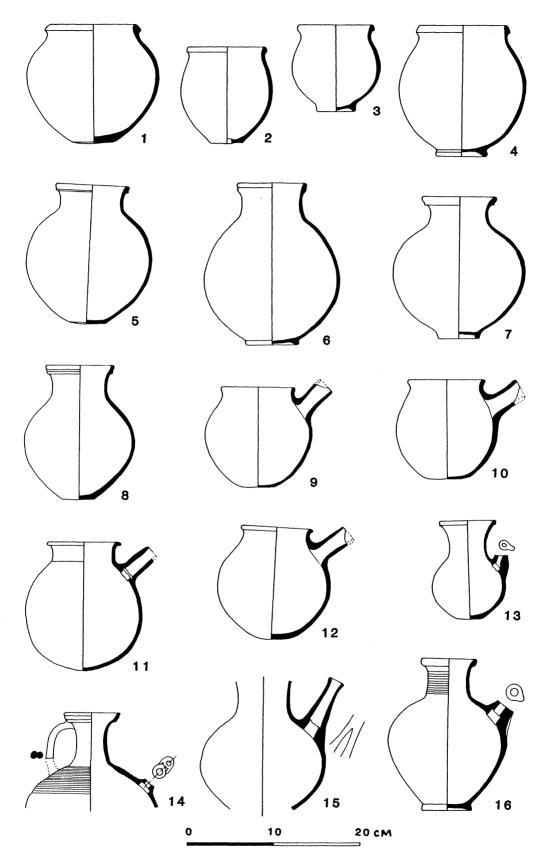


Fig. 18. Profiles of EB III-IV simple ware jars and teapots from Tomb LI.

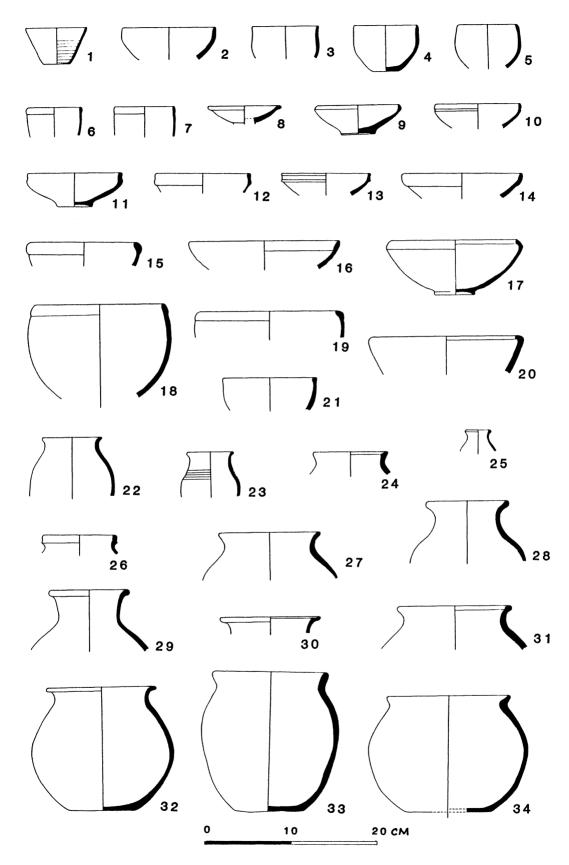


Fig. 19. Profiles of EB III-IV simple ware cup, bowl and jar forms from Tomb EI.

Figure 19. Simple wares from Tell Hadidi Tomb El

| Numbe | erExterior | Color | Ware color | Interior color | Inclusions and concentration |
|-------|---------------------|-----------------|----------------------|----------------|--|
| 1. | 10YR8/3 | Very pale | 7.5YR6/4 | 10YR8/2 | Medium conc. very fine sand and mica. |
| 2. | 7.5YR6/4 | Light brown | 10YR7/2 | 2.5Y8/2 | Light conc. very fine mica and heavy conc. very fine |
| ۷. | 2.5Y8/2 | White | 7.5YR6/4 | 2.510/2 | sand. |
| 2 | | | | 7 EVD6/4 | |
| 3. | 7.5YR8/2 | Pinkish white | 7.5YR7/2 | 7.5YR6/4 | Light conc. very fine mica and light conc. fine sand. |
| | 7.5YR7/4 | Pink | 7.5YR8/4 | | N. I |
| 4. | 7.5YR7/6 | Reddish | 7.5YR6/2 | 7.5YR7/4 | Light conc. very fine mica and heavy conc. very fine |
| | 7/5YR8/6 | Yellow | | | sand. |
| 5. | 2.5Y8/2 | White | 2.5Y7/4 | 2.5Y8/2 | Heavy conc. medium sand. |
| | | | | 2.5Y6/4 | |
| 6. | 2.5Y8/2 | White | 7.5YR7/4 | 7.5YR8/4 | Light conc. medium mica, heavy conc. medium sand, |
| | 10YR7/3 | Very pale brown | | | and light conc. coarse limestone. |
| 7. | 10YR8/3 | Very pale brown | 10YR7/3 | 10YR8/3 | Heavy conc. very fine sand, light conc. very fine mica. |
| 8. | 10YR8/3 | Very pale brown | 7.5YR6/4 | 7.5YR8/4 | Light conc. very fine mica, light conc. coarse stone, |
| ٥. | 10YR7/4 | very pare brown | 7.01110/4 | 7.0111074 | light conc. medium sand, heavy conc. fine sand. |
| 9. | 2.5Y8/2 | White | 2.5Y8/2 | 2.5Y8/2 | Heavy conc. fine sand, light conc. coarse sand. |
| | | | | | |
| 10. | 7.5YR7/2 | Pinkish gray | 5YR6/4 | 5YR6/4 | Light conc. very fine sand. |
| | 7.5YR8/2 | Pinkish white | | | |
| 11. | 10YR7/2 | Light gray | 10YR5/1 | 10YR7/2 | Heavy conc. very fine sand. |
| | 10YR6/1 | Gray | | | |
| 12. | 10YR7/3 | Very pale brown | 10YR7/3 | 10YR8/3 | Light conc. very fine mica, light conc. coarse sand |
| | | | | | and medium conc. very fine sand. |
| | 2.5Y8/2 | White | | | |
| 13. | 2.5Y8/2 | White | 2.5Y7/4 | 2.5Y8/2 | Light conc. fine sand. |
| 14. | 10YR8/4 | Very pale brown | 10YR7/3 | 2.5Y7/2 | Light conc. medium sand, heavy conc. fine sand. |
| | 10YR7/4 | vo., pa.o b.o | 10111170 | 2.0 2 | |
| 15. | 7.5YR7/2 | Pink | 7.5YR7/4 | 7.5YR8/2 | Light conc. fine mica, heavy conc. very fine sand, light |
| 13. | | | 7.31N// 4 | 7.3100/2 | |
| 4.0 | 7.5YR7/4 | Pinkish gray | 7.57/00/0 | 7.570070 | conc. medium limestone. |
| 16. | 10YR8/3 | Very pale brown | 7.5YR6/2 | 7.5YR6/2 | Light conc. medium sand, medium conc. coarse sand. |
| | 10YR7/3 | | 7.5YR6/4 | 7.5YR8/2 | |
| 17. | 2.5Y8/2 | White | 7.5YR6/4 | 2.5Y8/2 | Light conc. medium mica heavy conc. very fine sand. |
| | 7.5YR6/4 | Light brown | | | |
| 18. | 2.5Y8/2 | White | 7.5YR7/4 | 2.5Y8/2 | Light conc. fine straw, heavy conc. very fine sand, |
| | 2.5Y8/4 | Pale yellow | | | light conc. medium sand, light conc. coarse stone. |
| 19. | 10YR7/4 | Very pale brown | 10YR7/2 | 7.5YR6/4 | Medium conc. very fine mica, light conc. coarse lime- |
| | 10YR8/3 | - , , | | | stone, medium conc. fine sand. |
| 20. | 10YR7/3 | Very pale brown | 10YR8/3 | 7.5YR7/4 | Light conc. very fine mica, heavy conc. very fine sand. |
| | 10YR8/3 | 70.) paid 5.0 | 7.5YR5/4 | 10YR8/3 | |
| | 101110/0 | | 7.5YR5/2 | 101110/0 | |
| 21. | 10YR8/2 | White | 10YR6/4 | 10YR8/2 | Light conc. medium sand, heavy conc. very fine sand, |
| 21. | | Very pale brown | 101110/4 | 10YR7/3 | light conc. fine mica. |
| 00 | 10YR7/3 | | 0.577.0 | | |
| 22. | 10YR8/3 | Very pale brown | 2.5Y7/2 | 2.5Y7/2 | Heavy conc. medium sand. |
| | 10YR7/3 | | | 10YR8/3 | |
| 23. | 10YR7/3 | Very pale brown | 5YR7/4 | 5YR7/4 | Light conc. very fine mica, light conc. very fine lime- |
| | 5YR7/4 | Pink | | | stone, light conc. very fine sand. |
| 24. | 2.5Y8/2 | White | 5YR7/3 | 10YR8/3 | Medium conc. very fine sand. |
| | | | 5YR7/4 | | |
| 25. | 7.5YR7/4 | Pink | 7.5YR6/4 | 7.5YR6/4 | Light conc. very fine mica, heavy conc. very fine sand. |
| 26. | 10YR7/3 | Very pale brown | 7.5YR8/2 | 10YR8/3 | Heavy conc. very fine sand. |
| | | • • | 10YR7/2 | | · |
| 27. | 10YR8/3 | Very pale brown | 10YR7/4 | 7.5YR7/4 | Heavy conc. medium sand, light conc. medium mica. |
| | 10YR7/3 | , , , | | ********** | , |
| 28. | 2.5Y8/2 | White | 5YR6/4 | 5YR7/4 | Light conc. fine mica, heavy conc. very fine sand, light |
| 20. | | | 7.5YR7/4 | 5YR7/6 | conc. coarse limestone. |
| | 10YR8/3 | Very pale brown | | 311170 | conc. coarse innestone. |
| 00 | 0.540.0 | MATE: | 5YR7/6 | 0.570/0 | Heavy care madium and light care madium mice |
| 29. | 2.5Y8/2 | White | 10YR7/3 | 2.5Y8/2 | Heavy conc., medium sand, light conc. medium mica, |
| | 10YR7/3 | Very pale brown | 40VD# 10 | 10YR7/3 | light conc. coarse stone. |
| 30. | 2.5Y8/4 | Pale yellow | 10YR7/3 | 10YR8/3 | Heavy conc. very fine sand, light conc. coarse sand. |
| 31. | 2.5Y8/2 | White | 5YR6/6 | 5YR6/6 | Heavy conc. very fine sand, light conc. medium sand. |
| | 10YR7/3 | Very pale brown | | 5YR8/4 | |
| | 10YR8/3 | | | | |
| 32. | 5Y8/3 | Pale yellow | 2.5Y7/4 | 2.5Y8/2 | Medium conc. very fine sand. |
| | 2.5Y7/4 | Pale yellow | | | |
| 33. | 10YR8/2 | White | 10YR7/3 | 10YR8/2 | Heavy conc. very fine sand. medium conc. coarse |
| | | * | | | stone. |
| 34. | 5Y8/2 | White | 2.5Y7/2 | 5Y8/3 | Medium conc. very fine sand. |
| ٠ | - · -· - | | 2.5Y8/4 | - | • |
| | | | | | |

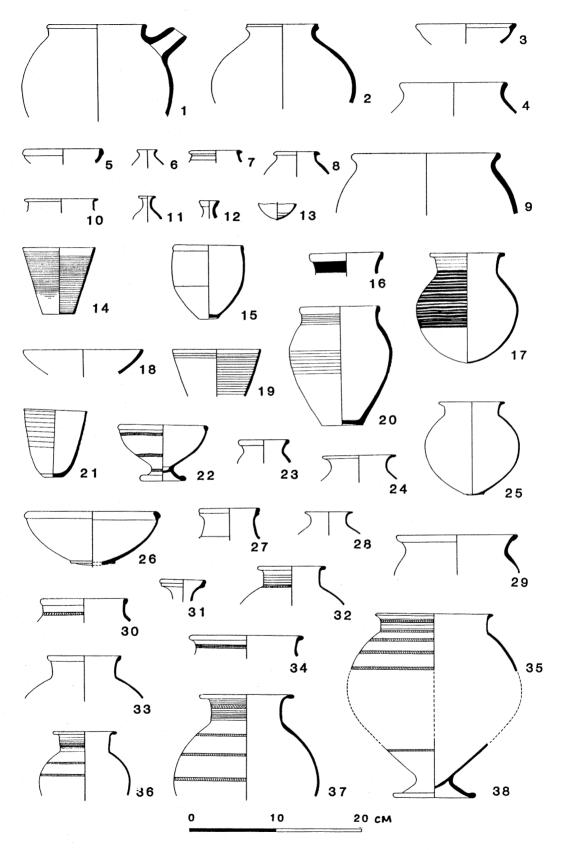


Fig. 20. Profiles of EB III-IV simple ware teapot, "red-black" jar, lamp, cooking pot, gray metallic ware, special fine simple ware forms, and metallic ware from Tomb EI.

Figure 20. Simple ware teapot, "red-black" jar, lamp, cooking pot, gray metallic ware, simple fine ware and other metallic ware from Tell Hadidi tomb El

| 1. 107R8/2 | NumberExterior | | Color | Ware color | Interior color | Inclusions and concentration |
|--|----------------|-----------|-----------------|------------|----------------|---|
| 2. 7.5YRHAV | 1. | | | 10YR8/3 | | Heavy conc. fine sand, light conc. medium sand. |
| 7.5Y862 | 2 | | | 10YB5/1 | | Medium conc. very fine mica, light conc. very fine sand |
| 7.5YR8/2 | | | | | | moduli cono. very into intoa, fight cono. very into cana. |
| 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink P | | | | 2.0 | | |
| 2.5YR4/8 Dark gray 10VR3/1 10VR8/1 10VR8/2 10VR8/1 10V | | | | | | |
| 1078474 | | | Red | | | |
| 4. 7.5YR6/2 7.75YR6/2 7.75 | 3. | | Dark gray | 10YR7/4 | 10YR5/1 | Very light conc. coarse sand, very light conc. coarse quartz, |
| 7.5YR8/4 Finkish white 7.5YR8/4 Heavy conc. very fine mica, heavy conc. very fine sand, light conc. carse sand. 6. 7.5YRM/1 Durk gray 7.5YRM/1 7.5YRM/1 1.0YR8/1 1.0YR8/2 | | 10YR7/2 | | | 10YR7/2 | |
| 5. 10Y85/1 Gray 10Y86/1 10Y86/1 Heavy conc. very fine mica, heavy conc. very fine sand, light conc. coarse sand. 6. 7.5YRN4/ Dark gray 7.5YRN4/ Orth Sylvan Light conc. very fine mica, heavy conc. very fine sand. Light conc. very fine mica, heavy conc. very fine sand. 9. 10Y86/3 Jord Syrna 10Y86/3 Jord Syrna Light conc. very fine mica, heavy conc. very fine mica. 9. 10Y86/3 Jord Syrna 10Y87/3 Light conc. very fine mica. Light conc. very fine sand. 11. 25YRN3/ Very dark gray 25YRN5/ 25YRN4/ Light conc. very fine sand. 12. 10Y86/3 Jord gray 25YRN4/ Light conc. very fine sand. 13. 10Y86/3 Jord gray 25YRN4/ Light conc. very fine sand. 15. 25Y86/2 Pale yellow 25YRN4/ Light conc. very fine sand. 15. 25Y87/2 Pale yellow 25YRV2 Light conc. very fine sand. 15. 25Y87/2 Light gray 10YRR/3 10YRR/3 Wellow conc. very fine sand. 15. 25Y88/2 | 4. | 7.5YR6/2 | Pinkish gray | 7.5YR5/4 | 7.5YR7/4 | Heavy conc. coarse limestone. |
| Conc. coarse sand. 1 | | | Pinkish white | | | |
| 6. 7.5YRM/ 7. 10YRS/1 8. 10YRM/1 8. 10YRM/1 8. 10YRM/1 9. 10YRM/1 8. 10YRM/1 9. 10YRM/1 9. 10YRM/1 9. 10YRM/1 9. 10YRM/1 10. 10YRM/1 11. 25M7/1 12. 10YRM/1 13. 10YRM/1 14. 10YRM/1 15. 10YRM/1 15. 10YRM/1 16. 10YRM/1 16. 10YRM/1 16. 10YRM/1 17. 10YRM/1 18. 10YRM/1 18. 10YRM/1 18. 10YRM/1 19. 10 | 5. | 10YR5/1 | Gray | 10YR6/1 | 10YR5/1 | |
| 7. 10YR6/1 | 6. | 7.5YRN4/ | Dark gray | 7.5YRN4/ | 7.5YRN4/ | |
| 8. 10YRA/1 10 10YRB/3 10 10YRB/3 10 25YRN/3 10 25YRN/3 11 25NY1 12 10YRB/3 12 10YRB/3 12 10YRB/3 13 10YRB/3 14 10YRB/3 15 25YRB/2 15 25YRB/2 16 10YRB/3 1 | | | | | | |
| 2.57KB/3/ | 8. | 10YR4/1 | | 10YR5/1 | 10YR5/1 | |
| 11. 2.5M7/ Gray 10745/1 10746/1 10 | 9. | 10YR6/3 | Pale brown | 10YR7/3 | 10YR7/4 | Light conc. coarse limestone, medium conc. coarse sand. |
| 10. | 10. | | Very dark gray | | | |
| 107R4/1 | | | | | | |
| 25YNA/2 | | | | | | |
| 5Y8/3 Pale yellow 2,5Y7/2 Heavy conc. very fine sand, light conc. medium sand. 10 Y87/2 Light gray 10YR8/4 10YR8/3 Medium conc. fine sand, light conc. medium limestone. 5Y8.5/2 Black (paint) 5Y7/2 5Y7/2 Light gray 5Y7/2 Light conc. very fine sand. Light conc. medium limestone. 5Y5.5/2 Black to olive gray (paint) 5Y7/2 5Y7/2 Light conc. very fine sand. Light conc. medium mica, medium conc. medium conc. medium mica, medium conc. very fine sand, light conc. medium limestone. 25Y86/6 Light red 7.5Y86/2 5Y86/6 5Y86/6 Medium conc. fine mica, light conc. medium mica, medium conc. medium sand. 10Y88/2 10Y88/3 10Y88/3 Heavy conc. fine sand, light conc. coarse sand. 10Y87/3 10Y88/3 Heavy conc. fine sand, light conc. coarse sand. 10Y87/3 10Y88/3 Heavy conc. fine sand, light conc. coarse sand. 10Y87/3 10Y88/3 Heavy conc. fine sand, light conc. coarse sand. 10Y87/3 10Y88/3 Heavy conc. fine sand, light conc. medium sand, light conc. wery fine sand. 10Y87/3 10Y88/3 Heavy conc. fine sand, light conc. wery fine sand. | 13. | 10YR4/1 | Dark gray | | 2.5YN4/ | Medium conc. very fine sand. |
| 15. 2-5Y8/2 White 10YR8/2 10YR8/4 Heavy conc. very fine sand, light conc. medium sand. 5Y88/2 Light gray 10YR7/2 10YR7/3 | 14. | 5Y7/3 | Pale yellow | 2.5Y7/4 | 5Y8/3 | Light conc. very fine sand, light conc. fine mica. |
| 10/R7/2 | | 5Y8/3 | Pale yellow | | 2.5Y7/2 | |
| 16. \$7482/2 Black (paint) 10/87/2 577/ | 15. | 2.5Y8/2 | | 10YR8/2 | 10YR8/4 | Heavy conc. very fine sand, light conc. medium sand. |
| SY2.6/2 Black(paint) SY7.2 Light pray SY7.2 SY7.6 SY8.6 | | | Light gray | | | |
| 17. SY7/2 Light gray SY7/2 SY7/2 SY7/2 SY8/2 Sy8/2 Claint Sy7/2 Claint Sy8/2 Claint Sy8/2 Claint Sy8/2 Claint Sy8/2 Sy8/6 Light red Sy8/6 Sy8/7 Sy8/8 Sy8/7 Sy8/7 Sy8/8 Sy8/8 Sy8/8 Sy8/8 Sy8/8 Sy8/8 Sy8/8 Sy8/8 Sy8/8 | 16. | | | 10YR7/4 | 10YR7/3 | Medium conc. fine sand, light conc. medium limestone. |
| SY2.6/2 Black to olive gray SY5/2 5Y7/2 5Y7/2 4 18. 2.5YR6/4 Light reddish brown Light conc. wery fine mica, light conc. medium limestone. Light conc. coarse limestone and medium conc. fine and, light conc. wery fine sand. Light conc. coarse limestone and medium sand, medium conc. light conc. wery fine sand. Light conc. coarse limestone and medium sand. Light conc. wery fine mica, heavy conc. very fine mica, light conc. wery fine mica. Light conc. very fine mica. Light conc. wery fine mica. Light conc. wery fine mica. Light conc. wery fine mica, heavy conc. wery fine sand. Light conc. coarse limestone, medium conc. Syr87/8 2.5Y87/6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | |
| SYS/2 (paint) SYR6/4 Light reddish brown 2.5YR6/8 SYR7/6 SYR6/6 | 17. | | | | | Light conc. very fine sand. |
| 18. 2.5YR6/4 Light reddish brown 2.5YR6/8 5YR6/6 5YR6/7 5YR7/7 5YR6/7 5YR6/7 5YR6/7 5YR7/7 5YR6/7 5YR6/7 5YR7/7 5YR6/7 5YR6/ | | | | 5Y7/2 | 5Y7/2 | |
| Light red 7.5YR6/2 5YR6/6 5YR6/ | 40 | | | 0.57/00/0 | EVD7/0 | Marathur and the state that are a section and a section |
| 2.5YR8/6 | 10. | 2.5 THO/4 | | | | |
| 10YR8/3 | | 2 5VD6/6 | Light red | 7.51NO/2 | | conc. very line sailu, light conc. medium linestone |
| 10YR8/3 | 19 | | White | 10YB7/3 | | Medium conc. fine sand light conc. coarse sand |
| 10YR/7/3 | | | | 10111170 | | Modalin Solic. Illia Salia, light Solic. Soulds Salia. |
| 20, 10YR/3 | | | , o., paio 2, o | | | |
| 10YR7/3 | 20. | 10YR8/3 | Very pale brown | 10YR5/1 | 10YR8/3 | Heavy conc. fine and very fine sand, medium conc. medium |
| 21. 10\text{YR1/3} Very pale brown 10\text{YR1/3} Very pale brown 10\text{YR1/4} Very pale brown 10\text{YR1/3} Very pale brown 10\text{YR1/4} Very pale brown 10 | | 10YR7/3 | | | 10YR7/3 | |
| 22. 10YR8/2 Light gray 7.5YR6/4 Light brown 2.5YR8/6 23. 7.5YR6/4 Light brown 7.5YR7/2 24. 7.5YR6/4 Light brown 7.5YR7/2 25. 10YR7/3 Very pale brown 25. 10YR7/3 Very pale brown 27. 10YR8/3 28. 10YR7/3 Very pale brown 29. 10YR8/3 Very pale brown 29. 10YR8/3 Very pale brown 29. 10YR8/3 Very pale brown 20. 2.5YR6/4 Pink 20. 10YR8/3 Very pale brown 20. 2.5YR8/6 Red 20. 10YR8/3 Very pale brown 21. 10YR8/3 Very pale brown 22. 10YR8/3 Very pale brown 23. 10YR8/3 Very pale brown 24. 10YR8/3 Very pale brown 25. 10YR7/3 Very pale brown 26. 10YR8/3 Very pale brown 27. 10YR8/3 Very pale brown 28. 10YR8/3 Very pale brown 29. 10YR8/3 Very pale brown 29. 10YR8/3 Very pale brown 20. 2.5YR8/6 Red 20. 5YR7/6 FReddish yellow 21. 5YR7/6 Pink 22. 10YR8/3 Very pale brown 23. 5YR7/6 Pink 24. 10YR8/3 Very pale brown 25. 5YR7/6 Pink 25. 5YR7/6 Pink 26. 10YR8/3 Very pale brown 27. 10YR8/3 Very pale brown 28. 10YR8/3 Very pale brown 29. 10YR8/3 Very pale brown 20. 2.5YR8/6 Red 20. 5YR7/6 SYR7/6 SYR7/6 20. 10YR8/4 Very pale brown 20. 2.5YR8/6 Red 20. 10YR8/4 Very pale brown 20. 2.5YR8/6 Red 20. 10YR8/4 Very pale brown 20. 2.5YR8/6 Red 20. 10YR8/4 Very pale brown 20. 2.5YR8/6 Light conc. very fine mica, medium conc. fine sand. 20. 2.5YR8/6 Red 20. 10YR8/4 Very pale brown 20. 2.5YR8/6 Light conc. very fine mica, light conc. very fine sand. 2.5YR8/6 Red 2.5YR8/6 Light conc. very fine sand. 2.5YR8/6 Red 2.5YR8/6 R | | 10YR7/4 | | | | |
| 10VR7/2 | 21. | 10YR7/3 | Very pale brown | 10YR7/3 | 10YR7/3 | Light conc. medium sand. |
| 7.5YR8/4 | 22. | | | 2.5YR5/8 | | |
| 23. 7.5YR8/4 Pink 7.5YR7/6 7.5YR7/4 Light conc. very fine mica, heavy conc. very fine sand. 7.5YR7/4 Pink 5YR6/8 25. 10YR7/3 Very pale brown 7.5YR6/2 7.5YR6/2 10YR8/3 7.5YR6/4 Pink 10YR8/3 7.5YR6/2 7.5YR6/2 10YR8/3 7.5YR6/4 Pale brown 10YR8/3 10YR8/3 7.5YR6/4 Pink 10YR8/3 Very pale brown 10YR7/3 10YR8/3 Light conc. very fine sand. Light conc. very fine mica, light conc. very fine sand. 2.5YR7/4 Pink 5YR7/6 5YR7/4 Pink 5YR7/6 10YR8/4 10YR8/3 10YR8/4 10YRR/4 1 | | | | | | conc. fine limestone. |
| 7.5YR7/2 | | | | | | |
| 24. 7.5YR6/4 Pink Light brown 7.5YR7/4 Pink 2.5YR7/4 Pink Medium conc. very fine sand. 25. 10YR7/3 Very pale brown 10YR6/3 10YR8/6 10YR8/6 Light conc. very fine sand, light conc. wery fine mica. 26. 10YR7/4 10YR8/3 7.5YR6/4 Pale brown 7.5YR6/2 7.5YR6/2 Medium conc. very fine sand, light conc. medium limestone. 27. 10YR7/3 Very pale brown 7.5YR6/2 7.5YR6/4 7.5YR7/4 10YR8/3 10YRR/3 10YRR/4 10YRR/3 10YRR/4 10Y | 23. | 7.5YR8/4 | Pink | | 7.5YR7/4 | Light conc. very fine mica, heavy conc. very fine sand. |
| 7.5YR7/4 Pink Very pale brown 10YR6/3 10YR8/6 Light conc. very fine sand, light conc. very fine mica. 10YR8/4 Light conc. very fine sand, light conc. very fine mica. 10YR8/3 7.5YR6/4 Pale brown 7.5YR6/2 7.5YR6/2 Medium conc. very fine sand, light conc. medium limestone. 10YR7/3 Very pale brown 10YR7/3 10YR8/3 Light conc. very fine mica, light conc. very fine sand. 10YR8/3 Light conc. very fine mica, light conc. very fine sand. 10YR8/4 Pink 7.5YR6/4 10YR7/4 Light conc. very fine mica, light conc. very fine sand. 10YR8/3 Light conc. very fine mica, light conc. very fine sand. 10YR8/4 Pink 7.5YR6/6 2.5YR6/6 Light conc. very fine mica, light conc. very fine sand. 10YR7/3 Very pale brown 5YR5/4 Pink 7.5YR6/2 10YR7/2 Light conc. fine mica, light conc. very fine sand. 10YR7/3 Very pale brown 5YR6/4 Light reddish brown 5YR7/4 Pink 7.5YR6/4 Pink 7.5YR6/ | 0.4 | 7.EVDC/4 | Liabt braum | | 7 EVD7/4 | Madium cana yang tina cand |
| 25. 10YR7/3 Very pale brown 10YR6/3 10YR8/6 Light conc. very fine sand, light conc. very fine mica. 10YR8/4 10YR8/3 7.5YR6/4 Pale brown 7.5YR6/2 7.5YR6/2 Medium conc. very fine sand, light conc. medium limestone. 7.5YR6/4 Pale brown 7.5YR7/4 10YR7/3 Light conc. fine mica, light conc. very fine sand. 10YR7/3 Light conc. very fine mica, medium conc. medium sand. 10YR8/3 Light conc. very fine mica, medium conc. medium sand. 10YR8/3 Light conc. very fine mica, medium conc. medium sand. 10YR8/3 Light conc. very fine mica, medium conc. very fine mica, 5YR7/4 Pink 5YR7/6 SYR7/6 SYR7/4 Light conc. very fine mica, medium conc. fine sand, medium conc. medium limestone. 10YR6/4 10 | 24. | | | 2.5184/6 | | Medium conc. Very line sand. |
| 10YR8/4 | 25 | | | 10VR6/3 | | Light conc. yeary fine sand light conc. yeary fine mica |
| 26. 10YR7/4 Very pale brown 7.5YR6/2 7.5YR6/2 Medium conc. very fine sand, light conc. medium limestone. 10YR8/3 7.5YR6/4 Pale brown 7.5YR7/4 10YR7/3 Light conc. fine mica, light conc. very fine sand. 29. 10YR8/3 Very pale brown 7.5YR6/4 7.5YR7/4 Light conc. very fine mica, medium conc. medium sand. 29. 10YR8/3 Very pale brown 7.5YR6/4 7.5YR7/4 Pink 5YR7/6 SYR7/6 SYR7/6 SYR7/6 SYR7/6 SYR7/6 SYR7/4 Pink 5YR4/1 10YR7/3 Light conc. very fine mica, medium conc. fine sand, medium conc. very fine mica, medium conc. fine sand, medium conc. very fine mica, medium conc. fine sand, medium conc. very fine mica, medium conc. fine sand, medium conc. very fine mica, medium conc. fine sand, medium conc. very fine mica, medium conc. fine sand, medium conc. coarse limestone, light conc. very fine mica, light conc. very fine mica, light conc. very fine mica, heavy conc. medium sand. 10YR8/4 Very pale brown 7.5YR6/4 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 10YR8/3 Very pale brown 7.5YR6/2 7.5YR6/6 Light red 5YR5/4 7.5YR6/2 5YR7/4 10YR7/3 SYR6/4 Light conc. very fine mica, light conc. very fine sand. 25YR6/4 Pink 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Light conc. fine mica, light conc. very fine sand. 25YR6/4 Pink 7.5YR7/4 Pink 7.5YR7/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 25YR8/6 Red 7.5YR8/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 25YR8/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 25YR8/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 25YR8/4 Pink 5YR8/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 25YR8/4 Pink 5YR8/4 Pink 5YR8/4 Light conc. very fine mica, light conc. very fine sand. 2.5YR8/6 Red 5YR8/4 Pink 5YR8/4 Light conc. very fine mica, light conc. very fine sand. 2.5YR8/4 Pink 5YR8/4 Pink 5YR8/4 Light conc. very fine mica, light conc. very fine sand. 2.5YR8/4 Pink 5YR8/4 Pink 5YR8/4 Light conc. very fine mica, light conc. very fine sand. 2.5YR8/4 | 20. | 10111770 | very paic brown | 101110/0 | | Light conc. very fine sand, light conc. very fine fined. |
| 10YR8/3 7.5YR6/4 Pale brown 27. 10YR7/3 Very pale brown 28. 10YR7/3 Very pale brown 10YR7/3 10YR8/3 10YR8/3 Very pale brown 10YR7/3 10YR8/3 Very pale brown 10YR8/4 Very pale brown 10YR7/6 SYR7/6 SYR7/6 SYR7/7 SYR7/4 Pink 5YR7/6 SYR7/6 | 26. | 10YR7/4 | Very pale brown | 7.5YR6/2 | | Medium conc. very fine sand, light conc. medium limestone. |
| 27. 10YR7/3 Very pale brown 10YR7/3 10YR8/3 Light conc. fine mica, light conc. very fine sand. 10YR7/3 10YR8/3 Light conc. very fine mica, medium conc. medium sand. Light conc. very fine limestone, light conc. very fine mica, redium conc. medium sand. Light conc. very fine limestone, light conc. very fine mica, redium conc. medium sand. Light conc. very fine limestone, light conc. very fine mica, redium conc. fine sand. SYR7/6 SYR7/6 SYR7/6 SYR7/3 Light conc. very fine mica, medium conc. fine sand, medium conc. medium limestone. SYR7/4 Pink SYR7/4 Pink SYR4/1 SYR5/4 light conc. fine sand. Light conc. very fine mica, medium conc. medium limestone. Medium conc. coarse limestone, light conc. very fine mica, play conc. medium sand. T.SYR7/4 Pink 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. T.SYR7/4 Pink 7.5YR6/2 7.5YR6/4 Light conc. very fine mica, light conc. very fine sand. Pinkish white SYR5/4 T.SYR6/6 Light conc. very fine mica, light conc. medium sand, heavy conc. fine sand. T.SYR7/2 Pinkish gray 2.5YR6/6 2.5YR6/6 Light conc. very fine mica, light conc. medium sand, heavy conc. very fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. Pinkish frown T.SYR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. SYR6/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. Pink SYR6/4 Pink SYR6/4 T.SYR8/4 Light conc. fine mica, light conc. very fine sand. SYR6/4 Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Light conc. very fine mica, light conc. very fine sand. Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Light conc. very fine mica, light conc. very fine sand. Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Light conc. very fine mica, light conc. very fine sand. Pink SYR6/4 Pink SYR6/4 Pink SYR6/4 Light conc. very fine mica, light conc. very fine sand. Pink SYR6/4 Pink SY | | | | | | , |
| 28. 10YR7/3 Very pale brown 10YR7/3 10YR8/3 Light conc. very fine mica, medium conc. medium sand. Light conc. very fine limestone, light conc. very fine mica, heavy conc. very fine mica, medium conc. medium sand. Light conc. very fine limestone, light conc. very fine mica, heavy conc. very fine sand. 30. 2.5YR5/8 Red 5YR7/6 SYR7/8 Reddish yellow 5YR7/6 SYR7/4 Conc. medium limestone. 31. 5YR7/3 Pink 5YR4/1 5YR5/4 light conc. very fine mica, medium conc. oranse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, medium conc. very fine mica, light conc. very fine mica, light conc. very fine sand. 32. 10YR6/8 Red 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 34. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | | 7.5YR6/4 | Pale brown | | | |
| 29. 10YR8/3 Very pale brown 7.5YR6/4 7.5YR7/4 Pink Pink 7.5YR7/6 Pink 5YR7/6 SYR7/6 Reddish yellow 5YR7/6 SYR7/6 Pink 5YR7/6 Pink 5YR6/4 10YR7/4 Light conc. ocarse limestone, light conc. very fine mica, medium conc. fine sand, medium conc. medium limestone. 31. 5YR7/3 Pink 5YR7/6 SYR7/6 Medium conc. coarse limestone, light conc. very fine mica, by R8/4 light conc. fine sand. 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 34. 7.5YR7/2 Pinkish white 34. 7.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 5YR5/4 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 39. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | 27. | 10YR7/3 | Very pale brown | 7.5YR7/4 | | |
| 7.5YR7/4 Pink Pink SYR7/6 SYR7/6 SYR7/3 Light conc. very fine sand. 30. 2.5YR5/8 Red SYR7/6 SYR7/6 Reddish yellow SYR7/6 SYR7/6 Medium conc. coarse limestone, light conc. very fine mica, medium conc. coarse limestone, light conc. very fine mica, light conc. very fine sand. 7.5YR8/2 Pinksh white SYR5/4 T.5YR6/2 T.5YR6/6 Light conc. very fine mica, light conc. medium sand, heavy conc. fine sand. 7.5YR8/2 Pinksh white SYR5/4 T.5YR6/2 Conc. fine mica, light conc. medium sand, heavy conc. fine sand. 7.5YR8/2 Pinksh gray 2.5YR6/6 2.5YR6/6 Light conc. very fine mica, light conc. medium sand, heavy conc. fine sand. 7.5YR7/3 Very pale brown SYR5/4 T.5YR6/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 T.5YR8/4 Light conc. fine mica, light conc. very fine sand. 7.5YR7/4 Pink SYR6/4 T.5YR8/4 Light conc. fine mica, light conc. very fine sand. 7.5YR7/4 Pink SYR6/4 T.5YR8/4 Light conc. fine mica, light conc. very fine sand. 7.5YR7/4 Pink SYR6/4 T.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | | | | | | |
| 30. 2.5YR5/8 Red 5YR7/6 SYR7/6 SYR7/6 SYR7/6 Reddish yellow 5YR7/6 Reddish yellow 5YR7/6 Reddish yellow 5YR7/6 SYR7/6 Medium conc. medium limestone. 31. 5YR7/4 Pink 5YR4/1 SYR5/4 light conc. fine sand. 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 T.5YR6/4 Light conc. very fine mica, light conc. very fine sand. 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 2.5YR6/6 Light red 5YR5/4 T.5YR6/2 T.5YR6/2 T.5YR6/4 Light conc. fine mica, light conc. medium sand, heavy conc. fine sand. 35. 10YR7/3 Very pale brown 5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | 29. | 7 51/07/4 | D' I | 7.5YR6/4 | 7.5YR7/4 | |
| 5YR7/6 Reddish yellow 31. 5YR7/3 Pink 5YR7/6 5YR7/6 Holdium conc. coarse limestone, light conc. very fine mica, 5YR7/4 Pink 5YR4/1 5YR5/4 light conc. fine sand. 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine mica, light conc. medium sand, heavy 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 7.5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | | | | 51/07/0 | 51/57/0 | |
| 31. 5YR7/3 Pink 5YR7/6 5YR7/6 Heink 5YR7/6 SYR7/6 Pink 5YR4/1 5YR5/4 light conc. coarse limestone, light conc. very fine mica, light conc. fine sand. 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 34. 7.5YR7/2 Pinkish white 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine mica, light conc. medium sand, heavy conc. very fine mica, light conc. medium sand, heavy conc. fine sand. 35. 10YR7/3 Very pale brown 5YR5/4 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | 30. | | | 5YH//6 | | |
| 5YR7/4 Pink 5YR6/4 10YR7/4 Light conc. fine sand. 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 7.5YR8/2 Pinkish white 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 2.5YR6/6 Light conc. very fine mica, light conc. medium sand, heavy 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 5YR5/4 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 25YR5/6 Red 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 25YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 25YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | 04 | | • | EVD7/6 | | |
| 32. 10YR6/8 Red 7.5YR6/4 10YR7/4 Light conc. fine mica, heavy conc. medium sand. 7.5YR7/4 Very pale brown 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 7.5YR8/2 Pinkish white 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 7.5YR6/2 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | 31. | | | | | |
| 10YR8/4 Very pale brown 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 7.5YR8/2 Pinkish white 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 95. 10YR7/3 Very pale brown 7.5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 96. 7.5YR7/4 Pink 7.5YR7/4 Pink 7.5YR7/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. 97. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 98. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 99. 2.5YR8/6 Red 99. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 32 | | | | | |
| 33. 7.5YR7/4 Pink 7.5YR6/2 7.5YR6/4 Heavy conc. very fine limestone, light conc. very fine sand. 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 5YR7/4 35. 10YR7/3 Very pale brown 7.5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | OL. | | | 7.01110/1 | | Light cond. The mod, heavy cond. modium cand. |
| 7.5YR8/2 Pinkish white 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 2.5YR6/6 Light conc. very fine mica, light conc. medium sand, heavy 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine sand. 35. 10YR7/3 Very pale brown 7.5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 2.5YR5/6 Red 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 33. | | | 7.5YR6/2 | | Heavy conc. very fine limestone, light conc. very fine sand. |
| 34. 7.5YR7/2 Pinkish gray 2.5YR6/6 Light red 5YR5/4 7.5YR6/2 conc. fine mica, light conc. medium sand, heavy conc. fine sand. 35. 10YR7/3 Very pale brown 5YR6/4 Light reddish brown 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. | | | | | | |
| 10YR7/3 Very pale brown 7.5YR5/2 10YR7/2 Light conc. fine mica, light conc. coarse limestone, medium conc. very fine limestone, heavy conc. very fine sand. 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 34. | | | 2.5YR6/6 | 2.5YR6/6 | Light conc. very fine mica, light conc. medium sand, heavy |
| 35. 10YR7/3 Very pale brown Light reddish brown 36. 7.5YR7/4 Pink 7.5YR7/4 Pink 5YR6/4 Pink SYR6/4 Pin | | | | 5YR5/4 | | conc. fine sand. |
| 5YR6/4 Light reddish brown 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 2.5YR5/6 Red 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | | | | | | |
| brown 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 2.5YR5/6 Red 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 35. | | | 7.5YR5/2 | 10YR7/2 | |
| 36. 7.5YR7/4 Pink 7.5YR7/4 7.5YR7/2 Medium conc. very fine mica, light conc. very fine sand. 2.5YR5/6 Red 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | | 5YR6/4 | | | | conc. very fine limestone, heavy conc. very fine sand. |
| 2.5YR5/6 Red 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 20 | 7 EVD7/4 | | 7 5VD7/4 | 7 5VD7/0 | Modium cone years fine mice light cone years fine cond |
| 37. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. fine mica, light conc. very fine sand. 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 36. | | | 1.51M1/4 | 1.0101/2 | wiedium conc. very fine finda, fight conc. very fine sand. |
| 2.5YR4/6 Red 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 37 | | | 5YR6/4 | 7.5YB8/4 | Light conc. fine mica, light conc. very fine sand. |
| 38. 7.5YR7/4 Pink 5YR6/4 7.5YR8/4 Light conc. very fine mica, light conc. very fine sand. | 57. | | | 51110/-1 | 5 1 1 1 5/ 4 | and the many many volume to y mile said. |
| | 38. | | | 5YR6/4 | 7.5YR8/4 | Light conc. very fine mica, light conc. very fine sand. |
| | | | | | | - |

smeared black-painted decoration were found at Hadidi. Two of them are from this tomb (fig. 20:16, 17) and have parallels at Khuera (Kühne 1956: plates 33–35) as well as Mardikh.

The repertoire of Tomb EI is as rich as that of Tomb LI. The cups (fig. 19:1-7) and bowls (fig. 19:8-21) are all found there but represent the latest material, typologically, in LI. The same is true of the jar (fig. 19:22, 24-34); teapot (fig. 20:1); "red-black" jar (fig. 20:2); cooking pot ware vessels (fig. 20:3, 4, 9), including several lamp fragments and teapots (not illustrated); gray "metallic ware" (fig. 20:5-8); fine, red narrow-line-painted "metallic ware" vessels (fig. 20:22, 34-38), including two of the largest such vessels found at Hadidi; and other "metallic ware" vessels (fig. 20: 15, 18, 19, 21, 23-33), including some of the finest "egg shell" examples from Hadidi. A few high-fired, simple ware sherds uncharacteristic of Hadidi in ware, shape, color and decorations are also found (fig. 20:14–17, 20). This selection of Tomb EI ceramics represents wares typical of what was found in most of the tombs, as well as the variations present only in EI. The full descriptions should provide a firmer basis upon which parallels from other sites may be drawn until the final report is available.

A variety of other artifacts fill out the EB III-IV assemblage at Hadidi but the hand-made figurines form a very common and typologically distinctive class, which, though found over a wide area through Mesopotamia and Syria, provide basic chronological and geographical indicators (Dornemann 1979: fig. 6; van Loon 1979: figs. 5, 6, 10; Heinrich, et al. 1973: 62-63). All Euphrates Valley Bronze Age sites (Badré 1980: 266-360) provide ample representations of what was apparently a poor man's version of the much rarer stone sculptures from Khuera and Selenkahiye (van Loon 1979: 107) that provide a reflection of the rich artistic tradition so well known from Mari, Ashur, and many Mesopotamian sites.

Much remains to be done to place these archaeological assemblages in the context provided by the famous palace archives of Ebla, which are contemporary with the middle of our sequence (Matthiae 1981). The mention of an Azu on the Euphrates, which in at least one occurrence (Pettinato 1981: 223) probably refers to the city at Hadidi, provides the hope that written and artifact records can be brought together to develop the historical framework for the assemblages of our area.

The sequence at Hadidi continues in Stratum 4. although the size of the site is drastically reduced in that stratum. Stratum 4 finds, along with materials from Swevhat (Holland 1977; figs. 2:7-20; 3; 5:1; 6:15; 7; 9) and Halawa (Orthmann 1981: 9-38), help us to document the transition from the Early Bronze to the Middle Bronze (Dornemann, in press). The Middle Bronze sequence at Hadidi is documented in greater stratigraphic detail than the Early Bronze Age sequence, with the major exposure in Area B (Dornemann 1979: 132, 137-41; figs. 21-23; Dornemann, in press). Area B also includes the major exposure of the fortification system at Hadidi. The rebuildings of the upper fortification system are not uniformly preserved. Nonetheless, an excellent sequence of pottery from the fills associated with various phases of the fortification system supplement the typological sequence from the occupation layers inside the walls (fig. 21). Exposures on the west of the tell in Areas A, H, and N provide preserved portions of the Middle Bronze Age wall.

The basic features of the MBII phases were outlined at the Mari symposiums in Chicago and Deir ez-Zor (Dornemann, in press). A ceramic sequence is becoming evident from early, tentative MB IIA pottery shapes to well documented MB IIB variations that have close parallels at Halawa (Orthmann 1981: 26-31; plates 44-49), Mumbagat (Orthmann and Kühne 1974: Abb. 21, 40, 41), and Habuba Kabire north. Those sites, all dominated by the commanding promentory of Jebel Aruba, obviously played an important role with Hadidi in the Middle Bronze Age. McClellan's continuing work at El Qatar for the University of Melbourne (Australia) and the University of Chicago provides another major Middle Bronze sequence from the northern extremity of Lake Assad (Culican and McClellan 1983-1984).

The continuing close connection between Mari and Hadidi is evident from the available pottery illustrations for MB IIB. It is also emphasized by other items, such as the small clay, mold-impressed plaque from Hadidi, which has very close stylistic parallels with the famous mural of the investiture scene from the palace at Mari (Dornemann 1978: 25; in press: fig. 21). A diagnostic feature of the MB II assemblages of the Amuq and Khabur areas in the style of painted pottery (Dornemann 1987; in press). At Hadidi and other Euphrates Valley sites, painted pottery of the period is extremely rare. Most of the painted sherds from Hadidi are best paralleled at Ugarit. The undecorated vessel

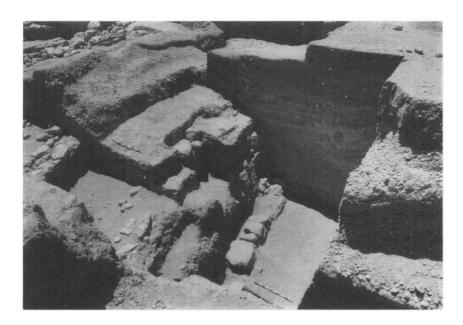


Fig. 21. Deposits of fill, almost 4 m thick, sectioned by excavations on the Middle and Late Bronze Age fortification systems on the north side of the tell in Area B, photographed from the east. The fortification cut was expanded to the west in 1976 to reveal thick fills over scanty remains of the base of the stone fortification wall lining the southern (inner) side of a fosse or moat. To the south (left), a gravel glacis of the final Late Bronze fortification covers patches of Early Bronze walls and floors and is surmounted by superimposed Middle and Late Bronze remains.

forms of the end of the Middle Bronze Age and the beginning of the Late Bronze Age in the Amuq are present, as well, in the 16th century B.C. sequence at Hadidi. Those features, which are characteristic of the coastal areas and Palestine, seem to intrude for a short time into the Euphrates Valley. In fact, the similarities between Hadidi and the ceramic traditions to the south and along the coast are made even more evident by the presence at Hadidi of characteristic chocolate-on-cream ware and gray-burnished vessels. The painted ware and gray-burnished pottery represents the only decorated pottery in the Hadidi assemblage throughout its history. The layers immediately beneath and outside the 15th century B.C. Late Bronze Age building in Area H, and cut by its foundations, provide the major documentation for this phase in the Euphrates Valley (Dornemann 1981: 41-45).

The assemblage of the remainder of Stratum 6, the Late Bronze Age, is well represented on at least ten sites in the Lake Assad area. The typologically earliest phase is represented by the final Bronze Age occupation at Hadidi. The inventory of the "tablet building" has been published with its range of cooking pots, store jars, mugs, crude statues, and tablets (Dornemann 1979; 1981). The adjacent Dutch building, which closely parallels the tablet building in plan and inventory, contains materials that are later stratigraphically. Only scattered architectural and artifact remains supplement this last phase of occupation at Hadidi and tie it with the inventories from Qatar, Mumbaqat, Meskene,

Faquos and Frey. Even the building plan at Hadidi is repeated at Frey (Bounni and Matthiae 1974: 39). At El Qatar (Snell 1983–1984), Frey (Bounni and Matthiae 1974: 34) and Meskene (Arnaud 1975; 1982) tablets from the Hittite domination of the area have been found.

The most dramatic remains so far—temple and domestic architecture and the largest collection of texts—have come from Meskene, the ancient Emar (Beyer 1982). The well known materials from the palace of Ugarit provide some of the historical context for this final Bronze Age assemblage in this area of the Euphrates Valley. The thrusts of the middle Assyrian rulers at the end of the 13th and the beginning of the 12th century B.C., and the dramatic changes in the political history of Syria, are reflected in a dramatic end of virtually all urban settlement in the area. Only extremely meager remains of the Iron Age have been encountered in this portion of the Euphrates River Valley. Not until the Hellenistic and Early Roman periods does its occupation show a marked increase once more.

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