Excavations at Tell Fadous-Kfarabida Preliminary Report on the 2010 Season of Excavations

HERMANN GENZ, RIVA DANIEL, ALISON DAMICK, ALEXANDER AHRENS, SIREEN EL-ZAATARI, FELIX HÖFLMAYER, WALTER KUTSCHERA AND EVA M. WILD

The excavations conducted in 2010 at Tell Fadous-Kfarabida, located 2 km south of Batroun on the northern coast of Lebanon, were restricted to Area II in the central part of the site. Work mainly focused on uncovering Buildings 3 and 4, dating to the Early Bronze Age III (Phase IV). In addition, a pit provided a large pottery assemblage dating to the Early Bronze Age IV (Phase V). The Middle Bronze Age (Phase VI) was represented by two new burials and several pits. As in previous years, no evidence for any activities postdating the Middle Bronze Age was found.

In addition, a number of special reports dealing with Early Bronze Age seal impressions, ground stone artifacts and a scarab discovered in Tomb 736 are provided, as well as the results of the physical anthropology and radiocarbon dates from the Middle Bronze Age tombs.

Introduction

The American University of Beirut archaeological team, in collaboration with the Lebanese Directorate General of Antiquities (DGA) undertook a fourth season of excavations at the site of Tell Fadous-Kfarabida, located 2 km south of the modern town of Batroun. Fieldwork lasted from June 14th to July 10th 2010, with the aim to continue the investigation of the areas opened during the 2009 season of excavation (Genz et al. 2009). The DGA granted us permission to conduct the fieldwork (Cahier de Charges No 2642) and we would like to take this opportunity to express our gratitude to the Minister of Culture, Mr. Salim Wardy and the staff of the Direction Générale des Antiquités, especially Mrs. Tania Zaven, for their constant support and interest in the project.

The AUB team was directed by Professor Hermann Genz and included AUB students Riva Daniel (Graduate AROL), Nathalie Kallas, MA (Graduate AROL), Eleanor Payton (Graduate CAMES), Rafael Sequeira (Graduate AROL), Marshall Woodworth (Graduate AROL), as well as Dr. Bettina Fischer-Genz (German Archaeological Institute, Berlin), Alison Damick (British Institute in Amman), Chris Beckman (Graduate student, UCL), Tomomi Fushiya, Metoda Peršin (University of Ljubljana, Slowenia) and Sidney Rempel, MA (Arizona State University). Two specialists joined the team for shorter periods of time: Ann-Kathrin Evers (University of Tübingen: construction of a flotation machine and flotation of the botanical samples) and May Haider (University of Rome: conservator)1.

The excavations were funded by the Faculty of Arts and Sciences of AUB. The German Palestine Society (Deutscher Palästina-Verein) generously supported the work by financing the participation of A.-K. Evers as well as by providing funds for radiocarbon dating. The two radiocarbon dates published in this report (see contribution by Höflmayer et al.) were generously funded by SCIEM 2000 (Austrian Academy of Sciences).

We would like to express our gratitude to architect Rémi Feghali (Kfarabida) for his constant support during the field season.

As in the previous season, this year's work was restricted to area II on top of the mound, where we continued excavation in squares 290/300, 290/305 and 295/295, which already were opened in 2009 (Genz et al. 2009). In addition, three new squares, 300/295, 305/295 and 310/295, were opened in order to complete the excavation of structures encountered in previous years (**Fig. 1**).

The stratigraphic sequence, as established in 2009 (Genz et al. 2009, 72), was confirmed by the work conducted in 2010 (**Table 1**).

No new results were obtained for Phases I and II during this year's work.

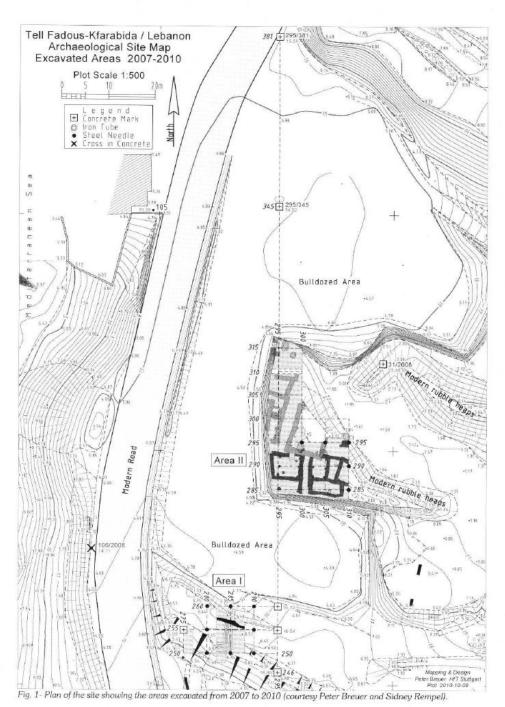
Phase III

Work in Phase III was carried out only in limited areas in 2010. The baulk between squares 290/300 and 290/305 was removed, leading to the exposure of the northeastern corner of Room 2 in Building 2. Another column base was discovered in this corner, bringing the total number of column bases exposed for this room up to five. The presence of a sixth base can be assumed in the northwestern corner of the room, but this part of the room remains inaccessible due to the presence of the later Building 3 (Fig. 2).

In square 290/305 Wall 710, already exposed in 2009 (Genz et al. 2009, 77) was further investigated. In the northern extension of the square the northern face of the wall was exposed. With a width of 1.4 m it is the most massive wall encountered so far on the site. Also the fact that it consists of rather massive limestone ashlars suggests that it belongs to an important structure, the nature of which needs to be investigated in the upcoming excavation seasons. To the west this structure was cut by pit context 716, dating to Phase V. To the east, the wall extends into unexcavated areas. A deep sounding excavated in the street between Wall 710 and Building 2 shows that the foundation of Wall 710 is at a higher level than that of the northern wall of Building 2 (Fig. 3). Nevertheless, Wall 710 seems to be contemporaneous with the later stages of Building 2, confirming our initial suggestion of dating it to Phase III (Genz et al. 2009, 77 and Fig. 2).

New Terminology (2009-2010)	Old Terminology (2004-2008)	Period
Phase VI	Phase 4	Middle Bronze Age
Phase V	Phase 3	Early Bronze Age IV
Phase IV		Early Bronze Age III
Phase III	Phase 2	Early Bronze Age II
Phase II	-	Early Bronze Age II
Phase I	Phase 1	Early Bronze Age I/ Chalcolithic

Tab. 1- Stratigraphic terminology for Tell Fadous-Kfarabida.



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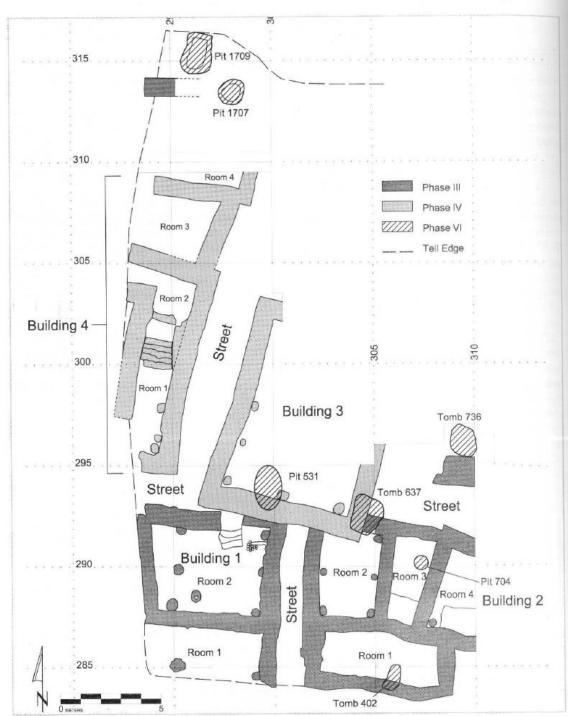


Fig. 2- Schematic plan of the Phase III and Phase IV architecture in Area II (courtesy Sidney Rempel).



Fig. 3- Eastern section of the deep sounding in the street in square 290/305.

Early Bronze Age III (Phase IV)

Major results were obtained for Phase IV. Of Building 3, already partially uncovered in 2009 (Genz et al. 2009: 77-78), the western wall was completely exposed. Just as along the southern wall, on its inner face stone slabs serving as column bases were found (Fig. 2). Building 3 most likely can be reconstructed as a large columned hall, similar to the rooms of the 'grande résidence' in Byblos (Lauffray 2008: 283-284 and 375-380). No indications as to the buildings function were obtained this season.

The newly discovered Building 4 is located west of Building 3 in squares 295/295, 300/295 and 305/295 (**Figs 1 and 2**). Very likely it extends farther north into square 310/295. It is separated from Building 3 by a street ranging from 1.5 to 2.3 m in width. Unfortunately only the easternmost parts of the building have survived. The walls of Room 1

were extensively robbed, almost down to the floor level. This, along with the fact that we did not reach the floor level of this building in 2009 explains why we did not identify this building already in 2009². So far four rooms have been uncovered. Rooms 1 and 2 originally formed one long, narrow room, most likely a corridor. At a later stage in the buildings' history a staircase consisting of 5 steps was inserted, resulting in the subdivision into Rooms 1 and 2 (Fig. 4). The stairs certainly led to an upper storey. The upper part of the staircase presumably consisted of perishable material such as wood.

In the northwestern comer of Room 2 a door led to another room farther west, unfortunately now lost due to the bulldozing operations. An almost completely preserved four-spouted lamp was found on the floor of this entrance (**Fig. 5**).

North of Room 2 Room 3 was uncovered. Only its southern, eastern and northern walls are preserved,

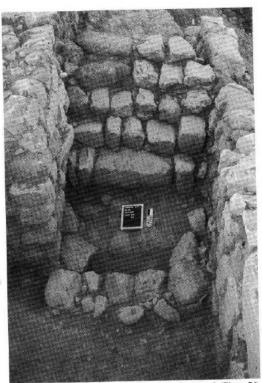


Fig. 4- Staircase in Room 2 of Building 4, looking south (Phase IV).

whereas the western wall was also destroyed by the bulldozing activities. On the floor of this room a number of restorable vessels, mainly pithoi and storage jars, in addition to at least one grinding stone were found (**Fig. 6**). Unfortunately, the lack of time towards the season's end prevented the complete exposure of the floor, which will be continued in 2011.

Farther to the north, Room 4 was partially uncovered. It certainly extends into square 310/295, but Phase IV has not yet been reached there.

Building 4 certainly represents a rather large building with at least one upper storey. Although no clear indications as to its function have been obtained so far, it may very well represent a public building. Its discovery certainly shows that Phase IV was one of the flourishing periods of the settlement.



Fig. 5- Four-spouted lamp FAD10.300/295.62 from Room 2 of Building 4 (Phase IV).



Fig. 6- Pottery assemblage in situ on the floor of Room 3 of Building 4 (Phase IV).

Early Bronze Age IV (Phase V)

As in the previous seasons, no architectural features belonging to Phase V were encountered. The northern half of Pit 716, already excavated in 2009 (Genz et al. 2009, 78), was completely cleared in the northern extension of square 290/305 (Contexts 718, 720, 723, 726, 728, 729, 730 and 732). It contained a large number of restorable vessels, mainly cups, but cooking pots, jugs and jars were also attested (Fig. 7; PI. 1). Comparisons for these types are found at Tell Arqa in Phase P (Thalmann 2006: Pl. 54-79).

Further Early Bronze Age IV pottery was encountered in Room 2 of Building 4, suggesting a partial reuse of this building in Phase V. Possibly the blocking wall separating Room 2 from the stairwell can be attributed to this Phase. As it has no northern face and therefore cannot have been free-standing, it clearly must have been erected after Room 2 was completely filled (**Fig. 8**).

The Middle Bronze Age (Phase VI)

Also for Phase VI no architecture is attested yet. Two new burials were found during the 2010 season. Tomb 637 is located in the baulk between squares 290/300 and 290/305 (**Fig. 2**). The tomb structure consists of a circle of small to large stones, approximately 1.20 m in diameter. The burial was unfortunately heavily



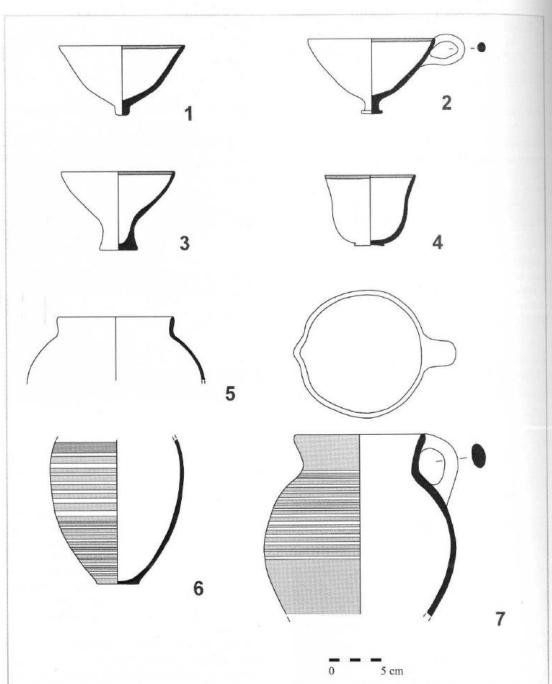
Fig. 7- Early Bronze Age IV pit (Phase V) in the northern extension of Square 290/305 with pottery in situ.



Fig. 8- Wall context 912 in Room 2 of Building 4 (Phase V?).

disturbed. The skull and the postcranial skeleton were pushed against the northern wall of the burial structure (Fig. 9). Only two dipper juglets, one lying against the east wall of the tomb structure (Pl. 2: 1), the other lying against the south wall (Pl. 2: 2), can be assigned with certainty to the tomb. The disturbance of the tomb was caused by pit context 629/631. According to the pottery in the pit fill, it also dates to the Middle Bronze Age (Pl. 3). It remains unclear whether the pit accidentally disturbed the tomb, or whether it was dug to rob the tomb. It equally remains unclear whether any of the objects in the pit fill originally belonged to tomb 637.

Tomb 736 is located in the northern extension of square 290/305, directly north of the massive wall context 710 belonging to Phase III (**Fig. 2**). Like tomb 637, this tomb is also surrounded by a circle of medium-sized undressed lime stones, 0,8 to 1,0 m in



Pl. 1- Pottery from Ptt 716/718/720/723/726/728/729/730/732. 1: FAD10.290/305.347.1; 2: FAD10.290/305.354.7; 3: FAD10.290/305.357.7; 4: FAD10.290/305.354.3; 5: FAD10.290/305.313.4; 6: FAD10.290/305.334.3; 7: FAD10.290/305.347.3.



Fig. 9- Tomb 637 in the baulk between Squares 290/300 and 290/305, looking east, with skeletal remains and a dipper juglet (FAD 10. 290 / 300. 159).

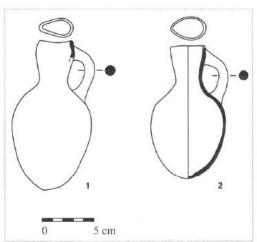
diameter. The skeleton was found lying on its back, with the legs heavily flexed and the arms parallel to the body (Figs 10 and 11). The burial contained seven vessels. The majority of them, two bowls (Pl. 4: 2-3) and three juglets, among them one Tell el-Yahudiyeh juglet (Pl. 4: 5-7), were placed to the right side of the upper body. A dipper juglet (Pl. 4: 4) was found near the legs³. Lastly, a small handmade vessel with traces of burning on the rim (Pl. 4: 1), which is best interpreted as a lamp, was found a few centimeters above the skeleton. On one of the right hand fingers a scarab (Fig. 12) was found (see contribution by A. Ahrens).

The pottery from the two tombs at Tell Fadous-Kfarabida is quite homogeneous, and it can be assumed that they are more or less contemporary with Tomb 402 discovered in 2007-8 (Genz et al. 2010).

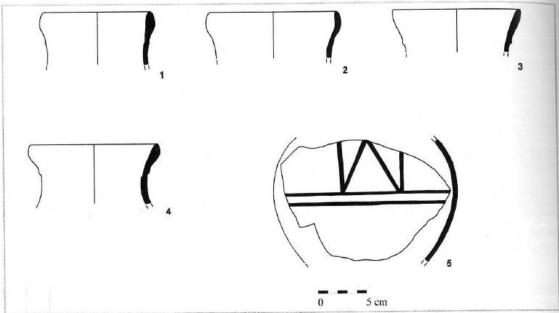
The hemispherical bowl with a round base from Tomb 736 (PI. 4: 2) is rather interesting. Parallels are attested in the Royal Tombs of Byblos (Tufnell 1969, fig. 2: 2-4). Such hemispherical bowls or cups are very common in Middle Kingdom Egypt, for instance at Tell el-Dabca (Czerny 2002, 133-134). The bowl from Tell Fadous-Kfarabida is certainly not an Egyptian import, as it is made of the typical local clay with lime stone inclusions, but it should be regarded as a local copy of an Egyptian type. The flat bowl with slightly inturned rim from Tomb 736 (PI. 4: 3) is again very common among the material of the Royal Tombs

in Byblos (Tufnell 1969, fig. 3: 17-26). The Tell el-Yahudiyeh juglet from Tomb 736 (Pl. 4: 7) belongs to the piriform 1-type of the Levanto-Egyptian group according to the Tell el-Dabea typology (Aston 2008, 185-191). The decoration in horizontal zones showing rectangles or triangles is typical of the Tell el-Yahudiyeh juglets of stratum G at Tell el-Dabca (Aston 2008, 185; pers. comm. K. Kopetzky), but the general shape is still attested in Stratum F (Forstner-Müller 2008, Abb. 84b: 11). Further parallels are attested at Ashkelon in the Moat Deposit, Phase 13/14 (Bietak et al. 2008, 49 and fig. 2: 9). Dipper juglets with ovoid to piriform bodies, as represented in Tomb 637 (Pl. 2: 1-2) and Tomb 736 (Pl. 4: 4) are extremely common for the earlier part of the Middle Bronze Age (Amiran 1970, 106). Good parallels to the dipper juglets from Tell Fadous-Kfarabida are attested in the Royal Tombs at Byblos (Tufnell 1969, fig. 4: 33-43) and Sidon, burials 9, 12 and 18 (Doumet-Serhal 2004, figs 14, 28 and 37). Interestingly, such dipper juglets are absent at Tell Arqa (pers. comm. J.-P. Thalmann). In Tell el-Dab a the best comparisons are found in Stratum G/4 (Kopetzky 2002, 229). To date no exact parallels for the elongated juglet from Tomb 736 (Pl. 4: 5) are known.

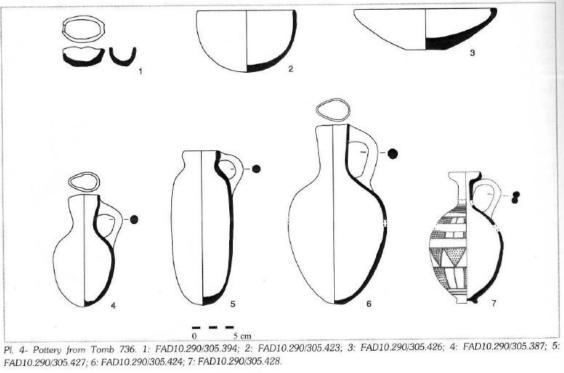
In conclusion, most of the parallels discussed above date the tombs from Tell Fadous-Kfarabida to a developed or late part of the earlier Middle



Pl. 2- Pottery from Tomb 637. 1: FAD10.290/300.159; 2: FAD10.290/300.176.



Pl. 3- Pottery from Pit cutting into Tomb 637. 1: FAD10.290/300.187.14; 2: FAD10.290/300.151.3; 3:



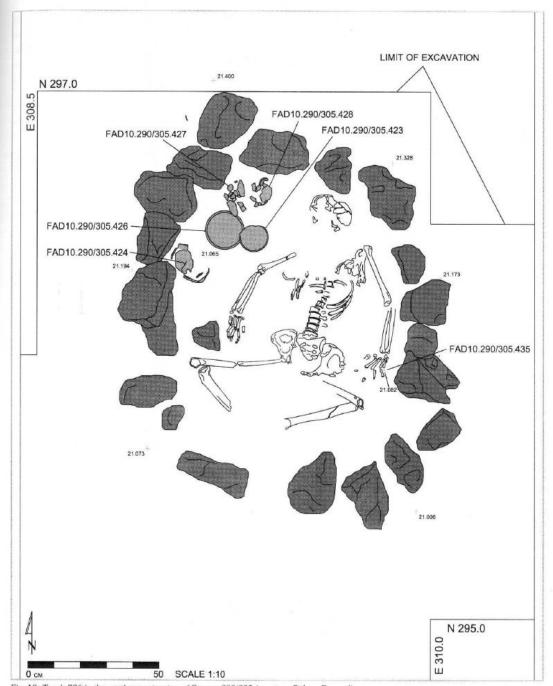


Fig. 10- Tomb 736 in the northern extension of Square 290/305 (courtesy Sidney Rempel).



Fig. 11: Tomb 736 in the northern extension of Square 290/305, looking north.

Bronze Age, i. e. late MBI/MBIIA or the transition from the Middle Bronze Age I-II/Middle Bronze Age IIA-B at the latest. This dating is supported by the scarab from Tomb 736, which dates to the late 12th or 13th Dynasty (see contribution by A. Ahrens).

Two further Middle Bronze Age features were uncovered in the northernmost square 310/295.



Fig. 12- Scarab FAD10.290/305.435.

Context 1707 is a circular pit, lined with small stones (Figs 2 and 13). The pit fill contained Middle Bronze Age pottery, among them rims of storage jars (Pl. 5: 2-4), Levantine Painted Ware (Pl. 5: 1) and an Egyptian spouted bowl (pers. comm. K. Kopetzky) (Pl. 5: 5).

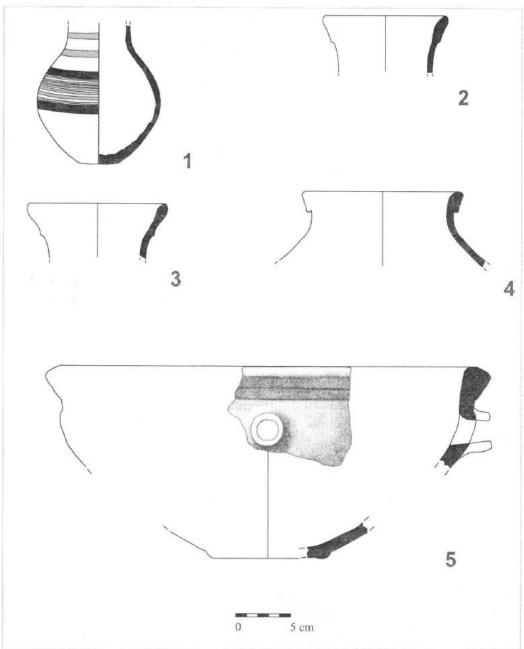
Context 1709 is another pit, but rectangular, with the upper parts of the walls corbelling inwards (Figs 2 and 14). At first this structure was thought to represent a tomb, but the complete absence of human bones from the fill (pers. comm. S. El-Zaatari) makes this interpretation highly unlikely. Similar pits are known from the early Middle Bronze Age levels at Tell Arqa, and also there they are interpreted as storage pits (Thalmann 2007, 229-230).

Finds

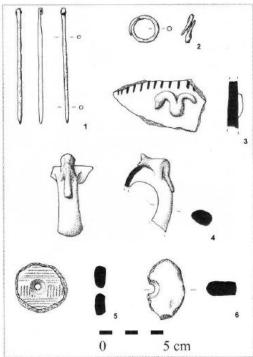
A total of 41157 sherds, weighing 702.91 kg were retrieved during this season. Restorable pottery from



Fig. 13- Middle Bronze Age Pit 1707 in Square 310/295



Pl. 5- Pottery from the fill context 1708 from Pit 1707. 1: FAD 10.310/295.31.17; 2: FAD10.310/295.31.8; 3: FAD10.310/295.18.14; 4: FAD10.310/295.36.3; 5: FAD10.310/295.31.16.



Pl. 6- Small finds from the 2010 season. 1: FAD290/295.319 (Context 542); 2: FAD10.295/295.198 (Context 810); 3: FAD10.290/305.285 (Context 725); 4: FAD10.300/295.79 (Context 915); 5: FAD10.310/295.38 (Context 1708); 6: FAD10.305/295.66 (Context 1603) (drawings by Emilia Jastrzębska).

Phase IV is attested in Room 3 of Building 4, which certainly will enable a better definition of the Early Bronze Age III pottery from the site. Pit 716/718/720/723/726/728/729/730/732 produced a larger number of restorable vessels from Phase V (Early Bronze Age IV), and lastly Tombs 637 and 736 as well as Pit 1707 provided a sizable collection of Middle Bronze Age types.

A number of noteworthy small finds were retrieved. As can be expected from settlement contexts, only few metal objects were obtained, mainly from street contexts belonging to Phase IV. Among these are another bronze roll-headed pin (Genz et al. 2009, 81 and fig. 12; Klein 1992, 121-125 and Pls. 123-125) as well as a bronze ring (Pl. 6: 1-2). Another ram's head application on a body sherd of a storage vessel was found in the street north of Building 2 (Pl. 6: 3).

Most remarkable is a handle of a juglet with animal figurine from the fill of Room 2, Building 4 (Pl. 6: 4). Unfortunately the head of the animal is lost, making its identification rather difficult, but it most likely represents a feline, possibly a lion. Similar applications on handles are known from the Early Bronze Age levels at Byblos (Dunand 1950, Pl. CLXXIV). Reused sherds are represented by several rounded and perforated examples (Pl. 6: 5-6). Such reworked sherds are quite common in the Levant during the Early Bronze Age and often are interpreted as spindle whorls (Genz 2002, 107-108). Together with the large assemblage of bone tools (Jastrzębska in Genz et al. 2009, 95-99), for which also a function in textile production has been proposed, as well as the kill-off patterns for sheep and goats (Cakırlar in Genz et al. 2009, 92), it seems that textile production was of considerable importance at the site.

Detailed discussion of the three new sherds with cylinder seal impressions, the ground stone assemblage

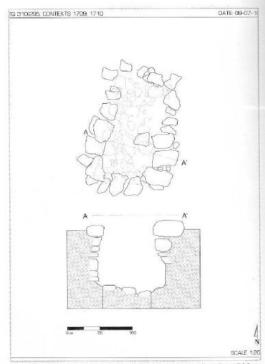


Fig. 14- Drawing and section of Middle Bronze Age Pit 1709 in Square 310/295 (courtesy Sidney Rempel).

and the scarab from Tomb 736 are presented below (see contributions by R. Daniel, A. Damick and A. Ahrens).

Conclusions

The fourth season of excavations at Tell Fadous-Kfarabida greatly enhanced our understanding of the settlement history of the site. While the urban character of Phase III was already clear from the beginning of the project (Badreshany et al. 2005; Genz et al. 2009, 82-83), Phase IV with its even more substantial buildings emerged clearly only during this season. The excellent state of preservation of the architecture and the inventory of the rooms allow a detailed study of the function and use of individual rooms and entire houses. Comparisons with neighboring sites such as Tell Arqa (Thalmann 2006) and Byblos (Lauffray 2008) will help to understand the planning and layout of early urban settlements on the Lebanese Coast.

The reasons for the changes in the layout of the settlement between Phase III and Phase IV need to be investigated further.

So far, the Early Bronze Age IV (Phase V) and the Middle Bronze Age (Phase VI) are only represented by pits and burials (Genz et al. 2009, 78-80; Genz et al. 2010), and thus seem to indicate a decline of the settlement during these periods. Yet this suggestion may be misleading, as the high-quality pottery and a Syrian seal impression on a cooking pot (see contribution by. R. Daniel) from Phase V as well as a number of non-local pottery vessels such as Tell el-Yahudiyeh juglets and Egyptian imports from Phase VI show that the inhabitants still had access to foreign objects. The nature of the site during the Early Bronze Age IV and the Middle Bronze Age still needs to be clarified.

Early Bronze Age Cylinder Seal Impressions from the 2010 Season (R.D)

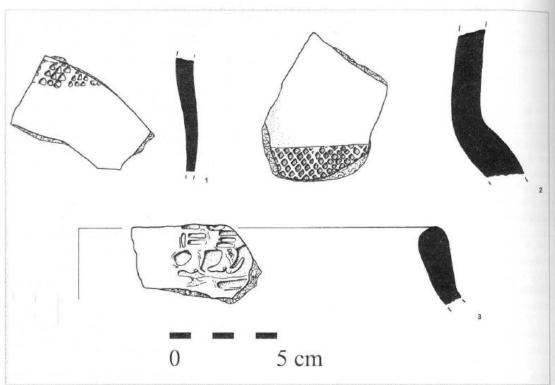
Three new sherds with cylinder seal impressions were found during the 2010 excavation season at Tell Fadous-Kfarabida, increasing the number of impressed sherds found at the site to nine⁴. This season yielded a significant and somewhat unique find for the site as well as for the Early Bronze Age cylinder seal impressions from Lebanon in general.

Description and Find Context of the Sherds

Two of the impressed sherds, FAD10.295/295.146 and FAD10.300/295.40, are of well fired, reddish-brown clay with a medium amount of inclusions. FAD10.295/295.146 is probably wheelmade, while FAD10.300/29540 is handmade with vertical burnishing on the outside. The cylinder seals were impressed on the shoulder area of the vessels, which were most probably storage jars.

Both sherds were found in fill contexts. FAD10.295/295.146 was found in Context 802, a street fill layer between Buildings 3 and 4. FAD10.300/295.40 was found in Context 907, which is a fill layer in Building 4, Room 2. As we are only dealing with sherds, the find contexts are not necessarily indicative of the original date of the impressions.

The cylinder seal impressions FAD10.300/295.40 and FAD10.295/295.146 show a finely carved net pattern (Class I of Ben-Tor 1978, 47) (P1.7: 1-2). Three sherds impressed with this pattern have already been found at Tell Fadous-Kfarabida in previous seasons (Daniel 2010). The net pattern is a common motif found in every Early Bronze Age site in Lebanon with cylinder seal impressions, such as Sidon (Doumet-Serhal 2006, 259; Doumet-Serhal 2009, 3), Byblos and Bchemoun (Daniel 2010, 19). It is also a very common motif in both Palestine (Ben-Tor 1978, 4) for the Early Bronze Age II and III and Syria (Mazzoni 1992; Matthews 1996) for the Early Bronze Age IV.



Pl. 7-Sherds with cylinder seal impressions. 1: FAD10.295/295.146 (Context 802); 2: FAD10.300/295.40 (Context 907); 3: FAD10.290/300.128 (Context 627) (drawings by Emilia Jastrzębska).

The third impressed sherd, FAD10.290/300.128, is wheel-made of medium fired reddish-brown clay with a medium amount of inclusions. The location of the impression on this sherd is an unusual occurrence for Early Bronze Age seal impressions in Lebanon. Instead of being impressed on the neck-shoulder area, the seal was impressed upside down on the rim. Another significant difference is the ware the impression was rolled on. FAD10.290/300.128 is a rim sherd of a cooking pot. Unfortunately it was found in a topsoil context.

This impression depicts horned animal protomes (P1. 7: 3). Although two other animal motifs were previously found at Tell Fadous-Kfarabida, the motif and the location of the impression are unique for the site and for Lebanon so far. Similar impressions on rims can be found in Syria, mainly

in Hama (Matthews 1996) and Ebla (Mazzoni 1992) dating to Early Bronze Age IV. Another significant aspect of this sherd is the vessel type it belongs to. The location and the pottery type are important in determining the function of cylinder seals. While impressions are usually found on the neck-shoulder of storage vessels, FAD10.290/300.128 is on the rim of a cooking pot. The impressions on storage vessels possibly functioned as identifiers of either the quality of the product stored in the vessel or of the vessel's owner (Flender 2000). On the other hand the Syrian impressions on rims of cooking pots could have been used to convey information concerning payment for the product, being in this case the pot itself (Mazzoni 1992; Matthews 1996).

Concluding Remarks

While the two impressions showing net patterns are already attested at the site and are common throughout the entire Levant, the third impression on a cooking pot rim can typologically be linked to seal impressions from western Syria, dating to the Early Bronze Age IV. This seems to suggest that coastal northern Lebanon was connected to the economic or administrative sphere of western Syria during this time. A petrographic analysis of the sherd is needed to determine whether it was imported or locally produced.

The Ground Stone Assemblage (A. D)

This report offers a preliminary analysis of the ground stone artifacts collected during the 2010 excavation season at Tell Fadous-Kfarabida. It is the second of such preliminary seasonal reports intended to better expose the artifacts present within the corpus of ground and abraded stone technology at Tell Fadous-Kfarabida, as part of an ongoing larger research project considering the context of those items in the early urban Levant.

This report contains a presentation of the domestic, decorative and miscellaneous assemblages of ground stone according to the definitions given in the Tell Fadous-Kfarabida preliminary report for the 2009 season (Damick in Genzet al. 2009, 191-200). Whereas that report focused on the domestic assemblage, this report briefly acknowledges notable additions to that corpus while focusing on the beads and stone vessels. Terminologies again are those suggested by Wright (1992) except where cited otherwise. An overview of the raw materials was also given previously. Again, all assignations of type are entirely preliminary and may be subject to change over the course of further study.

The Domestic Assemblage

Processing Tools

Grinding slabs (Complete = 7; Incomplete = 10; Fragments = 18)

From the complete grinding slabs, four general shapes are represented and one more suggested by the incomplete examples (Figs 15-16; Pl. 8). Notable slabs include one that was found at the bottom of the Phase V Pit 723 with patches of purple organic residue still on its use surface (Pl. 8: 1). This residue is currently awaiting analysis and will undoubtedly shed light on the types of materials being processed during the late occupation of the site, and suggest possible inquiries to be made of the earlier material as well. Three relatively small basalt slabs, sub-triangular, flat in transverse section, may be a secondary form of reused larger slabs; all show striations over fractures at the flat ends (PI. 8: 2). One "saddle shaped," limestone slab was found embedded in floor 1606 in Room 3 of Building 4 (Phase IV) at a roughly 50 degree angle from the occupation surface, supported by packed fill (Figs 15 and 16). During excavation, this context was not identified as distinct from the fill of the rest of the room, and so an intentional grinding installation cannot be identified with any certainty.

Consistent with previous findings, the grinding slabs show distinct patterns of use and discard relative to raw material type; basalt was more extensively curated and reused than limestone. All grinding slabs are relatively small and appear in isolation from each other (as opposed, for instance, to a large production room like at Ebla; see for instance Matthiae et al. 1995, 109), indicating limited quantities being processed at a time.

Handstones (Complete = 4; Incomplete = 2)

There are two distinct handstone shapes and two isolated irregular probable handstones that have obvious grinding use surfaces, but do not fit an elsewhere attested morphology (Pl. 9: 1-3). Handstones are made of both fossiliferous limestone and vesicular basalt, with no apparent correlation between material and morphology. Of note are two unifacial ovate handstones in dense, mildly vesicular



Fig. 15- Saddle shaped limestone grinding slab FAD10.305/295.75; in situ embedded in Phase IV Floor 1606.

basalt (number 60 of Wright 1992, 69, fig. 21.2). The one-handed example was recovered from the hearth area (context 818) from Room 1 of Building 4 (Phase IV) on the western edge of the tell (**Pl. 9: 1**). The first irregular tool is ovate, open in plan with a steep wedge in transverse section (**Pl. 9: 2**). The second is an "ad hoc" limestone cobble used for grinding or abrading.

Abrading and Polishing Tools (3 complete)

One finely worked flint polishing stone and two naturally flat beach pebbles with abrading striations were recovered. The former came from floor context 819, an occupation surface in Room 1 of Building 4 (Phase IV), from which several additional finely worked domestic tools were also recovered. The polishing stone is a low quality flint with a heavily calcitic cortex, smoothed to a very regular parallelogram shape with rounded edges and

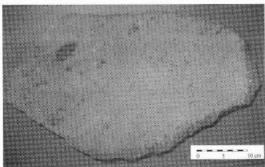


Fig. 16- Grinding slab FAD10.305/295.75 after removal.

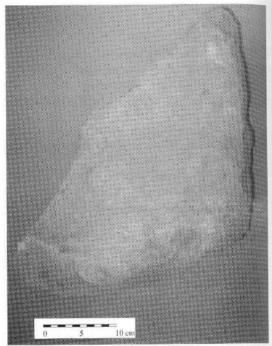
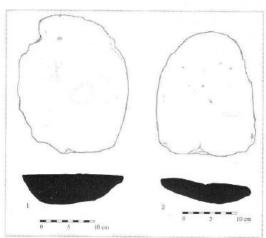


Fig. 17- Limestone mortar or deep quem fragment FAD10.300/295.70.

corners suitable for holding comfortably in the hands. It appears functionally unifacial; striations on the use surface are multi-directional, parallel or at a 45 degree angle to the long edges (P1. 9: 4). These striations have an area of high polish around them, such as would occur from constant friction against an abrasive surface, suggesting polishing of other hard materials, although it may of course have served multiple purposes (for instance, for pottery smoothing). The beach pebbles are naturally flat ovates, water-worn to a smooth regularity with dense lateral abrading striations running parallel to their longer sides. Both examples came from a likely Phase IV fill in the street, and thus offer little contextual information; they have close parallels from previous seasons.

Mortars (8 complete, 5 incomplete)

Seven of the thirteen mortars are small, "miniature" mortars of sandy coquina, similar to those previously described in the 2009 report (Pl. 10: 1-2). These vary in size, from one tiny "thumbprint" mortar only 3.8 cm



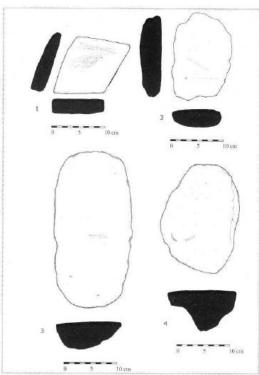
Pl. 8-1: Limestone grinding slab. FAD10.290/305.234 from pit 723; the dotted out-line shows the area from which purple pigment residue was removed. 2: subtriagular basatt grinding slab FAD10.305/295. 41; the flat end has been reused over the breadage.

in diameter to the largest example at 15 cm diameter. This latter has been worn all the way through the base (Pl. 10: 2), the only example of a "hollowed mortar" from Fadous-Kfarabida to date (number 66 of Wright 1992, 76). Again, these appear to be associated with the later occupation phases of the site, from Phase IV (EBIII) onwards; only one of these mortars comes from a mixed fill which is questionably earlier (Context 711)

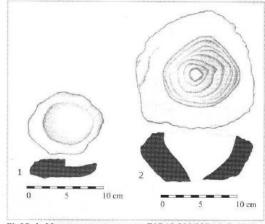
The remaining five mortars are made of varying qualities of local limestone, roughly hewn. They are considerably larger than those described above (average 17.8 cm diameter), but are still generally of portable size. Only one may have been intended as a more permanent stationary tool; although only a fragment remains, it suggests a broad, shallow, rounded rectilinear mortar or deep quern with a flat base.

Pounders and Pestles (Total = 12 complete)

Eight pounders and four small pounder-pestles were recovered during the 2010 season. Morphologically, five of the pounders are spherical and three are egg-shaped. The spherical pounders all are battered at both poles, and except for one all are peck-marked on over 50% of the surface; the exception is a sandy coquina spherical pounder, whose natural texture obscures



Pl. 9: 1- Polishing stone FAD10.295/295.235, from Phase IV hearth context 819. 2: Unifacial ovate single-handed handstone FAD10.295/295.186, from Phase IV floor context 818. 3: Unifacial ovate two-handed handstone FAD10.290/300.127. 4: Irregular wedge-shaped handstone FAD10.290/305.220.



Pl. 10: 1- Miniature coquina mortar FAD10.300/295,16, 2: Hollow coquina mortar FAD10.300/295,14,

traces of wear. Of the other spherical pounders, two are cherty limestone, one is limestone, and one is flint. Of the egg-shaped pounders, two are cherty limestone and one is a sedimentary beach-pebble. Spherical pounders were modified to obtain their regular shapes; egg-shaped pounders were opportunistically co-opted natural pebbles. The four pounder-pestles are all of local limestone, and are morphologically identical to those described in the 2009 report (Damick in Genz et al. 2009).

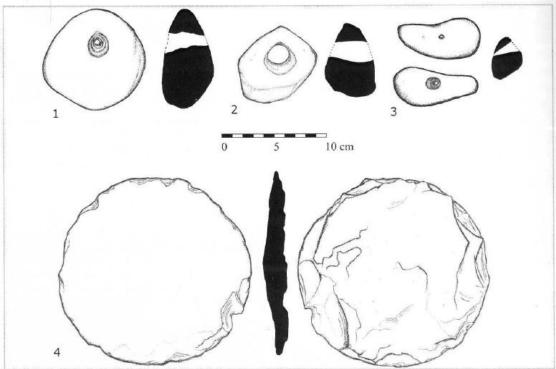
Other domestic objects

Perforated Stones (24 complete; 7 incomplete)

All perforated stones, including those with both natural and artificial perforations, were recorded. It is apparent from wear on several of the objects that natural perforations in local stones were sometimes exploited for use as well as drilled stones. Perforations occur both vertically and laterally (Pl. 11: 1-3). This may indicate different functions, but may be symptomatic of opportunistic exploitation of the naturally perforated stones available. Only one perforated stone has come from a secure floor context, and even this was found in isolation and thus its function cannot be determined with any certainty (Pl. 11: 1). Most likely they served as counterpoise weights; similar stones found elsewhere in the region have traditionally been interpreted as loom weights, although here they may also have served as fishing net weights or drilling weights.

Disks (Total = 3 complete)

Three limestone chipped disks were recovered from fill contexts. Two are of similar large dimensions (Pl. 11: 4; 17 cm diameters, comparable to those



Pl. 11: 1- Finely rounded limestone counterpoise weight FAD10.295/295.235 from Phase IV floor context 819. 2: Polygonal limestone counterpoise weight FAD10.290/305.365; the natural hole has been enlarged. 3: Irregular beach pebble FAD10.295/295.286; drilled perforation, likely used as a weight. 4: Limestone disk FAD10.305/295.5; likely a lid.

from 2009; see Damick in Genz et al. 2009), while one is of the same morphology and make but less than half the size with a 7.5 cm diameter. These were almost certainly lids for large ceramic vessels.

The Decorative and Miscellaneous Assemblage

Beads and pendants (Total = 10; 8 complete, 2 incomplete)

Woolley's terminologies for the beads from Ur are used in this report for consistency with other regional publications (Woolley 1934, 366-368; Maxwell-Hyslop 1971, 8; Pinnock 1993, 11-14). Where more specificity is needed, Beck's 1928 terms are used, as in 2009; as nomenclature varies little except in degree of detail, comparability is not largely affected. Further work at this and other contemporaneous sites in Lebanon will allow for the better development of a local typology for which issues of nomenclature can be more thoroughly addressed.

Of the ten beads recovered in 2010, a sub-group of six whole discoid beads are particularly interesting (Figs 18, 19, 21, 22 and 23); an additional two beads from previous seasons can be added to this group (Figs 20 and 24). Seven of these eight were recovered from Phase IV contexts, although only one came from a secure floor level (Fig. 18, context 823 in Building 3); one bead came from a mixed fill of indeterminate date from the 2007 season (Fig. 20, context 204). These can be sub-divided into two shapes; all are discoid, but four have one slightly convex end and four are flat. They are of varying dimensions. All have a shiny, polished or glazed appearance on both surfaces that extends up to, but not inside, the perforations. The perforations of the beads are straight and large, ranging from one third to over half the outer diameter of the beads. In each case, there is use wear on at least two directly opposing sides of the perforation on both obverse and reverse, suggesting that the beads were strung laterally rather than suspended. This would support the suggestion that this type of bead was used as decoration on clothing or headdresses rather than as suspended or strung as on bracelets and necklaces.

As no unfinished beads, debitage, or apparent bead production tools have been found so far, production technology remains obscure; it is almost certain however that they were produced off-site and imported as finished pieces. Analysis of the raw material and surface treatment is currently being organized and a more comprehensive discussion of the procurement, production, and dissemination of these beads will be published when that has been conducted. Morphologically comparable, although not identical, beads are found throughout the northern Levant (Ebla: Pinnock 1993, TM.77.G.252c, tavv. VII, XXVII; Hama: Thuesen 1988, Pl. LII: 4; Ras Shamra: De Contenson 1992, Pl. CVI: 1, 3). The limitations of both material identification and inadequate publication of stone beads from the Early Bronze Age in the Levant makes a true comparative analysis difficult at this time, but it is interesting to note their relative scarcity at nearby sites; they are particularly few, for instance, at Byblos (some of the more closely comparable examples are identified as "boutons" or "disques en calcaire" rather than as beads; see for instance No. 12402, fig. 586 in Dunand 1958, 520). They can be more closely linked to third millennium beads from the Indus (Harappa: Vidale 1995. fig. 9). Further research into stages of trade and production could prove quite illuminating in this regard.

The remaining four beads are shapes previously seen from past seasons. There is one short oblate bead in rock crystal (Fig. 25), one short cylinder ring bead recovered from sieving, and two broken limestone ring beads (Fig. 26).

Vessels (3 incomplete)

Three limestone vessels, all incomplete, were recovered in 2010; two are unfinished. As such, these vessels offer the first definite evidence of on-site stone drilling at Fadous-Kfarabida. All three vessels are made of locally available limestone, although of higher quality and density than that chosen for the portable mortars or other tools. All are from fill layers associated with later occupation phases and cannot be dated with any security.

No single classification system exists for Levantine stone vessels from the third millennium BC. The most comprehensive existing system is Sparks' 2007 classification of second millennium vessels drawn mostly from the Southern Levant, while Bevan's 2007

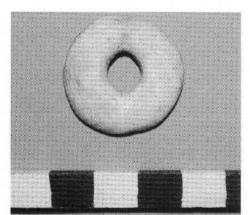


Fig. 18-Disk bead with one convex end, FAD10.295/295.227, from Phase IV Floor context 823.

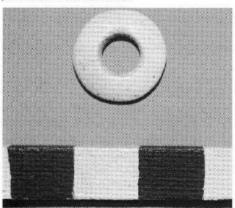


Fig. 19-Disk bead with one convex end FAD10.290/295.308.

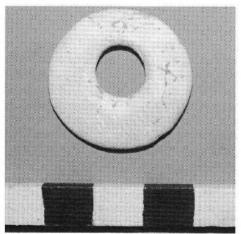


Fig. 20-Disk bead with one convex end FAD07.285.295.24.

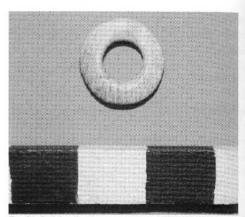


Fig. 21 - Disk bead with one convex end FAD10.300/295.66.

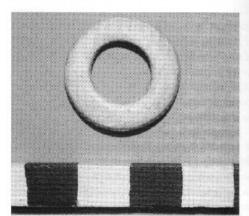


Fig. 22- Flat disk bead FAD10.295/295.106.

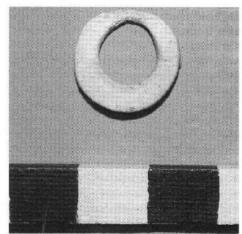


Fig. 23- Flat disk bead FAD10.305/295.86.

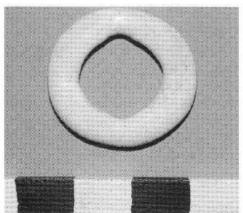


Fig. 24- Flat disk bead FAD09.295/295.30.

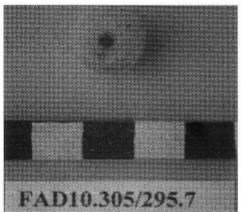


Fig. 25- Short oblate rock crystal bead FAD10.305/295.7.

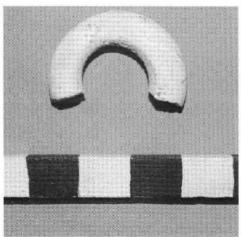


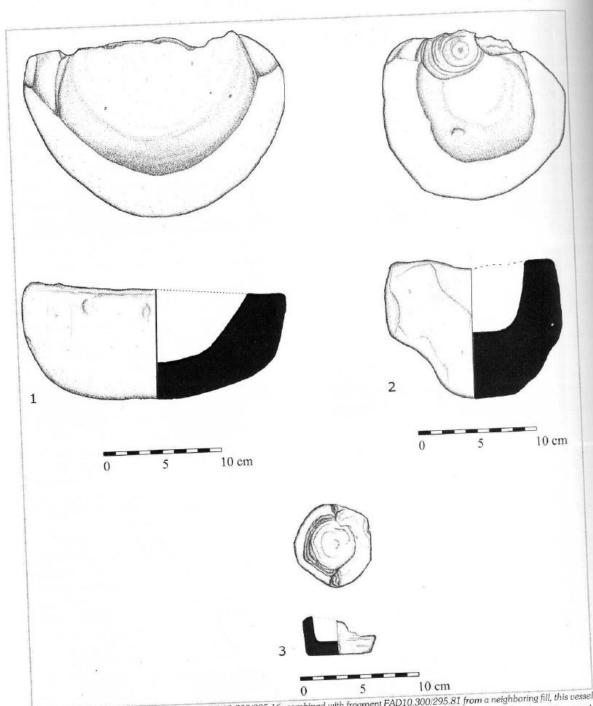
Fig. 26- Broken limestone ring bead FAD10.305/295.89.

volume offers useful, if limited, suggestions for some third millennium types. Here, terms are drawn where possible from those proposed by Bevan, but variations are noted. As stone vessels are not as sensitive to chronological variation as pottery, the temporal range of vessels used for previous classification systems is not as problematic here as it might be for the study of a different artifact class; however, there is certainly scope in the future for the development of a classification system that takes Northern Levantine vessels more fully into account in its presentation and sets forth standard terminologies which are less chronologically limited.

The third vessel is unfortunately missing most of its upper body and the entire rim (Pl. 12: 3). The remaining round base and parallel, straight walls suggest what Bevan and Sparks term a "cylindrical jar" and Wright calls an "upright bowl" (although no absolute type identification is possible with so little remaining, it most closely resembles the structure of Bevan's E29 or Wright's 118). The vessel walls are even but have concentric vertical drill scars on the interior that terminate in the center of the base. The exterior is ground smooth and the base is flat and even. It is possible that this vessel was in the final stages of production, or was considered complete without smooth interior walls.

The abandonment of the latter two vessels in their current states gives us the closest look to date at possible stages of production for stone vessel manufacturing technology on site. It also demonstrates the presence of non-tubular drilling technology, as evidenced on both vessels by the concentric descending concave scars of the drilled interiors and the absence any core removal protrusions on the bases. To date, no chipped stone artifacts have been recovered that could suggest potential drill bits, but the evidence of drilling on site that is presented by these vessels should encourage closer examination of potential drill bits and installations, as well as suggests potential alternative uses for the counterpoise weights found on site (for instance, if weighted hand drilling, such as was evidenced in contemporary Egypt, is considered: see Bevan 2007, 50). Further investigation is clearly needed.

If we take into account the rough manufacture and locally available limestone being used, it seems clear that at least some degree of stone craftsmanship



Pl. 12: 1- Fragment of limestone open bowl FAD10.300/295.16; combined with fragment FAD10.300/295.81 from a neighboring fill, this vessel is almost complete. 2: Incomplete limestone open bowl FAD10.290/305.378, with drill scarring at the breakage point on the edge of the vessel. 3: Small cylindrical limestone vessel base FAD10.295/295.145.

was present and active at Tell Fadous-Kfarabida at least during its later occupation phases. However, it is still unclear how relatively common or complex such production may have been. The evidence to date does not suggest widespread or specialized manufacture and production, but rather an ad-hoc craftsmanship executed for a limited, local purpose. Further investigation may clarify the extent and nature of this craftsmanship and its relationship to that at nearby major sites like Byblos.

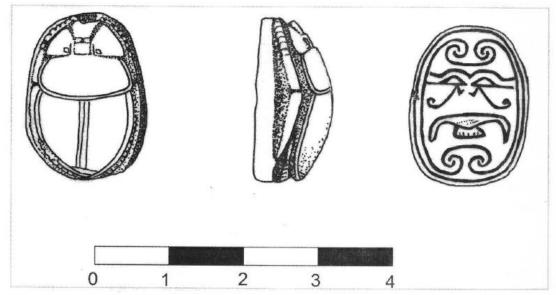
Discussion

It is important to recall the limited area excavated to date at Tell Fadous-Kfarabida, and the current bias of that area towards later (EBIII and later) levels; only one room has been excavated to its lowest level and therefore our ability to relate material distributions across space and time is significantly restricted. All comments must be taken with that consideration in mind.

Stone vessels and beads have been most closely examined in this report. Considering these together with the development of other stone artifacts noted previously, in particular the late appearance of miniature mortars and the comparatively fine quality and diversity of stone objects found on floor 819, a picture emerges of increased complexity and luxury of stone material culture on site after Phase III. Overall relative density of ground stone tools seems to also increase towards the end of Phase III and in Phase IV. Although subject to the reservations posed above, as well as to the fact that systematic ground stone collection only started in 2009, these apparent tendencies indicate a potentially fruitful avenue for future research on the relationships between developing craft specialization and social organization over time.

A Middle Bronze Age Scarab from Tomb 736 (A.A)

The scarab (FAD10.290/305.435) is made of steatite or, more likely, enstatite ("burnt steatite") and measures 17 x 12 x 8 mm (length/width/height). The original glaze is still partly visible in the crevices and on parts of the object. The scarab is pierced longitudinally for threading. The workmanship of the scarab is very good to excellent (Fig. 12 and Pl. 13).



Pl. 13- Scarab FAD10.290/305. 435 from Tomb 736 (drawing by Emilia Jastrzębska).

The scarab's typological features are a D1 head, a type III back (three vertical lines dividing the elytra; also termed LN "lined naturalistic"), and a d8 side (schematically feathered fore- and hind legs)⁵. The vertical arrangement of the hieroglyphic signs in the center of the base design consists of two symmetrical Udjat (Horus) eyes (Tufnell 1984, 284-285, design class 3B4: "Symmetric patterns – Horus eyes") and the hieroglyph for "gold" (nbw; Tufnell 1984, 288-289: design class 3B6: "Symmetric patterns – Gold sign") below these two signs. The hieroglyphic signs themselves are encompassed by four interlocking "C-spirals" (Tufnell 1984, 268-269, design class 2B2: "Round, interlocking spirals – unending"). The overall base design itself is framed by a simple oval line.

The typological features as well as the base design of the scarab on the whole seem to argue for a late 12th—13th Dynasty date (~late 19th—early/mid 18th century BC) for the scarab's manufacture, with a preference for a 13th Dynasty date. In general concordance with the date of the associated pottery found within Tomb 736, the scarab thus chronologically most probably dates to the Middle Bronze Age I-II transitional period or perhaps the early MB II period at the latest (northern Levantine terminology, i.e. MB IIA-IIB transitional period or early MB IIB for the Southern Levant). Such a date for the find context generally also seems to be corroborated by the scarab's parallels found in the northern Levant.

On the basis of the present evidence, however, it is also impossible to say with certainty whether the scarab is an Egyptian import or a Levantine production. A clear distinction between Egyptian scarabs of the late Middle Kingdom and early Levantine scarabs is not always possible beyond doubt and such is the case with the scarab from Tell Fadous-Kfarabida.

Anthropological Analysis of the Skeletons from Burials 637 and 736 (S. El.Z)

The 2008 excavation season at Tell Fadous-Kfarabida revealed a human burial, context 402 (Genz et al. 2010) as well as isolated human hand and foot remains not belonging to this burial. These extra skeletal elements implied the presence of more burials at the site. The 2010 excavation season confirmed these expectations through revealing two additional burials, contexts 637 and 736.

Burial 637

Description of the Tomb

As described above, the burial was severely disturbed. The skeleton had been moved after its original deposition (Fig. 9).

Preservation of the Skeleton

Almost all of the skeletal elements are represented, yet, most of the bones are incomplete or fragmentary.

Sex

Unfortunately, the preservation of the pelvis does not allow its use in the determination of the sex of the individual. The skull is also very fragmentary and its use in the assessment of sex was limited. Following the standards published in Bass (1995) and Buikstra and Ubelaker (1994), the preserved cranial elements (mastoid process, supraorbital region, glabella region) and mandible indicate that the individual was most probably a female.

Age

It was difficult to assess the age at death of this individual since the diagnostic pelvic elements are not preserved and the cranial bones are very fragmentary. However, based on Meindl and Lovejoy's (1985) classification, the available suture points (midlambdoidal, lambda, anterior sagittal) are in an intermediate stage of fusion, such that they are not completely open and not yet obliterated. This is usually observed in late young or middle-aged adults. This is in agreement with the age estimation of 30-35 years based on the level of dental wear following Lovejoy's (1985) stages of dental attrition.

Pathology

Some teeth were lost ante-mortem (left M_1 and right P_4 , M_1) and their sockets are fully closed. Dental carries were found on the left I_1 , M_2 , M_3 , right M_2 and left and right M^3 . Linear enamel hypoplasia defects were observed on almost all the preserved upper and lower dentition.

Burial 736

Description of the Tomb

The tomb is a circular structure. It is an earth pit with medium-sized stones used to outline its border. This burial is a primary inhumation. The individual was placed lying on the back with the head towards the north and the feet towards the south. The head appears to have been slightly lifted and placed to face south using the stones surrounding the grave for support. The arms were placed extended on the sides of the body and the legs flexed at the hips and knees and the feet crossed (Figs 10 and 11).

Preservation of the Skeleton

The skeleton is almost complete although some elements are very fragmentary due to the nature of the soil in the burial which made the bones very fragile.

Sex

Both pelvic and cranial morphologies were used for the assessment of the sex. Following the standards published in Bass (1995) and Buikstra and Ubelaker (1994), this individual was judged to be a female.

Age

The age at death was estimated using the pubic symphysis and the auricular surface of the ilium. Based on the pubic symphysis, the age at death of the female buried in tomb 736 was determined to be between 35 and 44 years old following standards established by Todd (1920) and between 30 and 40 years old following standards established by Brooks and Suchey

(1985). The age estimate assessed following standards established by Lovejoy et al. (1985) for the auricular surface is between 35 and 44 years old. Due to the fragmentary nature of the cranial remains, the use of cranial sutures for the age at death determination with scoring based on the method by Meindl and Lovejoy (1985) was limited to the attribution of the age at death of this individual to the middle age adult category. Age estimation based on dental wear also suggests middle age adult between 35 and 45 years old based on Lovejoy's (1985) estimates.

Pathology

Upon examination of the skeleton for pathology, dental caries were detected on two lower left molars (M_2 and M_3). In addition, the mandible shows that several teeth (right P_4 , M_1 , and M_2 ; left M_1) were lost ante-mortem and their sockets are either fully or partially closed. Some of the upper teeth (right I^2 , M^1 , M^2 , M^3 ; left I^1 , I^2 , P^3 , M^3) are missing but since the upper jaw is not preserved it is impossible to determine whether these teeth were lost ante-mortem or postmortem. Linear enamel hypoplasia was detected on all the preserved dental remains.

The left femur shows signs of a healed oblique fracture starting below the femoral neck and extending along the proximal shaft (Fig. 27). The proper alignment of the femoral shaft after the healing of the fracture should be noted. It is unlikely that such an alignment would have been achieved without correction and stabilization (possibly traction was used) during the healing process⁶. Nevertheless, the femoral break would have affected the female's walking, most likely causing a limp.

Two radiocarbon dates from Tell Fadous-Kfarabida (F. H, W. K and E. M. W)

Two olive pits, which were found in the fill of tomb 736, were submitted for radiocarbon analysis to the Vienna Environmental Research Accelerator (University of Vienna). Absolute dates for these samples should reflect the time of burial (within a few years) or

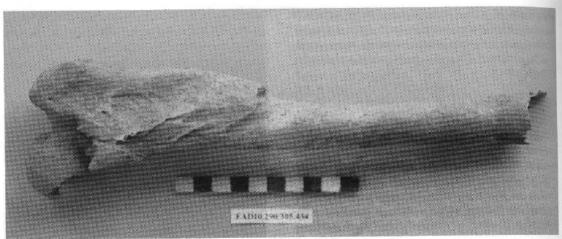


Fig. 27- Left femur with a healed fracture from Tomb 736.

define a terminus post quem (as they were found in the fill and not in situ, there is a possibility that they came from surrounding Early Bronze Age material).

Indeed, one sample (FAD10.290/305.407, VERA-5419) dates to the mid-third millennium BC, thus dating to the Early Bronze Age (Fig. 28). However, the ¹⁴C measurement of the second sample (FAD10.290/305.431, VERA-5420) seems to be consistent with the archaeological/historical estimations. Calibration for this sample yielded time ranges from 1881 to 1771 BC (68.2 % probability) or – on a 95.4 % probability base – from 1915 to 1739 BC (94.4 % probability), and 1707 to 1699 BC (1.0% probability) within which the calendar date of the sample with the respective probability falls (Fig. 29)⁷.

The latter date range (most likely 19th century or early 18th century BC) fits well to the estimated date of the Middle Bronze Age scarab found in this tomb (late 12th or early 13th Dynasty; see contribution by A. Ahrens in this report). According to the historical chronology of Egypt based on Kenneth Kitchen, the 13th Dynasty should start around 1795 BC, well within the 1σ-range of the second olive pit (Kitchen 2000). Based on the newly established radiocarbon model for dynastic Egypt (Bronk Ramsey et al. 2010), the burial should fall somewhere during the reigns of Senwosret II (with a most likely accession date between 1890 and

1868 BC (68 % probability)) down to Sobekhotep II (with a most likely accession date between 1777 and 1712 (68 % probability)) of the 13^{th} Dynasty.

The radiocarbon date of the younger olive pit (FAD10.290/305.431, VERA-5420) is thus consistent with the archaeological/historical estimations based on pottery and the scarab found in this tomb and confirms a most likely date during the late 12th and early 13th Dynasties of Egypt, whereas the older olive pit (FAD10.290/305.407, VERA-5419) seems to come from surrounding Early Bronze Age material. More samples of course would be desirable in order to confirm this interpretation.

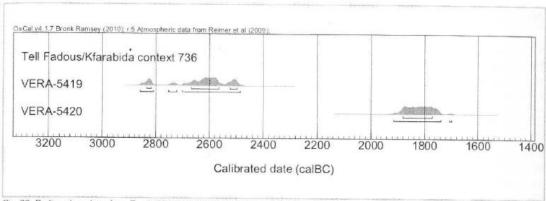


Fig. 28- Radiocarbon dates from Tomb 736 (FAD10.290/305.407 and FAD290/305.431).

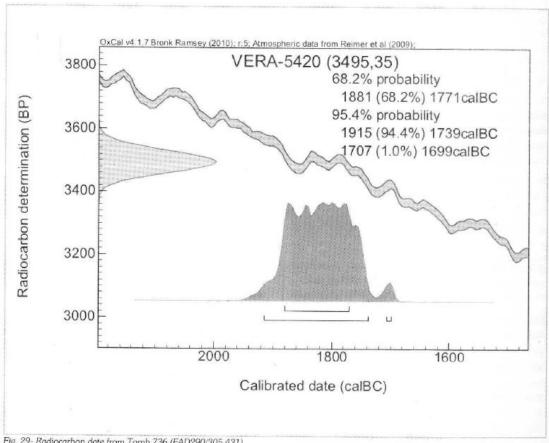


Fig. 29- Radiocarbon date from Tomb 736 (FAD290/305.431).

Notes

1- Affiliation of contributors:

Hermann Genz: American University of Beirut, Department of History and Archaeology, P.O.Box 11-0236, Beirut, Lebanon.

Riva Daniel: Archaeological Museum of the American University of Beirut.

Alison Damick: The British Institute in Amman, Jordan.

Alexander Ahrens: German Archaeological Institute, Damascus Branch.

Sireen El-Zaatari: Wiener Laboratory, American School of Classical Studies at Athens, 54 Souidias Str., Athens 106 76, Greece/Department of Human Evolution, Max Planck Institute for Evolutionary Anthropology, Deutscher Platz 6, 04103 Leipzig, Germany.

Felix Höflmayer: German Archaeological Institute, Orient-Department.

Walter Kutschera: Vienna Environmental Research Accelerator (VERA), Faculty of Physics, University of Vienna. Eva M. Wild: Vienna Environmental Research Accelerator (VERA), Faculty of Physics, University of Vienna.

- 2. No precise date of the robbing activities is available, but as the fill in the robber trenches was rather loose, it suggests a rather recent date, possibly in connection with the establishment of the military installation on the tell during the Lebanese Civil War.
- 3- Unfortunately it was removed before the structure was identified as a tomb. Therefore it is not indicated on the plan Fig. 10.
- **4-** For a full discussion of the cylinder seal impressions from Tell Fadous-Kfarabida see Daniel 2010.
- 5-The scarab typology used here is based on Tufnell 1984, with typological additions and chronological corrections by Keel 1995 and Ben-Tor 2007.
- **6-** Personal communication Dr. Jamal Kobrosly, orthopedic surgeon.
- 7- Calibration was done using the OxCal 4.1 software and the INTCAL09 calibration curve, see: Bronk Ramsey 1995; Bronk Ramsey 2001; Bronk Ramsey 2009; Reimer et al. 2009.

Bibliography

- Amiran, R. 1970. Ancient Pottery of the Holy Land. Jerusalem.
- Aston, D.A. 2008. A History of Tell el-Yahudiyeh Typology, in: Bietak, M. and Czerny, E. (eds.), The Bronze Age in the Lebanon. Studies on the Archaeology and Chronology of Lebanon, Syria and Egypt. Vienna, 165-194.
- Bass, W.M. 1995. Human Osteology: A Laboratory and Field Manual. Missouri Archaeological Society, Missouri.
- Ben-Tor, A. 1978. Cylinder Seals of Third Millennium Palestine, Bulletin of the American Schools of Oriental Research Supplement Series No. 22, Cambridge MA.
- Ben-Tor, D. 2007. Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period. Orbis Biblicus et Orientalis, Series Archaeologica 27, Fribourg/Göttingen.
- **Bevan, A. 2007.** Stone Vessels and Values in the Bronze Age Mediterranean, Cambridge.
- Bietak, M., Kopetzky, K., Stager L.E. and Voss, R. 2008. Synchronisations of Stratigraphies: Ashkelon and Tell el-Dab^ca, Egypt and the Levant/Ägypten und Levante 18, 49-60.
- **Bronk Ramsey, C. 1995**. Radiocarbon Calibration and Analysis of Stratigraphy: The OxCal Program. *Radiocarbon* 37, 425-430.
- ______ 2001. Development of the Radiocarbon Calibration Program OxCal. Radiocarbon 43, 355-363.
- ______ **2009**. Bayesian Analysis of Radiocarbon Dates, *Radiocarbon* 51, 337-360.
- Bronk Ramsey, C., Dee, M.W. Rowland, J.M. Higham, T.F.G. Harris, S.A. Brock, F. Quiles, A. Wild, E.M. Marcus, E.S. and Shortland, A.J. 2010. Radiocarbon-Based Chronology for Dynastic Egypt. *Science* 328, 1554-1557.
- Brooks, S.T. and Suchey, J. 1985. Skeletal Age Determination Based on the os pubis: a Comparison of the Acsádi-Nemeskéri and Suchey-Brooks Methods. *Human Evolution* 5, 227-238.
- Buikstra, J.E. and Ubelaker, D.H. 1994. Standards for Data Collection from Human Skeletal Remains. Arkansas Archaeological Survey Report Number 44, Fayetteville.

- Czerny, E. 2002. Egyptian Pottery from Tell el- Dab^ca as a Context for Early MBIIA Painted ware, in: Bietak, M. (ed.), The Levant in the Middle Bronze Age. Proceedings of an International Conference on MB IIA Ceramic Material. Vienna, 24th 26th of January 2001. Österreichische Akademie der Wissenschaften, Denkschriften Band XXVI, Vienna, 133-142.
- **Daniel, R. 2010.** Early Bronze Age Cylinder Seals and Impressions from Lebanon. MA Thesis, American University of Beirut.
- **De Contensen**, **H. 1992**. *Préhistoire de Ras Shamra*. Ras Shamra-Ougarit VIII, Paris.
- **Doumet-Serhal, C. 2004.** Sidon (Lebanon): Twenty Middle Bronze Age Burials from the 2001 Season of Excavation. *Levant* 36, 89-154.
- **2006.** The Early Bronze Age in Sidon: the "College Site" Excavations (1998-2000-2001). Bibliothèque Archéologique et Historique 178, Beirut.
- **2009.** New Cylinder Seal Impressions from Sidon. Archaeology and History in the Lebanon 29, 2-10.
- Dunand, M. 1950. Fouilles de Byblos II, 1933-1938, Atlas Paris
- ______ 1958. Fouilles de Byblos II, 1933-1938, Texte, Part 2. Paris.
- **Flender, M. 2000.** Cylinder Seal Impressed Vessels of the Early Bronze Age III in Northern Palestine, in: Philip, G. and Baird, D. (eds.), Ceramics and Change in the Early Bronze Age of the Southern Levant. Sheffield, 295-313.
- Genz, H. 2002. Die frühbronzezeitliche Keramik von Hirbet ez-Zeragon, Nordjordanien. Mit Studien zur Chronologie und funktionalen Deutung frühbronzezeitlicher Keramik in der südlichen Levante. Deutsch-jordanische Ausgrabungen in Hirbet ez-Zeragon 1984-1994. Endberichte Band V. Abhandlungen des Deutschen Palästina-Vereins 27,2, Wiesbaden.
- Genz, H., Çakırlar, C., Damick, A., Jastrzebska, E., Riehl, S., Deckers, K. and Donkin, A. 2009. Excavations at Tell Fadous-Kfarabida: Preliminary Report on the 2009 Season of Excavations. Bulletin d'Archéologie et d'Architecture Libanaises 13, 71-123.
- Genz, H., el-Zaatari, S., Çakırlar, C., Badreshany, K. and Riehl, S. 2010. A Middle Bronze Age Burial from Tell Fadous-Kfarabida, Lebanon. Ägypten und Levante/Egypt and the Levant 20, 183-205.

Keel, O. 1995. Corpus der Stempelsiegel-Amulette aus Palästina/Israel: Von den Anfängen bis zur Perserzeit. Einleitung. Orbis Biblicus et Orientalis, Series Archaeologica 10, Fribourg/Göttingen.

Kitchen, K.A. 2000. The Historical Chronology of Ancient Egypt, a Current Assessment, in Bietak, M. (ed.), The Synchronisation of Civilisations in the Eastern Mediterranean in the Second millennium B.C. Proceedings of an International Symposium at Schloß Haindorf, 15th - 17th of November 1996 and at the Austrian Academy, Vienna, 11th - 12th of May 1998. (CChEM 1), Vienna, 39-52.

Klein, H. 1992. Untersuchungen zur Typologie bronzezeitlicher Nadeln in Mesopotamien und Syrien. Schriften zur Vorderasiatischen Archäologie 4, Saarbrücken.

Kopetzky, K. 2002. The Dipper Juglets of Tell el-Dab'a. A Typological and Chronological Approach, in: Bietak, M. (ed.), The Levant in the Middle Bronze Age. Proceedings of an International Conference on MB IIA Ceramic Material. Vienna, $24^{th} - 26^{th}$ of January 2001. Österreichische Akademie der Wissenschaften, Denkschriften Band XXVI, Vienna, 227-244.

Lauffray, J. 2008. Fouilles de Byblos VI. L'urbanisme et l'architecture. Collationements et complément des dessins originaux par Yasmine Makaroun-Bou Assaf. Bibliothèque Archéologique et Historique 182; Beirut.

Lovejoy, C.O. 1985. Dental Wear in the Libben Population: its Functional Pattern and Role in the Determination of Adult Skeletal Age at Death. American Journal of Physical Anthropology 68, 47-56.

Lovejoy, C.O., Meindl, R.S., Pryzbeck, T.R. and Mensforth, R.P. 1985. Chronological Metamorphosis of the Auricular Surface of the llium: a New Method for the Determination of Adult Skeletal Age at Death. American Journal of Physical Anthropology 68, 15-28.

Matthews, D. 1996. Seal Impressions on Sherds from Hama. Egitto e Vicino Oriente 19, 121-153.

Matthiae, P., Pinnock, F. and Scandone Matthiae, G. 1995. Ebla. Alle origini della civiltà urbana. Roma.

Maxwell-Hyslop, K.R. 1971. Western Asiatic Jewellery, c.3000-612 B.C. London.

Mazzoni, S. 1992. Le impronte su giara Eblaite e Siriane nel Bronzo Antico. Materiali e Studi Archeologici di Ebla. I, Rome.

Meindl, R.S. and Lovejoy, C.O. 1985. Ectocranial suture closure: A revised method for the determination of skeletal age at death based on the lateral-anterior sutures. American Journal of Physical Anthropology 68, 57-66.

Pinnock, F. 1993. Le perle del Palazzo Reale G. Materiali e Studi Archeologici di Ebla. II, Rome.

Reimer, P.J., Baillie, M.G.L., Bard, E., Bayliss, A., Beck, J.W., Blackwell, P.G., Bronk Ramsey, C., Buck, C.E., Burr, G.S., Edwards, R.L., Friedrich, M. Grootes, P.M., Guilderson, T.P., Hajdas, I., Heaton, T.J., Hogg, A.G., Hughen, K.A., Kaiser, K.F., Kromer, B., McCormac, G., Manning, S.W., Reimer, R.W., Richards, D.A., Southon, J.R., Talamo, S., Turney, C.S.M., van der Plicht, J. and Weyhenmeyer, C.E. 2009. IntCal09 and Marine09 Radiocarbon Age Calibration Curves, 0-50,000 Years cal BP. Radiocarbon 51, 1111-1150.

Sparks, R.T. 2007. Stone Vessels in the Levant. Palestine Exploration Fund Annual VIII, London.

Thalmann, J.-P. 2006. Tell Arqa I. Les niveaux de l'âge du Bronze. Bibliothèque Archéologique et Historique 177, Beirut.

2007. Settlement Patterns and Agriculture in the Akkar Plain during the Late Early and Early Middle Bronze Ages, in: Morandi Bonacossi, D. (ed.), Urban and Natural Landscapes of an Ancient Syrian Capital. Settlement and Environment at Tell Mishrifeh/Qatna and in Central-Western Syria. Proceedings of the International Conference held in Udine, 9-11 December 2004. Studi Archeologici su Qatna 1= Documents d'Archéologie Syrienne XII, Udine, 219-232.

Thuesen, I. 1988. Hama. Fouilles et Recherches de la Fondation Carlsberg 1931-1938. I: The Pre- and Protohistoric Periods. Nationalmuseets Skrifter IX, Copenhagen.

Todd, **T.W. 1920**. Age Changes in the Pubic Bone: I. The White Male Pubis. *American Journal of Physical Anthropology* 3, 467-470.

Tufnell, O. 1969. The Pottery from Royal Tombs I-III at Byblos. *Berytus* 18, 5-33.

Seals and their Contribution to History in the Early Second Millennium B.C. Warminster.

Vidale, M. 1995. Early Beadmakers of the Indus Tradition: The Manufacturing Sequence of Talc Beads at Mehrgarh in the 5th Millennium B. C. East and West 45 (1-4), 45-80.

Wright, K. 1992. A Classification System for Ground Stone Tools from the Prehistoric Levant. *Paléorient* 18, 53-81.

Woolley, C.L. 1934. Ur Excavations II: The Royal Cemetery. London and Philadelphia.