

# A MIDDLE BRONZE AGE BURIAL FROM TELL FADOUS-KFARABIDA, LEBANON<sup>1</sup>

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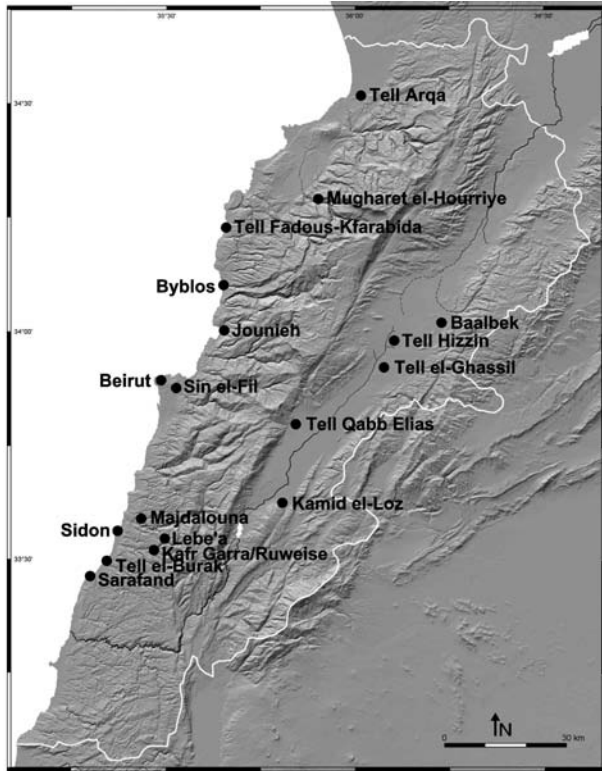


Fig. 1 Location of Tell Fadous-Kfarabida and other sites with Middle Bronze Age burials in Lebanon

## INTRODUCTION

The site of Tell Fadous-Kfarabida is located on the coast of Lebanon, 2 km south of the modern town of Batroun (Fig. 1). It was accidentally discovered in the spring of 2004 after bulldozing

operations undertaken by the landowners had created several huge sections, through which architectural structures and artifacts became exposed (Fig. 2). In the years of 2004 and 2005 a team from the Department of History and Archaeology of the American University of Beirut, led by H. Sader and H. Genz documented two of the large sections.<sup>7</sup> The material retrieved from the sections predominantly dated to the Early Bronze Age II–III periods.

The site is one of the few coastal settlements in Lebanon where Bronze Age levels are easily accessible for excavation. Furthermore, it was observed that each winter substantial amounts of soil and stones were washed down from the sections leading to a substantial loss of archaeological information. Therefore from 2007 onwards rescue excavations were undertaken at the site, again directed by H. Sader and H. Genz. The excavations conducted in 2007 and 2008 revealed in addition to an excellently preserved Early Bronze Age settlement less substantial traces dating to the Middle Bronze Age on top.<sup>8</sup> Among the latter is the tomb which is discussed here in detail.

## DISCOVERY OF THE TOMB

During the excavations of 2007, a complete jar was observed directly under the topsoil in the southern section immediately east of the square 285/300, which was excavated during that season. As the jar was in danger of falling down the section due to erosion, it was decided to open a small

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<sup>7</sup> BADRESHANY *et al.* 2005.

<sup>8</sup> GENZ and SADER 2007; GENZ and SADER, in press a.

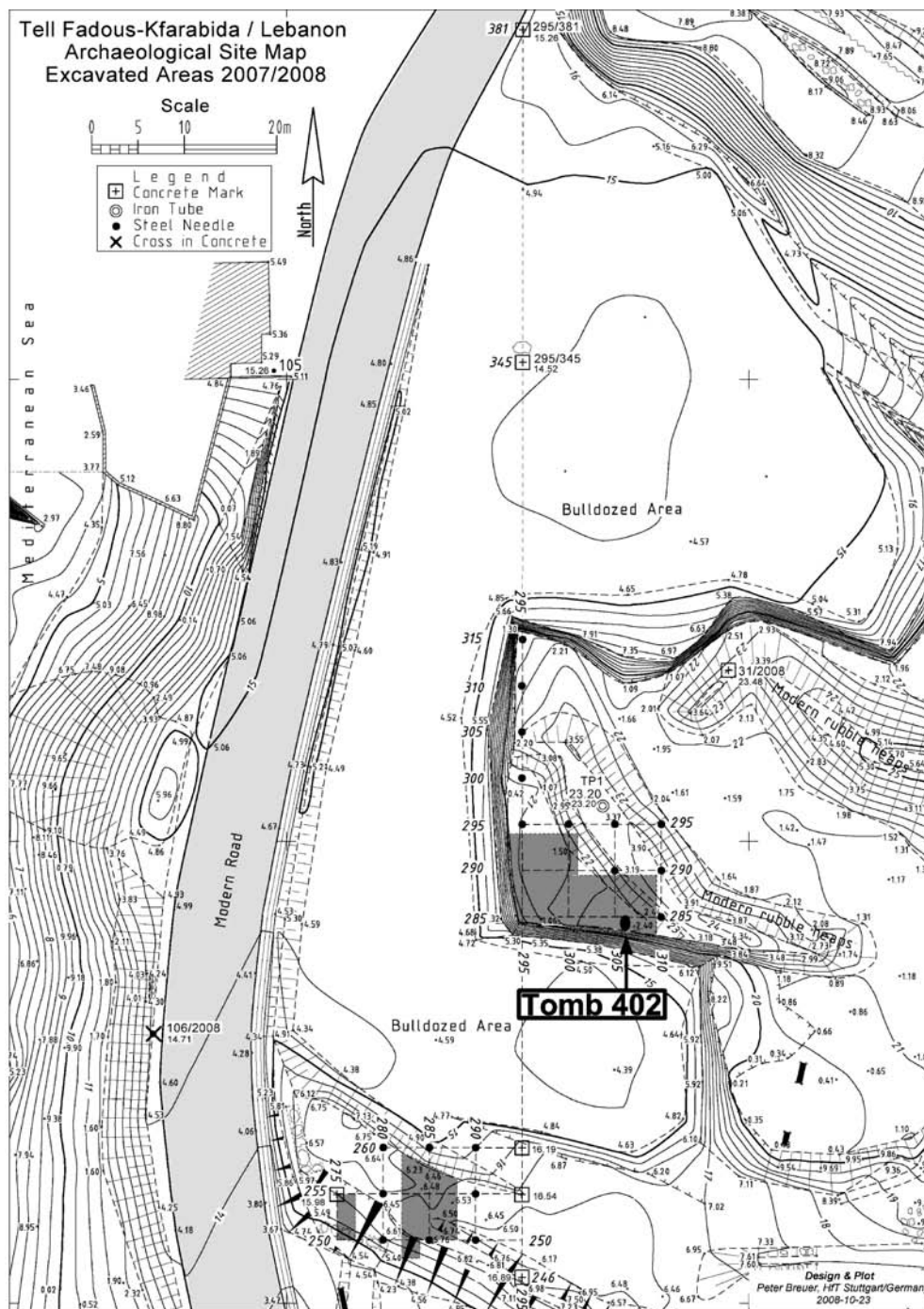


Fig. 2 Topographic plan of Tell Fadous-Kfarabida showing the location of tomb 402

1 × 1 m sounding in the new square 285/305<sup>9</sup> in order to retrieve it. To our great surprise the jar turned out not to be an isolated find belonging to the Early Bronze Age settlement, but was part

of a Middle Bronze Age tomb (Fig. 2). In addition to the jar just mentioned (FAD07.285/305.5), the sounding produced an additional small jar (FAD07.285 305.6), a hemispherical

<sup>9</sup> In fact the larger part of the tomb is located in square 280/305, as shown in Figs. 2 and 4. However, as only a 1 m wide strip of this square remained between square

285/305 and the south section, it was excavated as a part of square 285/305.



Fig. 3 Tomb 402 at the end of the 2007 excavation season

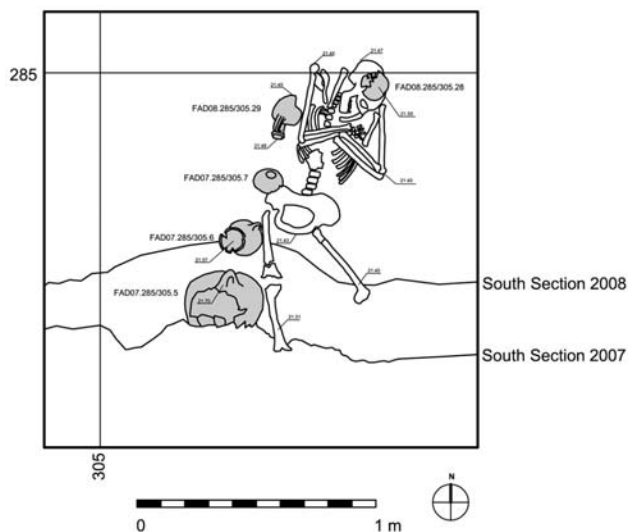


Fig. 4 Plan of tomb 402

bowl (FAD07.285/305.7) and bones of a right human leg (Fig. 3). Unfortunately lack of time and money prevented a complete exposure of

the grave in 2007, thus only the exposed pottery and bone remains were removed then. This precaution was justified by the fact that during the winter of 2007/2008 about 30 cm were lost to erosion along the south section (Fig. 4). During the season of 2008 the complete area of square 285/305 was opened,<sup>10</sup> first of all to complete the excavation of the tomb, but also to investigate the underlying Early Bronze Age layers. The burial was completely exposed during this season (Figs. 4–5). Two more vessels, a second hemispherical bowl (FAD08.285/305.28) and a Tell el-Yahudiyeh juglet (FAD08.285/305.29), which formed part of the funerary assemblage, were also found.

Hermann Genz

#### DESCRIPTION OF THE TOMB

The tomb was located directly under the topsoil (context 400), approximately 70 cm under the surface of the square. The soil surrounding the burial was labeled context 401, while the skeleton

<sup>10</sup> Olof Cannon (graduate student at AUB) supervised the work in the square. The skeleton was exposed by

Dr. Sireen el-Zaatar with the assistance of Riva Daniel (graduate student at AUB).

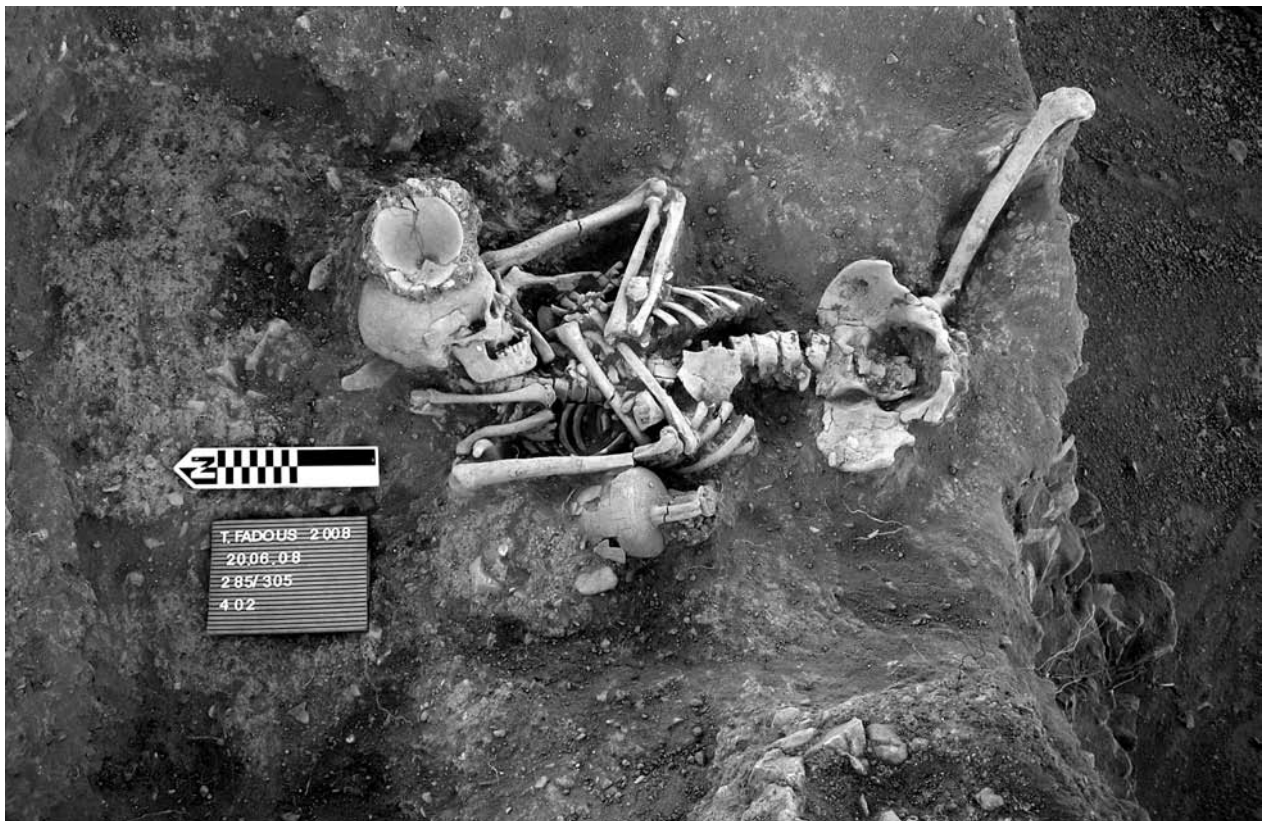


Fig. 5 Tomb 402 during the 2008 season of excavations

and all objects directly associated with it were given the context number 402.

The tomb is a simple pit in the soil, with no evidence for any structures such as walls marking its outlines. Despite all our efforts no traces of the outline of the burial pit were discovered, thus the extension and the depth of the pit are not clear. Similar problems have been noted from other Middle Bronze Age burials in the Levant, for instance at Kamid el-Loz in the Bekaa<sup>11</sup> and Gesh-er in the Jordan Valley.<sup>12</sup> Generally, it seems that when the soil extracted from the burial pit was backfilled immediately after the burial took place, and was not mixed with other soil from higher or lower levels, it becomes impossible to trace the actual burial pit, as the pit-fill and the surrounding soil would consist of the same material. Yet, for the burial described here, it is reasonable to propose that the western border of the burial pit was marked by the funerary vessels on that side and that, for the remaining sides, the edge of the pit was very close to the skeleton. Indeed, a pit

effect is reflected in the alignment of the edges of the funerary vessels on the western side and in the position and articulation of the shoulder, neck and skull bones of the skeleton.

The skeleton is almost complete (Figs. 4–5). It is only missing the lower left leg and both feet due to erosion along the section. The individual was buried lying flat on its back with the head towards the north, facing east and the feet towards the south. Its arms were crossed over the chest and both thighs along with the right lower leg were extended. The left femur is broken postmortem at the bottom of the femoral neck, and although it was found still articulated with the acetabulum, the shaft of the femur was pushed further to the left and away from the skeleton. Judging from the orientation of the femoral head, the upper left thigh was most likely extending straight to the south, similar to the right one at the time the individual was buried. Unfortunately, as the left tibia, fibula and foot bones are missing, it is not clear if there was any flexion at the left knee.

<sup>11</sup> MIRON 1982, 105.

<sup>12</sup> GARFINKEL and COHEN 2007, 63–64.

As already mentioned above, the skeleton was accompanied by five ceramic vessels (Figs. 4 and 6, Table 1). One hemispherical bowl (FAD08.285/305.28; Fig. 6:1) was found directly above the head of the deceased (Fig. 7). This bowl is particularly interesting, as the rim was already chipped in antiquity and traces of burning can be seen on the chipped part of the rim indicating that it was reused as a lamp. A second hemispherical bowl (FAD07.285/305.7; Fig. 6:2) was lying upside down on the right side of the pelvis, partly covering it. The Tell el-Yahudiyeh juglet (FAD08.285/305.29; Fig. 6:3) was found alongside the upper right arm (Fig. 8). Two jars, one small (FAD07.285/305.6; Fig. 6:4) and one large (FAD07.285/305.5; Fig. 6:5) were aligned next to the right leg.

The only non-ceramic object from the tomb was a disk-shaped bead made out of black stone, probably anthracite<sup>13</sup> (FAD08.285/305.40; Fig. 9). As this bead was found while sieving the soil from the burial, its exact position in the tomb cannot

be established. It is not even clear whether the bead was part of the grave offerings, or just came in with the pit fill.

Hermann Genz and Sireen el-Zaatari

#### COMPARISONS AND DATING OF THE INVENTORY

The two hemispherical bowls with flat bases (Figs. 6:1–2) are typical for the earlier part of the Middle Bronze Age.<sup>14</sup> Good parallels from Lebanon are provided by the royal tombs I–III at Byblos,<sup>15</sup> the Kharji tombs in Beirut<sup>16</sup> and burial 9 from phase 1 at Sidon.<sup>17</sup> In Tell Arqa hemispherical bowls seem to be restricted to Niveau 14, i. e. Phase N.<sup>18</sup>

The Tell el-Yahudiyeh juglet (Fig. 6:3) belongs to the piriform 1–type of the Levanto-Egyptian group according to the Tell el-Daba typology.<sup>19</sup> The decoration in 5 zones is typical of the Tell el-Yahudiyeh juglets of stratum G at Tell el-Daba,<sup>20</sup> but the general shape is still attested in Stratum F.<sup>21</sup> A good parallel is provided by a juglet from the

Fig.-No.	Registration-No.	Type	Description
Fig. 6:1	FAD08.285/305.28	Hemispherical bowl	Reddish-brown (2.5YR5/6 red) clay with many fine to large angular grits (1–3 mm). Well fired. Wheelmade. Outside: reddish-brown, smoothed, but wheelmarks still visible. Inside: reddish-brown, wheelmarks visible. Part of the rim broke off in antiquity, soot marks on the break indicate a reuse as a lamp
Fig. 6:2	FAD07.285/305.7	Hemispherical bowl	Reddish-brown (2.5YR5/8 red) clay with many small to large angular grits (1–3 mm). Well fired. Wheelmade. Outside and inside: reddish-brown, smoothed
Fig. 6:3	FAD08.285/305.29	Juglet	Reddish-brown (2.5YR5/4 reddish-brown) clay with medium amount of fine to medium-sized subangular grits (1–2 mm). Well fired. Wheelmade. Outside: reddish-brown to dark grey (7.5YR4/1 dark grey), partly burnished, partly incised decoration. Inside: reddish-brown to dark grey, roughly smoothed
Fig. 6:4	FAD07.285/305.6	Small jar	Reddish-brown (2.5YR5/8 red) clay with medium amount of fine to medium-sized angular grits (limestone + calcite, 1–2 mm). Well fired. Wheelmade. Outside: reddish-brown with faint horizontal and vertical combing. Inside: reddish-brown, wheelmarks visible
Fig. 6:5	FAD07.285/305.5	Large jar	Reddish-brown (2.5YR6/6 light red) clay with medium amount of medium-sized to large angular grits (1–3 mm). Well fired. Wheelmade. Outside: reddish-brown, fine horizontal combing. Inside: reddish-brown, wheelmarks visible

Table 1 Description of the vessels from tomb 402

<sup>13</sup> Information kindly provided by Prof. A. Abdel Rahman, Department of Geology, AUB.

<sup>14</sup> AMIRAN 1970, 91; TUFNELL 1969, 10–11; BECK 2000a, 113; BECK 2000b, 174; KEMPINSKI *et al.* 2002, 110; DOUMET-SERHAL 2004, 146.

<sup>15</sup> TUFNELL 1969, 10–11 and fig. 2.

<sup>16</sup> SAIDAH 1993–94, Pl. 2:5–7.

<sup>17</sup> DOUMET-SERHAL 2004, 92 and fig. 28.

<sup>18</sup> THALMANN 2006, Pl. 81:7–9.

<sup>19</sup> ASTON 2008, 185–191.

<sup>20</sup> ASTON 2008, 185; K. Kopetzky, pers. comm.

<sup>21</sup> FORSTNER-MÜLLER 2008, Abb. 84b: 11.

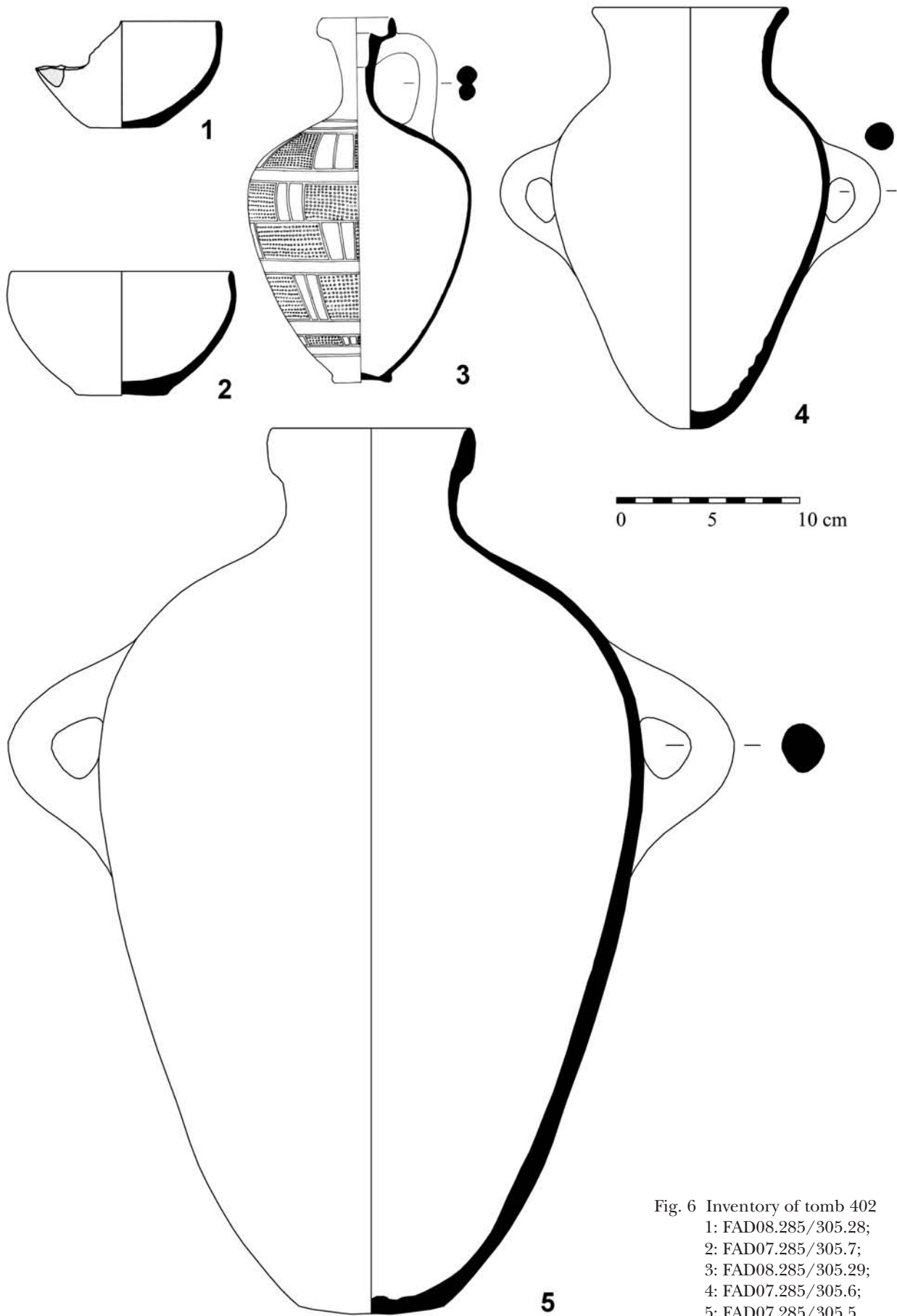


Fig. 6 Inventory of tomb 402  
1: FAD08.285/305.28;  
2: FAD07.285/305.7;  
3: FAD08.285/305.29;  
4: FAD07.285/305.6;  
5: FAD07.285/305.5



Fig. 7 Bowl FAD08.285/305.28 *in situ*

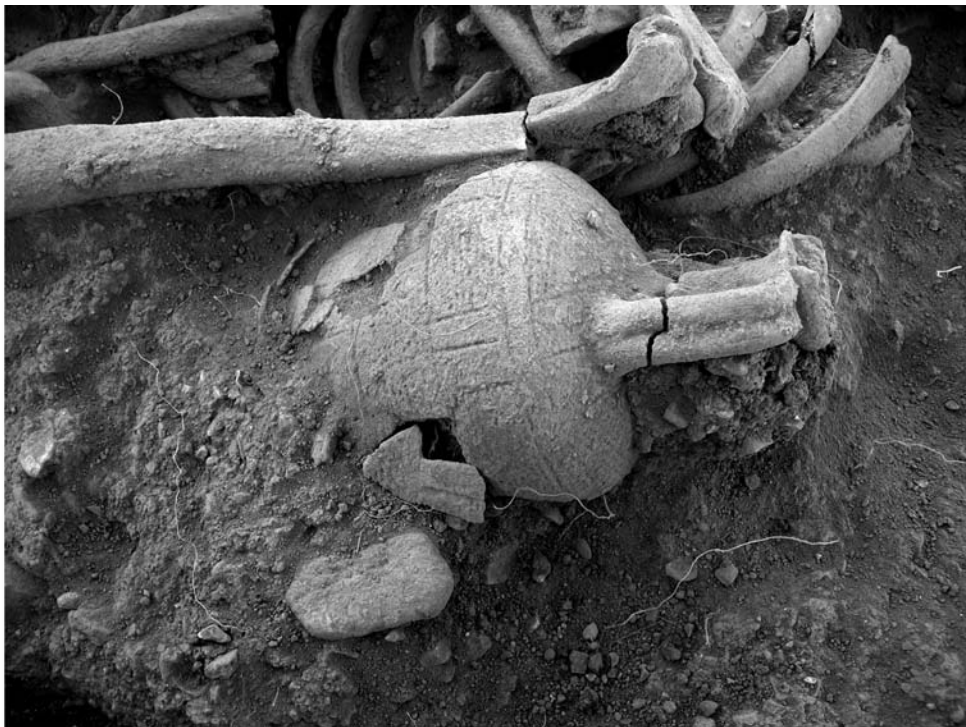


Fig. 8 Tell el-Yahudiyeh-juglet FAD08.285/305.29 *in situ*



Fig. 9 Bead FAD08.285/305.40

*tombeaux de particuliers* at nearby Byblos.<sup>22</sup> Further parallels are attested at Ashkelon in the Moat deposit.<sup>23</sup> A quite similar Tell el-Yahudiyeh juglet with a kettle rim, but an ovoid body dated to the late Middle Bronze Age IIA is attested from Afula.<sup>24</sup>

No exact parallels for the small jar (Fig. 6:4) are known yet. Jars of roughly the same size have been found at Mugharet el-Hourriye<sup>25</sup> and the Kharji tombs in Beirut,<sup>26</sup> however, their rim morphology and their narrower necks differ markedly from the example from Tell Fadous-Kfarabida.

Comparisons for the large jars with elongated rims (Fig. 6:5) are found in the Royal tombs of Byblos,<sup>27</sup> at Ashkelon from Phase 14<sup>28</sup> and at Tell el-Daba from Phases H and G.<sup>29</sup> In Tell Arqa jars with elongated rims seem to have a longer lifespan, as they are attested from Phase N<sup>30</sup> as well as from Phase M.<sup>31</sup>

Most of the parallels discussed above date tomb 402 from Tell Fadous-Kfarabida to the earlier part of the Middle Bronze Age.

Unfortunately, no generally accepted system exists so far for the subdivision of the Middle Bronze Age in Lebanon. Researchers have hitherto mainly used the tripartite subdivision into a Middle Bronze Age IIA, IIB and IIC that was developed for the Southern Levant by Albright and refined by various scholars.<sup>32</sup> This system was used by C. Doumet-Serhal for the publication of the Tell el-Ghassil material.<sup>33</sup> Recently a new nomenclature has been introduced for the Southern Levant which replaces Albright's designations by the terms Middle Bronze Age I, II and III.<sup>34</sup> This system has been adapted by the new Sidon project.<sup>35</sup> For Western Syria a division into just two stages (Middle Bronze Age I and II) is generally accepted. This system is based on the important stratigraphic evidence from Tell Mardikh/Ebla.<sup>36</sup> P. Matthiae and

L. Nigro proposed a further subdivision into four periods, termed Middle Bronze Age Ia, Ib, IIa and IIb.<sup>37</sup> While such a division is possible for Ebla due to the vast amount of well stratified material, in the light of a general absence of well published Middle Bronze Age pottery assemblages from most other sites this system is difficult to use for the entire Northern Levant and also might lead to confusion with the Albright-System of the Southern Levant, where terms like MB IIA and B are used as well, yet with a completely different connotation.<sup>38</sup> The only independent Middle Bronze Age terminology for Lebanon, based on a well excavated stratigraphic sequence has been suggested by J.-P. Thalmann for Tell Arqa, where Bronze Moyen I is represented by Niveau 14 and Bronze Moyen II by Niveau 13.<sup>39</sup> This system has a further advantage in that – while differing in several details – it is generally compatible with the system accepted for Western Syria. The absolute dates suggested by Thalmann based on radiocarbon dates are 2000–1850/1800 for Bronze Moyen I and 1850/1800–1600 BC for Bronze Moyen II.<sup>40</sup>

Thus tomb 402 from Tell Fadous-Kfarabida should be placed towards the end of the Middle Bronze Age I/Middle Bronze Age IIA according to the Southern Levantine terminology<sup>41</sup> and in the later Middle Bronze Age I according to the Northern Levantine system.

Hermann Genz

## THE SKELETON

### Preservation of the skeleton

As mentioned above, the left tibia and fibula and the left and right foot bones are missing due to erosion or previous bulldozer activity on the site. Almost all the remaining bones are present, but

<sup>22</sup> MONTET 1928, Pl. CXLVIII: 915.

<sup>23</sup> BIETAK *et al.* 2008, 49 and Fig. 2:9.

<sup>24</sup> ZEVULUN 1990, fig. 24.

<sup>25</sup> BEAYNO *et al.* 2002, pl. 1:9; pl. 5:1–2.

<sup>26</sup> SAIDAH 1993–94, pl. 6:2.

<sup>27</sup> TUFNELL 1969, 15–16 and fig. 6.

<sup>28</sup> BIETAK *et al.* 2008, 49 and Fig. 1:7.

<sup>29</sup> BIETAK *et al.* 2008, 49 and Fig. 1:3.

<sup>30</sup> THALMANN 2006, pl. 91: 17.

<sup>31</sup> THALMANN 2006, fig. 24: 1 and pl. 104: 5.

<sup>32</sup> AMIRAN 1970, 90–123; COLE 1984.

<sup>33</sup> DOUMET-SERHAL 1996, 6–8.

<sup>34</sup> ILAN 1995, 297–300.

<sup>35</sup> DOUMET-SERHAL 2004, 90.

<sup>36</sup> AKKERMANS and SCHWARTZ 2003, 291; SIEVERTSEN 2006.

<sup>37</sup> MATTHIAE 1980, 51–56; MARCHETTI and NIGRO 1999; NIGRO 2000; NIGRO 2002.

<sup>38</sup> THALMANN 2006, 133.

<sup>39</sup> THALMANN 2006, 15.

<sup>40</sup> THALMANN 2006, 135–136. Unfortunately there is a major discrepancy between the historical chronology derived from Egypt and the radiocarbon chronology for the Levant. See NIGRO 2000, tab 1. and SIEVERTSEN 2006, Tabelle 1 for the different suggestions for absolute dates.

<sup>41</sup> BIETAK *et al.* 2008, 49.



with various degrees of preservation. The nature of the soil in which the individual was buried resulted in some bone breakages during the extraction of the skeleton from the ground. The thick, dry matrix created a cement-effect tightly fusing many bones together. The fused bones were more fragile than the matrix connecting them. This led to fractures during their separation. Also, the presence of stones in the burial soil created pressure points on the bones in contact with these stones causing bone breakages upon the removal of the stones.

### Sex

Both pelvic and cranial morphologies were used for the assessment of the sex. Following the standards published in Bass<sup>42</sup> and Buikstra and Ubelaker,<sup>43</sup> this individual was judged to be a male.

### Age

The age at death was estimated using features that are generally considered to be the most diagnostic in adults: the pubic symphysis and the auricular surface of the ilium. This age estimation was assessed following standards established by Todd<sup>44</sup> and Brooks and Suchey<sup>45</sup> for the pubic symphysis and Lovejoy *et al.*<sup>46</sup> for the auricular surface of the ilium. Although relatively less reliable, the cranial suture closure was also used to determine age at death with scoring based on the method by Meindl and Lovejoy.<sup>47</sup> Results of age assessment using all these different techniques are in agreement. This individual appears to have been a young adult, around 35 ( $\pm$  5) years old, at the time of death.

### Stature

The complete preservation of five long bones (right humerus, radius and tibia, and left humerus and ulna) allowed for the estimation of stature for this individual. Stature was calculated using each of the five bones separately based on the method presented by Trotter.<sup>48</sup> Stature estimations from the five bones were then averaged thus providing an approximate height of 168 cm for this individual. This estimation should be

taken with caution, however, since the modern comparative populations on which Trotter<sup>49</sup> bases his equations might not be good representatives for archaeological groups.

### Pathology

Upon examination of the skeleton for pathology, dental caries were detected on the lower right teeth (P<sub>4</sub>, M<sub>2</sub>). Also, it appears that several teeth were lost ante-mortem.

The outside surface of the left mastoid process shows extensive erosion. It should be noted that no such kind of erosion was found anywhere else on the skeleton including the areas of the skull surrounding the mastoid process. This erosion might be an indication of an infection of the mastoid air cells (i.e., mastoiditis) which is usually a complication of middle ear infection (otitis media). Yet, there is also a possibility that this erosion might not be pathological in nature, but rather diagenetic. Further examination, including internal examination of the mastoid process through sectioning, microscopy or radiography is necessary before conclusive classification of this "abnormality" can be attained.

### Isolated bones

Some isolated hand and foot bones not belonging to the individual buried in tomb 402 were found in the same square. These consisted of hand phalanges, tarsals and metatarsals. Thus it seems quite possible that further burials exist nearby.

Sireen el-Zaatari

### THE FAUNAL REMAINS

A small assemblage of bone and shell remains was uncovered from the context directly above the Middle Bronze Age (Context 401) burial and within the earth matrix belonging to the grave pit (Context 402, see Table 2). At least part of these remains should be interpreted either as funerary offerings or remains of "feasting with the dead".<sup>50</sup> Animal remains are a common feature of Middle Bronze Age funerary contexts in the Levant.<sup>51</sup> The new evidence from Tell Fadous-Kfarabida is

<sup>42</sup> BASS 1995.

<sup>43</sup> BUIKSTRA and UBELAKER 1994.

<sup>44</sup> TODD 1920.

<sup>45</sup> BROOKS and SUCHHEY 1985.

<sup>46</sup> LOVEJOY *et al.* 1985.

<sup>47</sup> MEINDL and LOVEJOY 1985.

<sup>48</sup> TROTTER 1970.

<sup>49</sup> TROTTER 1970.

<sup>50</sup> KANSA and CAMPBELL 2004.

<sup>51</sup> HORWITZ 2001; VAN NEER 2006; VILA 2004; VILA 2006.

Description of specimens		Context 401 (surrounding burial)				Context 402 (burial)			
Taxa	Element	NIS	NIS (%)	WIS (gr)	WIS (%)	NIS	NIS (%)	WIS (gr)	WIS (%)
<b>Mammals</b>									
Unidentified medium to small mammal						1	1.5	0.4	0.4
Unidentified medium mammal	Limb bone/rib	2	10	2.3	0.8	3	4.5	4.4	4.9
Unidentified medium to large mammal	Limb bone/rib					1	1.5	5.6	6.2
<i>BOS</i> <sup>52</sup> (domestic cattle)	3 <sup>rd</sup> phalanx					1	1.5	15.8	17.5
<i>OVIS</i> (domestic sheep)	Partial skeleton	1	5	226.6	80.7				
<i>OVIS/CAPRA</i> (domestic sheep or goat)	Mandibular	1	5	3.1	1.1				
	Unidentified tooth					1	1.5	1	1.1
	Scapula	1	5	2.6	0.9				
	Rib	2	10	4.3	1.5				
	Calcaneus	1	5	5	1.8				
	Metatarsus	1	5	1.7	0.6				
<i>SUS</i> (domestic pig)	Deciduous incisor					1	1.5	0.1	0.1
<i>Erinaceus</i> sp. (hedgehog)	Partial skeleton					1	1.5	1.2	1.3
<i>Spalacidae</i> (blind mole-rats)	Partial skeleton					3	4.5	1.4	1.6
<b>Fish</b>									
Unidentified fish	Opercular	1	5	0.4	0.1				
	Spine					7	10.4	0.9	1.0
<i>Epinephelus</i> spp. (unidentified grouper)	Premaxilla					1	1.5	0.1	0.1
	Maxilla					2	3.0	0.3	0.3
<i>Sparidae</i> indet. (unidentified sea bream)	Caudal vertebra					1	1.5	0.1	0.1
<i>Sparisoma cretense</i> (parrotfish)	Pharyngeal bone	1	5	1	0.4				
<b>Mollusks</b>									
<i>Patella caerulea</i>	–	6	30	11.3	4.0	15	22.4	16.6	18.4
<i>Patella rustica</i>	–	1	5	2.6	0.9	1	1.5	1.8	2.0
<i>Patella</i> sp. (limpets)	–					3	4.5	4	4.4
Monodonta sp. (topshells)	–	2	10	19.8	7.1	16	23.9	28.2	31.3
<i>Conus mediterraneus</i> (Mediterranean cone shell)	–					1	1.5	1	1.1
Terrestrial gastropods	–					8	11.9	7.2	8.0
Total		20	100	280.7	100	67	100	90.1	100

Table 2 Summary table of faunal remains from contexts 401 and 402

<sup>52</sup> The nomenclature for domestic animals follow that proposed by UERPMANN 1993.

consistent with and complements to similar finds reported from contemporary sites in the region.

The analysis of mammal and shell remains took place in the field during June 2008. Fish remains were studied at the Royal Belgian Institute of Sciences (Brussels) in September 2008.

The material from the contexts in question was collected both using hand-collecting methods and sieving. About ten liters of the earth removed from Context 402 and about 25% of the earth inside the grave was collected through wet-sieving followed by sieving of the heavy residue through a 1 mm mesh. The technique of wet-sieving and sieving of controlled samples was employed also in other contexts of the site.

The species spectrum represented by the faunal remains associated with the burial consists of mammals, fish and mollusks (Table 2). Some of these remains, such as the partial skeleton of a hedgehog (*Erinaceus* sp.) and the three partial skeletons of the blind mole-rat (*Spalacidae*), as well as the small terrestrial gastropods are likely intrusions.<sup>53</sup> These are all small burrowers, which must have died inside the grave naturally.

Mammals other than the possible intrusive species are represented entirely by domestic animals, mainly by domestic sheep and/or goats. The most plausible explanation for the existence of a few unidentified mammal bone fragments, as well as the isolated mammal remains found in the burial is secondary intrusion. These may have been carried inside the soft matrix of the grave pit by other animals or they may have been introduced accidentally by trampling. Some contamination can be also expected from Context 400,

the topsoil layer of this area directly above Context 401.

Among the mammal finds the most significant is a partial sheep skeleton found in context 401 above the burial (context 402). This individual was identified as domestic sheep, based on the individual's size and the morphology of its astragalus and distal humerus. The preserved remains of the individual consists of part of the frontal, eight right ribs and five left ribs, right scapula, left and right ulnae, portions of the right and left pelvic bones, and the right femur, patella, tibia, calcaneus and the astragalus (Fig. 10). These elements represent the meat-rich portions of the animal. The cranial portion is poorly represented with only part of the frontal. None of the long bones have been fused except the humerus which showing signs of fusing between the trochlea humeri and the humerus diaphyse, i.e., the distal end of the bone. In domestic sheep distal humerus completes the fusion process between three and six months.<sup>54</sup> At about six months the pelvis is fused around the acetabulum. The individual in question has been culled before its pelvis was fused. This partial skeleton belongs to an infant between three and six months old.

The remains of the skeleton were encrusted with limey earth that appears to have been burnt. The bones themselves however show few traces that can be related to the processing of the carcass. With the exception of a few shallow cut marks on the cranial remains of the partial sheep skeleton, none of the bones display butchery marks. These shallow cut marks on the frontal may be related to the removal of the scalp for the processing of the cranium.

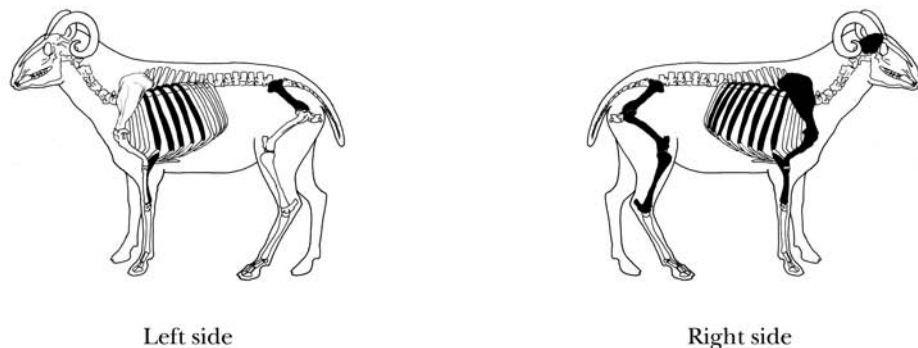


Fig. 10 Partial sheep skeleton in context 401, representation of elements

<sup>53</sup> Living specimens of mole-rats have been sighted during the excavation.

<sup>54</sup> HABERMEHL 1975, 122; SCHMID 1972, 75.

While ovicaprid remains constitute the most common species in the domestic contexts of Early Bronze Age Tell Fadous-Kfarabida, the majority of them have been found as isolated fragments of different body parts, altogether reflecting a population that has survived to ages beyond weaning age, in contrast to the individual associated with the Middle Bronze Age human burial. This implies that while sheep does not symbolize rarity and therefore a possible special status meal at Bronze Age Fadous-Kfarabida, the meat of suckling sheep, like the one found in Context 401 probably did. The fact that only the meat-rich portions of the animal were recovered confirms this idea. The evidence for the preference for young caprines in the practice of funerary traditions at Tell Fadous-Kfarabida is consistent with the evidence from the Middle Bronze Age sites in the Southern Levant.<sup>55</sup> The only intact skeleton recovered from the Middle Bronze Age tombs in Sidon belonged to a goat.<sup>56</sup>

The fish species in association with the Middle Bronze Age grave at Tell Fadous-Kfarabida are represented by isolated specimens. The small species spectrum includes groupers (*Epinephelus* sp.) and sea breams (Sparidae) from inside the grave, as well as a single pharyngeal bone of a parrotfish (*Sparisoma cretense*) from the earth above the burial. The *Epinephelus* premaxilla from the burial context belongs to a small individual about 20–25 cm (SL), while the two maxillary fragments recovered again from this context belongs to groupers about 25–30 cm (SL).<sup>57</sup> Groupers and sea breams constitute the most common Early Bronze Age species in domestic contexts from the site, whereas the parrotfish was encountered only once in the domestic assemblages. These species are still among the most important commercial fish of the Mediterranean. Since the fish remains were not uncovered as articulated skeletons or partial skeletons, it is not possible to tell without doubt whether this small fish bone assemblage

representing at least five individuals was placed here intentionally or introduced accidentally. Intentionally deposited complete fish skeletons were recovered from the Middle Bronze Age cemetery in Sidon.<sup>58</sup> Fish remains have also been reported from Middle Bronze Age tombs in the southern Levant.<sup>59</sup>

The majority of the marine mollusc remains associated with the grave represents dietary refuse, probably of a single meal. With the exception of a single specimen of the Mediterranean cone shell, all the marine molluscs consist of limpets and topshells (Patellidae and Monodontiinae). Limpets and topshells are marine gastropods which live in the high-energy splash zones of rocky coasts.<sup>60</sup> They usually colonize this zone in mixed communities side by side. Individuals are easy to gather, even without having to enter the seawater. Limpets and topshells, though not important commercially, are still exploited as occasional ‘snacks’ in Greece.<sup>61</sup> Extant populations on the Levantine coast remain largely undisturbed by humans, due to belief-related shellfish avoidance in the region. Limpets and topshells are common in the archaeomalacological assemblages from several coastal sites in the Eastern Mediterranean, such as the earliest occupational layers of the Franchthi cave in Greece<sup>62</sup> and in the domestic contexts of Early Bronze Age Yenibademli Höyük on the island of Imbros in the North Aegean.<sup>63</sup> Their archaeological remains appear to be much less common at the sites on the Levantine coast, although this might be a consequence of lack of archaeomalacological research in the area. The species are the most common marine mollusks in the earlier domestic contexts of Tell Fadous-Kfarabida. Accumulations were also found in loose association with the child burials near the bottom of the tell.<sup>64</sup> The gastropod remains reported from a constructed grave in Sidon may refer to limpets or topshells.<sup>65</sup> Finds of Mediterranean cone shells (*Conus mediterranea*

<sup>55</sup> HORWITZ 2001.

<sup>56</sup> VILA 2004.

<sup>57</sup> The body size of fish was reconstructed from individual elements by way of comparing them with the corresponding elements of modern fish of known size. Estimated sizes are in standard length (SL: the distance between the tip of the snout and the beginning of the tail).

<sup>58</sup> VAN NEER 2006.

<sup>59</sup> HORWITZ 2001.

<sup>60</sup> GAILLARD 1987.

<sup>61</sup> DAVIDSON 1972, 190–191; SHACKLETON 1968, 129.

<sup>62</sup> SHACKLETON 1988a; SHACKLETON 1988b.

<sup>63</sup> ÇAKIRLAR 2007.

<sup>64</sup> BADRESHANY *et al.* 2005.

<sup>65</sup> VILA 2004.

*neus*), however, are much less numerous in the archaeological contexts of the Eastern Mediterranean, but isolated occurrences are common in Bronze Age sites and frequently attested as burial offerings.<sup>66</sup> Even though individuals are common on sandy bottoms colonized by seaweeds, they have never been consumed as seafood in the Mediterranean due to their attack and defense system involving a poisonous sting.<sup>67</sup>

### Discussion

Most of the animal remains associated with the Middle Bronze Age burial at Tell Fadous-Kfarabida appear to have been intentionally placed inside and above the grave. The intactness of the lamb skeleton found above the grave and the direct stratigraphic association of the marine mollusk remains with the grave's earth matrix indicate these faunal remains' unambiguous relation with funerary practices. It is not clear from stratigraphic or taphonomic evidence whether the remains of the lamb was placed above the burial as an offering to the dead or whether it represents the remnants of a feast which took place sometime after the entombment of the deceased in order to commemorate the dead (perhaps a direct ancestor). The remains of the lamb skeleton may represent a partial offering to the dead rather than an 'integral' offering of a complete skeleton, since while certain body parts are missing, these are not the parts commonly vulnerable to the effects of taphonomic agents, but those which bear little or no meat. The association of this lamb skeleton is further attested by the discovery of another partial caprid skeleton in a nearby locus (Context 407) in the same excavation area, along with isolated human bones. This second caprid skeleton associated with human bones must indicate that the preserved part of the Middle Bronze Age burial ground at Tell Fadous-Kfarabida is not limited to a single grave.<sup>68</sup>

It is not clear whether the fish remains found in association with the grave are indeed reflecting past events. Isolated finds may have ended up accidentally in the grave. The fact that the major-

ity of the limpets and topshells were found inside the burial pit makes the idea that these were placed in the grave as grave goods, i.e., food for the deceased in the afterlife, more plausible. The Mediterranean cone shell, on the other hand, is more likely to represent an ornamental grave gift.

One recent epigraphic find, namely the inscribed stele from 8<sup>th</sup> century BC Zincirli in Southern Turkey, provides perhaps one of the most inspirational accounts of ancient use of animals in funerary rituals in the region. The inscription on the stele reads in part: "I, Kuttamuwa, servant of Panamuwa, am the one who oversaw the production of this stele for myself while still living. I placed it in an eternal chamber(?) and established a feast at this chamber(?): a bull for [the storm-god] Hadad, ... a ram for [the sun-god] Shamash, ... and a ram for my soul that is in this stele. ...".<sup>69</sup>

Canan Çakırlar

### PETROGRAPHIC ANALYSIS OF THE CERAMIC VESSELS

Three vessels from the burial assemblage were sampled for petrographic analysis. Sample 1 (FAD08.285/305.29; Fig. 11) was taken from the Tell el-Yahudiyeh juglet. Sample 2 (FAD08.285/305.28; Fig. 12) came from the hemispherical bowl, which was reused as a lamp. Finally, samples 3 and 4 were taken from different parts of the large storage jar (FAD07.285/305.5; Fig. 13) in order to test whether there was any variation in the petrofabric from different parts of the vessel. After polishing and examination under the stereomicroscope, samples 3 and 4 were judged sufficiently similar to make the 'thin-sectioning' of both samples unnecessary and only sample 3 was analyzed further.

The samples were prepared and analyzed in the Petrographic Laboratory of the Department of Geology at the American University of Beirut and at the Central Research Laboratory at the American University of Beirut. After being cut, the samples were polished using progressively finer abrasive up to 600 grit. After an initial analysis using a stereomicroscope, the three samples were 'thin-sectioned'.

<sup>66</sup> BAR-YOSEF 1999, REESE 1983.

<sup>67</sup> BARNES 1987, 372–373.

<sup>68</sup> The 2009 excavation season did not produce any further evidence for Middle Bronze Age burials. Context

407 upon further excavation turned out to be an empty stone-lined pit.

<sup>69</sup> <http://chronicle.uchicago.edu/081120/ironage.shtml>

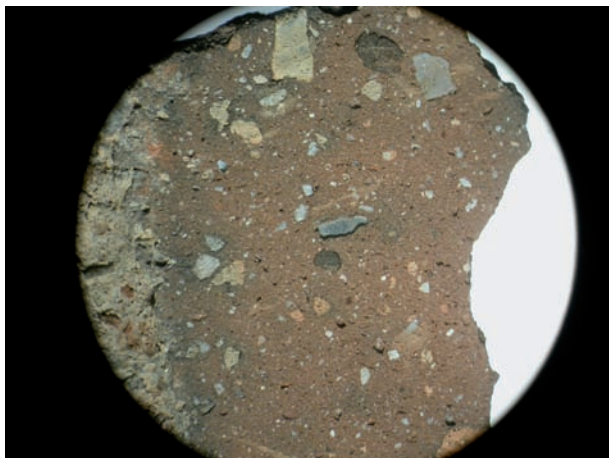


Fig. 11 Sample 1 (FAD08.285/305.29), general view.  
Field of view 15 mm

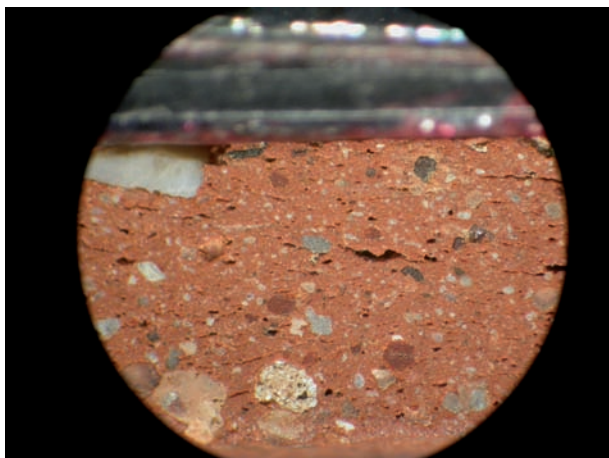


Fig. 12 Sample 2 (FAD08.285/305.28), general view.  
Field of view 15 mm

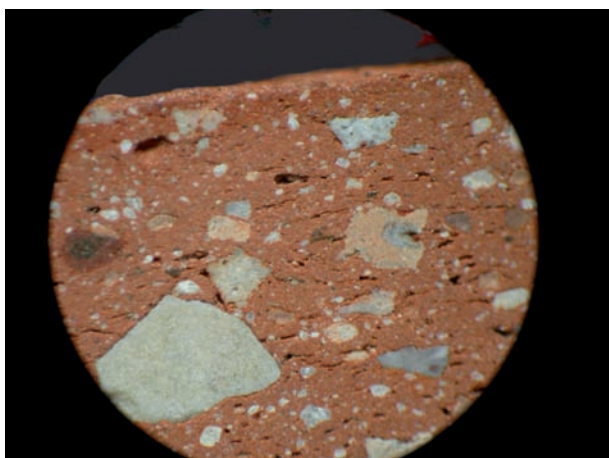


Fig. 13 Sample 3 (FAD07.285/305.5), general view.  
Field of view 15 mm

The samples were analyzed under a polarizing microscope using transmitted light, which showed that all of the samples were comprised of a similar mineralogical suite. Samples 2 and 3 were found to be of an identical petrofabric and will be discussed together. The petrofabric of sample 1, the Tell el-Yahudiyeh juglet, is related to samples 2 and 3, as it contains similar minerals, but is differentiated based on the quantitative percentage of aplastic inclusions and the ratio between the occurrence of aplastic components. The quantitative analysis of the aplastic components in the samples was conducted using the combination of a system of traditional “point-counting” as outlined in Stoltman,<sup>70</sup> and digital image analysis software.<sup>71</sup> Point-counting was used to quantify the occurrence of the different classes of aplastic inclusions in each sample. The point-counting intervals were set at 1 mm. Digital image analysis software was used to quantify the total aplastic fraction in each sample.

#### Sample 1 (FAD08.285/305.29)

The sample taken from the Tell el-Yahudiyeh ware is composed of a ferruginous matrix that is fine textured. The aplastic fraction comprises roughly 12–14% of the total area of the sample with voids accounting for an additional 3–5%. The aplastic inclusions are usually rounded to subrounded and Foraminifera and other bioclasts do not exist in the matrix or in the micritic limestone fragments found within the sample. The inclusions usually show a fair degree of rounding (sub-rounded to rounded), are subhedral, and tend toward spherical. More angular grains do occur, but are rare.

The sand fraction of the sample is composed of large rounded grains of quartz and other siliceous material (probably chert) up to 1mm in grain size with a mode of 0.3 mm (~5%). Rarely an undulose extinction is noted. Rounded grains of iron-rich micritic limestone up to 1 mm with a mode of 0.5 mm occur commonly (~3%) and react with HCL indicating a composition that

<sup>70</sup> STOLTMAN 1989.

<sup>71</sup> Jmicrovision is a freeware digital image analysis application ([www.jmicrovision.com](http://www.jmicrovision.com)) designed by Nicolas Roduit as part of a doctoral thesis at the University of Geneva (RODUIT 2007)

includes high level of calcite. Accessory plagioclase occurs rarely. Oxidized red fragments of rock, almost weathered into clay, occur rarely and usually approach 1 mm in size. These are probably weathered fragments of basalt, but because of the high degree of weathering it is difficult to be certain. The fine sand and silt fraction contains rounded opaque (sometimes deep reddish brown) bodies that are probably hematite or magnetite (~1–2%). Rounded grains of iddingsite appearing orange or deep red in Plane Polarized Light (PPL) occur (~1–2). Very rarely an original olivine core is still preserved. Most commonly however, the olivine is entirely altered into iddingsite. Grains of olivine occur rarely (Fig. 14). Only a few crystals of pure calcite were noted. Quartz is also common in the silt fraction. It rarely exhibits undulose extinction

**Samples 2 (FAD08.285/305.28)  
and 3 (FAD07.285/305.5)**

The samples taken from the bowl and the storage jar are composed of a similar petrofabric, which, as mentioned earlier, exhibits similar characteristics to that of the sample from the Tell el-Yahudiyeh juglet. The bowl and the storage jar are composed of a ferruginous matrix that is fine textured. The petrofabric of samples 2 and 3 differ from that of sample 1 in that the aplastic fraction comprises roughly 18–20% of the total area of the sample with voids accounting for an additional 5–7%. Simply put, the bowl and the storage jar are coarser than the Tell el-Yahudiyeh juglet. The aplastic inclusions in samples 2 and 3 are usually rounded to subrounded and Foraminifera and other bioclasts do not exist in the matrix or in the micritic limestone fragments found within the sample. As with sample 1, the inclusions usually show a fair degree of rounding (sub-rounded to rounded), are subhedral, and tend toward spherical. More angular grains do occur rarely.

The sand fraction of the samples is composed of large rounded grains of quartz and other siliceous material (probably chert) (Figs. 15 and 16) up to 1 mm in size with a mode of 0.5 mm (~7–8%). Rarely an undulose extinction is noted. Rounded grains of iron-rich micritic limestone (up to 1 mm with a mode of 0.5 mm occur commonly (~3%) and react with HCL indicating a composition that includes high level of calcite. The major difference between samples 2 and 3 and sample 1, in addition to a

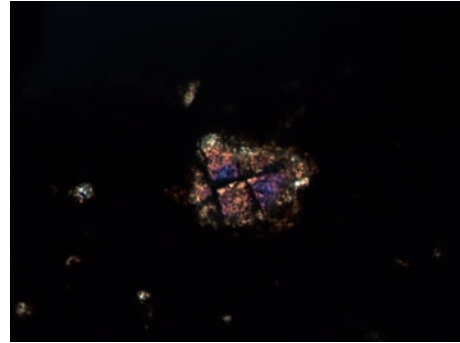


Fig. 14 Photomicrograph of sample 1 (xpl), showing a grain of olivine exhibiting second order interference colors. Field of view 1.2 mm

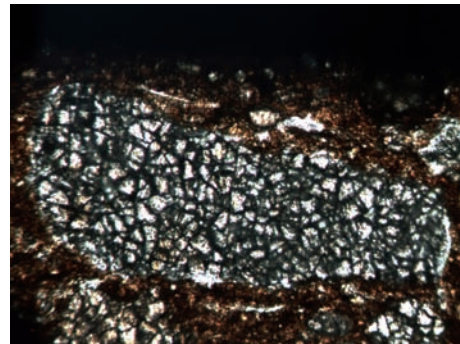


Fig. 15 Photomicrograph of sample 3 (xpl), showing large fragment of siliceous material. Field of view 1.2 mm

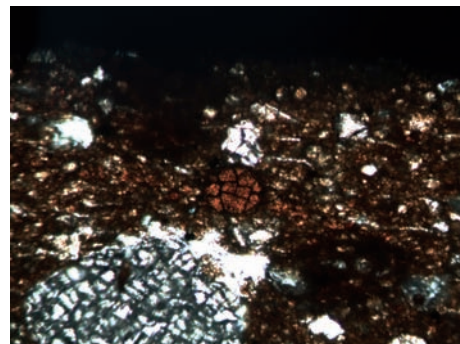


Fig. 16 Photomicrograph of sample 3 (xpl), showing large fragment of siliceous material (lower left) and a grain of iddingsite (center). Field of view 1.2 mm



Fig. 17 Photomicrograph of sample 3 (xpl), showing a grain of iddingsite (center). Field of view 1.2 mm

greater number of aplastics, is a higher ratio of siliceous material to carbonates in the former. Accessory plagioclase occurs rarely. Oxidized red fragments of rock, almost weathered into clay, occur rarely and usually approach 1 mm in size. Again, these are probably weathered fragments of basalt, but because of the high degree of weathering it is difficult to be certain. The fine sand and silt fraction contains rounded opaque (sometimes deep reddish brown) bodies that are probably hematite or magnetite (~1–2%). Rounded grains of iddingsite (Figs. 16 and 17) appearing orange or deep red in PPL occur (~1–2). An original olivine core is almost never present and the olivine is usually entirely altered into iddingsite. Only a few crystals of pure calcite were noted. Quartz is also common in the silt fraction. It rarely exhibits undulose extinction. Tiny grains exhibiting what appear to be second order interference colors were noted as occurring rarely. However, as these grains were so small, positive identification was difficult. In the future, it is hoped that these samples will be analyzed using a Scanning Electron Microscope (SEM) coupled with an Energy Dispersive Spectrometer (EDS) to provide more specific geological data, especially regarding these smaller unidentifiable mineral grains and the alteration product, iddingsite.

### Discussion and Comparative Petrography

Despite a good number of general geological information published on Lebanon and the area around Tell Fadous-Kfarabida,<sup>72</sup> more concentrated work has only begun in the last few years. The state of archaeological research, especially with regard to ceramic petrography, is still in its infancy in Lebanon, and is not much more advanced in the areas to the north of Lebanon. Given this, in addition to the fact that only three samples were analyzed for this study, it would be premature to suggest specific source area for the clay of which samples 1, 2, and 3 are composed. Rather, the goal for this preliminary petrographic assessment of the Middle Bronze Age materials from Tell Fadous-Kfarabida was to try and understand, generally, the nature of the sources from which the clay for the three samples were

derived and begin to build a framework for future analysis of the Middle Bronze Age materials from the site. It is hoped that with the petrographic information provided here, the pottery from the tomb group can be reanalyzed and given a more specific provenience when the state of geological and archaeological research advances both at and around Tell Fadous-Kfarabida and in the regions adjacent to the site.

Yet, the information gained by the analysis of the samples does allow us to conclude some important facts about the origin of the tomb group. First, given the minor differences between the petrofabrics of the Tell el-Yahudiyeh juglet and the bowl and storage jar, namely the higher percentage of aplastic inclusions and the slightly higher ratio of siliceous material to carbonate rock fragments in the latter two samples, we can postulate that all three samples were composed of clays very likely derived from the same geological source area. Second, the source for the clay used to make all three samples cannot be found in the vicinity of Tell Fadous-Kfarabida, and must have been obtained some distance from the site. In other words, the three items analyzed in this study are derived from materials found some distance from the site and are likely imported. The evidence for the non-local nature of the samples is two-fold. First, based on the geological characteristics of the petrofabric and, second, based on comparative petrographic analysis of samples from Tell Fadous-Kfarabida dating to the Early Bronze Age<sup>73</sup> and some other studies on clays originating in Northern Lebanon detailed below.

Geologically, the samples are probably made of clays derived from a mixture of igneous and sedimentary formations, based on the occurrence of limestone from sedimentary sources and minerals derived from igneous sources, such as olivine and the alteration product iddingsite. These inclusions are very common in mafic, ultra mafic volcanic and plutonic igneous rocks.<sup>74</sup> The probable occurrence of weathered basalt fragments also indicate clay derived from an igneous source. The geomorphology of the coastal region around Tell Fadous-Kfarabida was studied by Sanlaville.<sup>75</sup> Given the information provided by both Sanlaville and the geological

<sup>72</sup> SANLAVILLE 1977; DUBERTRET 1945; DUBERTRET 1955; DUBERTRET 1975.

<sup>73</sup> BADRESHANY and GENZ 2009.

<sup>74</sup> NESSE 1991, 167.



maps made of the region by Dubertret,<sup>76</sup> one would expect the clays derived from the geological formations around Tell Fadous-Kfarabida to be composed, overwhelmingly, of a sedimentary assemblage of rocks and minerals, with a few token igneous components (weathered basalt etc.) due to transportation from some limited basalt outcrops found higher in the Lebanese mountains. The quantities of minerals derived from igneous sources, namely the olivine would not be expected. Olivine erodes and alters very quickly<sup>77</sup> and usually is not transported for great distances.

Clays that can be utilized for potting have rarely been characterized completely in Lebanon. However, some recent petrographic studies conducted by Badreshany and Genz on Early Bronze Age pottery from Tell Fadous-Kfarabida,<sup>78</sup> Seif on ceramic materials from the Eneolithic tombs of Byblos,<sup>79</sup> and Goren *et al.*<sup>80</sup> on the petrographic analysis of Amarna letters, some of which are composed of clays found on the Lebanese coast, give an indication as to the usual properties of the coastal clays commonly used for potting on the Lebanese coast. First, there seems to be a consistent use of calcareous marls that sometimes date to the Neogene<sup>81</sup> or Paleogene.<sup>82</sup> The samples are usually dominated by carbonate minerals and limestone fragments, usually containing a fair amount of bioclasts, including foraminifera, both in the matrix and in the rock fragments. Clays used in the coastal areas of Lebanon can also be commonly derived from lower cretaceous formations that contain large amounts of shales or other argillaceous rock fragments.<sup>83</sup> At Tell Fadous-Kfarabida, the Early Bronze Age ceramics that were subjected to petrographic analysis certainly fit the characteristics outlined above. Aside from the presence of minerals likely derived from igneous sources, the complete absences of bioclasts or foraminifera, the domination of siliceous material as opposed to carbonates in the samples 1, 2, and 3, also differentiates their petrofabrics from those of the Early Bronze Age ceramics at Tell Fadous-Kfara-

bida. A complete absence of shale fragments or Argillaceous Rock Fragments further differentiates the clay used for the Middle Bronze Age tomb group from the clay used for the Early Bronze Age ceramics. The properties of the Early Bronze Age petrofabrics analyzed from Tell Fadous-Kfarabida share a general similarity with other clays thought to have come from other locations on the Lebanese coast and are known to have been utilized for ancient ceramics or tablets.

A provenience analysis will not be attempted, given the preliminary nature of this work. Many areas exist in the Levant that contain both igneous and sedimentary outcrops. The closest major igneous outcrops to Tell Fadous-Kfarabida can be found in the area north of Tripoli. The petrofabric of all three samples from the Middle Bronze Age tomb share some similarities with clays used for the Amarna letters defined by Goren *et al.*,<sup>84</sup> which have their origins in and around the Akkar plain, parts of the Orontes Valley, and the modern Syrian Coast. Further analysis is needed to pinpoint a more specific source area. However, it is clear given the characteristics of the petrofabrics from which samples 1, 2 and 3 are composed, that they could not have been made of potting clays found in close proximity (i.e. a days walk) to Tell Fadous-Kfarabida. This represents a shift from the situation during the Early Bronze Age at Tell Fadous-Kfarabida where the petrographic analysis showed a likely source of potting clay within 5 km from the site that was being used to form at least some of the ceramics found at the site from that period.<sup>85</sup> The 2008 and 2009 seasons at Tell Fadous-Kfarabida produced a good quantity of Middle Bronze Age ceramics for the first time since work began at the site. This pottery will be analyzed petrographically in the near future and it will be interesting to see if the Middle Bronze Age petrofabrics, in general, share more characteristics with the Early Bronze Age fabrics defined at the site, or if they are more comparable to the pottery from the burial.

Kamal Badreshany

<sup>75</sup> SANLAVILLE 1977, 437–443.

<sup>76</sup> DUBERTRET 1945.

<sup>77</sup> GRIBBLE and HALL 1992, 113.

<sup>78</sup> BADRESHANY and GENZ 2009.

<sup>79</sup> SEIF 2007.

<sup>80</sup> GOREN *et al.* 2004.

<sup>81</sup> GOREN *et al.* 2004, 134–161.

<sup>82</sup> BADRESHANY and GENZ 2009, 76.

<sup>83</sup> GOREN *et al.* 2004, 104; GRIFFITHS 2006, 280.

<sup>84</sup> GOREN *et al.* 2004.

<sup>85</sup> BADRESHANY and GENZ 2009, 76.

Family	Taxon	Category	FAD07.285/305.10 (from jar FAD07.285/305.5)	FAD07.285/305.11 (from jar FAD07.285/305.6)	Sum
Fabaceae	Fabaceae, large	crop	2		2
Fabaceae	<i>Lens culinaris</i> Medik.	crop	1		1
Fabaceae	<i>Vicia/Lathyrus</i>	crop	1		1
Oleaceae	<i>Olea europaea</i> L.	crop	9	1	10
Poaceae	Cerealia	crop	3		3
Poaceae	<i>Triticum</i> cf. <i>dicoccum</i> Schrank	crop	8		8
Poaceae	<i>Triticum dicoccum</i> Schrank, spikelet	crop	34	5	39
Poaceae	<i>Triticum</i> sp.	crop		3	3
Vitaceae	<i>Vitis vinifera</i> L., pip	crop	2		2
Vitaceae	<i>Vitis vinifera</i> L., stalk	crop	1		1
Apiaceae	Apiaceae	wild plant	1		1
Poaceae	Poaceae, large	wild plant	1		1
Sum			63	9	72

Table 3 Botanical remains from the jars FAD07.285/305.5 and FAD07.285/305.6

#### BOTANICAL ANALYSIS OF THE CONTENTS OF VESSELS FAD07.285/305.5 AND FAD07.285/305.6

The contents of the two jars FAD07.285/305.5 and FAD07.285/305.6 (Table 3) were submitted for flotation.<sup>86</sup> Jar 5 contained 7.5 liters of sediment, whereas the smaller jar 6 only contained 1.8 liters. As the vessels were not closed, it is highly unlikely that the botanical remains retrieved were part of their original content. It is more likely that the botanical remains entered the vessels with the sediment. This is suggested by the very diverse nature of the finds, as well as the fact that jar 5 contained bones of a blind mole-rat which certainly entered the vessel some time after its burial. Most of the crop species and wild plants represented are also attested for the Early Bronze Age levels of the site<sup>87</sup> and thus seem to be typical for the region.

Simone Riehl

#### CONCLUSIONS

Although a large number of Middle Bronze Age burials have been excavated in Lebanon, many are not excavated according to modern standards or have been adequately published,<sup>88</sup> thus the burial from Tell Fadous-Kfarabida is a welcome addition. Neither in its construction, nor in its inventory is the tomb extraordinary. Simple pit burials with single inhumations are well attested for the Middle Bronze Age in Lebanon, for instance at Kamid el-Loz,<sup>89</sup> Tell Hizzin<sup>90</sup> and Sidon,<sup>91</sup> and also in the Southern Levant, for instance at Kabri<sup>92</sup> and Gesh-er<sup>93</sup> and in the Northern Levant at Tell Atchana.<sup>94</sup> According to Hallote<sup>95</sup> pit tombs are most frequent during the Middle Bronze Age IIA in the Southern Levant. The extended position of the skeleton with arms crossed above the chest is also found at Kamid el-Loz, burial 111,<sup>96</sup> Sidon, burial 6,<sup>97</sup> Ashkelon<sup>98</sup> and at Tell el-Daba.<sup>99</sup>

<sup>86</sup> The Tell el-Yahudiyeh juglet FAD08.285/305.29 was in a very fragmentary condition, thus its contents could not be salvaged for flotation.

<sup>87</sup> BADRESHANY *et al.* 2005, 84–88.

<sup>88</sup> For an overview on Middle Bronze Age burials from Lebanon see GENZ and SADER 2007–2008, 263–273.

<sup>89</sup> MIRON 1982, 105.

<sup>90</sup> GENZ and SADER, in press b.

<sup>91</sup> DOUMET-SERHAL 2004, 90.

<sup>92</sup> SCHEFTELOWITZ and GERSHUNY 2002, 30–31; KEMPINSKI and SCHEFTELOWITZ 2002, 48–49.

<sup>93</sup> GARFINKEL and COHEN 2007.

<sup>94</sup> WOOLLEY 1955, 221–222.

<sup>95</sup> HALLOTE 1995, 98.

<sup>96</sup> MIRON 1982, 116 and Taf. 21.

<sup>97</sup> DOUMET-SERHAL 2004, 108 and figs. 46–47.

<sup>98</sup> BAKER 2006, 4.

<sup>99</sup> BIETAK 1991, 133, Abb. 87; FORSTNER-MÜLLER 2008, 39.

Also the inventory, consisting of two bowls, a Tell el-Yahudiyeh-juglet, a small and a large jar, is repeated in many Middle Bronze Age tombs across the Levant.<sup>100</sup>

With the exception of tomb 402 the Middle Bronze Age at Tell Fadous-Kfarabida is mainly represented by pits. No substantial architectural remains of this period have been encountered so far. Even taking into consideration the possibility that Middle Bronze Age architecture may be encountered in the still unexcavated parts of the tell, it seems safe to propose that the settlement was certainly rather small and should be addressed as a rural site. The lack of any architectural features in the direct vicinity of the tomb clearly shows that we are not dealing with an intramural tomb. Hallote<sup>101</sup> has suggested that tombs outside of settlements may have been used as territorial markers to enforce claims of land ownership.

With five ceramic vessels and one possible stone bead the tomb can be classified as moderately wealthy. Especially interesting is the presence of the Tell el-Yahudiyeh juglet.<sup>102</sup> It certainly is a non-local vessel, as confirmed by the petrographic analysis,<sup>103</sup> thus it clearly can be considered an import. Due to their elaborate decoration and especially their contents – most likely perfumed oils – these vessels can be interpreted as prestige goods. It has been pointed out by several scholars that it is extremely difficult to infer the social rank of the deceased according to the grave goods found in the tombs.<sup>104</sup> Nevertheless, the presence of such a juglet in tomb 402 shows that the inhabitants of the Middle Bronze Age settlement at or near Tell Fadous-Kfarabida had access to imported goods of higher social value, which is remarkable in the light of the presumably rural

character of the site. Finally the rich meat offerings in the tomb (see above) suggest a quite high standard of living.

Another unusual feature is the position of bowl FAD08.285/305.28 above the head of the deceased. The rim of this bowl already broke in antiquity, and according to traces of soot on the rim it was reused as a lamp. The position of this bowl clearly shows that it was the last object to be placed in the tomb, and the fact that it was placed above the head of the deceased hardly can be considered accidental. This situation seems to reflect a funerary ritual.

Lamps are generally rare in Middle Bronze Age burials in the Levant,<sup>105</sup> and are attested only in few Middle Bronze Age burials. According to Baker<sup>106</sup> lamps only become common as grave goods during the Late Bronze Age. Interestingly, in this discussion the tomb type was never taken into consideration. It seems that the majority of Middle Bronze Age tombs containing lamps are large built or rock-cut chamber tombs with multiple interments. This is clearly the case in the Middle Bronze Age tombs of Jericho<sup>107</sup> and Tell Beit Mirsim.<sup>108</sup> The case of tomb 498 in Tell Kabri, where lamps were only found in the entrance shaft,<sup>109</sup> is even more indicative. This certainly indicates that the lamps in these cases are unlikely to be grave goods, but that they were rather used for illumination during burial ceremonies. The method of roofing in the tomb of Tell Sukas, where two lamps were found associated with skull 4, skeleton II, unfortunately remains unclear.<sup>110</sup> Pit or cist tombs containing single inhumations, on the other hand rarely contain lamps. Among the 16 pit or cist tombs at Lachish only one contained a lamp.<sup>111</sup> Here tomb 902 at Tell Kabri containing a group of 15 lamps clearly is an exception.<sup>112</sup>

<sup>100</sup> See HALLOTE 1995, 111, ILAN 1996, 254 and BAKER 2006, 23 for the standardization of grave goods during the Middle Bronze Age.

<sup>101</sup> HALLOTE 1995, 107–111.

<sup>102</sup> For overviews on this pottery see AMIRAN 1970, 116–120; KAPLAN 1980 and ASTON 2008.

<sup>103</sup> Non-local in this case simply means that it does not match the geological deposits around the site. Also the two other vessels investigated by means of petrography are non-local, suggesting that the site during the Middle Bronze Age was possibly incorporated into regional exchange networks.

<sup>104</sup> ILAN 1996, 254; BAKER 2006.

<sup>105</sup> ILAN 1996, 220–221; BECK 2000, 216; KEMPINSKI *et al.* 2002, 111.

<sup>106</sup> BAKER 2006, 14.

<sup>107</sup> KENYON 1965, 167–478.

<sup>108</sup> BEN-ARIEH 2004, 3–25.

<sup>109</sup> KEMPINSKI *et al.* 2002, 111.

<sup>110</sup> THRANE 1978, 8 and fig. 3.

<sup>111</sup> SINGER-AVITZ 2004, 998.

<sup>112</sup> KEMPINSKI *et al.* 2002, 111.

Bowls or bases of broken vessels that were reused as lamps have rarely been taken into consideration so far. However, they seem to be more common in Middle Bronze Age tombs than previously noticed. In several tombs at Tel Dan bowls reused as lamps were placed next to the cranium of the deceased.<sup>113</sup> A bowl with soot marks on the rim was found in tomb 110 at Kamid el-Loz,<sup>114</sup> and bases of broken vessels with soot marks are attested in tomb 272 at Tel Aphek,<sup>115</sup> tomb 1181 at Hazor,<sup>116</sup> as well as in various tombs at Tell Beit Mirsim<sup>117</sup> and Lachish.<sup>118</sup> Bowls reused as lamps are also attested at Tell el-Daba.<sup>119</sup> There are certainly many more of such cases, but it can be suspected that for older excavations soot marks on

the rims of bowls were overlooked or not recorded. Interestingly, the majority of tombs with bowls or bases reused as lamps are simple cist or pit tombs, where no illumination is necessary during the burial ceremony.<sup>120</sup> It therefore is likely that these *ad hoc* lamps had a religious significance and were used in a ritualistic rather than a practical context.

This evidence does not only shed interesting light on a hitherto unrecorded funerary ritual during the Middle Bronze Age, but it furthermore cautions against Hallote's<sup>121</sup> statement that the majority of bowls from the earlier part of the Middle Bronze Age were only used for food offerings.

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<sup>113</sup> ILAN 1996, 258.

<sup>114</sup> MIRON 1982, 115.

<sup>115</sup> BECK 2000b, 216.

<sup>116</sup> MAEIR 1997, 299–301.

<sup>117</sup> BEN-ARIEH 2004, 12–25.

<sup>118</sup> SINGER-AVITZ 2004, 998.

<sup>119</sup> FORSTNER-MÜLLER 2008, 61.

<sup>120</sup> Bowls and sherds used as lamps are quite common in the tombs at Jericho, see KENYON 1965, 167–478. There they simply may have served for illumination in the large rock-cut tombs.

<sup>121</sup> HALLOTE 1995, 114–115.

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