

THE FRANKS IN SOUTHERN TRANSJORDAN AND THE CONTRIBUTION OF CERAMIC STUDIES: A PRELIMINARY REPORT ON THE POTTERY ASSEMBLAGES OF AL-BAYḌA AND WĀDĪ FARASA

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This contribution presents some preliminary results of the analysis of two ceramic assemblages of the Petra area and some observations on the theme of pottery of the Crusader period in southern Transjordan¹. The two ceramic groups are also compared to the pottery assemblage from the Crusader castle at al-Wu‘ayra, the main point of reference in the region for 12th century ceramics. The two assemblages were selected after the hypothesis of a Crusader phase on the site was put forward following recent discoveries by two different projects. When analysed and compared, the groups have shown patterns of similarities and differences, and some parallels with the site of al-Wu‘ayra. In the present state of research, the evidence can support a Crusader-period chronology; however, the state of work in progress must be taken into account. Preliminary results have highlighted a rich terrain for future research. Further study would contribute both to a better understanding of 12th century settlements in Transjordan, whose historical record is scarce, and of the local ceramic sequence of handmade pottery.

The Sites and Their Ceramic Assemblages Al-Bayḏa

Al-Bayḏa is located seven km north of the city centre of Petra. Over the years, the site has been the object of several surveys, excavations and clearance projects. The pottery described in this paper originates specifically from archaeological investigations carried out by the al-Bayḏa Documentation Project directed by Dr Patricia Bikai in the years 2003-2008 through six excavation seasons. The objective of the project is the documentation of the main features of a selected area of al-Bayḏa. Excavations have not therefore been planned for extended areas (Bikai, Kanellopoulos and Saunders 2005, 2007). Thanks to surveys and test excavations, the project has identified several structures related to a post-classical phase at al-Bayḏa. The regular layout of what appears to be a village occupying the central section of the investigation area, and the presence of Jerusalem crosses in wall carvings of a Nabataean rock-cut structure, which was later reused as a church, among other evidence, support the hypothesis of a Crusader-

1. This subject of this contribution was first presented as a paper at the 10th International Conference on the History and Archaeology of Jordan, 2007, Washington D.C. as a member of the archaeological mission Petra Medievale. I am very grateful to the archaeological mission Petra Medievale, University of Florence, and in particular to Prof. Guido Vannini, Director, for all the support during the many years as a member of the team. I thank Alessandro Neri for kindly providing data from his B.A. thesis. Robin Brown, Bethany Walker, Khairieh ‘Amr, Alan Walmsley, Anthony Grey, Denys Pringle and Ian Freestone have provided important insights for my research and I am deeply grateful to all of them. Precious and consistent support came from Barbara Porter and Christopher Tuttle, American Center of Oriental Research. The two pottery assemblages analysed here are objects of study for my PhD thesis

at Cardiff University, supervised by Denys Pringle and Ian Freestone, on 12th century rural settlements in Transjordan and their ceramics. The PhD programme is supported by an Arts and Humanities Research Council fellowship. The preliminary documentation work on 12th century settlements in the Petra area has been funded by a Bikai fellowship from the American Center of Oriental Research in 2006. The study of the al-Bayḏa pottery was possible thanks to a Bikai and a De Vries Fellowships at the American Center of Oriental Research in 2007. A preliminary study of the assemblage from Wādī Farasa is funded by a Bikai fellowship of the American Center of Oriental Research for the year 2009. Part of the current PhD fieldwork is supported by a Travel Grant for 2009-2010 from the Council for British Research in the Levant and by Cardiff University.

period phase on the site; this phase apparently succeeds an occupation in the early Islamic period that is evidenced by two mosques (Bikai, in press).

The medieval pottery analysed in this paper originates from stratified contexts and was excavated almost entirely in the western area of the site, which is located just east of Siq al-Bārid and south of the road to the Siq. The areas investigated by excavations include: (1) some village structures, (2) the area around a rock-cut Nabataean structure which was later reused as a church in the Byzantine period, (3) some rock-cut as well as built structures located opposite the entrance to the church, (4) a large cistern nearby, (5) some village structures between this cistern and the road, and (6) an area to the west of the village where a mosque has been discovered and which includes several rock-cut and built structures (information from fieldwork documentation material, courtesy of Director P. Bikai).

Several of these features were investigated by small test soundings and appeared at least partially on the surface before excavation; this is probably due to the action of natural agents on the site. In some areas, robbers' activities have been recorded, as well as a long-term disturbance of the original archaeological deposits connected to the structures owing to their use as animal pens. The original stratigraphy has therefore been partially compromised in some areas of the site. However, some undisturbed deposits have also been recorded in other areas. As a result of the sampling aims of the project, the excavations have not completely uncovered all structures (information from fieldwork documentation material, courtesy of Director P. Bikai).

The Pottery

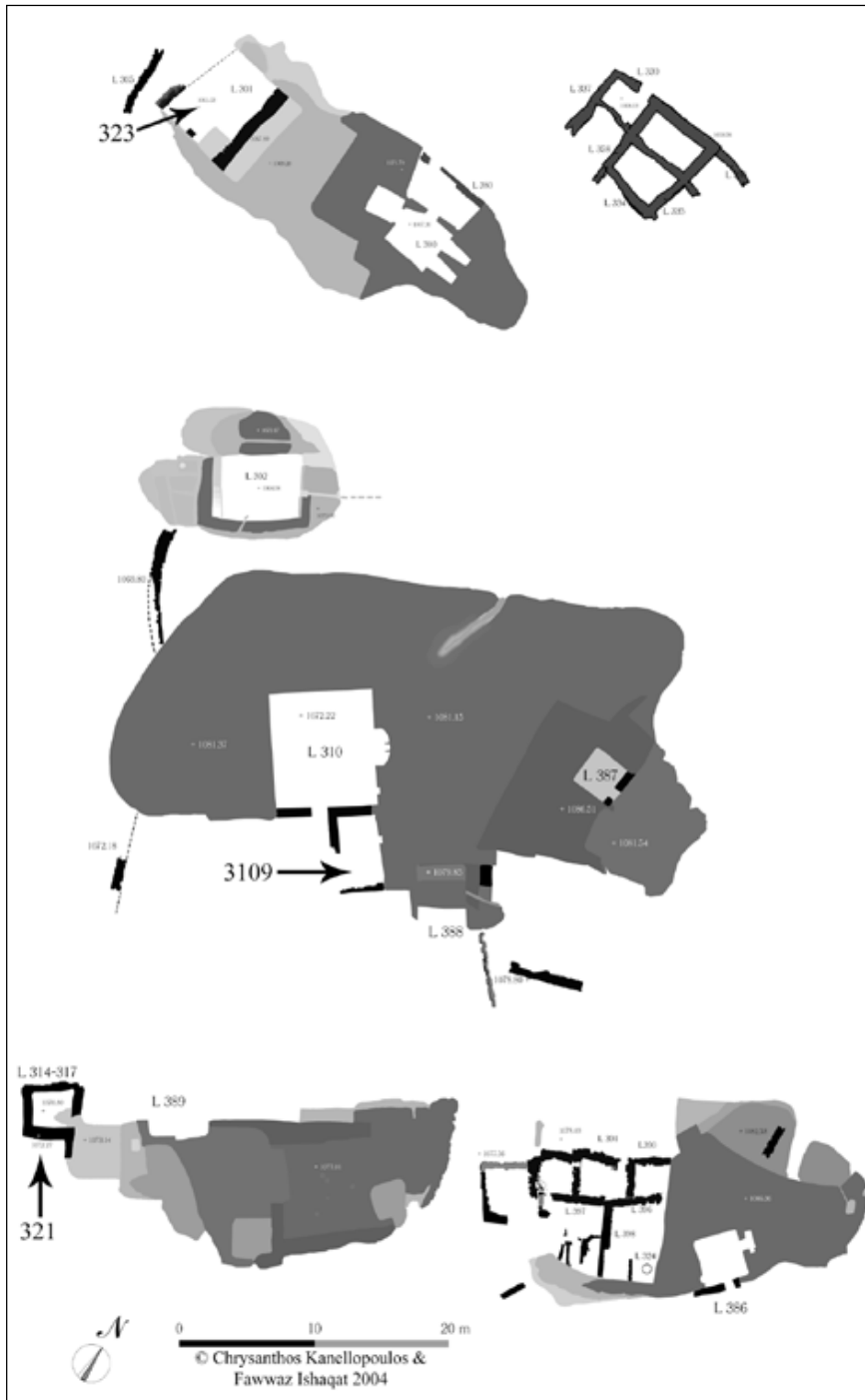
Medieval pottery has been found in all sampled areas, but most of the contexts associated with it have been excavated east and west of the village structures: the area of the church and the area of the western mosque. In particular, the area of the Byzantine church and nearby structures had the highest number of stratigraphic units containing medieval pottery (**Fig. 1**). Several of the excavated contexts on the site consisted of fillings of rock-cut structures, such as wine presses and cisterns, which seem to have been frequently used as garbage pits. Although this has usually disallowed the identification of a direct relationship between stratified pottery and built structures of the medieval period, it has nevertheless turned out to be a very valuable circumstance for the good state of preservation of many ceramic forms. In general, the assemblage is highly valuable because most of the ceramic associations are very homogeneous, and have all the character of a primary deposition. While an analytical and complete report on all medieval stratified assemblages from al-Bayḍa is in progress, some preliminary data and general observations are presented here to introduce the assemblage and to compare it with other ceramic groups².

Initial observations can be made on the basis of the analysis of the main pottery groups that are present in the medieval assemblage³. Chart 1 shows the proportion of groups that were selected on the basis of technological characteristics: Handmade Ware (HM), Unglazed Wheel-thrown Ware (UWT) and Glazed Wheel-thrown Ware (GWT). The handmade pottery group includes 99% of pottery fragments in the assemblage; only 1% is composed of wheel-thrown glazed and unglazed pottery. In the stratified as-

2. I am very grateful to Dr. Patricia Bikai for asking me to study the medieval ceramic material from excavations at al-Bayḍa, and for allowing the material to be used for my PhD thesis, now in progress. I thank her for providing the entire excavation documentation material, for sharing all the precious information about the site of al-Bayḍa and its stratigraphy, and for her constant support.

3. The assemblage consists of a total of 573 fragments, recovered from 56 stratified contexts; 12 fragments, which are not included in this report, have been recovered from surveys as unstratified finds. All analyses of the data on the pottery groups and on the surface

treatments reported in this paper have been done exclusively on the basis of counting of the total number of fragments and not of minimum forms number. Quantification of minimum forms number for the assemblages of both al-Bayḍa and Wadi Farasa sites is in process, and will take into account limitations for study on handmade pottery. Experience has demonstrated these limits, especially if dealing with a very irregular kind of production. This issue is in addition to the normal difficulty of trying to assess the forms number in any kind of assemblage; therefore, in this context special caution should be taken in evaluating this kind of quantitative data.



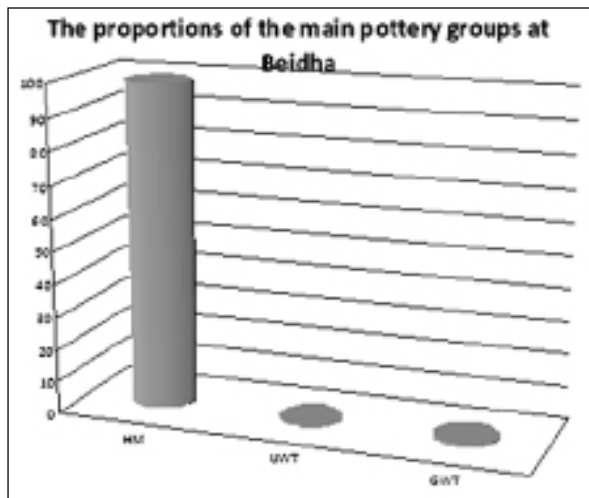
1. Some of the structures surveyed by the al-Bayḍa Documentation Project (map by C. Kanellopoulos and F. Ishaqat).

semblage, only 2 wheel-thrown unglazed fragments and 4 glazed, wheel-thrown fragments are present (Fig. 2).

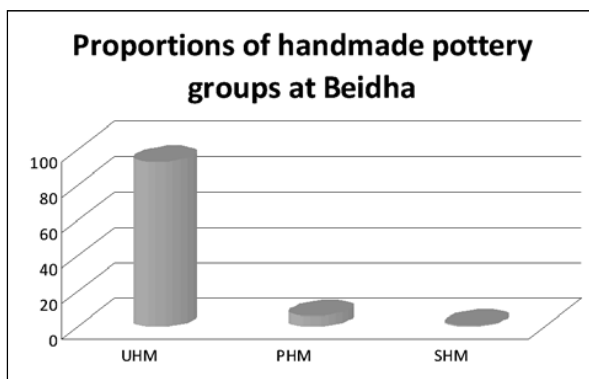
A further analysis of the handmade pottery group can be divided according to the main surface treatments. In Chart 2, Unpainted Handmade Ware (UHM) is 93%; Painted Handmade Ware (PHM) is 6% and Slipped Handmade Ware

(SHM) only 1% of the stratified assemblage. The Painted Handmade Ware group includes any painted fragment, with or without a slipped surface; the Slipped Handmade Ware group corresponds to fragments with a slipped surface, but without painted decorations (Fig. 3)

The painted ware group (PHM) includes decorations of three kinds: red, brown, and red and



2. Chart 1. Pottery from al-Bayḍa: proportions of the main pottery groups.



3. Chart 2. Pottery from al-Bayḍa: proportions of the handmade pottery groups.

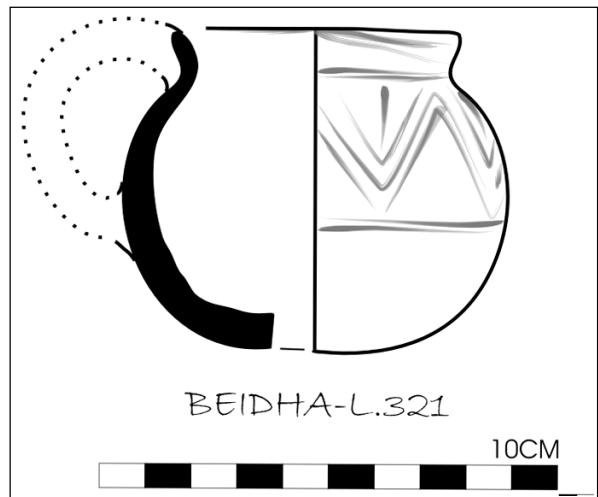
brown. All decorations can be very generally described as simple linear and geometric patterns.

Most fragments of PHM are decorated with red paint on an unslipped surface. An example of this group is a small cup recovered from Stratigraphic Unit 321. Unit 321 is one of several layers of fill in a structure south of the Byzantine Church; the structure may have been a storage bin (Fig. 4). The locus is one of the richest in pottery finds in the area and includes several reconstructable forms. The small cup in the picture has an unslipped surface, with simple decoration covering the external upper part of the body, shoulders and neck; the color varies from red to brown, a variation most likely due to the uneven firing of the object (Fig. 5; see Sinibaldi 2009: n. 43 for colour picture).

Some preliminary observations have been made also on the subject of form. Chart 3 shows the percentage of closed and open forms in the



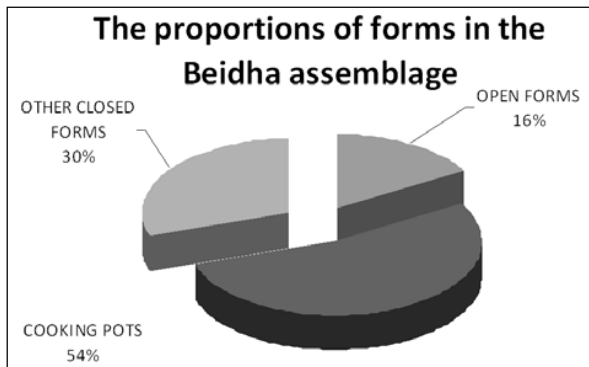
4. al-Bayḍa: area of stratigraphic Unit 321 (photo by S. Saunders).



5. Cup from stratigraphic Unit 321, al-Bayḍa: painted, unslipped handmade ware (drawing by Q. Twaissi).

al-Bayḍa assemblage. It is clear from the proportions that closed forms are dominant. The percentage of closed forms is about 80% of the stratified assemblage, while open forms are only 20% (Fig. 6). The assemblage includes various kinds of jugs and jars; however, a very high percentage of closed forms belong to cooking pots: their proportion is 64% of the identifiable closed forms, and 53 % of the all forms present on the site.

Handmade cooking pots at al-Bayḍa consist of a variety of forms and dimensions. Among the reconstructable examples, one type is well represented in the assemblage and can be illustrated by a reconstructed example from Stratigraphic Unit 323, which is a fill in the south side of a rock-cut structure north of the Byzantine church (Fig. 7). This type of cooking pot has



6. Chart 3. Pottery from al-Bayḍa: proportions of forms.

been found in all areas where medieval pottery has been excavated, suggesting that this type might have been a representative one for the occupation connected to the structures; it was also associated with Stratigraphic Unit 321, along with the painted cup (Fig. 5).

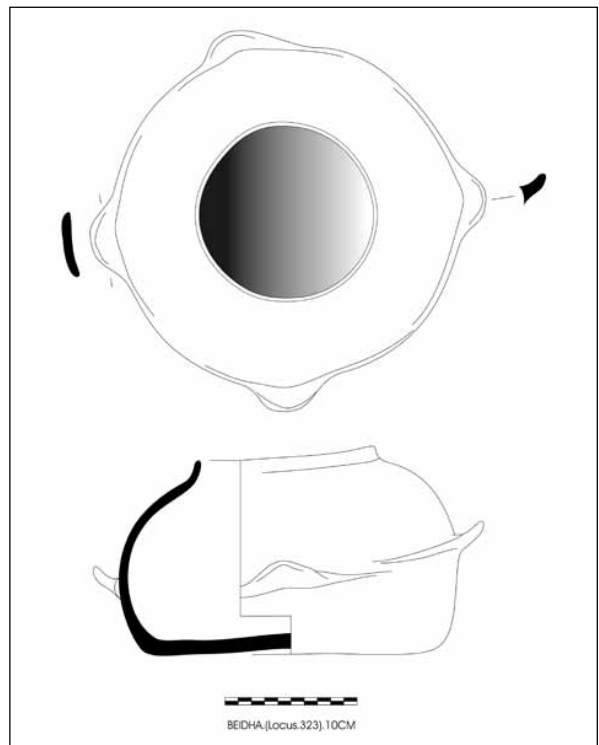
This type of cooking pot is characterized by ledge handles, an applied rope clay decoration that runs between the handles, the lack of a neck, a small rim and a flat bottom (Fig. 8). It also has irregular proportions and an uneven surface, which seem to suggest a non-professional manufacture of the vessel. The uneven firing is evident from the colour variation on the surface.

Open forms are also represented in the al-Bayḍa assemblage in a variety of forms and dimensions, both in handmade painted ware and handmade unpainted ware. One of the reconstructable forms is a basin, from Stratigraphic Unit 3109, a context associated with a structure excavated near the church entrance.

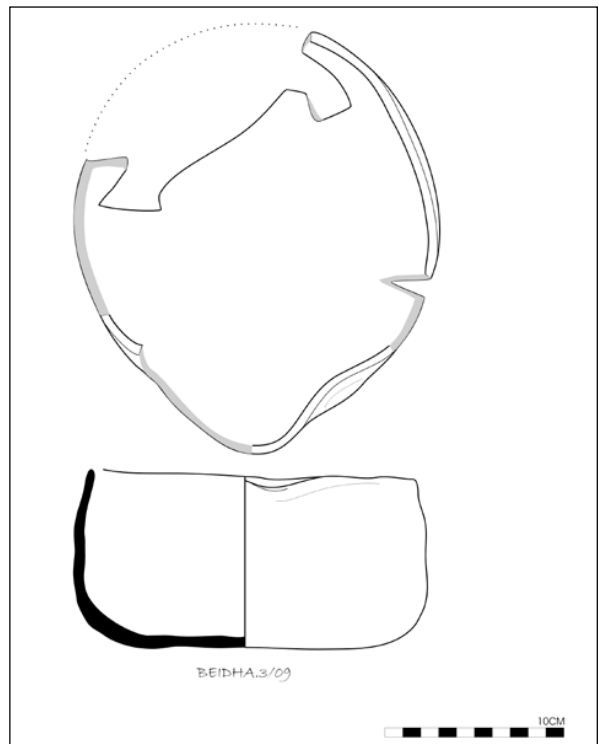
The manufacturing technique of the basin (Fig. 9; see Sinibaldi 2009: n. 39 for colour pic-



7. al-Bayḍa: area of stratigraphic Unit 323 (photo by P. M. Bikai).



8. Cooking pot from stratigraphic Unit 323, al-Bayḍa: unpainted, unslipped handmade ware (drawing by Q. Twaissi).



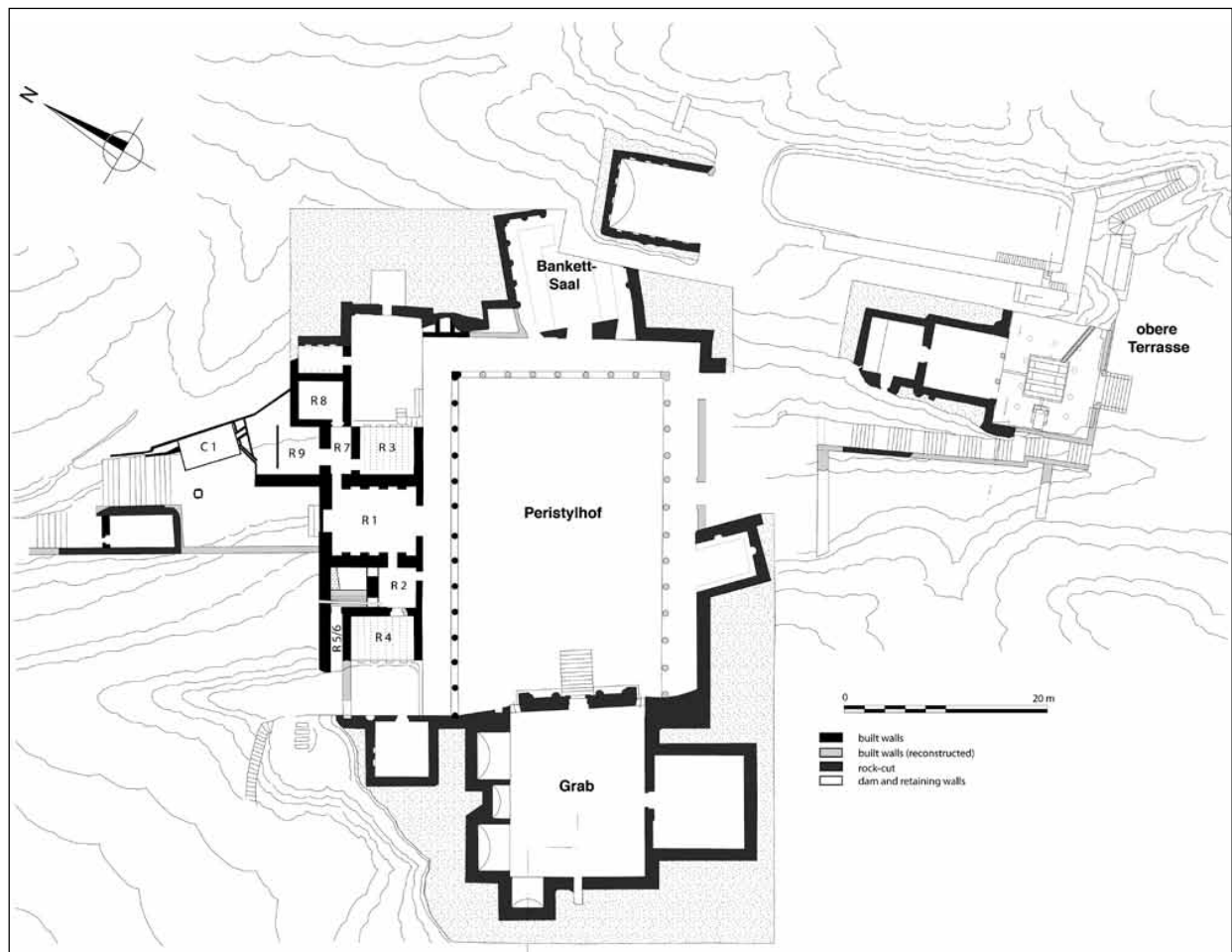
9. Basin from stratigraphic Unit 3109, al-Bayḍa: unpainted, unslipped handmade ware (drawing by Q. Twaissi).

ture) and its very irregular shape also suggest the work of a non-professional potter. The ware is characterized by a high variation in the color of the surface and in the cross-section of the walls, due to uneven firing conditions, which have created both an oxidized and a reduced atmosphere. This piece also shows very clear traces of surface smoothing, possibly with a cloth. The direction of the instrument used to smooth the object before firing is clearly indicated by the parallel marks on the entire surface of the basin (see Sinibaldi 2009: n. 39 for colour picture).

Wādī Farasa

Wādī Farasa is located south-east of the Petra city centre. The International Wādī Farasa Project has been studying the east part of the wadi since 1999; excavations are still ongoing. Archaeological investigations have discovered

an important complex of the Nabataean period with a funerary function, centred in the area of the Soldier's Tomb and extending on two natural terraces. During this period Wādī Farasa also had the function of collecting water by means of a sophisticated hydraulic system, and of connecting the Petra valley to the High Place of Sacrifice (Fig. 10). A medieval occupation of the area was recorded during the first excavation season; the project has gradually revealed evidence of a large medieval settlement that extended on both terraces. The medieval phase has been documented as the only one of importance after the Nabataean one. Excavation activity has recorded several built structures with a clear defensive function, which have reused pre-existing walls from the Nabataean phase. Moreover, medieval pottery has been recorded in all excavated areas, in connection with the use



10. Study area of the International Wādī Farasa Project (map by M. Dehner after Bachmann, Watzinger and Wiegand 1921).

and construction of walls, and with rubbish pits that filled previous rock-cut structures (Schmid 2001, 2002, 2005 and 2007; Schmid and Studer 2003; Schmid and Barmasse 2004 and 2006). Finally, five funerary stone slabs, carved with Christian symbols, have been excavated on the upper terrace; they suggest the presence of a still unidentified cemetery nearby and therefore a presence of Christians in the area for at least two generations (Schmid 2002, 2006 and 2009). All these elements suggest the presence a significant Crusader period settlement, perhaps a fortified post connected with the defence of the Petra Valley, which would probably have been associated with another fortification held by the Franks in the area of the High Place of Sacrifice (Schmid 2006). The medieval occupation therefore extended over at least the area explored by the project, including the upper and lower terraces, the small necropolis in the western corner of the Nabataean complex and the interior of the so-called Renaissance Tomb to its north.

The Pottery.

The International Wādī Farasa Project has been exploring the area with stratigraphic excavations since 2000. To date, important quantities of medieval pottery have been excavated, mainly in association with the following contexts: (1) the upper terrace area, the fills of two Nabataean cisterns and a fortified medieval structure in front of the entrance of the Garden Triclinium, (2) several contexts associated with medieval structures in the area of the lower terrace, more specifically the north-east and south parts of the complex, (3) the fills of some Nabataean rock-cut tombs, part of a small necropolis in the western corner of the complex, and (4) the fills of some Nabataean rock-cut tombs inside the so-called Renaissance Tomb (Schmid

2001, 2002, 2005 and 2007; Schmid and Studer 2003; Schmid and Barmasse 2004 and 2006). The stratigraphic deposits associated with medieval occupation are of different types. Deposits associated with built structures, both on the upper and lower terraces of the site and often characterised by the rather fragmentary state of the ceramics, have the advantage of having a direct relationship with walls, and in some cases of being included in the construction of the walls themselves. Different kinds of deposits, on the other hand, often interpreted as rubbish pits, are fills of previous rock-cut features; although disconnected from the medieval structures, these are generally characterized by a better state of ceramic preservation and are therefore very valuable for reconstructing pottery types.

Excavations in the Wādī Farasa have unearthed an important quantity of medieval pottery in primary deposition on a site with an articulated stratigraphy; the assemblage is therefore very significant, both in terms of the occupational phasing of the site and pottery typology.

Excavations are still ongoing at the site; the aim of this contribution is therefore to suggest only some preliminary observations on the assemblage and communicate the first available data in order to facilitate comparisons with pottery assemblages from other sites. A complete analysis of the entire pottery assemblage is planned⁴.

Some observations will be made on the basis of seven stratigraphic units, from four contexts that have been specifically selected for preliminary analysis in order to plan the best method with which to proceed with further study of the rest of the pottery group⁵. The stratigraphic units, which were selected for their homogeneity and stratigraphic usefulness, are: (1) the upper fill of the small cistern on the upper terrace,

4. I would like to express my gratitude to Prof. Stephan Schmid, Humboldt University, Berlin, Director of the International Wādī Farasa Project, for entrusting me with the analysis of the medieval pottery assemblage from Wādī Farasa, and for making it available for my PhD thesis. I am also grateful for sharing with me important information and comments, during my several visits to the excavation site, about the stratigraphic contexts of the analysed pottery from the Wādī Farasa excavations, and for providing the excavation documentation material.

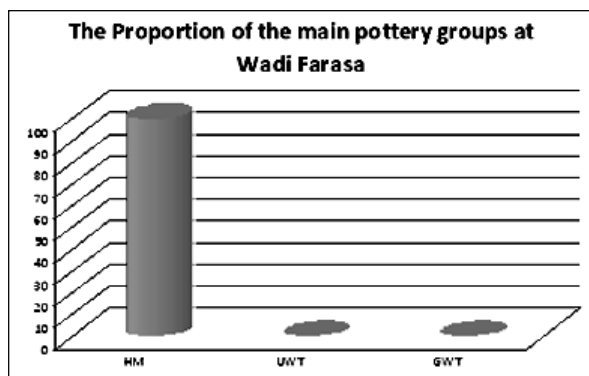
5. All observations contained in this contribution about quantitative data on the pottery from Wādī Farasa are

based on an analysis of the four stratified contexts done for a B.A. thesis by Alessandro Neri, submitted in 2008 to the University of Florence, Department of Historical and Geographical Studies: *Le ceramiche medievali di Wadi Farasa a Petra: un contributo archeologico sui problemi della ceramica crociata* (first supervisor: Prof. Guido Vannini). The detailed analysis of the ceramic material was followed closely by myself as a second supervisor, in order to ensure that the basic classification method and data collection were consistent with the ones used previously to study the medieval pottery assemblages from Bayḍa and al-Wu'ayra.

(2) the upper fill of the big cistern on the upper terrace, (3) part of the fill of Tomb 11 from the Renaissance Tomb, and (4) four stratigraphic units from the upper fills of Tomb 7 in the small necropolis in the western corner of the complex⁶. It is important, therefore, to bear in mind that although archaeologically very significant, the seven contexts analysed here are only a small part of the pottery assemblage excavated to date and, since excavations are still in progress, they are an even smaller part of the total assemblage that will have been recovered by the end of the work⁷. However, it is possible to present some general data for a preliminary comparative analysis with the other sites.

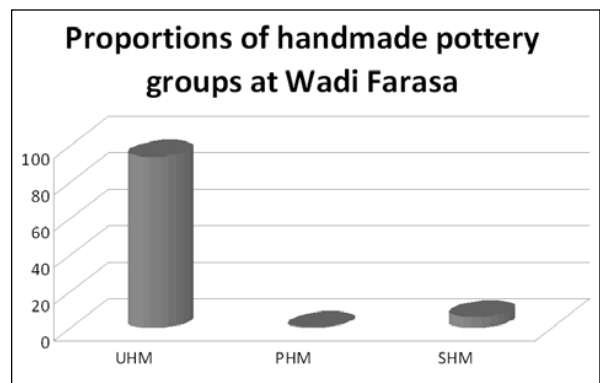
Chart 4 (Fig. 11) shows the general occurrence of the main pottery groups in the four analysed contexts from Wādī Farasa; handmade pottery (HM) is 100% of the assemblage; unglazed wheel-thrown pottery (UWT) and glazed wheel-thrown pottery are not represented⁸.

Chart 5 (Fig. 12) shows the proportions of the main surface treatments within the handmade pottery group: Unpainted Handmade Ware (UHM) is 93.5%, Painted Handmade Ware (PHM) is 0.5% and Slipped Handmade Ware (SHM) is 6% of the assemblage. It can be observed that the figures are closely comparable to the ones illustrated for the al-Bayḍa pottery (Figs. 2 and 3), both on account of the dominance of handmade pottery and because of the



11. Chart 4. Pottery from Wādī Farasa: proportions of the main pottery groups.

6. The total number of fragments belonging to the seven examined contexts is 850.
 7. A general idea of the characters and quantity of the material excavated to date has been possible thanks to a preliminary examination of the materials from the last campaign 2009, and to discussions with Prof. Schmid.
 8. The preliminary examination of the material from the



12. Chart 5. Pottery from Wādī Farasa: proportions of the handmade pottery groups.

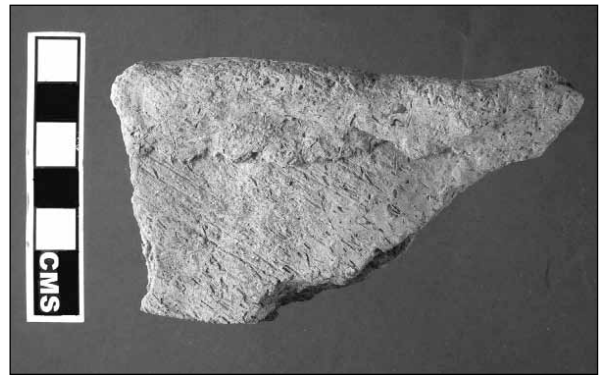
prevalence of undecorated surfaces. However, a difference can be noted in the surface treatment, since the proportions of slipped unpainted and painted decoration are reversed at the two sites. Painted sherds have been excavated from several contexts on the upper and lower terraces at Wādī Farasa; painted decoration is present either in red or brown (Schmid 2001: 348, fig. 11, 2002: 265-71, figs 28, 32, 2006: 56 and 59, figs 25, 31 and 32, colour pictures; Schmid and Studer 2003: 481-482, figs 27-28; Schmid and Barmasse 2004: 341, fig. 17). Fragments painted in a combination of red and brown are also present in the assemblage⁹. One of the best reconstructable examples in the excavated assemblage is a jug from a small cistern on the upper terrace; the context of the small cistern is relevant for dating purposes, since it is very likely to have been in use during the occupation phase represented by the structures in front of the Garden Triclinium (Fig. 13). The jug is decorated in red with geometric patterns on a slipped surface (Fig. 14. See Schmid 2006: 59, fig. 32). The jug, with a globular body and elongated neck, is decorated with a grid pattern on the neck and more elaborate geometric patterns on the body.

It is possible to make further observations about surface treatments within the Wādī Farasa assemblage. The slipped fragments are big enough to conclude that many of them do not simply belong to unpainted parts of slipped and

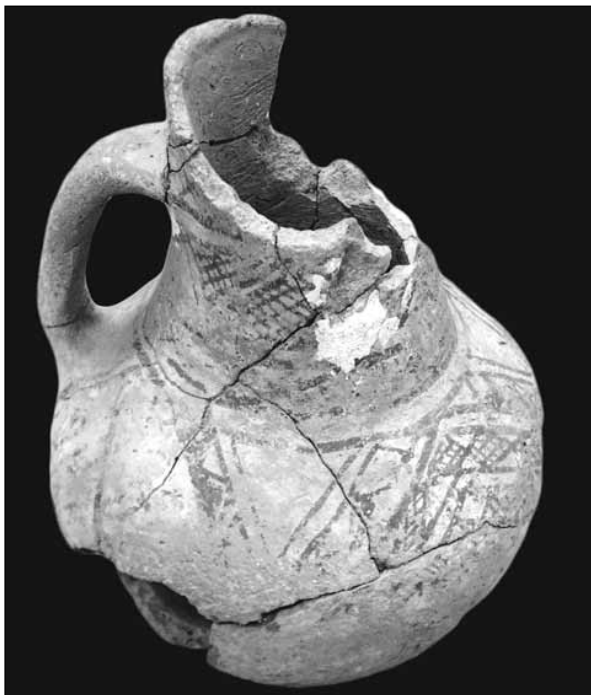
2009 campaign could confirm the almost exclusive presence of handmade pottery in the assemblage; however, a few fragments of wheel-thrown and glazed pottery are also included.
 9. Information from an examination of the material excavated in season 2009



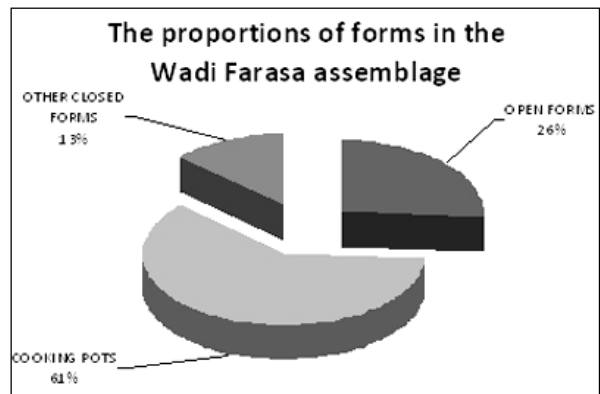
13. Wādī Farasa, small cistern on the upper terrace (photo by S. Schmid).



15. Fragment of open form from Renaissance Tomb, showing traces of smoothing tool (photo by M. Sinibaldi).



14. Jug from small cistern, stratigraphic Unit 53, upper terrace, Wādī Farasa: slipped, painted handmade ware (photo by M. Sinibaldi).



16. Chart 6. Pottery from Wādī Farasa: proportions of forms.

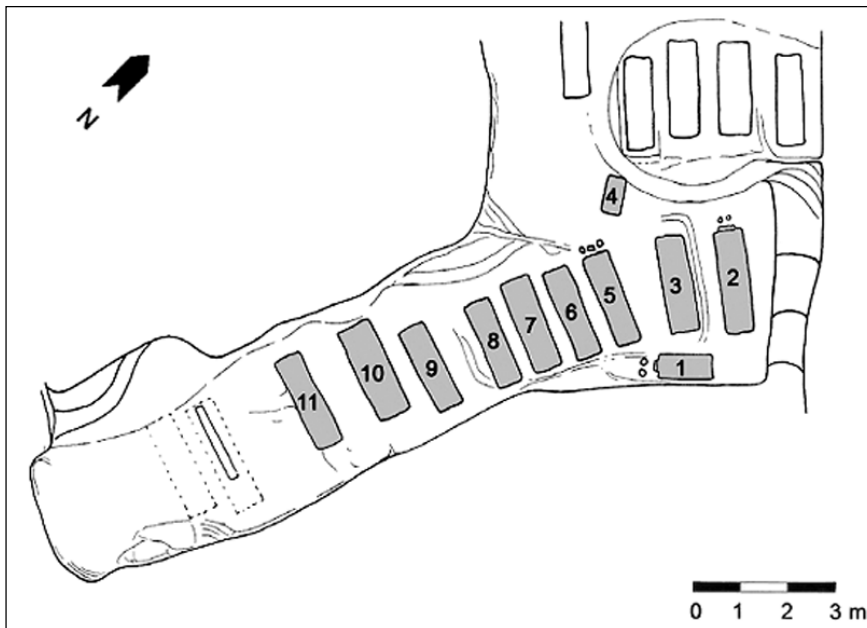
painted vessels; on the contrary, it is clear that slipping was used extensively, and in various colours, on the surface of ceramics without any further painted decoration; this is particularly evident in the finds from Tomb 7. In the Wādī Farasa assemblage, many fragments display clear traces of smoothing tools. **Fig. 15** shows an example, with parallel lines clearly marked in the clay of an open form.

Chart 6 (**Fig. 16**) illustrates the occurrence of closed and open forms. As shown in the chart,

74% of the assemblage is composed of closed forms. Moreover, the proportion of cooking pots in the entire assemblage is 61%.

Cooking pots are present in all contexts analysed from the Wādī Farasa assemblage. One specific context, the fill from Tomb 7, is of particular interest for the preservation of forms, as well as for the high percentage of cooking pots (**Fig. 17**). The context yielded a very homogeneous assemblage in terms of form type and dimensions, which suggest the manufacture of an entire group by a professional workshop¹⁰. One example from this context is a cooking pot that has been partially reconstructed (**Fig. 18**; see Sinibaldi 2009: n. 40 for color picture). The cooking pot has a globular body and an out-curved rim. The handles, placed at the widest diameter of the body, have a horseshoe-shape; two decorative horseshoe-shaped clay decorations are applied to the body of the pot; the bottom is missing. Several horseshoe-shaped decorations

10. An analysis of the dimensions and types of cooking pots from this context has been carried out by A. Neri, op.cit



17. Wādī Farasa, area of the small necropolis (drawing by S. Schmid).



18. Cooking pot from stratigraphic Unit 278, Tomb 7, Wādī Farasa: unslipped, unpainted ware (photo: M. Sinibaldi).

are present in other cooking pots and fragments from the same tomb context, suggesting that

they can be considered a typical element in the production of these vessels.

The Ceramic Assemblage from al-Wu‘ayra: Preliminary Comparative Observations

The site of al-Wu‘ayra was excavated in 1987 by Robin Brown (Brown 1987), and since 1988 by *Petra Medievale* team led by the University of Florence and directed by Guido Vannini. In this section, the observations made regarding the assemblages of al-Bayḍa and Wādī Farasa will be compared to stratified pottery from Crusader-period phases at the site of al-Wu‘ayra (phases I-III) as excavated by the University of Florence¹¹. At al-Wu‘ayra, as described in preliminary reports (Vannini and Vanni Desideri 1995; Vannini and Tonghini 1997; Tonghini and Vanni Desideri 1998), several phases of occupation were recorded in the sondages, in addition to Nabataean and Byzantine occupation witnessed mainly by quantities of residual pottery and structures in secondary use. The main

11. I am very grateful to Prof. Guido Vannini, University of Florence, Director of the archaeological project *Petra Medievale*, for generously granting access to the important material from al-Wu‘ayra assemblage. I am also indebted for the precious opportunity he gave me, as a student at the University of Florence, to participate in several campaigns of excavations at al-Wu‘ayra castle, as well as in the complete cataloguing activity of the pottery from al-Wu‘ayra, together with ceramic supervisors Cristina Tonghini and Andrea Vanni Desideri.

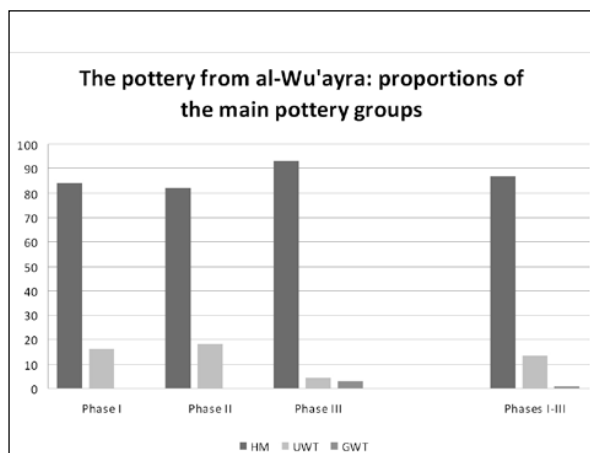
Because of the importance of the comparative material from al-Wu‘ayra for the study of 12th century pottery, all ceramic data recorded from al-Bayḍa and Wādī Farasa have been catalogued with the same method used for the al-Wu‘ayra material, by the use of a database designed by the University of Florence. The pottery typology of al-Wu‘ayra has been designed by Cristina Tonghini (Università di Ca’ Foscari, Venice) when she was a member of the mission *Petra Medievale*.

occupational phases, excluding a prehistoric settlement, include three Crusader phases (I: Crusader foundation; II: mid-12th century; III: mid-to late 12th century); one phase of Ayyubid reoccupation (phase IIIa); a final abandonment in the early 13th century (phase IV); a number of collapses and squatter occupations during the 13th-20th centuries (phases V-VIII) (Vannini and Tonghini 1997).

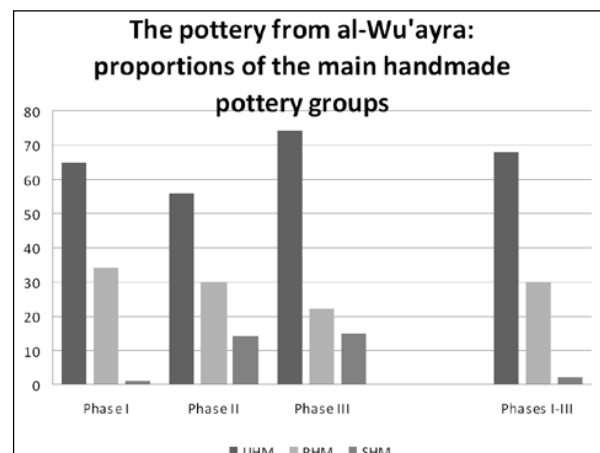
The first set of observations are based on pottery groups and their surface treatments. Chart 7 (Fig. 19) illustrates the occurrence of the main pottery groups at al-Wu‘ayra over the three Crusader phases at the site (Phases I, II and III), and for the three phases combined; the quantitative data include all stratified contexts on the site¹². The dominance of handmade pottery in all three phases is clear. Wheel-thrown glazed ware comprises 0.1% in Phase I, is absent in Phase II, and comprises just 3% in Phase III. Unglazed wheel-thrown pottery at al-Wu‘ayra, as pointed out in interim reports (Vannini and Tonghini 1997: 382), may well belong to the Crusader occupation, but could also be residual from previous phases, such as Byzantine or Early Islamic. This is because it was not possible to examine this pottery in the context of local pottery sequences when the assemblage was studied. Therefore, these data must be considered tentative and subject to change on further

study of the assemblage. An observation of the occurrence of surface decorations on the main pottery types (Chart 8, Fig. 20) shows that in all three Crusader phases at al-Wu‘ayra, the unpainted and unslipped ware is always dominant, and among the decorated groups, painted pottery is always more prevalent than slipped pottery. This trend is comparable to the one seen in the al-Bayḍa assemblage, but the proportion of the painted ware is lower at al-Bayḍa than at al-Wu‘ayra. As stated above, a comparison with Wādī Farasa is not possible at this moment since the analysed sample is small in this respect, and does not contain painted sherds. However, it is possible to highlight similarities in the generally very dominant proportion of unpainted and unslipped ware at all three sites. It can also be observed that clear use of smoothing tools on a high proportion of sherds from Wādī Farasa distinguishes this site from the other two.

At all three sites, the assemblage contains pottery painted in red or in brown, with linear and geometric patterns. As pointed out in previous reports, at al-Wu‘ayra it is not possible to discern significant variations over the different phases on the basis of decoration; this could also be the result of the rather fragmented nature of decorated pieces (Vannini and Tonghini 1997: 380). At al-Wu‘ayra, sherds decorated in both red and brown have been found in the



19. Chart 7. Pottery from al-Wu‘ayra: proportions of the main pottery groups.



20. Chart 8. Pottery from al-Wu‘ayra: proportions of the handmade pottery groups.

12. The quantification includes sondages 2, 3, 4, 5, 6, and 8. The number of fragments included in this quantitative analysis are 943 (phase I); 108 (phase II); 560 (phase III), for a total of 1611 stratified fragments on the site for the all three phases. The fragments includ-

ed in this analysis exclude all fragments clearly recognized as residual. For a quantitative analysis of sondages 3 and 6 at al-Wu‘ayra, see Vannini and Tonghini 1997; Tonghini and Vanni Desideri 1998.

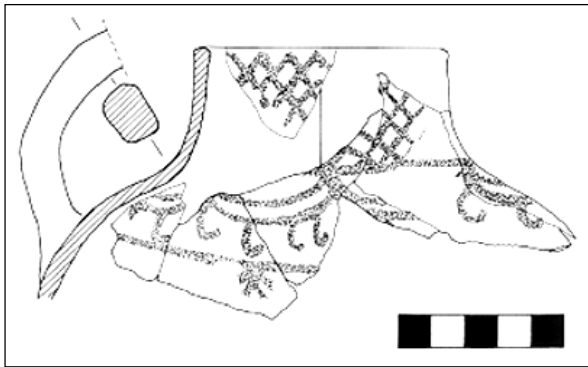
same stratigraphic units in all three phases. At al-Bayḍa, four out of seven stratified units with painted fragments contain both fragments decorated in red and fragments decorated in brown. This could support the hypothesis that the two types of decoration were in use at the same time on both sites. However, it is important to appreciate that although in some cases the difference between the two types of decoration is clear (i.e. it is possible to distinguish the use of brown paint from that of red paint), at al-Wu‘ayra some painted examples clearly show that the difference between the two colors could simply be the result of uneven firing. This also seems to be the case for the small cup from al-Bayḍa, where the colour of the paint varies from one part of the vessel to another (**Fig. 5**). The simple decorative pattern of the cup and its red, lightly applied geometric design can be compared with the decoration of a small jug from al-Wu‘ayra, dating to the first Crusader phase of occupation (Phase I: Tonghini and Vanni Desideri 1997: 712). The jug (**Fig. 21**; see Sinibaldi 2009: n. 41 for a color picture) is decorated on the neck, internally, and externally with a grid pattern, some curvy lines on the shoulder, and small hooks. This jug is a good example of local continuity in decorative patterning, as the decoration on the upper part of the jug is also found in much later contexts from southern Transjordan. More importantly, the jug is associated with the construction of the church at al-Wu‘ayra, dated to between 1127-31 and 1144, most likely around 1140 (Pringle 1998: vol. 2: 373-7). This kind of surface treatment (red on a self-slipped exterior) is comparable with some fragments described as Early Handmade Painted ware at Gharandal (Walmsley and Grey 2001: fig. 11), which first appeared before the 12th century. However, in this case, surface treatment seems more diagnostic than any of the decorative patterns, and this reinforces the importance of direct visual contact with this kind of pottery in order to observe parallels¹³. On the other hand, the jug from Wādi Farasa (**Fig. 14**), displays a different painting technique. The

red paint seems to be applied more thickly to the slipped surface and the geometric patterns are more complex. Combined, these elements might indicate a later date, closer in time to the more densely decorated pottery of the Ayyubid-Mamluk period. The jug from Wādi Farasa, which is most likely associated with the use of the fortified structures on the upper terrace, could be later than the small jug illustrated in **Fig. 20**. Parallels in Jordan for the jug from Wādi Farasa are unknown.

Finally, and at a very preliminary level, it is possible to make some comparative observations regarding form. A quantification of the open and closed forms at al-Wu‘ayra shows a clear prevalence of closed forms, which comprise 93% in Phase I, 90% in Phase II and 87% in Phase III¹⁴. A specific study of cooking pots and their frequency in the al-Wu‘ayra assemblage was not undertaken during the first phase of analysis, but would be interesting in the context of a comparative analysis with al-Bayḍa and Wādi Farasa. Large handmade cooking pots are ubiquitous across Jordan, and still difficult to date. For example, the form of the al-Bayḍa cooking pot discussed above (**Fig. 8**) is comparable with one from Khirbat an-Nawāfla that was discovered in an early Ottoman context, although the latter has two perforated handles (Amr *et al.* 2000: 253, fig. 26.2). This makes it necessary to exercise great caution in drawing chronological conclusions for this specific form, and certainly not to rely solely on descriptions of form, but to consider all additional information available, especially technology. A similar type is present at al-Wu‘ayra in several post-Crusader phases, as well as Phase I. Fragments of ledge handles and parts of identical rope decoration are also present in both Phase I and the later phases. This seems to suggest a long use of the type over time; unfortunately the average size of fragments in most cases does not allow close comparisons of complete cooking pot profiles. Similar cooking pot rims have also been recorded by Robin Brown at al-Wu‘ayra in Phase I (Crusader) (Brown 1987:

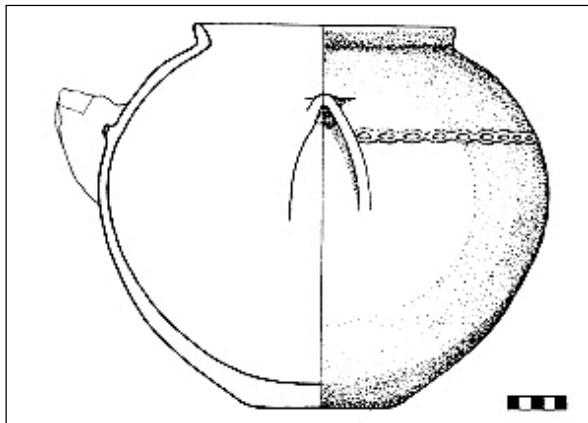
13. I am deeply indebted to Alan Walmsley, Director of Gharandal Archaeological Project, and Antony Grey, ceramics supervisor, for allowing access to the important ceramic assemblage from Gharandal as comparative material for my PhD thesis, and for all their precious scientific observations and suggestions.

14. The comparisons of quantifications between al-Wu‘ayra and the other sites needs to take into account the fact that at the castle the pottery is more fragmented, since it is more associated with occupational levels, rather than with rubbish pits.



21. Jug from stratigraphic Unit 23, al-Wu'ayra, Phase I: handmade painted pottery (drawing by C. Tonghini and A. Vanni Desideri. From Tonghini and Vanni Desideri 1998).

283, figs 9.17-18). Cooking pots from Wādī Farasa have parallels with some fragmentary rims from al-Wu'ayra, (e.g. Tonghini and Vanni Desideri 1998: 713, figs 7b and 10a). However, in terms of quality, it is also possible to compare the Wādī Farasa vessel illustrated in **Fig. 18** with a cooking pot from Phase III at al-Wu'ayra, the latter being one of the few completely reconstructable forms from the site (**Fig. 22**; see also Sinibaldi 2009, n. 38). The pot has a globular body, two horseshoe handles, applied rope decoration, an outcurved rim and a flat bottom. The two forms are dif-



22. Cooking pot from stratigraphic Unit 127, al-Wu'ayra, Phase III: handmade unpainted pottery (drawing by C. Tonghini and A. Vanni Desideri. From Vannini and Tonghini 1997).

ferent, but many elements, like the regularity of manufacture, the high degree of surface smoothing, and the quality of the decorative details suggest that both were the work of a professional potter, rather than domestically manufactured. These two types differ significantly in terms of quality from the type that is typical at al-Bayḍa, and from the fragments of cooking pots of the same type found in Phase I at al-Wu'ayra.

Concluding Remarks

The data from al-Bayḍa and Wādī Farasa are still preliminary, and the different nature of the two projects and of the stratification on the sites must be taken into account when trying to draw conclusions. However, it is possible to make some observations and discuss very briefly some of the many potential research directions. At the moment the ceramic evidence can support a Crusader-period presence on both sites; a clearer assessment of the situation will become feasible as research progresses. Data have highlighted both differences and similarities between the three analysed sites; future research might include working towards a better understanding of these patterns. Further research at 12th century sites, including al-Wu'ayra and ash-Shawbak¹⁵, might clarify the interesting question regarding the use of wheel-thrown pottery alongside handmade pottery. This might help us to gain a better understanding of the extent of the gap between Transjordan and other areas of the Latin Kingdom, which are characterised by the predominant use of wheel-thrown pottery. The pottery sequence at Gharandal, a site in southern Jordan (Walmsley and Grey 2001: 153), suggests the presence of wheel-made cooking pots during the 12th century. Cooking pots, because of their typically high frequency in stratified contexts, could be a useful point of reference to use for chronologies. In any event, thrown pottery seems not to have been used at al-Bayḍa and Wādī Farasa in significant quanti-

15. Ash-Shawbak castle is currently investigated by the archaeological mission Petra Medievale, University of Florence. I am grateful to prof. Guido Vannini for the opportunity he gave me to participate in several campaigns of excavations at ash-Shawbak castle and to work for the archaeological mission as ceramic supervisor in the years 2005-2008. During the first fieldwork seasons, large quantities of wheel-thrown

pottery have been excavated, probably from all periods of occupations at the castle. More in general, as a site with a very long and intense history of occupation, there is a high potential for the study of ceramic sequences, as well as for comparative studies with the assemblage of the site of al-Wu'ayra (see Sinibaldi 2007b).

ties; it would be interesting to see if the situation at the castles was any different.

Differences among pottery assemblages, like the different plastic decoration on cooking pots from al-Bayḍa, Wādī Farasa and al-Wu‘ayra, are not necessarily a sign of a chronological development, but may equally well be attributed to the presence of different workshops. However, the diffusion of a similar type at al-Bayḍa, through several Crusader and post-Crusader phases at al-Wu‘ayra, and into the Ottoman period at Khirbat an-Nawāfla in the Wādī Mūsā area, might represent non-specialised production over long periods of time and a wide geographical area. The difference noticed in the quality of manufacture in cooking pots is a point worthy of note. More specialized manufacture, e.g. the cooking pots from Wādī Farasa and al-Wu‘ayra, could be due to chronology, the presence of specialized workshops in a specific areas (such as Wādī Mūsā), or possibly the composition of the population, which may have created demand for a specific product. The presence of a specifically ‘Frankish product’ has not been demonstrated in previous studies at al-Wu‘ayra, but a comparative analysis with material from other sites could help in this respect. Surface treatments, as suggested by the character of the Wādī Farasa assemblage, also deserve further attention.

The study of stratified deposits on sites with long sequences of occupation will be crucial in gaining a better understanding of the chronological development of certain ceramic characteristics, and might give more meaning to the similarities found across the three sites, whether revealed by quantitative or typological analysis. For example, analysis of Crusader and post-Crusader pottery in Sondage 3 at al-Wu‘ayra has shown chronological variation in decorated ware (Vannini and Tonghini 1997). The Gharandal project aimed, among other things, at gaining a better understanding the local ceramic sequence, and is an example of the type of results it is possible to obtain in this respect. In this way, factors such as chronological development of decorative patterns — a line of enquiry original-

ly developed by Robin Brown — might be better understood¹⁶. In this context, when analysing the 12th century, the stratified deposits from the sites of al-Wu‘ayra and ash-ash-Shawbak would be important chronological points of reference for comparative purposes. Also, any attempt to gain a better understanding of the characteristics of 12th century assemblages and their similarities and/or differences to earlier assemblages would require comparison with stratified sites in the south in which these earlier periods are represented, e.g. Khirbat an-Nawāfla and ‘Aqaba (Amr *et al.* 2001; Whitcomb 1988).

For the time being, handmade pottery is the focus of discussion among scholars studying the ceramics of the Crusader period in Transjordan. This comparative analysis of three sites suggests that great importance should be attached to technology because, on the one hand, the assemblages have a high proportion of undecorated pottery, and on the other, aspects of decoration patterning and even some morphological characteristics seem to have had remarkable longevity. The attention given to production processes that was started by Franken and Kalsbeek (1975) and, in particular, research on the petrography of handmade ceramics would appear to be among the more useful paths to pursue at this moment. If matched with careful examination of stratified deposits, this might provide information on multiple socio-economic facets of a given chronological horizon, e.g. the trade and manufacture of ceramics. Ultimately, some of the most interesting research questions are those about the kind of impact that the Franks had on the territory of Transjordan, and their interaction with local populations. An analysis of a specific type of vessel, e.g. cooking pots, from well-stratified deposits such as those at al-Bayḍa and Wādī Farasa, matched with analysis of local clays, could be the starting point for an assessment of their production in the Wādī Mūsā area, or elsewhere¹⁷.

It is hoped that research methods such as these, implemented on 12th century sites, will improve our understanding not only of local

16. See Brown 1987. Important stratified sites in the south are Khirbat Fāris and Khirbat an-Nawāfla.

17. This analysis is included in a programme of archaeological study, focused on petrographic and chemical analyses of clays from selected stratified depos-

its. The research, currently in progress for my PhD thesis, includes samples from the sites of al-Bayḍa, Wādī Farasa, Khirbat an-Nawāfla, and is supervised by Prof. Ian Freestone, Cardiff University.

pottery sequences, which is a critical gap in our knowledge of the archaeology of southern Transjordan, but also of Crusader period settlements that are not referred to in the written sources, which were an important element in the 12th century landscape of the region.

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