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A MEDIEVAL TRADE ENTREPÔT AT KHOR RORI ?
THE STUDY OF THE ISLAMIC CERAMICS FROM AL-ḤAMR AL-SHARQIYA

Axelle Rougeulle

In addition to the excavation and restoration work at the pre-Islamic site of Khor Rori itself, the Italian IMTO team opened limited excavations in November 2000 at al-Ḥamr al-Sharqiya (Inqitat Mirbat), the promontory to the east of the mouth of the Wadi Darbat (figs. 1, 2)¹. This flat rocky plateau, with a surface area of about 14 ha, and 30 m high, rises nearly sheer from the sea except on its north side where there is a steep but accessible slope. A fortification wall of roughly-worked stones buttressed by small square towers, 2.70 m thick, and more than 500 m long, was built on the top to protect the settlement from inland (fig. 3). Around the middle of this wall, a single gate flanked by two strong inside bastions gave access to the plateau. The plateau is divided in two by a narrow valley that stretches from the eastern cliff to the western one, and occupation seems to have been limited to three distinct areas in the northern part, between the wall and the slope of the valley. The first contains several large rectangular buildings near the gate. The second has a widespread group of undefined circular structures 4 to 6 m in diameter over about half an hectare west of the gate, halfway towards the western tip

of the promontory. The third area has an enclosure of several buildings and is located at the eastern tip of the area, with the high cliffs of the promontory forming the north and east boundaries with the steep slope of the valley to the south (fig. 3). This third area is roughly triangular in shape, 130 m long and 70 m wide at its maximum (*circa* 0.5 ha) and is protected west and south by a stone wall 1 m thick, now in a very bad state of conservation, abutting against the fortification wall. The excavations at al-Ḥamr al-Sharqiya focused on this area and soundings were opened in three buildings; the so-called “house with a patio” against the western wall of the enclosure, the “palace” against the south wall, and the “stores” north of it, near the northern fortification wall of the promontory.

ARCHAEOLOGICAL CONTEXT

1. The “house with the patio”

The structure excavated in the area of the “house with a patio” is an architectural unit of two rooms (A1 and A2), each of about 7.5 m², built against the main wall

¹ All data on the site and excavations are drawn from AVANZINI ET AL. 2001, pp. 49-59, and from the computerized registration files by Alessandra Lombardi who was responsible for the excavations at al-Ḥamr al-Sharqiya. My heartfelt thanks to Alessandra Avanzini who

gave me the opportunity to study this material and to come to Khor Rori to study the site *in situ*. The drawings of the ceramics are from Silvia Casciarri.



Figure 1 – Aerial view of Khor Rori with the site of Sumhuram and the mouth of wadi Darbat between the two promontories.



Figure 2 – The promontory al-Hamr al-Sharqiya, from the north-west.

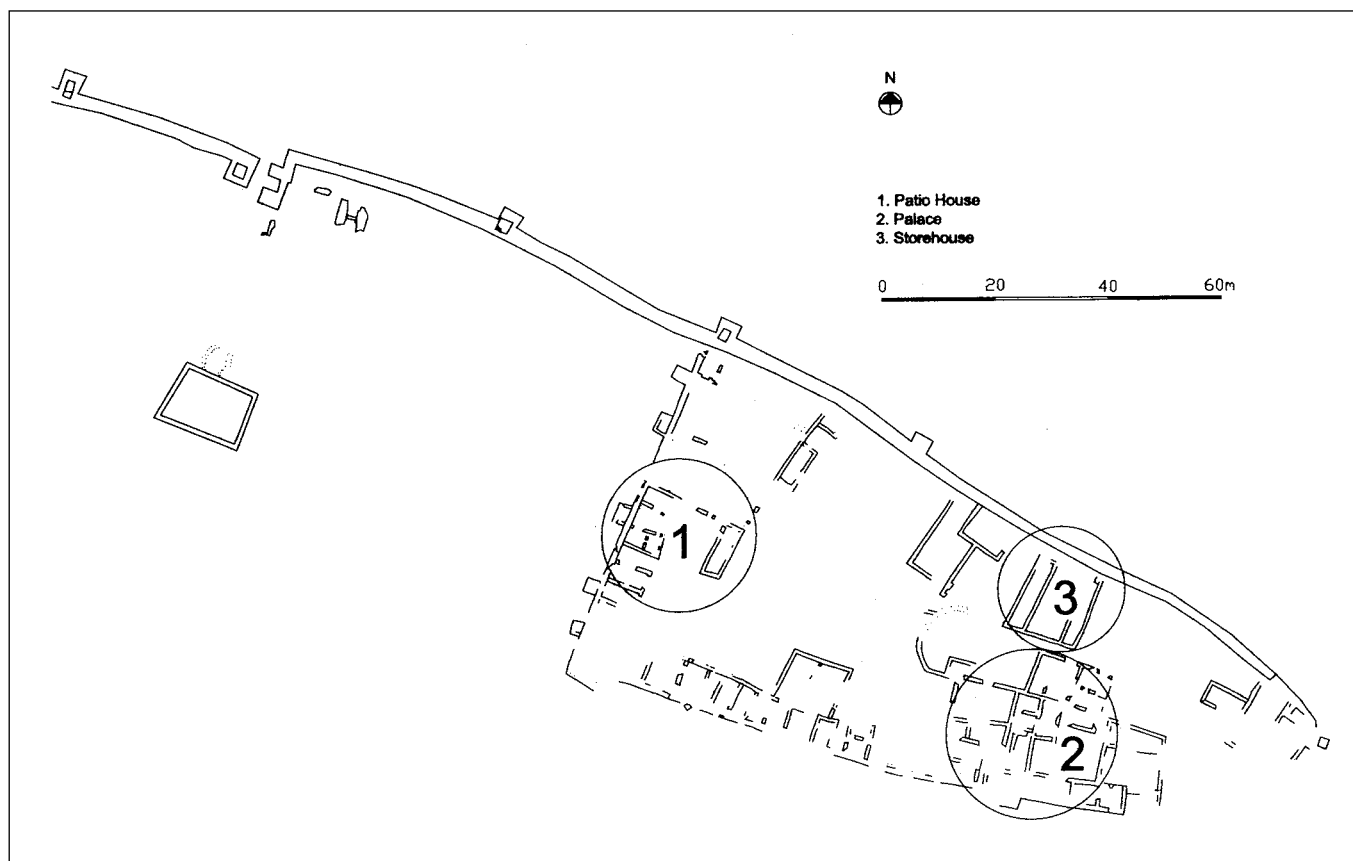


Figure 3 – Plan of the Islamic settlement at al-Ḥamr al-Sharqiya.

which forms the western boundary of the settlement². The door is located at the north-eastern extremity of the unit and it gives access to room A1 from where an inside door leads to A2 against the main wall. Archaeological deposits are about 1 m thick. Three layers of occupation were found in room A1, but only 2 in room A2, under the final destruction level.

In A1, the first floor (US22) is a thin layer of packed earth which evens out the bedrock. It is covered by a soft level of dark ashes (US21), about 15 cm thick, that contained no material. The second earth floor (US20), only partly preserved, was also packed earth with traces of burning. It was covered by an occupation layer of crumbly earth, *circa* 15 cm thick, with ten unglazed pottery shards, bones, shells and stones (US19). The top-most floor (US5) was packed clay with gravels and was well preserved over the whole room with many traces of burning visible everywhere, especially

in front of the eastern wall. The associated occupation layer, a soft grey filling with ashes and reddish stains, is 25 cm thick and it yielded about 50 pottery shards, including 3 glazed pieces, seashells, animal bones and some glass fragments (US3). About 35 cm thick, the final surface strata is a level of destruction which contains collapsed and crushed stones in soft earth (US1); pottery and other kind of findings are here completely absent.

Similarly to A1, the first floor in room A2 is the bedrock levelled with packed earth (US16). About 12 cm thick, the first occupation layer is a filling of earth mixed with ashes and gravels (US15), with a lot of charcoals, animal bones, shells and glass fragments, but no shards recorded. The second earth floor (US11) is rather rough, containing gravels and small stones and, similarly to A1, it is badly preserved with a large breakage in the middle of the room. The stratum on

² AVANZINI ET AL. 2001, fig. 47.

top is 30 cm thick and very soft with a lot of ashes, seashells and animal bones, some glass and 129 pottery fragments, including 1 Chinese import and 28 glazed pieces (US9). Due to the bad state of conservation of the floor, the filling was largely mixed with the layer underneath US15 and therefore the exact layer of provenance of the ceramic material is unclear. The final destruction layer (US4) is here more than half a meter thick, similarly to the destruction layer in A1; it delivered 9 shards, including 1 glazed fragment.

2. The “palace”

The so-called “palace” is a large building of many rooms located south-east of the settlement, along the southern surrounding wall. One room (A3), accessible through one door located in its southern wall, was excavated there, measuring 4 x 2.5 m (10 m²)³.

The original floor of the room was on the bedrock – packed earth built on a layer of stones and gravel (US14) with traces of burning in front of the door. The level on top of this is a rather compact mix of fallen stones and earth, 42 cm thick, with some ashes, food remains, and a large quantity of seashell along the southern wall (US6); it yielded a large quantity of ceramics, about 240 shards including 20 glazed pieces and 1 Chinese porcelain. Up this filling, a second floor is preserved in small sectors only (US12) on the threshold of the door and along the walls. The associated occupation level (US2, 30 cm thick) is a soft filling of ashes and earth with many shells and animal bones, and a lot of ceramics, some 640 fragments all told including 36 glazed pieces and 2 Chinese imports. The excavators interpret it as an outside dump piled up in the room on its level of destruction US6⁴, but the presence of many domestic remains in this stratum seems rather to indicate that there were two successive occupation levels. In any case, the ceramic assemblage is similar in US2 and 6, and fragments of same vessels were even found in both strata, which indicates that the stratigraphy was not so clearly divided.

3. The “stores”

The third sounding at al-Ḥamr al-Sharqiya was made in one of the long parallel rooms built near the northern fortification wall, not far north from the “palace”. These rooms are being interpreted as stores⁵. Room A4 is 2.10 m wide and at least 9 m long, but the ex-

cavation was limited to its northernmost part and the surface area of the sounding was some 10 m².

Similarly to the “house with a patio” and the “palace”, the earliest floor of the “stores” was on the bedrock (US18) and the archaeological deposits are *circa* 1 m thick, but only one phase of occupation was registered there. This layer of rather soft red earth is 30 cm thick, with few animal bones and some ceramics, 66 fragments including 9 glazed shards (US17). It is directly covered by a destruction level full of many large and medium-size stones, mixed with some animal bones and seashells, up to 70-75 cm thick in some places; the material is rather scarce, 33 pottery shards including 1 glazed piece.

THE CERAMICS

Altogether, about 1170 fragments of ceramics were unearthed in the course of the excavations at al-Ḥamr al-Sharqiya, including 4 Chinese pieces (0.35%), 98 glazed shards (8.33%), and approximately 1070 unglazed ones (91.30%). On this corpus, about 75% come from the palace (*circa* 875 ex.), more than 16.8% (197 ex.) from the house, mainly from room A2, and only 8.5% (99 ex.) from the store (fig. 4).

1. CHINESE CERAMICS

Four Chinese imports were found at al-Ḥamr al-Sharqiya⁶. One, from room A2 in the house (US9), is a fragment of a heavy stoneware jar (thickness up to 1.4 cm), with a rather fine light grey-brownish paste and an olive green glaze with small brownish iron spots, inside and outside; this piece was probably made in the Changsha area (Hunan province) and can be dated to the 9th-10th centuries. The three other pieces were found in the palace (US6, 1 ex.; US2, 2 ex.) and can be dated to around the 11th century. One is a shard of the body of a jar with thin walls (thickness 0.3-0.4 cm), with a fine paste of grey clinker, and a very thin nearly colourless outside glaze with large brown spots. The others are small fragments of *qingbai* porcelain, one from a cover with a light olive greenish glaze, the other from the wall of a lobed bowl with a bluish glaze⁷.

³ AVANZINI ET AL. 2001, fig. 49.

⁴ AVANZINI ET AL. 2001, p. 57.

⁵ AVANZINI ET AL. 2001, fig. 51.

⁶ The identification and dating of the Chinese pieces were made by

Zhao Bing (Cnrs - Umr 8155, Paris).

⁷ For a similar lobed bowl, but with slightly thicker walls, see ZHAO 2004, fig. 1:8.

us area	level	A	total	ch	gl	ungl	mica dense	white cobalt	mica soft	white plain	white lustre	blue glaze	ribbed light	ribbed dense	jar green	indian black	sgraf friable	mica red	jar heavy	afr yadh	mica dense	
10	S	2	4	33	0	1	32									8	1	1	1		2	
2	P	2	3	c. 640	2	36	c. 600					10	7	3	10		26	c. 200	20	2	9	
6	P	1	3	c. 240	1	20	c. 215				3	3	6	5	1		14	c. 100	20	6	3	
17	S	1	4	66	0	9	57			2			4	1	1		7	10	15	12	1	
4	H	3	2	9	0	1	8		3			1		2	1						28	
3	H	2	1	49	0	3	46		15	1		2		1	1							
9	H	1+2	2	129	1	28	100	1	c. 30	9	8	10	4	5	2	14						
19	H	1	1	10	0	0	10		3				4									
TOTAL			c. 1170	4	98	c. 1070	27	1	c. 50	12	11	26	25	17	16	22	48	c. 300	55	44	12	28

Figure 4 – Occurrence of diagnostic ceramic types at al-Ḥamr al-Sharqiya.

2. GLAZED CERAMICS

The 98 glazed pieces unearthed at al-Ḥamr al-Sharqiya may be equally divided in two main groups, half with a clear yellow or buff paste and an opaque blue or white glaze (Abbasid wares, 50 ex.), the second half with a red paste and a transparent glaze on a white slip (sgraffiato wares, 48 ex.).

Alkaline blue glaze ware

22 shards of typical alkaline blue glaze jars were found at the site, in both levels of the palace (US2, 10 ex. and US6, 3 ex.) as in room A2 of the house (US9, 8 ex. and US4, 1 ex.). These are fragments of the walls of rather heavy jars, some of them showing an appliqué barbotine decoration or the presence of small handles (pl. 3:2). The yellowish paste is medium and sandy, sometimes with exploding orange grit, coated inside and out with a thick glaze in various tints of greenish-blue, which inside are sometimes greyish or nearly black; the colours are varied and the fragments in every US clearly belong to several different jars. Two more shards, from room A1 in the house (US3), belong to a small jar or a jug with a flat base, rather thin walls and a cylindrical neck with a straight lip and traces of a relief decoration (pl. 1:1-2); the paste is rather fine and nearly buff, and the glaze is blue-green inside, and very clear blue outside where it covers the complete base. Two others from room A2 (US9) are from a bowl with a blue green glaze (pl. 1:3).

Alkaline blue glaze, or Sasanian-Islamic jars are one of the most characteristic ceramic types of the Abbasid period, around the 8th-10th centuries. These are rather globular or ovoid, between around 25 to 50 cm in diameter, with a ring base, a short cylindrical neck, and four small horizontal handles on the shoulder in most cases; many pieces are decorated with barbotine relief decoration under the blue-green glaze. Petrographic analyses of the typical yellow paste indicate that they were produced in the region of Basrah in southern Iraq⁸. They were used as containers for the trade of perishable merchandises and are found in most contemporary sites, from Madagascar on the shores of the Indian Ocean to Japan. For example they were found in strata dating to the 9th-10th centuries at Suhar, the main Omani harbour at that time, and at al-Shihr, the harbour of Ḥaḍramawt during the same period where green bowls were also discovered⁹. Only 28 fragments, of these jars, dated *circa* 980-1150, were found

at Sharma, a transit port for Gulf merchants on the coast of Ḥaḍramawt in Yemen near al-Shihr. Since a lot of the ceramics that were traded at that time passed through this port¹⁰ it is likely that the low number of fragments discovered indicates that this ware was almost totally out of use by the end of the 10th century although they were found in all layers due to their long residual trail. This dating confirms the sequence described at Shanga, a medieval trading city on the Lamu archipelago in Kenya where 678 alkaline blue glaze shards were registered, mainly in levels dated *circa* 800-1000¹¹.

Opaque white glaze ware

The site also yielded 24 fragments with an opaque white glaze. Most of them (19 ex.) were found in the house, nearly always associated with the blue glaze jars in room A2 (US9). The others come from the lower level in the palace (US6, 3 ex.) and the store (US17, 2 ex.). Except for one shard from the palace from the shoulder of a jug or small jar, all the fragments are from bowls of different sizes, the diagnostic pieces showing a ring base, a rather conical shape, and an everted lip. The paste is rather fine, pale yellow or buff, and the white glaze covers the piece entirely, including the outside part of the base. Half of the shards, from the house and the store, show no trace of decoration (pls. 1:4-6; 3:1). The glaze is often of a particularly good quality, thin and well adhering, white and shiny. The other pieces, from the house and the palace, are mostly decorated, with motives in an olive lustre; in particular there are two small conical bowls or cups from the house, and a jug from the palace (pls. 1:8-9; 3:3). Although the glaze is equally rather thin and of good quality, it has decayed to a slightly greyish tint. The style of decoration is similar on all the pieces: lustre motifs of medallions, lines and dots on a white or lustre ground. The fragment of the ring base of a bowl with a cobalt decoration was also found associated in the house (pl. 1:7); the glaze has decayed to a yellowish hue and the remaining decoration is a large patch of dark blue cobalt in the middle of the bottom. The opaque white glazed bowls typical of the Abbasid period were originally produced around the beginning of the 9th century to imitate the Chinese white stoneware and porcelain pieces which were just starting to be imported in the Islamic world; very quickly, Islamic potters added colour decoration, in cobalt blue, light blue and green and splashes of green-brown-yellow,

⁸ MASON, KEALL 1991, pp. 57-61.

⁹ ROUGEULLE 2006, pp. 43-44 and fig. 2; KERVRAN 2004, figs. 22:7 and 24:1, pl. 25; HARDY-GUILBERT 2004, p. 131, fig. 14.

¹⁰ ROUGEULLE 2004.

¹¹ ROUGEULLE 2005, pp. 226-227; HORTON 1996, p. 277.

polychrome or monochrome lustre. The latter type of pottery is thought to have been introduced after the main depopulation of Samarra, which took place around 890¹², and the pieces described here, therefore, are probably no earlier than the beginning of the 10th century. Although the plain ware is in a variety of pastes and was produced in many different kilns, from Fustat to Rayy and Nishapur, the cobalt and lustre types, with their typical fine buff paste, were made exclusively in Basra¹³. The material from al-Ḥamr al-Sharqiya therefore seems mainly to be from these kilns. The white bowls were widely traded in the Islamic world and, as “Sasanian-Islamic” jars, they were also exported by sea as far as Madagascar and Thailand albeit on a smaller scale. 230 such pieces were unearthed at Shanga, mainly from the same levels as the blue ware, and a dozen pieces, including a lustre bowl, were also found at Sharma, all in the early layers¹⁴. Lustre bowls were also found at al-Shihr¹⁵. In general, lustre jugs are very rare, and the presence of such a piece at al-Ḥamr al-Sharqiya in addition to the many lustre pieces in general, is certainly significant.

Sgraffiato ware

The repartition of the sgraffiato pieces at al-Ḥamr al-Sharqiya is very different from that of the Abbasid wares. Indeed, sgraffiatos were only found in the palace (40 ex.) and the store (8 ex.), with not a single piece from the house. Except for some fragments of jars, all the shards are from bowls, mostly in the form of large conical pieces with a typical excised ring base and a straight lip which is sometimes scalloped. The paste is brick red and rather fine, covered inside and on the wall outside with a white slip which, in turn, is covered by a transparent shiny lead glaze with patches of green, honey and purple brown on a white ground. Except for a shallow undecorated cup with a colourless glaze (pl. 3:4), the inside of the bowl is always decorated with a design engraved in the slip, which therefore appears dark under the glaze. Nearly all diagnostic pieces show a similar style of decoration, with a pseudo-calligraphic frieze on a hatched background on the wall, and a medallion, also with hatched motifs, on the base (pl. 3:5-10, 14-17). The shoulder of a thick jar is decorated with floral scrolls on a hatched background (pl. 3:11-13).

Sgraffiatos, pottery with an engraved design in a slip

under a transparent glaze, are among the most famous ceramic products of the Islamic world. They were probably first made in Iraq around the beginning of the 10th century but kilns were soon established in many other places, from Iran and Afghanistan to Egypt, producing many different wares with a variety of paste and styles of decoration¹⁶. The pieces of al-Ḥamr al-Sharqiya are a well-known ware, with a red paste and specific glaze, shapes and engraved motifs, dated to around the 11th-13th centuries and was probably made in south-eastern Iran¹⁷. It was in any case widely distributed through the maritime trade networks and was found in large amounts on many coastal sites of the western Indian Ocean, as far as Madagascar¹⁸. For example thousands of pieces of this ware have been excavated at Shanga and at Sharma, and their chrono-typology is now quite well documented. Numerous pieces have been found with a calligraphic hatched decoration under a mottled glaze similar to the one described here. These appeared in the late 10th century and were present until the middle of the 12th century at least¹⁹. But these sites also contained other types of red sgraffiatos in the form of pieces with simple engraved motifs under a monochrome brown or green glaze, which seem to appear rather late in the 11th century, and also bowls with a rough champlévé design, which cannot be earlier than the middle of this same century. Although the corpus is perhaps too limited to be significant, the absence of the latter type at al-Ḥamr al-Sharqiya might indicate that the occupation there dates to the first half of the 11th century which could be confirmed by the high quality of the pieces and especially the fact that they are glazed outside.

3. UNGLAZED CERAMICS

More than 90% of the shards excavated at the site are unglazed. They belong to different ceramic wares, some of them imported and others that are probably of local manufacture.

African brown ware

African imports are rather rare, 4 shards only, found in the upper level of the palace (US2, 2 ex.) and in the store (US10 and 17, 1 ex. each). These are fragments with a coarse brown sandy paste, sometimes partly

¹² KENNET 2004, pp. 33-34.

¹³ MASON, KEALL 1991, p. 61; WATSON 2004, pp. 36-40.

¹⁴ HORTON 1996, p. 277; ROUGEULLE 2005, p. 227.

¹⁵ HARDY-GUILBERT 2004, fig. 16.

¹⁶ See KENNET 2004, p. 34.

¹⁷ Similar pieces seem to have been produced at Tiz, on the south-eastern coast of Iran, see STEIN 1937, pp. 90-91.

¹⁸ ROUGEULLE 2006, pp. 44-48 and fig. 8.

¹⁹ HORTON 1996, table 14 p. 273 and pp. 281-290; ROUGEULLE 2005, p. 228.

burnished outside and often burnt, one of them with an engraved decoration of lattice on the neck (pl. 4:1). They belong to globular pots with a short wide neck, a well-known shape in the so-called Tana ware of Eastern Africa.

Dated to the 9th-13th centuries, these pots are present in all contemporary sites on the East African coast²⁰ and were also found at several sites overseas. Sharma in particular, which had very strong trade links with Africa, yielded several hundreds of such pots together with many other shapes in Tana Ware, with a variety of types of engraved decoration on the neck including single or double lattice, but similar pieces were also found as far as Suhar on the Batinah²¹.

Indian wares

Altogether, about 75 shards of Indian wares were recorded at the site, which may be from at least 10 different vessels. Half of them come from the palace, from the lower (US6, 20 ex.) and the upper (US2, 20 ex.) layers. They belong to pots or jars with a round base, an everted neck and rather thin walls, many of them decorated with paddle impressions (pl. 4:2-6). The paste is coarse, buff to pinkish, with numerous mineral temper and mica in some cases, and the pieces are covered with an outside red or orange slip, sometimes more or less burnished. Similar pieces were also found in the lower level at the store (US17, 15 ex.). Other Indian pieces discovered at al-Ḥamr al-Sharqiya are small fragments from two pots probably, with a coarse grey paste, thin walls and an outside polished black slip, one of them with a decoration of impressed commas over a carination; one of the piece was found in room A2 of the house (US9, 14 ex.), the other in the upper destruction level at the store (US17, 15 ex.).

The Indian ceramics were widely exported from the pre-Islamic period onwards but up to now have not been well documented. Many Indian imports were found at Suhar and at Sharma, including red and black pots similar to the pieces described here, in layers dated to around the 11th-12th centuries²². It seems that the

red pots with paddle impressed decoration are product from Sri Lanka, where many similar vessels are recorded²³. On the contrary, the grey pots with black slip are known in the Indian subcontinent up to the Sind region, mainly from between the 10th and the 13th centuries²⁴. Note that these two types were found at Sharma associated with many black jars or heavy pots with grooved necks, which are totally absent at al-Ḥamr al-Sharqiya²⁵.

Yadhghat jars

Excavations in the palace area yielded a dozen fragments of Yadhghat ware (U6, 3 ex. and US2, 9 ex.). These are pieces with a rather coarse and badly fired paste that cleaves easily, with a mixed or mineral temper including white inclusions. The colour is buff but has a wide grey core and reddish colour near the margins, usually covered with a thin cream slip. Two shards are from narrow necks with an expanded rim outside, from coarse hand-made small jars with traces of modelling visible on the inner surface (pl. 4:7-8).

The Yadhghat ware was first recorded at Sharma in Ḥadramawt, where it represents one-third of the unglazed assemblage. It was produced in the nearby wadi Jerba valley, near the village of Yadhghat, where several bonfire kilns were discovered which were in activity from the 10th to the middle of the 12th centuries and were associated with refuse heaps²⁶. The most common form is an ovoid jar with a rather narrow cylindrical neck and an expanded rim, a wavy-line engraved decoration on the shoulder, and often with traces of fingers inside. They are present all along the Sharma horizon, ca 980-1150²⁷ and some Yadhghat pieces were also recorded west of Sharma at al-Shihr²⁸, and east in the wadi Masīlah as well as on the coast of Dhofar²⁹, and as far as the Ra's al-Hadd³⁰.

Ribbed jars

Two typical types of jars were found with very different pastes but which may be associated nonetheless because due to their very original style of decoration

²⁰ E. g. at Shanga and Kilwa (HORTON 1996, pp. 247-258 passim; CHITTICK 1974, fig. 100).

²¹ ROUGEULLE 2004, pp. 224-225 and fig. 13:1-3; KERVRAN 2004, fig. 26bis:3.

²² KERVRAN 2004, fig. 30:6-8 (red pots) and 10 (black pot); ROUGEULLE 2004, pp. 221-222 and fig. 11:1-5 (black pots) and 14-18 (red pots).

²³ GUILLOT ET AL. 2003, pp. 81-82.

²⁴ A. Collinet pers. com. The Indian ceramics from Sharma are currently under study by A. Collinet (Département des Arts de l'Islam, Le Louvre Museum).

²⁵ ROUGEULLE 2004, fig. 11:6-13.

²⁶ ROUGEULLE 2007.

²⁷ *Ibid.*, fig. 1:1-4.

²⁸ HARDY-GUILBERT 2004, fig. 18:1, 2, 4, 5.

²⁹ By an American team directed by J. Zarins (see <http://arabian-archaeology.com/arch2islamic.htm>, n°95-108, a bowl with excised and red painted decoration).

³⁰ At HD4, an early Islamic site located due north of the Ra's al-Hadd excavated in 1988 by J.E. Reade (pers. documentation, by courtesy of S. Cleuziou, co-director of the Joint Hadd Project, several jars with incised wavy-line decoration).

and similar outside appearance. The first examples are rather large heavy jars (17 ex.), with a coarse to rather fine dark red paste, well fired and dense, with a more or less abundant mineral temper and yellow exploding grit in some fragments; one shard belongs to a short cylindrical neck with horizontal grooves and a thick rounded lip (pl. 2:1). The second group of shards (21 ex.) are from thinner and smaller jars, with a coarse and rather light pinkish paste, and mixed temper with many holes, mineral temper with chamotte or a lot of yellow exploding grit; the fragment of a neck similar to the one already described was also found (pl. 2:2-3). Several shards in these two types are covered with a thick cream barbotine coating on top of which horizontal contiguous flat ribs were modelled, others have wide incisions, and nearly all are covered with a dark brown or black slip. Both types were found in all three areas excavated, often associated in the same level. Heavy jars with horizontal ribbings and a dark slip were common on some pre-Islamic sites in the Oman peninsula for a long time, but it now appears that this was a tradition that continued well into the medieval era. Pieces with a black fired paste dated to the 7th – early 9th century³¹ are reported from Kush in the UAE; other fragments, with a coarse red paste under a black or red slip are known in Suhar in Oman in levels dated to the first half of the 12th century³²; and 75 fragments were unearthed during the excavations at Sharma. This last corpus includes dense very well fired dark red, sometimes almost purple, pieces, as well as a variety of coarse light pastes with mixed temper including exploding grit similar to the shards from al-Ḥamr al-Sharqiya, always covered with dark brown or red slip. They were found in all levels of the entrepôt, *circa* 980-1150, and a nearly complete piece was discovered crushed on the substratum. It is an ovoid jar, at least 60 cm high and some 50 cm wide at its maximum diameter with a pointed base, four small vertical handles on the shoulder, and probably a wide and short cylindrical neck, now missing. The body is covered with a thick cream barbotine, ribbed in the two lower third, the shoulder is decorated with wide horizontal straight and wavy incisions, and the jar is covered with an irregular brown slip which stops about 15 cm above the base. This ware seems therefore to have been produced up to the first half of the 12th century at least, certainly by several different kilns given the variety of the pastes, and probably in the Oman peninsula or the Persian Gulf area.

Various jars

Many undiagnosed fragments of jars or pots were unearthed at the site, mainly in the palace, in US2 and 6 which delivered up a large corpus of ceramic material (*c.* 600 and 215 shards respectively). Of them 16 shards are from the flat walls of large jars, *c.* 1 cm thick, of a rather fine paste, light but quite clinky, with tiny holes and mineral temper; the colour is buff greenish, very uniform although the surfaces of the shards turn black when corroded. Although rare, this type was found in all three areas excavated and in nearly all layers; the pieces from the palace (US2, 10 ex. and US6, 1 ex.) are fragments of a shoulder with traces of a vertical handle, grooves at the base of the neck, and an engraved decoration of hatched medallions and parallel wavy-lines in vertical bands, which are probably from the same jar (pl. 4:9-11). Such jars are known in the Abbasid period, up to around the 11th century. A piece with similar decoration and a paste described as white, fine and well fired, was found at Kharg island, in the Monastery where occupation was dated to the 7th-10th centuries³³. An other piece is published from Siraf, with pale green paste, and others are reported at Murwab, an 9th *circa* site in Qatar³⁴.

About 45 fragments of walls of an other type of large coarse jars were found in the palace and the store only (US2, 26 ex.; US6, 6 ex.; US17, 12 ex.). The paste is characteristic: light brown or pinkish but greyish near the outside surface which is often burnt black, very coarse and heavy, with a lot of mineral temper and large angular fragments of whitish crushed stones. The pieces are hand-made and rough with traces of modelling inside. No parallel was found for this ware and it could be of local or regional production.

Micaceous wares

Most of the unglazed pieces found at al-Ḥamr al-Sharqiya are of a very peculiar wares characterised by the presence of a lot of mica in the paste. They represent roughly one third of the material. Three main types may be distinguished.

The first type of micaceous ware was only found in the house (US3, 15 ex.; US4, 3 ex.; US9, *c.* 30 ex.; US 19, 3 ex.). The paste is pinkish-orange, coarse with a lot of rather black mineral temper and mica, badly fired and soft under the nail; and the surface of the shards is roughly burnished and quite glossy with mica. The pieces are very fragile and diagnostic fragments are few, from coarse hand-made pots with a neck or a ten-

³¹ KENNET 2004, p. 58.

³² KERVRAN 2004, figs. 32:7 and 34:6, pl. 24:9.

³³ HARDY-GUILBERT, ROUGEULLE 2003, pl. 14:5.

³⁴ TAMPOE 1989: fig. 26:97; Hardy-Guilbert, pers. com.

on (pl. 2:6-8).

The second type micaceous ware was also found in the house, in the occupation level of room A2 (US9, 27 ex.). These are globular coarse hand-made pots with an everted neck and a rounded lip, often burnt (pl. 2:9-13). The paste is dark red with a grey core in most cases, much denser than in the first type. The mineral temper is very numerous, with white, black and red particles, and mica. Although it is hardly visible when the pots are burnt, the outside surface seems covered with a brown slip and several pieces have a rough engraved decoration.

The third type of micaceous ware comes from the palace (US2, ca 200 ex.; US6, ca 100 ex.) and the store (US10, 1 ex.; US17, 10 ex.). The paste is rather more brittle than soft or dense, orange pinkish like the first ware, but with a black, white and red mineral temper like the second. Several pieces from the palace have a red painted decoration of dots, bands and runoff. The shapes are more varied, coarse hand-made globular bowls, small pots with a neck, and probably jars (pl. 5:1-8).

Similar to what was discovered in the house, another denser micaceous ware was found in the palace and the store. The paste was much better fired, buff to brown, with very angular mineral temper and mica (pl. 5:9-11). Note that other coarse handmade pots with an everted neck, very similar in shape to the micaceous wares just described but with a sandy paste and no mica, were also found in the palace (pl. 5:12-14).

The large quantity of micaceous pieces found at al-Ḥamr al-Sharqiya, and their very bad quality, indicate that they were produced locally by some nearby kilns. Pre-Islamic ceramics from Sumhuram which are identified as local also have a micaceous paste³⁵, confirming their local origin.

CONCLUSIONS

Although several layers were registered in most of the soundings, no clear chronological evolution of the ceramics can be identified for any of the three areas excavated at al-Ḥamr al-Sharqiya. In the “house with a patio”, the material from A1 only comes from the upper level, and the corpus is probably mixed in A2, as it is in the palace (A3). Anyway, the assemblage is rather homogeneous in all three areas, and the occupation of the buildings does not seem to have lasted long.

On the contrary, the assemblages vary greatly from one building to another, in particular between the “house with a patio” on the one hand and the “palace” and the “stores” on the other (fig. 4). The assemblage from the house is distinguished by a shard of a Changsha stoneware jar, varied Abbasid productions with blue or white glaze, including many shards with lustre decoration, and the total absence of sgraffiato pieces; it can therefore be dated to the 10th century. This assemblage is also characterised by two typical micaceous wares, the soft ware with a burnished surface and the denser ware with black, white and red mineral temper. Although the corpus is probably too small to be significant, the absence of African and red Indian imports, of heavy jars with a stony temper and of Yadhghat ware is worthy of note.

Except for ribbed jars, whether with a dense or light paste, for greenish jars and black Indian pots, which are present in both corpuses, the assemblages from the palace and the store are completely different. For example, the palace assemblage has red painted brittle micaceous ware, hatched sgraffiatos and *qingbai* porcelains which are totally absent in the house. Some Abbasid white pieces are still present, but only in the early strata, and the presence of alkaline blue glaze shards in the upper layer of the palace can easily be explained by the fact that these strong containers lasted much longer than the thin white bowls. This assemblage is also characterised by the presence of red African and Indian pots, of Yadhghat ware, and of heavy jars with stony temper. This corpus is similar to the one from early layers in Sharma and can probably be dated to the first half of the 11th century, before the apparition of later types as the sgraffiatos with *champlevé* decoration.

Two distinct periods of occupation were therefore identified at al-Ḥamr al-Sharqiya, the first in the “house with a patio” west of the settlement, dated to the 10th century, and the later one, in the “palace” and the “stores” about 60 m eastward, dated to around the first half of the 11th century. As the fortified area is rather small, about half an hectare, the fact that the buildings belong to different periods implies that the population was even smaller than could be conjectured from the few buildings visible on the surface. This could be explained by al-Ḥamr al-Sharqiya not being a real settlement, but rather a small fortified entrepôt to deposit transit goods from the sea-trade; the strongly fortified position and the richness of the material on an oth-

³⁵ See the description of «kitchen vessels» in SEDOV, BENVENUTI 2002, pp. 189-191.

erwise rather remote and small site, strengthen this hypothesis. Made of one or several stores inside an enclosure, it was probably used temporarily, and possibly briefly, during at least two different periods. The first period identified in the excavated areas is dated to the 10th century, perhaps the middle or the early part given that the store, located along the western wall of the enclosure, was already ruined when the site was reoccupied. At that time, al-Ḥamr al-Sharqiya was on the maritime routes between the Gulf and Suhar to the East, al-Shihr and Adan to the West. The second period of activity saw the rebuilding of new stores in the eastern part of the enclosure around the beginning of the 11th or maybe even the end of the 10th century given the presence of Abbasid white glaze shards in the early layers. As a matter of fact, it is not impossible that the entrepôt of al-Ḥamr al-Sharqiya was reopened when Sharma was founded, around 980; direct trade links between both harbours are in any case confirmed by the presence of Yadhghat jars at al-Ḥamr. This second entrepôt was in its turn abandoned, probably before the middle of the 11th century.

The question remains whether this possible entrepôt on the al-Ḥamr al-Sharqiya promontory was associated with some nearby settlement or if it was an isolated outpost only connected to the maritime networks. The very impressive northern wall and gate are earlier than the first occupation of the enclosure and very probably contemporary with Sumhuram, as may also be the buildings near the gate. The circular structures west of the gate often include large standing stones and are rather reminiscent of the Bronze age period³⁶, but a recent survey nevertheless showed that this area is littered with small shards, some of them glazed³⁷.

Except for a single fragment of Abbasid blue glazed jar, these are all sgraffiatos (about 30 shards), diagnostic pieces with mostly engraved designs under a seemingly monochrome glaze. Only one fragment has traces of a hatched decoration, and another has the characteristic champlévé decoration which appears at Sharma around the middle of the 11th century. It is therefore clear that a rather large settlement of rounded structures was located in this part of the promontory during the medieval period, but certainly later than the first occupation in the enclosure, and maybe even later than the second one. In the course of his survey of the Salalah plain, J. Zarins only registered one other site in the Khor Rori area on the western promontory, dat-

ed to the early Islamic period seen in the “characteristic barbotine blue ware, thick red wares and glass”³⁸. Indeed, shards of alkaline blue glaze jars were found during the recent survey at the western tip of this western promontory, in and around a large building with many rooms, *circa* 40x20 m. The chronological relation of this building with the first occupation at al-Ḥamr al-Sharqiya has still to be examined but the distance between the sites indicates that they are not contemporary, the link between the promontories being difficult because of the mouth of the wadi Darbat. No close relation can be drawn between the medieval sites discovered at Khor Rori and either of the two occupations of the possible entrepôt, which was possibly rather isolated. Should the al-Ḥamr al-Sharqiya enclosure be definitely identified as an entrepôt, it should confirm the importance of special transit harbours like this and lead us to reconsider the organisation of the maritime trade at that time: entrepôts are never mentioned as such in medieval texts and their existence stayed unnoticed until the excavations at Sharma in recent years.

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³⁶ AVANZINI & AL. 2001, p.50.

³⁷ This survey was made by the author in the end of October 2007, thanks to A. Avanzini who included this study in the 2007b mission

of the IMTO at Khor Rori.

³⁸ ZARINS 2001, p. 150, (TA92:8).

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PLATES

- 1-2. Neck and base of a small jar or jug. Fine buff paste, tiny mineral temper; pale blue-green glaze inside and outside, nearly whitish under the base.
IQM00; US3, 1-2.
3. Conical bowl with thin straight walls and slightly everted lip (diam. 28 cm). Fine buff paste; inside and outside green glaze.
IQM00; US9, 7.
4. Conical bowl with thin straight walls and slightly everted lip (diam. 24.5 cm). Fine buff paste; inside and outside white glaze.
IQM00; US9, 6.
5. Large conical bowl with medium straight walls and slightly everted lip (diam. 33 cm). Medium sugary buff paste, tiny mineral temper; inside and outside white shiny glaze with small crackles (probably same pieces as base *infra*).
IQM00; US9, 4.
6. Base of a large bowl (diam. 13 cm). Medium sugary buff paste, tiny holes and mineral temper; inside and outside white shiny glaze with small crackles, even under the base (probably same piece as rim *supra*).
IQM00; US9, 3.
7. Base of a bowl (diam. 12 cm). Rather fine buff paste; inside and outside white bluish glaze, even under the base; cobalt blue spot inside.
IQM00; US9, 5.
8. Small conical bowl or cup with everted lip (diam. 13 cm). Fine buff paste; inside and outside opaque white glaze, even under the base; olive lustre decoration.
IQM00; US9, 1.
9. Small globular bowl or cup with everted lip (diam. 9 cm). Fine buff paste; inside and outside opaque white glaze, even under the base; olive lustre decoration.
IQM00; US9, 2+9.

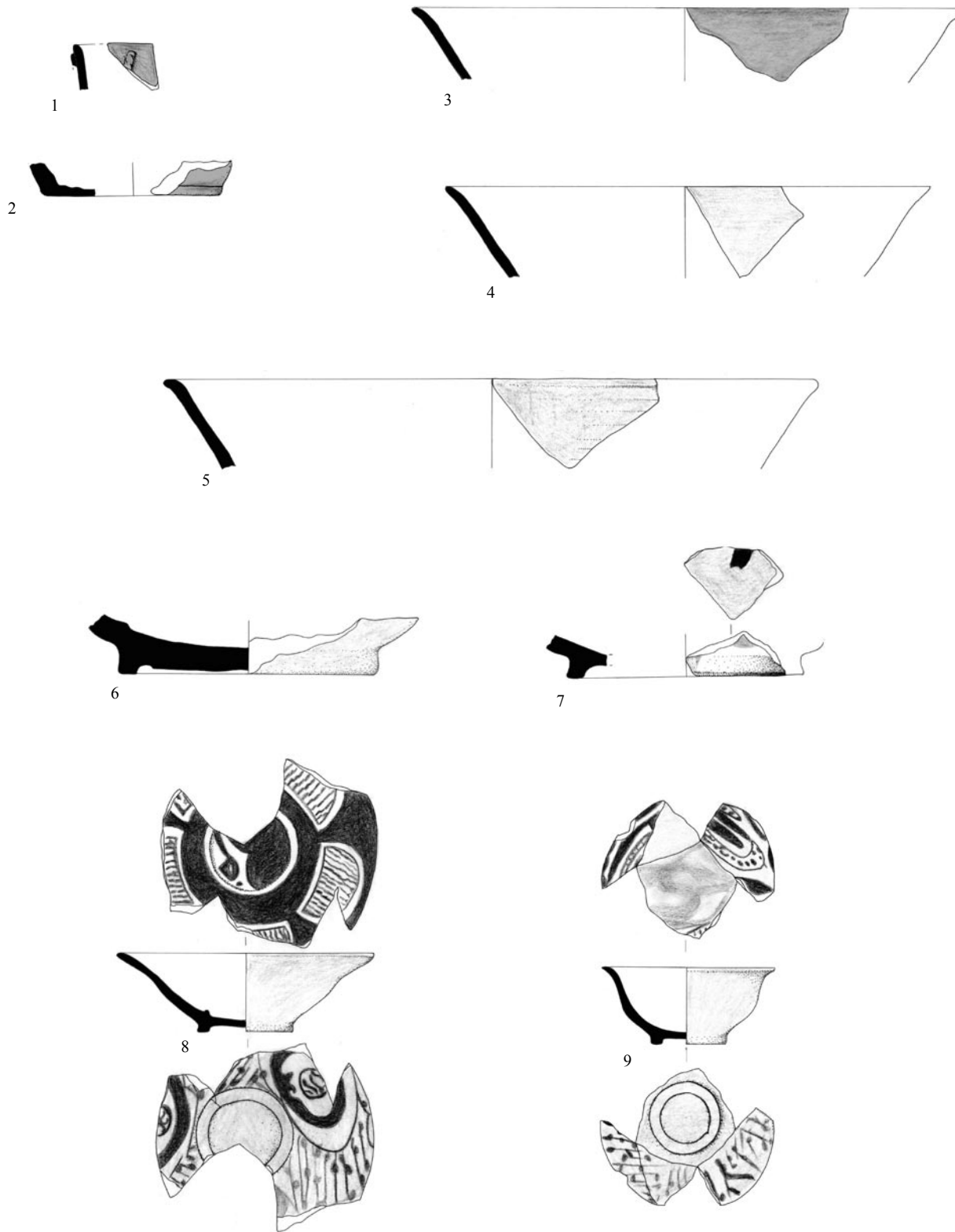


Plate 1 – The ceramic assemblage from the “house with a patio”: glazed wares. Scale 1:3.

1. Cylindrical neck with thickened rim (and fragments of walls) of a large jar (diam. 25.5 cm). Rather fine red paste, hard fired, mineral temper and tiny yellow exploding grits; ribbing and wavy-line incised decoration; brownish red slip outside and inside the neck, blackish on the wall.
IQM00; US9, 14.
2. Cylindrical neck with thickened rim of a small jar (diam. 10 cm). Coarse pinkish paste, mixed temper including chamotte; ribbing and incised decoration; inside and outside buff slip or barbotine.
IQM00; US9, 19.
3. Fragment of shoulder of a jar. Coarse pinkish fabric, mixed temper including chamotte; incised decoration.
IQM00; US19, 1.
4. Neck of a large pot or jar (diam. 22.5 cm). Coarse paste, greyish near the inside margin, pinkish near the outside, heavy black mineral temper; blackish surfaces with shiny inclusions.
IQM00; US3, 6.
5. Pot with horizontal shoulder and everted neck (diam. 15 cm). Coarse brown paste with grey core, large white and sandy mineral temper, some mica; impressed line of dots on the shoulder.
IQM00; US3, 4.
6. Shoulder of a pot. Coarse soft red pinkish paste, many black mineral temper and mica; inside and outside smoothed surfaces, shiny with mica.
IQM00; US9, 26.
7. Wall of a pot with a tenon. Coarse soft orange pinkish paste, many white angular mineral temper and mica; inside and outside slightly smoothed surfaces, shiny with mica.
IQM00; US3, 10.
8. Wall of a pot with a tenon. Coarse soft orange pinkish paste, many black mineral temper and mica; inside and outside smoothed surfaces, shiny with mica.
IQM00; US3, 8.
9. Shoulder and neck of a pot. Burnt piece; coarse blackish paste; many black, white and red mineral temper, some mica; blackish surfaces.
IQM00; US9, 15.
10. Pot with everted neck (diam. 14 cm). Coarse dark red fabric with a grey core, many black, white and red mineral temper, some mica; blackish outside surface.
IQM00; US9, 18.
11. Pot with everted neck (diam. 18 cm). Coarse dark red fabric with grey core, many black and white mineral temper, many mica; inside and outside brown burnished slip.
IQM00; US9, 12+17.
12. Pot with everted neck (diam. 21 cm). Coarse dark red paste, many black, white and red mineral temper, many mica; incised line on the shoulder; blackish outside surface.
IQM00; US9, 16.
13. Thick pot with cylindrical neck. Coarse very dark red paste with a grey core, many black, white and red mineral temper, some mica; dark slip outside and inside the neck.
IQM00; US9, 13.

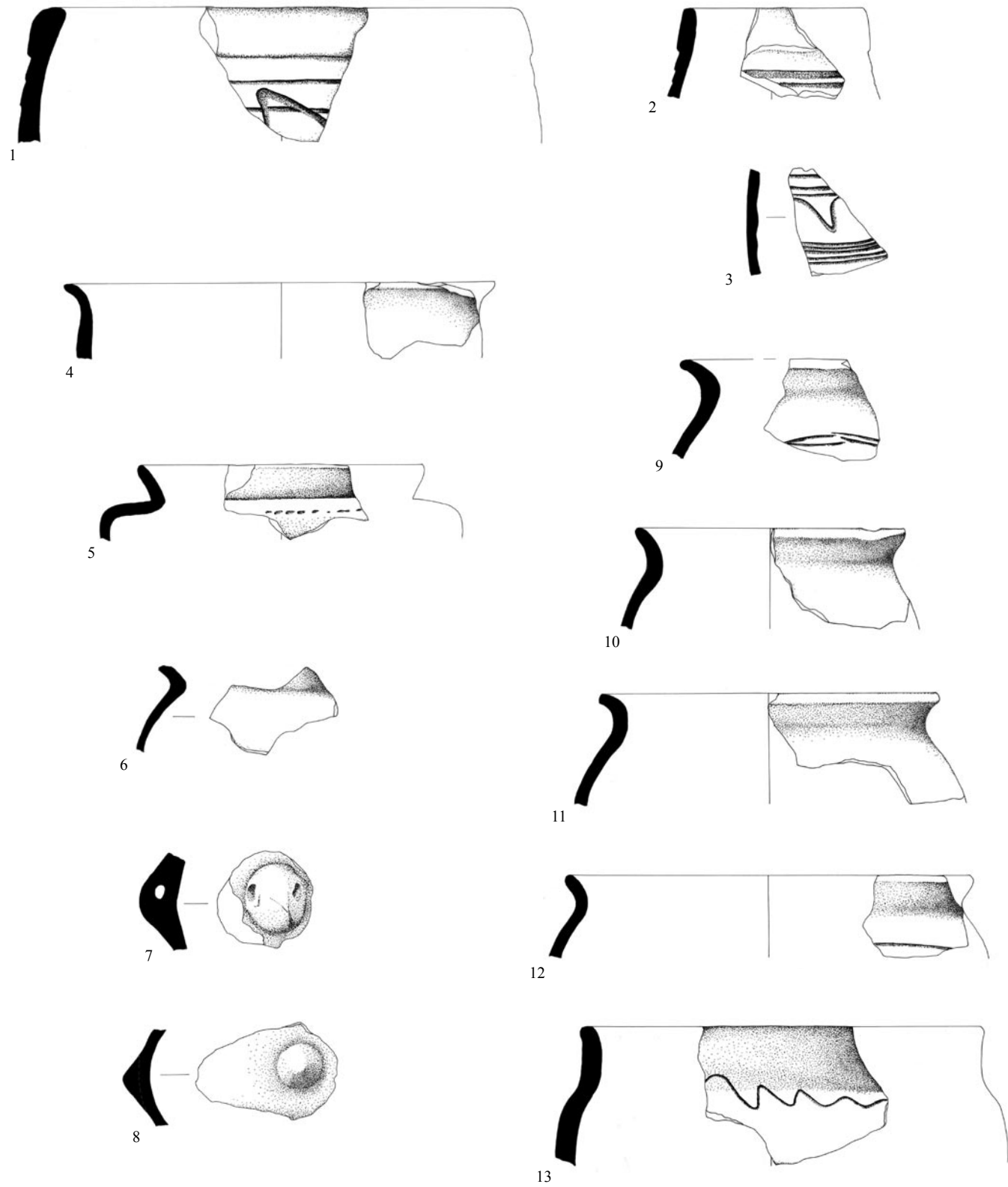


Plate 2 – The ceramic assemblage from the “house with a patio”: unglazed wares. Scale 1:3.

1. Disc base of a large bowl (diam. 14 cm). Fine buff paste; traces of an opaque white peeling glaze, decayed yellowish.
IQM00; US6, 3.
2. Fragment of wall of a jar. Medium burnt greyish paste; inside and outside turquoise glaze; appliqué decoration.
IQM00; US2, 13.
3. Shoulder of a thin jar or jug with handle (diam. max. 21.5 cm). Fine buff paste; inside and outside opaque white glaze, peeling, the outside surface is pinkish when the glaze is missing; outside olive lustre decoration.
IQM00; US6, 6.
4. Shallow bowl with vertical rim and horizontal expanded lip (diam. 20 cm). Rather fine brick orange paste; white slip inside the bowl and outside the lip, but not on the upper part of the lip which stays brown; no decoration; inside transparent slightly yellowish glaze with a honey spot; repair holes.
IQM00; US2, 3.
5. Shallow bowl with tapered lip. Rather fine brick red paste; inside and outside white slip; rough incised and hatched decoration; inside and outside glaze mottled in green and honey.
IQM00; US2, 7.
6. Deep conical bowl with rounded scalloped lip. Fine brick red paste; inside and outside white slip; pseudo-calligraphic hatched decoration; inside and outside shiny transparent glaze, slightly yellowish with patches of green and purple, green lip.
IQM00; US17, 3.
7. Shallow conical bowl with tapered lip (diam. 18 cm). Fine brick orange paste; inside and outside white slip; pseudo-calligraphic hatched decoration; inside transparent glaze with a patch of honey, green lip, outside shiny light green glaze.
IQM00; US2, 6.
8. Conical bowl with rounded lip (diam. 24 cm). Rather fine brick red paste; inside and outside white slip; pseudo-calligraphic hatched decoration; inside and outside thin shiny transparent glaze, slightly yellowish with large patches of brown.
IQM00; US6, 4.
9. Deep conical bowl with notched lip (diam. 25.5 cm). Rather fine brick pinkish paste; inside and outside white slip; pseudo-calligraphic hatched decoration; inside and outside transparent glaze, slightly yellowish with patches of honey, green and purple.
IQM00; US2, 5.
10. Large shallow conical bowl with straight scalloped lip (diam. 28.5 cm). Medium brownish paste with cracks and many yellow exploding grits; inside and outside white slip; pseudo-calligraphic hatched decoration; inside and outside transparent glaze with patches of honey, green and purple.
IQM00; US2, 4.
- 11-13. Three fragments of shoulder of a small jar. Fine dark red paste, tiny yellow exploding grits; inside and outside white slip; outside hatched decoration of a floral scroll; inside and outside shiny transparent glaze, light honey inside, with light green patches outside.
IQM00; US2, 8, 11, 11a.
14. Excised ring base of a bowl (diam. 9 cm); fine brick orange paste, brownish at core, some cracks; inside and outside thin white slip; hatched decoration in a medallion; inside and outside thin transparent shiny glaze with two brownish patches.
IQM00; US17, 1.
15. Excised ring base of a bowl (diam. 8 cm). Rather fine brick orange paste; inside white slip; hatched decoration in a medallion; inside transparent glaze, yellowish with a green patch.
IQM00; US2, 1.
16. Excised ring base of a bowl. Burnt sherd; rather fine greyish paste; floral hatched decoration in a medallion; inside and outside glaze, probably mottled in green.
IQM00; US2, 2.
17. Excised ring base of a bowl. Rather fine dark red paste; inside white slip; no decoration visible; inside shiny glaze mottled in green and honey.
IQM00; US6, 2.

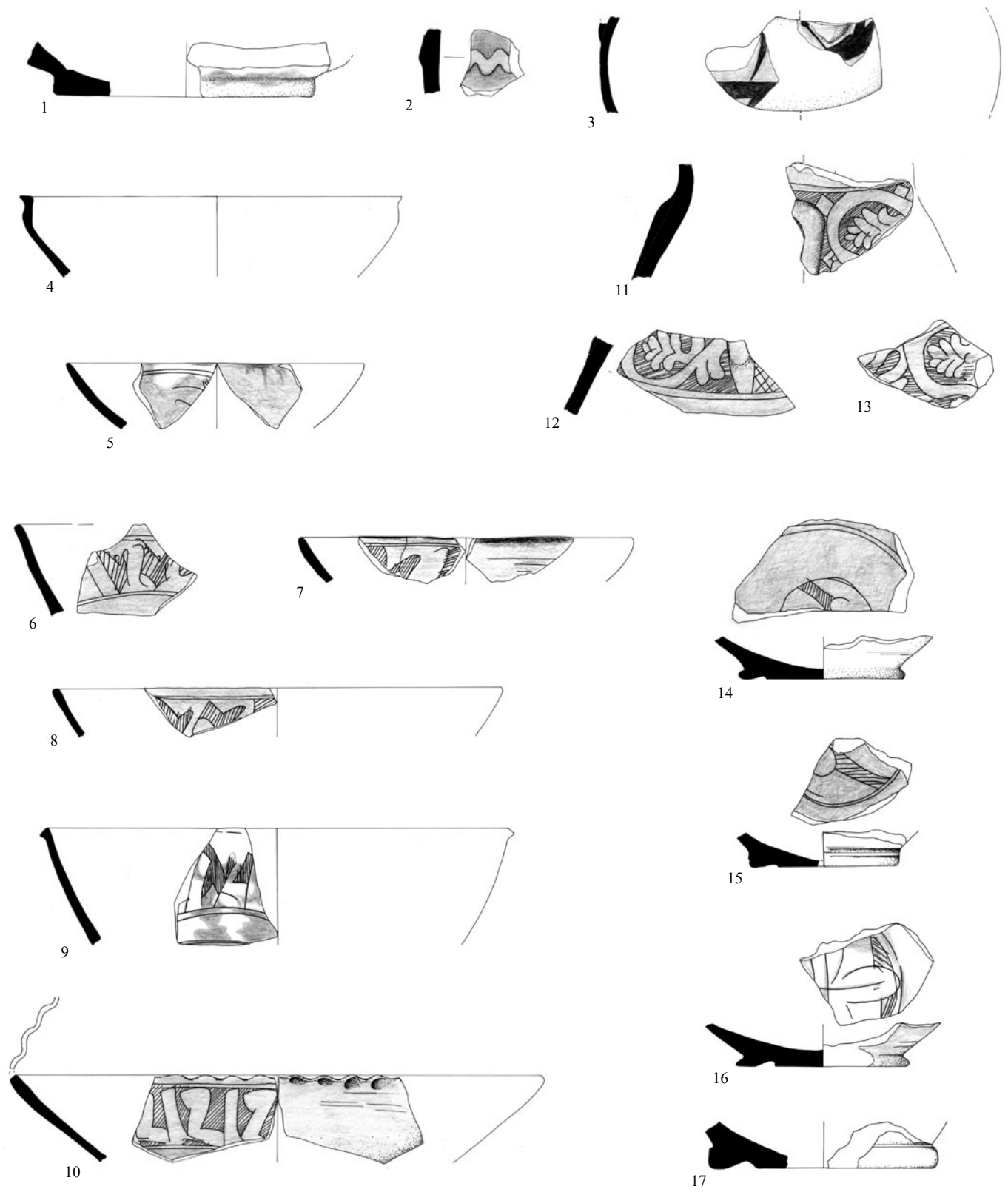


Plate 3 – The ceramic assemblage from the “palace” and the “store”: glazed wares. Scale 1:3.

1. Pot with wide neck (diam. 18 cm). Burnt piece; coarse brown paste, many sand temper; outside burnished brown slip, burnt black.
IQM00; US2, 48.
2. Pot with everted neck. Medium dark red paste, some sand temper, some mica; red slip, slightly burnished; incised decoration on the shoulder and the neck.
IQM00; US2, 52 + US6, 11.
3. Thin wall of a pot. Medium light red paste, many sand and red mineral temper; outside paddle stamped decoration; outside red orange slip, slightly burnished.
IQM00; US2, 71.
4. Neck of a pot or jar. Rather coarse pinkish paste, many tiny sand and red mineral temper; outside and inside red orange slip.
IQM00; US2, 54.
5. Neck of a pot or jar. Rather coarse buff pinkish paste, many sand and red mineral temper, some mica; outside and inside orange slip.
IQM00; US2, 53.
6. Neck of a jar or pot. Coarse buff paste, many sand and red mineral temper; outside and inside orange slip.
IQM00; US2, 55.
7. Neck of a jar. Medium soft and cleaving paste, buff with a grey core, vegetal and white mineral temper; thin buff slip.
IQM00; US6, 25.
8. Neck of a jar. Medium soft and cleaving paste, buff with a grey core and reddish near the margins, vegetal and red and white mineral temper; thin buff slip.
IQM00; US2, 69.
- 9-11. Fragments of shoulder of a jar. Rather fine buff greenish paste, tiny holes and mineral temper; incised decoration; the shards are covered with a blackish corrosion.
IQM00; US2, 58, 59 and US6, 13.

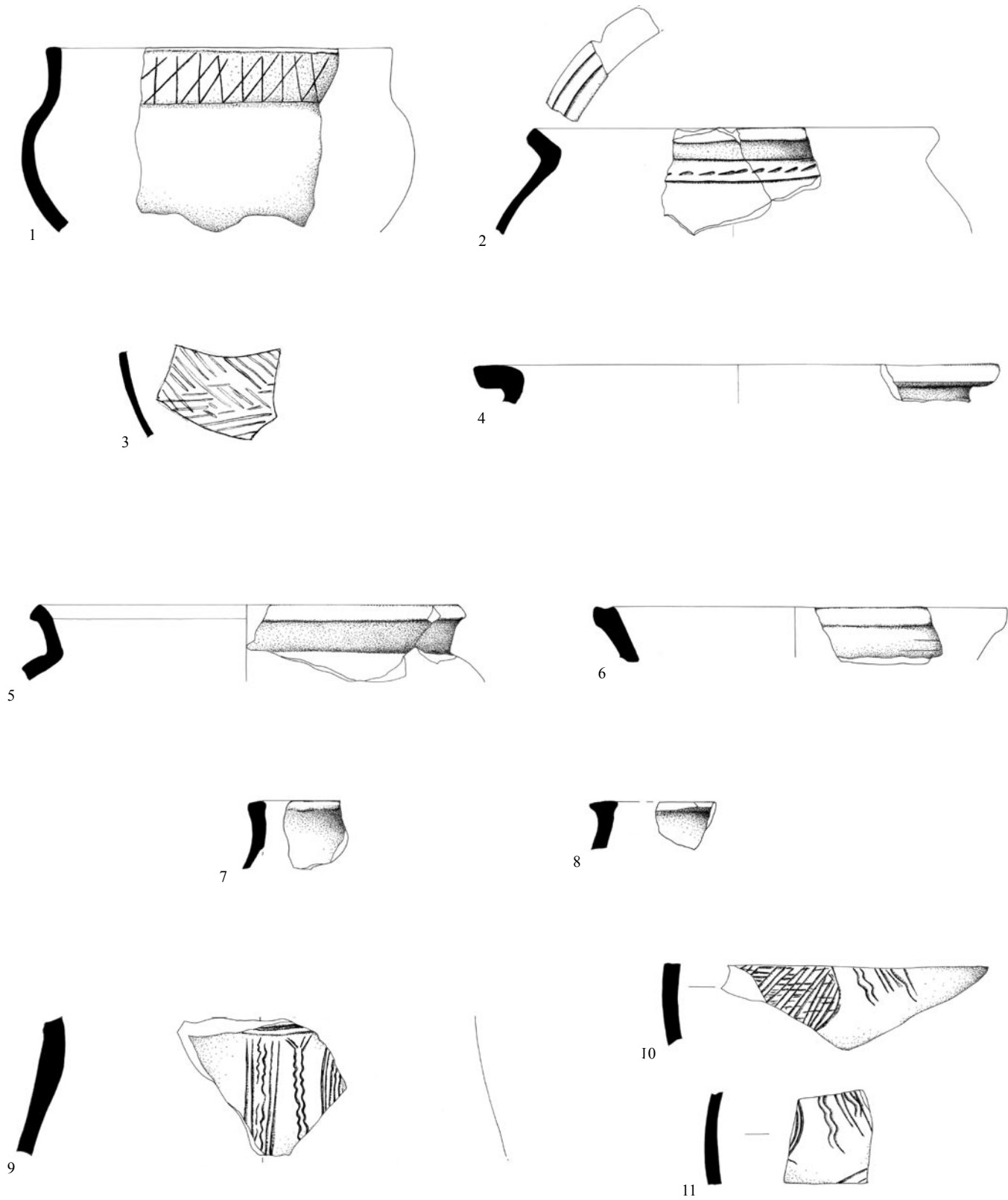


Plate 4 – The ceramic assemblage from the “palace” and the “store”: unglazed wares (1). Scale 1:3.

1. Hole-mouth jar or large globular bowl (diam. 18 cm). Coarse and friable pinkish paste, many black, white and red mineral temper, many mica.
IQM00; US2, 50+51.
2. Globular bowl with straight lip (diam. 18 cm). Coarse and friable pinkish paste, many black, white and red mineral temper, many mica; outside decoration of red painted vertical bands.
IQM00; US2, 27.
3. Cylindrical neck of a jar, or a small pot. Coarse and friable pinkish paste, many black, white and red temper, many mica; outside decoration of red painted vertical bands and circular spots, black spots on the lip.
IQM00; US2, 23.
4. Cylindrical neck of a jar, or a small pot (diam. 10 cm). Coarse and friable pinkish paste, many black, white and red temper, many mica; outside decoration of red painted circular spots.
IQM00; US2, 22.
5. Very small pot with cylindrical neck (diam. 6 cm). Coarse and friable pinkish paste, black and red temper, mica; outside decoration of a red painted horizontal band on the lip and a vertical band on the body.
IQM00; US2, 40.
6. Small pot with everted neck (diam. 10 cm). Coarse and friable pinkish paste, many black, white and red temper, many mica; outside decoration of red painted vertical runoff.
IQM00; US2, 26.
7. Pot with everted neck (diam. 15 cm). Coarse and friable pinkish paste, many black, white and red temper, mica; outside decoration of red painted horizontal and vertical bands.
IQM00; US2, 41.
8. Pot or small jar with everted neck (diam. 10 cm). Coarse and friable pinkish paste, many black, white and red temper, many mica; decoration of a red painted horizontal band inside and outside the lip.
IQM00; US2, 32.
9. Pot with cylindrical neck (diam. 18 cm). Coarse, dense and rather clinky, dark brown paste with a grey core, many mineral temper and tiny mica; outside buff slip.
IQM00; US2, 21 + US6, 9.
10. Small pot with everted neck. Coarse pinkish paste, many mineral temper, many mica; a line of punctuates on the shoulder.
IQM00; US2, 56.
11. Narrow neck of jar or pot. Very coarse dense and heavy buff ware with a wide grey core. Many large mineral temper as small gravel, many mica; rough surface.
IQM00; US2, 57.
12. Pot with everted neck (diam. 15 cm). Coarse light pinkish brown paste, many angular sandy temper, no mica.
IQM00; US2, 24.
13. Pot with everted neck (diam. 19 cm). Medium, dense and rather clinky paste, buff pinkish with a black core, many angular sandy temper, no mica.
IQM00; US2, 19.
14. Pot with everted neck. Rather coarse brown reddish paste with black core, many sand temper, no mica.
IQM00; US2, 20.

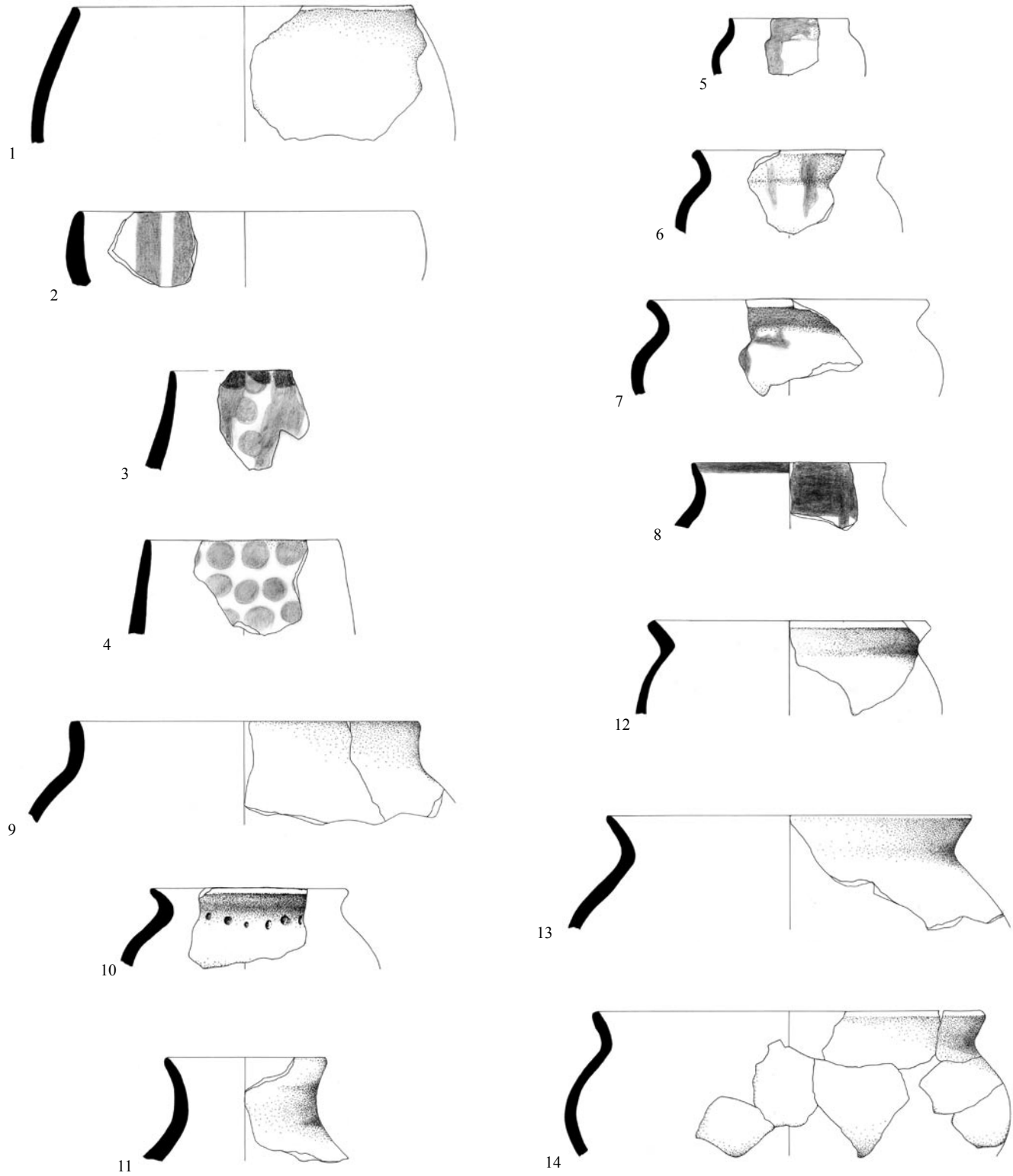


Plate 5 – The ceramic assemblage from the “palace” and the “store”: unglazed wares (2). Scale 1:3.

