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Abbasid Jumeirah, Dubai
An Overview of the Site and Its Architectural Stucco Decoration

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Abstract: Jumeirah (Dubai) is one of the most important sites for the understanding of the Abbasid period in eastern Arabia. At the same time, it is severely understudied and the small number of publications available on the subject situates Jumeirah on the margins of academic debate about the region in the Islamic period. This paper aims to prompt discussion on Jumeirah by presenting an overview of the site, a summary of archaeological research and a preliminary study of the typology of stucco decorations. Some issues regarding problems with the reconstructions and renovations of the buildings are also raised. The study of stuccoes contributes to a better understanding of the site's chronology, indicating its main phase of occupation to the Abbasid period and the possible existence of an earlier, pre-ninth or early ninth century phase.

Keywords: Jumeirah, Islamic archaeology, Islamic architecture, stucco, Abbasid period, eastern Arabia

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Jumeirah is the site of an archaeological paradox. Considered one of the largest settlements in eastern Arabia dated to the Abbasid period and renowned for its richly decorated residential architecture, it is poorly understood and remains at the very margins of academic discussion about the region in the early Islamic period. The Jumeirah Archaeological Site is located in the modern Jumeirah district, southern suburbs of Dubai, the United Arab Emirates (25˚11'48" N 55˚14'30" E). The protected area (Jumeirah 1) covers approximately 8.8ha (**Fig. 1**), however the site itself was originally bigger as some of its parts (areas called Jumeirah 2 and Jumeirah 3) were discovered to the north and north-east of the modern

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1. Jumeirah 1: protected part of Jumeirah Archaeological Site (processing: J. Juchniewicz).

Visitors Centre. The ruins of Jumeirah are now located 600m from the seashore. The site of Jumeriah 1 consists of a number of residential buildings and houses of different sizes: JM1, JM3, JM4, JM5, JM6, JM8 and JM9, a small mosque (JM7) and a market place (JM2). All these constructions are loosely scattered at a distance of several hundred meters. Archaeological investigations at Jumeirah started in 1969. The site was found by workers during the construction of the link road and the first archaeologist to work at the site was Dmitri Constantine Baramki from the American University of Beirut. During the four seasons, Baramki excavated three best visible structures on the site – 'a governor's residence' (JM1), 'a market place' (JM2) and 'a hunting lodge' (JM5). He described the rest of the site as

consisting of a number of monocellular houses that were 'too dilapidated to make their excavations of value'.[1] Baramki described Jumeirah as a caravan station situated between Oman and Ctesiphon in Iraq, a hypothesis expressed in the title of his article 'An ancient caravan station in Dubai'. He dated the site to the Sasanian/Umayyad periods and argued that it had been re-used in the late Islamic era. Such a chronology was based on the overall appearance of the architecture and pottery finds, among which Baramki reported Sasanian glazed pottery shards.[2]

The next archaeological mission to work at Jumeirah was an Iraqi team under the supervision of Munir Taha. Iraqi archaeologists explored buildings JM3 and JM4. As far as we know, the Iraqi team excavated also the area of Jumeirah 2 located to the north of Jumeirah 1.[3]

Since 1990 the archaeological works at Jumeirah have been coordinated by the Dubai Municipality, first under the directorship of Hussain Qandil and later of Hassan Zein. In 2019, archaeological works were conducted in buildings JM1, JM5, and JM7. An area between building JM8 and the modern walkway was also examined by establishing eighteen test trenches.[4]

Publications of the aforementioned works conducted at Jumeirah are very limited, of an interpretative character, and rarely present archaeological data. No full or preliminary reports from any of the excavation works have been published.

In 2016, a study of the architectural stucco material preserved at the site and in the archaeological storage was conducted by Agnieszka Lic. In 2020, further investigations were conducted in buildings JM5 and JM9. The project was also led by Karol Juchniewicz. The works focused on the courtyard of building JM5 and preceded the planned conservation works there. A small mound hiding building JM9 had partly been excavated some time earlier, however the team managed to expose a small fragment of the architecture still preserved. Also, some work has been done in JM7 by documenting the standing architecture. Unfortunately, the project, which was contracted for nine months, was terminated after only three months, with less than two months of fieldwork, due to the COVID-19 pandemic.

The main goal of this paper is to present and discuss briefly the recent research conducted at the site: the excavations and documentation season conducted in 2020 as well as the study dedicated to architectural stucco decorations. Certain observations on the dating of the site will be also briefly discussed. It must be stressed, however, that the results of this research as presented here are of preliminary character. This is due to inaccessibility of the documentation of the previous excavations, the fact that the 2020 excavation season was interrupted and the preliminary nature of the study of the stucco assemblage. The material presented in the following is thus insufficient to draw

[1] Baramki 1975.
[2] Baramki 1975.
[3] The Dubai Municipality representatives' personal communication.
[4] The Dubai Municipality representatives' personal communication.

any final conclusions and the research results will need to be supplemented – and potentially corrected – in the future. The present authors are, however, of an opinion that in the case of a site of such importance for the understanding of the early Islamic economic, political, settlement-related, and artistic landscape of this region, dissemination of research results – even if incomplete and difficult to assess and interpret – have the value of prompting academic discussion.

It is hoped that forthcoming research activities planned at the site of Jumeirah will enable the provision of new data and results as well as advance the preliminary results presented in this paper.

OVERVIEW OF THE SITE

Nine separate buildings were excavated and registered in Jumeirah 1, all made of coral stone (**Fig. 2**).[5] Two more are visible at the Jumeirah 2 and Jumeirah 3 sites in the vicinity, however the state of research on them has not yet been reported. Buildings at the main site, Jumeirah 1, will be presented briefly here.

Building JM1 was called by Baramki the 'governor's residence' as it seemed to be the most splendid one. It was excavated by him in 1969 and probably initially consolidated shortly after that.[6] In the early 2000s, it was further cleaned and consolidated by Qandil.[7] The building consists of two distinctive parts, an eastern one and a western one. Both Baramki[8] and Qandil[9] stated that the eastern part of the building was built as an addition to the western part. Baramki claimed that the original, western part, was built in the Sasanian era and remodelled in the Umayyad period, while Qandil has dated the western part to the end of the tenth century and the eastern part of the building to the seventeenth–eighteenth centuries. No evidence has been given, however, to support such dating. From the west and the south-west, the whole complex was extended with the addition of a fenced yard or a garden. All parts of the complex seem to have been in use at the same time at some point, as some of the walls were clearly reinforced. Also, both parts were decorated with small, rounded buttresses. It seems now that the eastern part was built in the same manner as the building JM5, however one must remember that this may have been due to later consolidation works.

JM2 was described by Baramki as 'the market place'. It consists of two parallel rows of rooms. The northern row, with three rooms, is equipped with a bench made of rubble, while the southern row has four rooms and a storage area behind the two of them. All entrances are opening to the street between the two rows. Because thorough consolidation was conducted at this part of the site, nothing more about the original structure can be

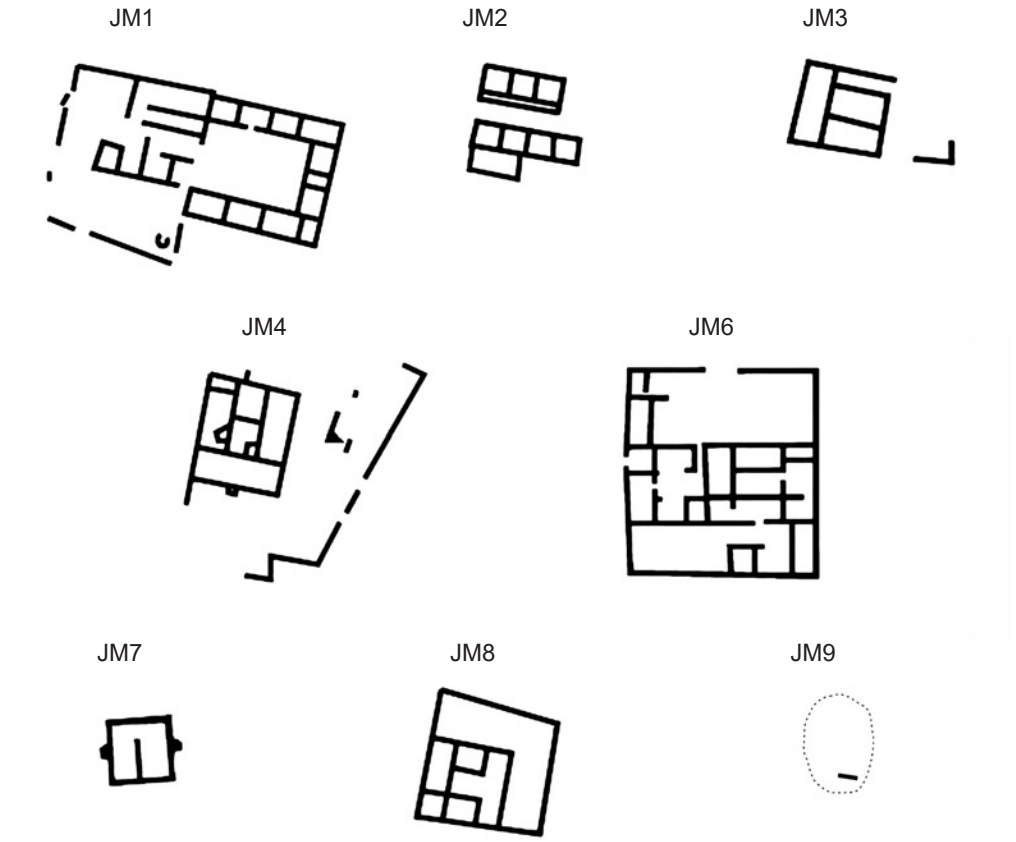
[5] 'Coral stone' is a common name for the local material used widely in the architecture of the coastal Arabia. For further description, see: Berti 2016.

[6] Baramki 1975.

[7] Qandil, personal communication.

[8] Baramki 1975.

[9] Qandil, unpublished report.



2. Jumeirah 1: sketch plans of the buildings; for plan of JM5 see Fig. 3 (Drawing: J. Juchniewicz; processing: K. Juchniewicz).

said now. Baramki, who had excavated the market, stated that there was one plaster door socket found *in situ*. He dated the market to the Umayyad period.[10]

JM3 is a household with an elongated central courtyard and long rooms to the north, south and west. The north-western corner was reinforced with a small rounded buttress, a common feature in Jumeirah. It is very likely that the rooms were somehow further internally divided, however, with the current state of preservation it is not clear. To the east, the building seems to have an external courtyard with some domestic installations.[11]

JM4 is another household with long rooms arranged along a central corridor or a small courtyard. It was excavated in the 1970s by the Iraqi team and later additionally consolidated by Qandil. To the south and the east, the building is enclosed with a stone wall of the external yard. It was dated to the tenth century. Qandil has reported a considerable

[10] Baramki 1975.
[11] Baramki 1975.

quantity of the painted stucco decoration found in this building along with some small finds like a jar handle decorated with the turban-like knob.[12]

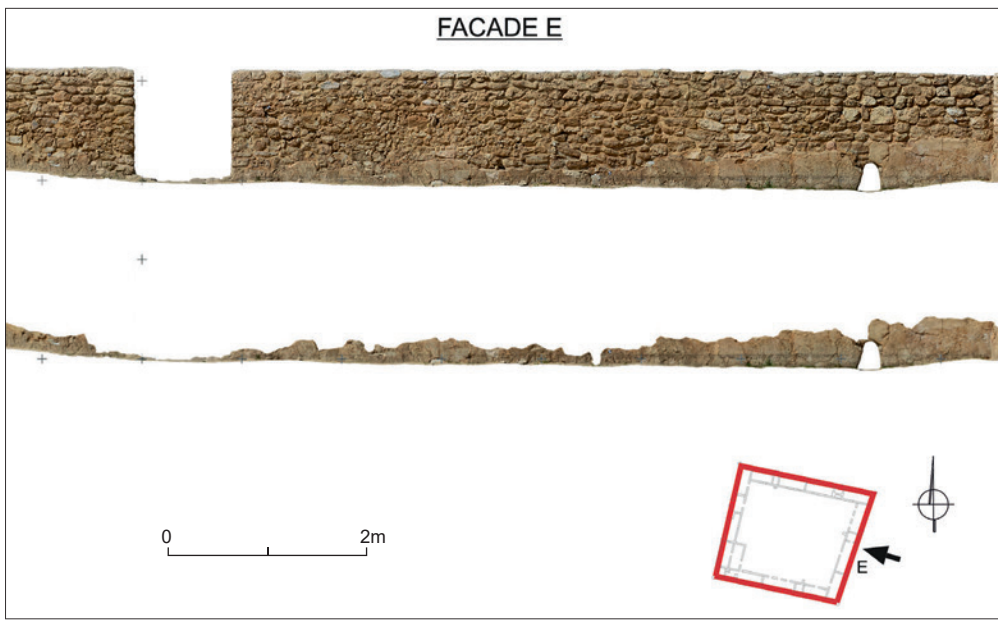
JM5, also called the caravanserai, is the largest building in Jumeirah, measuring nearly 1,000m^2. It was excavated and consolidated by Baramki between 1969 and 1974. In the early 1990s, some further works were undertaken by the Dubai Municipality under the direction of Qandil. In 2019, Dubai Municipality specialists excavated the south-eastern corner of the courtyard. It seems that there was some installation or other feature of an industrial or agricultural purpose. The report from this work is hopefully to be published.[13] Baramki described building JM5 as 'by far the most important structure'[14] at the site. His interpretation of the building as a hunting lodge, used also for snaring foxes, seems to be rather controversial. Nevertheless, Baramki's description of JM5 is of exceptional value as it reflects the original state of preservation of the building (**Fig. 3**).

The building is accessible through the main, narrow gate located in the western façade. There are also four other entrances – one in the northern façade leading only to one room (SP6), two in the eastern façade (leading to SP10 and SP12) and one in the southern façade (leading to SP16). According to Baramki, all rooms of JM5 served domestic purposes while the small chambers were used as traps to catch foxes.[15] He did not explain, however, what was the basis for such a hypothesis. Smaller chambers are located as follows: SP4 and SP7–8 in the north, SP11 in the east, SP15 in the south and SP19 in the south-western corner of the building. All rooms seem to be arranged in such a way that there is a small chamber between each pair of the elongated rooms. There are two exceptions to this pattern. The first is a set of rooms connected with the main entrance, namely rooms SP1, SP2, and SP22, and the second is room SP13 in the south-east corner of the building. The walls and corners of the building are decorated externally with rounded buttresses.

Due to the lack of the documentation from the previous archaeological and conservation works conducted in years 1970–2019, our team focused on understanding the original state of preservation of the building. On the basis of the orthophoto documentation of the façade of JM5, the parts of the walls that are definitely new were separated from those that are probably original (**Fig. 4**). The study also revealed that the walls of the building were consolidated probably during or right after Baramki's excavations. Later on, probably after 1990, judging from a few available archive photos, some major restoration works were conducted and they probably affected the architectural layout. Without documentation of these works it is very difficult to differentiate which parts of JM5 were altered and which were original. Nevertheless, careful examination of Baramki's text may give some clues about those changes. For example, his description does not mention room SP21 in the south-west corner of the courtyard. Moreover, modern material found in 2020 below the foundation of the walls of this architectural feature suggests that they

[12] Qandil, unpublished report.
[13] Qandil, unpublished report.
[14] Baramki 1975.
[15] Baramki 1975.

3. Plan of JM5. Modern alterations in red (Drawing: J. Juchniewicz).



4. Rectified orthophoto of the modern state of preservation of the section of the eastern wall of JM 5 (above) and the possible original part of the same wall as excavated by Baramki (Phot. J. Juchniewicz).

5. JM7, 3D documentation of the mosque (processing: O. Bagi, J. Juchniewicz).

were laid out recently. There were also some considerable changes in the architecture of the eastern wall of JM5, notably along room SP12. It is visibly thinner than the rest of the walls and it has no semi-circular buttress, which was reported by Baramki.[16] Instead, in the place where a buttress could be expected, there is an entrance, which must be a modern addition.

JM6 is a large household, made – according to Qandil – out from two separate dwellings.[17] Looking at the plan, it seems more likely, however, that it was one large house with a private area clearly separated from the public one. The building was excavated by Qandil and later consolidated. It consists of a large courtyard to the north, the building divided into two separated parts and a smaller courtyard to the south. According to the excavators the building is dated to the Abbasid era.[18]

JM7 is the mosque located close to the market place (JM2). The building was discovered and excavated by Qandil. The original state of preservation was different from the modern one (**Fig. 5**), as Qandil implemented a restoration programme. According to him, the internal walls might have been inscribed with Arabic texts written in black ink. The tenth century as the date of the foundation of the mosque and the eighteenth century as the moment of its abandonment have been suggested on the basis of the excavated material.[19] Without archaeological documentation, it is very hard to verify such a hypothesis.

[16] Baramki 1975.
[17] Qandil, unpublished report.
[18] Qandil, personal communication.
[19] Qandil, unpublished report and personal communication.

6. JM 9, looking north. South-east corner of the building visible in the south-east quarter of the trench (Phot. K. Ochnio).

The 2019–2020 excavations by the Dubai Municipality under the direction of Mansour Boraik revealed some data indicating roof collapse in the central part of the building, as well as the division of the building into two parts by a wall.[20] In 2020, after the excavation work had been put on hold due to the COVID-19 pandemic, the Polish team made a photogrammetric documentation of the mosque, which shows the state of preservation after previous reconstruction works**.**

JM8 is the most recently excavated household, dated to the Abbasid period. It is a relatively wealthy household, considering the finds reported by the excavator. Long rooms are organised along the central corridor, and to the north and east there is an external yard.[21]

JM9 is located between JM1 and JM8. It is the only example of a structure which Baramki reported as a monocellular house, 'too dilapidated to make excavation of value'.[22] He also made a note that the site consisted of a number of such buildings. Perhaps at the time of the discovery of the site, such structures were still visible well enough to refer to them in plural. Now, however, JM9 remains the only known example. The state of preservation of the monocellular building JM9 does not allow for any detailed description, as only the small part of the southern wall of the building was preserved (**Fig. 6**). Small, single-room,

[20] Boraik, personal communication.
[21] *Dubai Municipality Excavations Report 2007*; *2008*.
[22] Baramki 1975.

buildings of this kind might have served local fishermen for dwelling during periods of migration of shoals of fish. Such use of contemporary small, monocellular buildings of similar character was observed by Juchniewicz on Failaka Island, Kuwait.

DATING OF THE SITE

Baramki suggested that Jumeirah was established in the Sasanian period, around the fifth or sixth century, as he believed that the pottery found at the site was Sasanian. He also argued that architecture of the Jumeirah buildings and their stucco decoration find parallels in the Sasanian era. The site remained occupied during the Umayyad period when, according to his interpretation, the eastern part of the building JM1, the 'governor's residence', was built.[23]

Preliminary study of ceramics conducted by Derek Kennet, however, has indicated that there are no sherds that could be linked to the pre-Islamic period and the assemblage indicates the ninth–tenth centuries as the beginning of the occupation of the site.[24] While occupation of the ninth and possibly tenth centuries is demonstrated by the presence of the Samarra Horizon wares, the date of the abandonment of this settlement around the mid-eleventh century seems to be indicated by the presence of hatched *sgraffiato*, as argued by Timothy Power.[25] Kennet has proposed a similar date for the end of this first phase of occupation but has also indicated its possible extension towards the twelfth century.[26] More recently, a preliminary analysis of the documentation of the majority of the available ceramic assemblage from Jumeirah conducted by Jerzy Oleksiak has also indicated a similar, roughly ninth to twelfth century date for at least a part of the wares from this site, although limited presence of earlier wares cannot be ruled out.[27]

It has been claimed, however, that at least some of the buildings were in use also in the late Islamic period. In his very brief report from the works conducted at the site between 1993 and 2001, Qandil argued that buildings JM6 and JM7 (the mosque) were occupied up to the eighteenth century.[28] He also suggested that eastern part of JM1, Baramki's Umayyad modification of the 'governor's residence', was built in seventeenth–eighteenth century.[29] Also unpublished reports from the 2007–2008 seasons dedicated to the excavation of building JM8 inform that there were pottery sherds dated to the late Islamic period.[30]

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[23] Baramki 1975.

[24] Kennet 2007: 97.

[25] Power 2018: 225–227.

[26] Kennet 2012: 194.

[27] The present authors would like to express their gratitude to Jerzy Oleksiak for providing this analysis. It has to be underlined that the analysis is based on the study of the documentation produced during the interrupted 2020 excavation season and not the first-hand examination of the assemblage and that the documentation might have not provided full information needed for a comprehensive understanding of this assemblage. This preliminary study is planned to be followed by a detailed analysis of the ceramic assemblage in the future.

[28] Qandil 2003: 318.

[29] Qandil, unpublished report and personal communication.

[30] *Dubai Municipality Excavations Report 2007*; *2008.*

ARCHITECTURAL STUCCO DECORATION

Stucco decorations[31] from Jumeirah have not been published to date – with the exception of two fragments included in Baramki's paper.[32] Neither of them has been the subject of a comprehensive study that would address questions such as their original architectural context, formal features, iconography or dating. Several fragments are listed and only briefly described in an unpublished report from the 2007 excavation season.[33]

The present study is based on approximately seventy decorative fragments available for a first-hand analysis in the storeroom of the Archaeological Centre at the Jumeirah Archaeological Site in 2016.[34] Further fragments were also dispersed on the site's surface, in the remains of the buildings and between them. All the fragments from the storeroom, as well as some pieces still preserved at the site, were photographed. Two further pieces, found at the site in 2019, were recorded in 2020. It is hitherto not certain whether the present authors were provided access (and thus studied and photographed) to all the fragments preserved at the storages.[35] For this reason, the following presentation of the material is preliminary and needs to be updated after more systematic research at Jumeirah is conducted.

Typology

Despite the above-discussed limitations, the typology of Jumeirah stuccoes – as proposed below (**Table 1, Figs 7–10**) – seems to be representative for the whole collection in question. This is because the repertoire of decorative motifs in Jumeirah's stuccoes is fairly tight and the majority of the fragments preserved in the storeroom and at the site in 2016 can be ascribed to one of the types presented below. Excluded from this typology are fragments of purely architectural plaster and pieces, the original shape and decoration of which is illegible due to bad state of preservation. Many larger fragments were broken into smaller pieces and the precise number of pieces preserved from the site is not certain, hence the number of stucco fragments ascribed to each of the types was not indicated and no quantitative analysis can be conducted at the moment. The proposed typology of the stucco fragments from Jumeirah is based on the formal and iconographic, as well as comparative, analyses of the preserved pieces. The vast majority of Jumeirah's stuccoes are not catalogued and no inventory numbers are assigned to particular fragments.

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[31] The subject of this study are stuccoes which are understood here as decorations made of mouldable, quick-setting material. For such a definition of stucco and more about the difference between stucco and plaster see Lic 2017: 151 and – in more details – Lic forthcoming a.

[32] Baramki: 1975.

[33] *Dubai Municipality Excavations Report 2007*: 15–16; Figs 19–26.

[34] Poor state of preservation of some of the pieces makes it often difficult, especially in the case of small fragments, to determine whether they were originally decorative pieces or fragments of architectural plaster.

[35] This is because in the absence of an inventory of stucco fragments, it is necessary to physically check the whole collection of artefacts believed to come from Jumeirah in order to establish how many stucco fragments are kept there, and this has not been possible so far. It is also not certain whether the pieces visible on the ground in 2016 were later transferred to the storages.

Table 1. Typology of stuccoes from Jumeirah. Unless otherwise stated, indicated are the approximate, average dimensions of the preserved fragments and not the dimensions of the original decorations

JMR Type	Dimensions	Description	Fig.
1	h. 12cm	Friezes with moulded decoration of alternating six-petal flowers enclosed in hexagons and simplified rosettes. One of the edges of the frieze is decorated with small triangles. Empty spaces between the circular motifs are filled with herringbone-like pattern.	7a
2	h. 12cm	Friezes with moulded decoration of 'almond and diamond' motif structured within rectangular fields. Both edges of the frieze are decorated with alternating triangles with bases directed either towards the centre of the friezes or towards the outside.	7b
3	h. 11cm	Friezes with moulded decoration composed of an arcade in the centre of the frieze and, along its borders, of alternating triangles with bases directed both towards the centre of the friezes as well as outwards. The arcade is made of three-pointed arches. Under each of the arches is a motif composed of an arrow shape enclosed within a pointed arch-like structure supported by what seems to be large pillars. Thanks to an archival photograph (compare **Fig. 8**) and a drawing made in 1996,[36] it is known that such friezes originally joined strips of plain plaster with sharp, teeth-like decoration and that both these strips did, in turn, crown a block of plain plaster. This has been interpreted as originally composing door lintels by the excavators who worked at the site in 1996 under the supervision of Qandil.	7c, 8
4	w. 10cm; reconstructed h. 24cm	Merlons composed of a few, most likely three, trapezoids one on the top of another. Each of the trapezoids is decorated with a simple geometric pattern and framed with double lines.	7d
5	h. 13cm	Friezes decorated with two strips of horizontal patterns: triangles and waves. The latter row is more protruding from the surface of the decoration. It seems that particular friezes of this type could have been executed in slightly different manners, i.e. size of the wave motif varied across particular examples.[37]	9c
6	h. 13cm	Friezes composed of two sections: the top one, recessed is decorated with a wavy motif; the bottom section is plain.	9b
7	h. 19cm	Friezes decorated with wavy motif.	9a
8	h. 30cm	Monumental plain friezes decorated on edges with teeth-like/triangle decoration. One row of teeth is cut at the edge of the plain plaster surface and the other row is situated perpendicularly to the first one.	9d
9	–	Arches decorated with multiplied grooves.	10a
10	–	Arches decorated with groves and a moulding.	10b

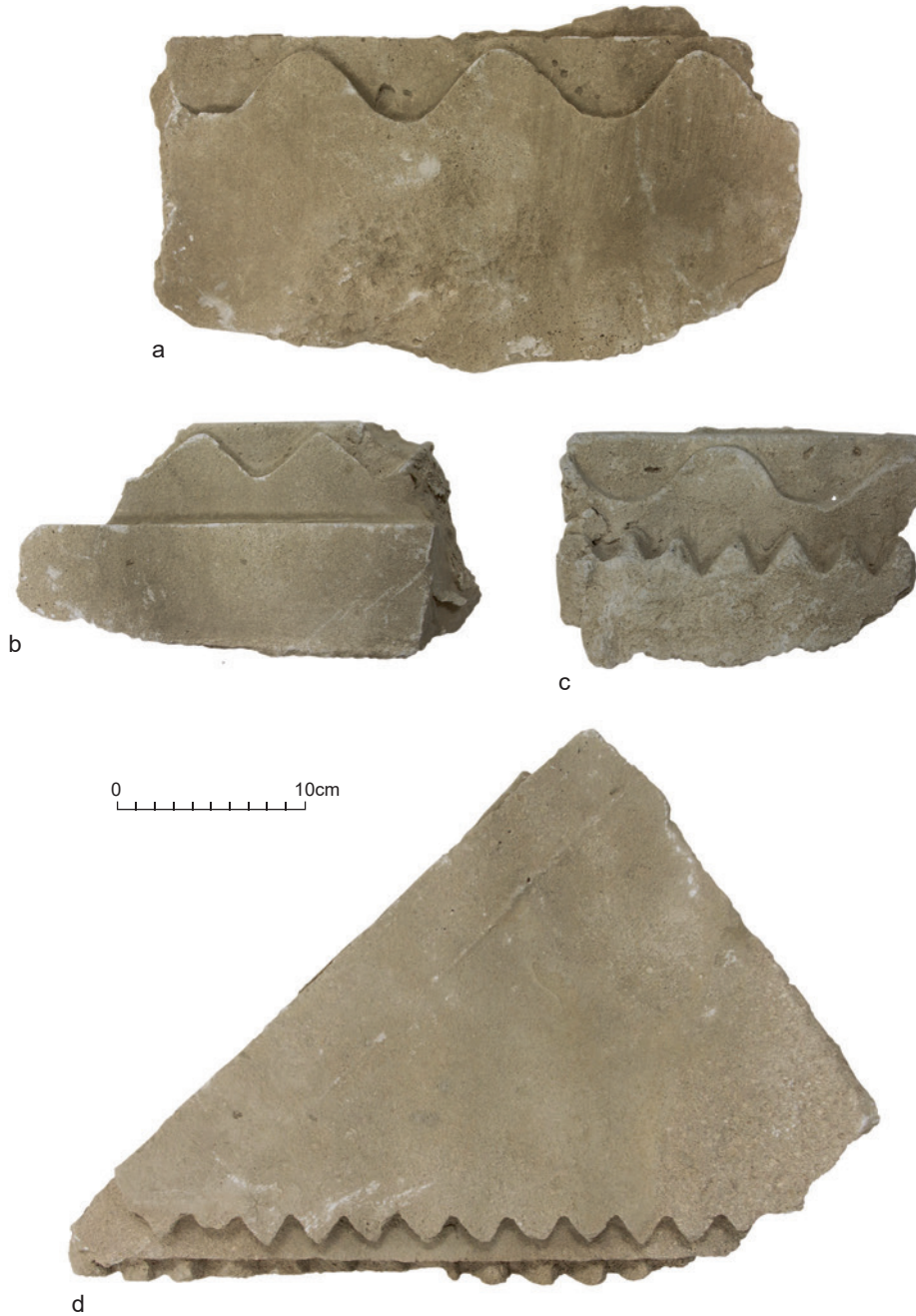
The function of the first eight stucco types was purely decorative. The function of the fragments belonging to the two latter categories was probably twofold. It cannot be excluded that they had some constructional function as arches. The decorative aspect is achieved with simple mouldings and grooves.

[36] The drawing by Ahmed Ibrahim Almaryoud is included in an unpublished documentation prepared by Qandil for the Dubai Municipality.

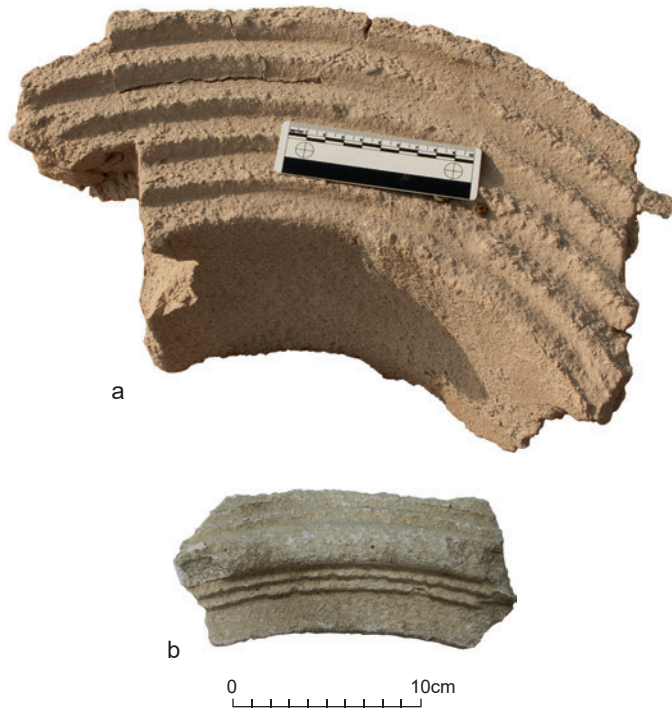
[37] *Dubai Municipality Excavations Report 2007*: Figs 22–23.

7. Types of stuccoes from Jumeirah: a. JMR Type 1; b. JMR Type 2; c. JMR Type 3; d. JMR Type 4 (Phot. A. Lic).

8. Stucco of JMR Type 3 from Jumeirah, not to scale (Drawing: M. Bogusz; based on: an archival photograph by an unknown author; Dubai Municipality digital material prepared by Hussein Qandil; © IMOC PAS).



9. Types of stuccoes from Jumeirah: a. JMR Type 7; b. JMR Type 6; c. JMR Type 5; d. JMR Type 8 (Phot. A. Lic).



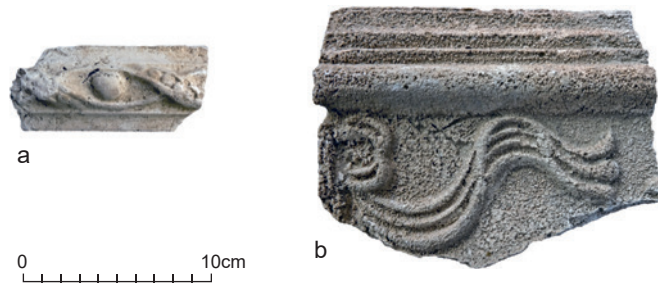
10. Types of stuccoes from Jumeirah: a. JMR Type 9; b. JMR Type 10 (Phot. A. Lic).

Unclassified fragments

Apart from the pieces that belong to one of the types described above, there are some fragments, which are isolated within this assemblage. Usually this is because of their poor state of preservation. It would be beyond the scope of this paper to systematically present all the fragments which cannot be ascribed to any of the eight types. Discussed below are thus only the most interesting pieces with the most elaborate decoration.

The fragment inv. no. JM-024-2[38] is composed of a moulding under which a representation of wavy ribbons is visible (**Fig. 11b**). The ribbons stem from a round motif that is difficult to interpret. The preserved part must have had originally been positioned to the right of

[38] Because the two fragments discussed here differ substantially from the vast majority of stuccoes from Jumeirah, the stucco fragments from this site are not catalogued, and because artefacts from other sites in Dubai are kept in the store at the site, one may wonder whether they come from Jumeirah at all. That they do is confirmed by the tags that accompany the fragments, which give their registration number as well as find spots and dates: JM, surface of Area A, 16.10.2019. Autumn of 2019 is when field research and conservation activities were conducted at Jumeirah and many other artefacts from this site are registered with the same or similar date. Area A is the north-western sector of the Jumeirah site.



11. Stucco fragments from Jumeirah: a: inv. no. JM-024-1; b: inv. no. JM-024-2 (Phot. O. Wasilewska).

this central motif. Stylistically, the representation is very different from the geometricised motifs executed in shallow relief characteristic for the Jumeirah stuccoes discussed above. Here, the way the ribbons are depicted gives the impression of tridimensionality and even movement in a way that resembles the classical approach to representing reality in art. It is especially well visible in the way the lowest ribbon intersects the upper ribbons – as if moved by wind. The dimensions of the fragment are: 13.0 x 18.0cm.

The fragment inv. no. JM-024-1 shows two twisted bands decorated with rows of pearls or knobs (**Fig. 11a**). They create an eye-shaped field that is filled with a larger pearl-like motif. The way these features are represented is rather natural and realistic. Similarly, as in the case of JRM-024-2, the decoration of this fragment gives an impression of tridimensionality. The dimensions of the fragment are: 4.5 x 10.0cm.

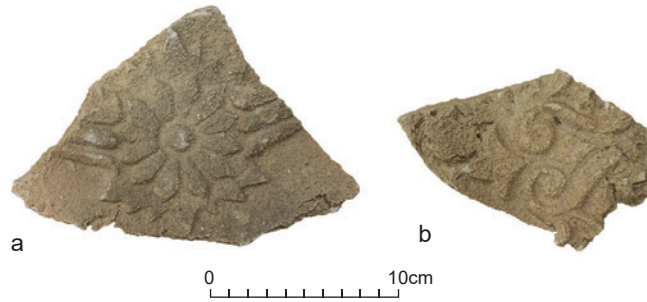
The next fragment, without inv. no., is decorated with a heart-like shape created by two twisted tendrils (**Fig. 12b**). The inside of the heart is filled with what seems to be a rhomboid shape. A *fleur-de-lies* like motif is located on the axis of the heart. The state of preservation of the piece is poor. The dimensions of the fragment are: 10.0 x 14.0cm.

The last fragment, also without inv. no., shows a twelve-petal flower positioned against a background of a geometric, circular field resembling a star (**Fig. 12a**). Three parallel lines spring from both sides of this central motif. The dimensions of the fragment are: 23.0 x 18.0cm.

TECHNIQUES

All stucco fragments from Jumeirah seem to be made of gypsum-based material,[39] known in Arabic as *jiss*.[40] No laboratory studies have been conducted on stucco decorations specifically but architectural plaster, which appears visually to be the same material as

[39] On the use of terms 'stucco' and 'plaster', see Lic 2017.
[40] Arce 2001: 108, 110; 2007: 527; Hamilton 1953: 54; Bloom, Blair 2009: 235.



12a-b. Stucco fragments from Jumeirah (Phot. A. Lic).

the one used for the decorative pieces, has been tested and the results indicated that it was gypsum-based (72% of sulphates) with a small proportion of calcium carbonates (18%). The specialists responsible for the tests argued that the calcium carbonate content is a result of impurities in the source material.[41] There are no traces of whitewash or paint visible with the naked eye. Stuccoes of JMR Types 1–4 were mostly moulded, although the teeth-like friezes of JMR Type 3 known from the archival photograph and a drawing were most likely cut with a sharp tool. In the case of friezes JMR Types 1–3, the decorations were likely pressed in wet plaster with the use of wooden moulds directly on the walls of the building. Stuccoes of JMR Types 5–8 were most likely carved, similarly as fragments JM-024-1, JM-024-2, and fragments without assigned numbers that have been described above.

Architectural context

Information available on the original architectural context of the stucco fragments is incomplete and dispersed among sources of varied reliability: Baramki's publication, unpublished archaeological drawings and reports and the onsite prospection in 2016. Such incomplete data does not allow for any, even preliminary, reconstruction of the original architectural decoration of any of the buildings. It has also to be remembered that in the case of fragments visible on the surface in 2016 there is no certainty that they had not been transferred from one building or site's sector to another one. Thus, what follows is merely a list of types of stucco most likely associated with each of the buildings.

Building JM1

JMR Type 1 and JMR Type 8 were attested by Baramki.[42]

[41] See the *Jumeirah Plaster Analysis* website.
[42] Baramki 1975.

Building JM4

Stuccoes decorated with geometric and floral designs are mentioned in an unpublished documentation prepared by Qandil for the Dubai Municipality. This description fits stuccoes JMR Types 1–4 but a more precise understanding of the building's original decoration cannot be achieved.

Building JM5

Large amount of decorative stucco was discovered, especially in two rooms on the east side.[43]

Building JM6

An archival drawing made in 1996 documents fragments of JMR Type 3 found in this building.[44] A small stucco piece of what seems to be a fragment of JMR Type 4 decoration was found in 1996 in the building.[45] Pieces of JMR Type 4, JMR Type 8 (in particularly large quantities) and JMR Type 9 were visible on the surface in 2016.

Building JM8

For this building, two unpublished archaeological reports are available and thus it can be determined with some degree of certainty that the types of stucco decoration recorded by the excavators reflect the original decoration of the structure. These are: JMR Types 1, 3, 5, 6 and 8.[46]

For other buildings (JM2, 3, 7 and 9) there is no data that would indicate that they were originally decorated with stucco.

Chronology

Stuccoes of JMR Types 1, 2 and 3 were created clearly by the same workshop. Their structure[47] and width are the same; the depth of the moulded reliefs is comparable across all the three types, and certain motifs – such as the triangles decorating the edges – are present in all three of them.

Structurally, JMR Type 4 stuccoes are very different from the JMR Types 1–3, but there are also clear similarities between the pieces belonging to these four types. They were all moulded, the relief is shallow and the decorative elements are very delicate in design. Thus, it seems reasonable to assume that stuccoes of the JMR Type 4 were created at the same time and by the same workshop as stuccoes of the JMR Types 1–3.

[43] Baramki 1975.

[44] See above, footnote 36.

[45] Based on the fragment's marking.

[46] *Dubai Municipality Excavations Report 2007*; *2008*.

[47] 'Structure' in relation to stucco fragments means, in this paper, the shape of the piece and the spatial relationships between its elements.

One clue for dating of the stuccoes of the JMR Types 1–3 comes from their structural similarity to the stucco decorations known from some Christian buildings in the Gulf. Stucco friezes from the sites of Kharg[48] and Sir Bani Yas[49] dated to the seventh to early ninth centuries,[50] as well as Samahij, which dates probably to mid-sixth to eighth centuries,[51] follow a compositional rule,[52] of which Jumierah friezes of the JMR Types 1–3 seem to be a distant reminiscence. This is well demonstrated by fragment of the JMR Type 3 stucco (**Fig. 8**), which is structurally similar to the abovementioned friezes from Christian sites. Although this observation does not allow absolute dating, it is reasonable to think that the tradition of this kind of decorations could have more easily persisted for a few generations rather than hundreds of years. This allows one to hypothesise that stuccoes of JMR Types 1–3 (and, because of the reasons explained above, also of JMR Type 4) may belong to the Abbasid phase of occupation of the site (ninth to twelfth centuries), which has been confirmed on the basis of the preliminary analysis of the ceramic assemblage from the site.[53] This hypothesis is further supported by the fact that JMR Types 1–4 were chronologically not too distant from stuccoes produced at Christian sites of the Gulf based on the similarities in the repertoire of iconographic motifs. The best example is the 'almond and diamond' motif visible in JMR Type 2 pieces, which is known also from stuccoes produced at the Christian sites of al-Qusur on the Failaka island in Kuwait (**Fig. 14**), and at al-Hira and Tulul al-Ukhaidir in Iraq, all predating the mid-ninth century.[54] At the same time, it does not seem likely that stuccoes from Jumeirah date to the same period as stuccoes from these Christian sites. Firstly, the stylistic difference is substantial. Compared to the Christian stucco production of the Gulf and southern Mesopotamia, the majority of stuccoes from Jumeirah stand out as much more abstract, geometrised and deprived of almost any tridimensionality. Secondly, while there are some examples of similar patterns in Jumeirah fragments and stuccoes from the Christian sites, overall these two sets differ enormously in iconography. Certain motifs from Jumeirah (e.g. 'arrows under arches' from JMR Type 3) find no parallels in any of the Chrisitan stucco assemblages and vice versa: the motifs omnipresent in Christian stucco production of the region, such as the vine scroll and the stepped triangle, are not represented in the Dubai collection.

There is no direct formal comparanda for JMR Types 1–4 from Islamic sites in the region. However, certain similarities are observable in the stucco material from Siraf in Iran where the technique of shallow, moulded relief typical for JMR Types 1–4 was also used.[55] Also the repertoires of motifs in the collections of stuccoes from Jumeirah

[48] Hardy-Guilbert 2003: Pl. 12.5.

[49] King 1997: Fig. 7.

[50] Lic 2017: 152–159.

[51] Insoll *et al*. 2021: 418, Figs 20.6–7.

[52] For details see Lic forthcoming b.

[53] See below.

[54] Lic 2017: 152–159.

[55] It is important to indicate that this technique characteristic for stuccoes from both Jumeirah and the majority of stuccoes from Siraf is, at the same time, very different from the Abbasid stucco production known from other sites, especially stuccoes from Samarra or decorations that were stylistically following the three

14. Fragment of a decorative border of the stucco panel from al-Qusur, Failaka island, Kuwait, preserved at Dar al-Athar al-Islamiyyah museum in Kuwait, no. KM 7496 (Phot. H. David-Cuny; © Mission archéologique franco-koweïtienne de Faïlaka).

and Siraf are similar. For example, the merlons of JMR Type 4 find close parallels to the merlons from the Iranian site now preserved in the British Museum.[56] Further examples of four stucco merlons very similar to these of JMR Type 4 are recorded with drawings[57] in the archival finds cards from the Siraf excavations conducted in the years 1966–1973 under the supervision of David Whitehouse, which are also kept in the British Museum.[58] The fragments, found during the excavation season of 1968/1969, were excavated at site F at Siraf, which is the residential quarter. Each of them was composed of three trapezoids – as likely were also the merlons of JMR Type 4 – and similar to the Dubai fragments, they were decorated with delicate motifs framed by double lines. The level of similarity between the merlons from these two sites is striking and most likely indicates their chronological closeness. Also, the friezes of JMR Types 1–3 find parallels in the stuccoes recorded by the find cards from the Siraf excavations. One of the cards shows a fragment of a stucco frieze[59] constructed in the same manner as friezes JMR Type 3: with particular rows

Samarra styles (Herzfeld 1923: 183–229; Creswell 1940: 286). It has to be underlined, however, that within the collection of stuccoes from Siraf a few fragments of clearly early Abbasid, pre-Samarra date and characteristic for the technique of deep carving are also present; see Corsi 2018. Two other fragments from Siraf preserved at the British Museum (nos: 2007,6001.15209 and 2007,6001.15181, photographs available in the online catalogue of the British Museum collection) resemble, in turn, the so-called Samarra bevelled style. All these Abbasid fragments are stylistically and technologically different from the majority of Siraf fragments – delicately carved in shallow relief – to which I compare the stuccoes from Jumeirah.

[56] Fragments nos 2007,6001.15199; 2007,6001.15198; 2007,6001.15197. Their photographs are available in the online catalogue of the British Museum collection.

[57] The fragments are not kept in the British Museum and their current location is unknown. A large part of stuccoes from the Siraf excavations is preserved in the National Museum of Iran in Teheran and in Siraf (as confirmed by curator Hassan Moradi from the NMI, personal communication) but whether these fragments are among them has yet to be confirmed.

[58] Agnieszka Lic studied these archival documents in the British Museum in May 2023. For the general information about excavations at Siraf and its full bibliography, see Whitehouse, Whitcomb, Wilkinson 2009.

[59] The location of this fragment is also unknown, see footnote 57.

of decoration located closer and further to the wall of the building (**Fig. 8**). The main row of the frieze's decoration in this example from Siraf is filled with geometric motifs such as circles and small triangles and the overall impression is very similar to friezes from Jumeirah.

As in the case of Jumeirah stuccoes, architectural decoration from Siraf awaits thorough analysis and precise dating. However, because the site is chronologically more constrained than Jumeirah and its main phases of occupation date to between the late eighth and eleventh centuries,[60] it is reasonable to assume that the majority of the stucco assemblage from this site are of similar date. Furthermore, as Andrea Corsi has convincingly argued on the basis of the formal and comparative analysis he conducted for some of the Siraf stuccoes, at least a part of the moulded decoration from this site can be dated more precisely to the eleventh century.[61]

JMR Types 5–8 all share a certain characteristic, namely that the decorative border of waves or triangles is placed on the top of a plain plaster surface. A comparison for such a solution can be found in a fragment of stucco decoration from the palatial compound at the site of Zubarah in Qatar, which is dated to the late eighteenth–early nineteenth century.[62] Stucco decorations almost identical with JMR Types 5–7 are known also from houses of the pearling town of Jazirat al-Hamra in the emirate of Ras al-Khaimah in the UAE,[63] which are dated probably to the nineteenth–early twentieth century.[64] These two examples may serve as a clue that stuccoes with simple, geometric decorations based on triangles and waves may be associated with the late Islamic phase of occupation at Jumeirah, a phase that has been preliminarily indicated by the excavators of the site. Such a dating may be especially valid in the case of stuccoes of JMR Type 8, which originally decorated building JM8 and potentially also building JM6. In contrast to fragments of other types, pieces of JMR Type 8 are preserved as large sections. Quantitative analysis has not been conducted, but it seems that in comparison to fragments of other types, pieces of JMR Type 8 are particularly abundant at the site. The fact that stuccoes of this type are preserved relatively well may also support their late dating. It has to be remembered, however, that comparative analysis in the case of such simple, generic motifs are burdened with a large margin of error.[65] Thus, while it is likely that the stuccoes of the JMR Types 5–8 belonged to the late phase of occupation at Jumeirah, it is also well possible that they can be much earlier in date and there is no meaningful chronological difference between them and stuccoes of JMR Types 1–4. This is also because it cannot be excluded that the simplicity

[60] For the summary of the current state of research on Siraf and the dating of the site, see Priestman 2021: 79, 84.

[61] Corsi 2018.

[62] *Al-Zubarah Archaeological Site*: 13–14.

[63] Hawker 2008: Figs 26–27.

[64] Hawker 2006: 189.

[65] This danger is illustrated by the fact that finds cards from the Siraf excavations document large numbers of stuccoes – which were not kept by the excavators but only recorded in the documentation – that were also decorated with simple wavy and zigzag lines. While their dating is impossible to determine at this stage of research, they likely belong to the main phase of occupation of Siraf.

of the JMR Types 5–7 is due to their state of preservation rather than the original design. The comparison between pieces of these types and the archival photograph of the fragment of JMR Type 3 (**Fig. 8**) indicates that the simple wavy and triangle patterns might have been just a part of the original, more complex compositions. In case of JMR Type 8 preserved fragments are large enough and preserved in many examples so it is safer to assume that the way they are preserved now is close to the original form.

The lack of data prevents any attempt to date JMR Types 9 and 10 stuccoes.

The fragments JM-024-1 and JM-024-2, stylistically very different from all the other stuccoes from Jumeirah, seem to belong to a different phase of occupation of the site. Regarding the fragment JM-024-2, it is difficult to indicate direct comparanda for such a partially preserved piece. The closest representation in stucco comes from the Christian church site on Kharg island in Iran.[66] The monastery on Kharg island is dated to the late eight–early ninth centuries,[67] and a similar date should be assumed for the stuccoes that originally decorated its church. While it is impossible to determine what the original composition looked like, the ribbon motif was extensively used in Sasanian art as well as in the artistic production of southern Iran and the Gulf in the early Islamic period.[68] The first fragment without number (**Fig. 12b**) shows a general similarity with a number of stuccoes dated to the early Islamic period including a fragment from Kharg island preserved in the Louvre (no. AC 891).[69] Because of the similarity of the fragment JM-024-2 and the discussed one to the late Umayyad/early Abbasid stucco production from the Gulf, one may wonder whether these distinctive pieces were produced before/in the early ninth century and could be linked with the earliest phase of the occupation of Jumeriah, the existence of which is still debatable in the light of the current dating of the ceramic assemblage.

CONCLUSIONS

Due to many archaeological and restoration interventions conducted at the site and the lack of systematically produced documentation, a lot of information about Jumeirah is probably lost. Nevertheless, by retrieving data still available from the previous excavations and other works, by analysing standing architecture and the categories of materials unstudied so far, it is possible to get a much fuller picture of this important site. In this paper we have presented the results of the 2020 archaeological works, which provided more information about the original structure of the building JM5 as well as have revealed the monocellular house (JM9). Despite it is a modest structure, its discovery sheds light on the morphology of the

[66] Hardy-Guilbert 2003: Pl. 11.8. The current location of this fragment is unknown. The majority of stuccoes from Kharg are preserved in the Louvre. However, Agnieszka Lic studied the collection of stuccoes from this site in the museum in 2015 and the fragment in question was not present. The fragment is also not available in the online catalogue of the Louvre collection.

[67] Carter 2008: 97–98.

[68] Lic 2023.

[69] See Hardy-Guilbert 2003: Pl. 11.1–3 for a photograph of this and another, very similar fragment; a photograph of the piece is available in the online catalogue of the Louvre museum.

settlement, which is yet another research problem that requires our better understanding. The study of stucco presented in this paper provides, in turn, clues for dating of the site. It shows that while the majority of stucco types seem to belong to either the phase of occupation dated tentatively to the ninth–twelfth centuries or to the late Islamic era, there are also fragments which may belong to the slightly earlier, pre- or early ninth century, period.

It is hoped that in the future similar studies conducted within a framework of a coherent, long-term research project will allow better understanding of Jumeirah and its political, historical, economic and artistic context.

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