Byzantine marble fragments rediscovered in a Tyre cistern

Abstract: The Franco-Lebanese mission in Tyre identified a stone dump comprising more than a thousand fragments of architectural members and liturgical furnishings, located in an ancient cistern. These fragments, mainly of marble, but also of limestone, basalt and marine sandstone, had been collected during excavation works carried out on the site in the 1960s and 1970s. After their discovery, all the blocks were removed from the cistern, inventoried, documented and studied in order to identify their various functions and origins. A large part of these fragments seem to have belonged to various Byzantine religious monuments. The article presents the main types to which these fragments have been assigned, following a comparative approach.

Keywords: Tyre, Byzantine, marbles, church, chancel, decoration

INTRODUCTION

In 2017, the Franco-Lebanese archaeological mission working on the archaeological "City site" of Tyre [*Fig. 1*] discovered hundreds of fragments, mostly carved in marble, buried in one of the site's ancient cisterns [*Fig. 2*]. The cistern, located in the residential area of Tyre's "Maritime site" (Sector 7), about 40 m southwest of the monumental latrines, appears to have served as a dumping ground for a large number of fragments col-

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lected from various locations around the site. A total of approximately a thousand fragments was re-excavated. Their placement in the current location seems to date back to the time of major excavations on the site, i.e. the late 1960s and early 1970s (the results of which were never published). The director of the excavations at the time, Maurice Chéhab, seems to have decided to collect most of the carved fragments found on the site and to store them in the cistern. All the fragments were given double numbers referring to the square of the site grid and to the level from which they were excavated. This numbering, rarely erased or rendered illegible, made it possible to virtually redistribute all the blocks throughout the site, restoring them to their original contexts.

Most of the blocks recovered are carved in marble, with only a few in black basalt (fragments of mills and fulleries) and limestone (in particular catapult projectiles and fragments of small columns). Although rare, elements made of marine sandstone (e.g. a merlon) and chalk (a few fragments of basins) are also part of the assemblage. The marble fragments constitute about 85% of the assemblage.

The redistribution of the fragments according to their square numbers allowed the identification of two main groups: the IC/JE/KF group (41% of the total of fragments), and the D/E/H/I/J group, representing about 46% of the fragments. The

Fig. 1. Aerial view of Tyre with its main archaeological landmarks (Photo J. Yasmine; processing H. Kahwagi-Janho)

grid squares of the first group correspond to the so-called "large soundings" area, located to the west of the Frankish cathedral. Excavations carried out in this area revealed the presence of a basilica church preceded by a courtyard, the remains of

Fig. 2. Excavation of the cistern in 2017 (Photos H. Kahwagi-Janho)

which, consisting mainly of mosaic and marble pavements, were dismantled in order to carry out more in-depth soundings. The second group corresponds to the area southwest of the Stepped Monument. In its immediate vicinity, three small Byzantine chapels were discovered, including one in square H [see *Fig. 1*].

In October 2017 and 2018, all of these fragments were removed from the cistern, cleaned, drawn and documented. The assemblage was then supplemented with a number of finds from other sectors of the site, in particular from the area of the Martyrium (Sector 4). A classification of the blocks according to zones and types was then carried out, allowing their detailed study. A small selection of the most typical elements is presented below.

BYZANTINE MARBLE FRAGMENTS

The marble fragments found are dated to the Byzantine period and belong to two types: 1) fragments that usually constituted interior architectural décor (chancels, small columns, veneer, etc.), and 2) fragments of liturgical and utilitarian furnishings (mortars, tables, etc.). The present article examines a representative selection of these objects, divided into types.

ARCHITECTURAL DÉCOR

Elements of architectural décor —chancels with screens and posts, small columns, shafts of columns and capitals, as well as veneer— were part of interior furnishings. Most of these elements were found in a fragmentary state, which, however, did not prevent the recognition of their main characteristics and their detailed study.

Capitals

About 50 Byzantine capitals, mainly of the Corinthian type, were found in the cistern. Most of them were products of mediocre workmanship and their state of preservation was fragmentary. Their dimensions do not exceed 50–60 cm in length at the level of their abacuses, which may indicate that they were part of interior decoration sets (canopies, niches, etc.) rather than architectural elements of their respective monuments. Some of them were later reused for utilitarian or even liturgical purposes, as evidenced by their being hollowed out to make basins and mortars. Unlike the Byzantine types with elaborate decorative patterns, their compositions are simplified versions of conventional Corinthian models. Because of their small size, they usually have a single row of acanthus leaves, more rarely two, depending on their height. The leaflets of these leaves have no relief and adhere almost completely to the calathus. The extremities of their digits, which are two or three in number, touch each other, forming simple geometric patterns.

Capitals with two pairs of volutes/helices, resembling the standard form of the canonical Corinthian capital, are relatively rare [*Fig. 3:1*]. The stems of the volutes and helices emerge directly from the acanthus leaves rather than from the calices and caulicoli, as the latter are generally absent from these capitals. This

type of decoration is found not only on capitals of the Roman period in Lebanon (Kahwagi-Janho 2020: 162–164), but also on Byzantine capitals from other parts of the Eastern Mediterranean (Pralong 1993: 139, Fig. 10).

Fig. 3. Examples of Byzantine capitals (Photos H. Kahwagi-Janho)

Capitals without volutes and helices constitute the majority of those found in the cistern [*Fig. 3:2–6*]. They are also the most numerous on the entire site of Tyre. They combine two main characteristics: the presence of a single row of acanthus leaves and the absence of caulicoli, volutes, and helices. The majority of these capitals are completely fragmented. However, in most cases their preserved upper registers permit to identify their main characteristics. More complete examples of this type are preserved near the El-Bass area (Kahwagi-Janho 2012: 145, Fig. 146). In general, the leaves of these capitals have five leaflets (four lateral ones arranged in pairs on either side of the axis, and one on the apex), stem from the corners and unfold in such a way that each half covers one half of the face of the capital. Similar capitals have been recorded at Resāfa – Sergiopolis in the décor of the bema of the Basilica of the Holy Cross (Tchalenko 1979: 338, Fig. 533) and in Apamea (Vanderheyde 2020). In addition, a number of similar capitals from Alexandria and other Egyptian sites have been published by Pensabene (1993: 416–432, Pls 56–62).

The dating of the capitals ranges from the end of the Roman period (i.e. late 3rd – early 4th century) to the 6th century. Most of these objects, especially the small capitals without volutes or helices, are of poor quality. On the other hand, the variety of their forms contrasts sharply with the uniformity of the material in which most of them are carved, i.e. grayish Prokonnesian marble.

Bases

The material recovered from the cistern included about 15 bases, mostly in a fragmentary state, and some hollowed out to form mortars [*Figs 4:5; 5:1–2*]. They are relatively small: the largest one measures 65 cm at the base and 42 cm at the bedding, while the smallest ones have a diameter of up to 14 cm at the bedding and a height varying between 11 cm and 18 cm. The form of some of these bases follows the canonical Attic model, which consisted of a plinth surmounted by two tori with a scotia inserted between them and surrounded by two listels, the whole topped by a double upper torus. However, this scheme is simplified to varying degrees on other blocks, e.g. the scotia is missing on some bases, while on others the plinth is surmounted only by a chamfered torus and a band. Some of these bases also have unfinished splayed surfaces with clearly visible traces of cutting tools. Such bases with a simplified component sequence are typical of the Byzantine period. They are characterized by proportions that deviate from the canonical Roman model, as well as by the mediocre quality of the work, which is hasty and lacks precision.

Chancels

The chancel fragments found in the cistern comprise two main elements: posts and screens. The posts have been found in varying states of preservation, with occasional complete specimens; the screens, on the other hand, have mostly been found in a very fragmentary state, which makes their reconstruction rather hypothetical. However, the recovered fragments of chancel screens show a

Fig. 4. Examples of bases (Photos H. Kahwagi-Janho)

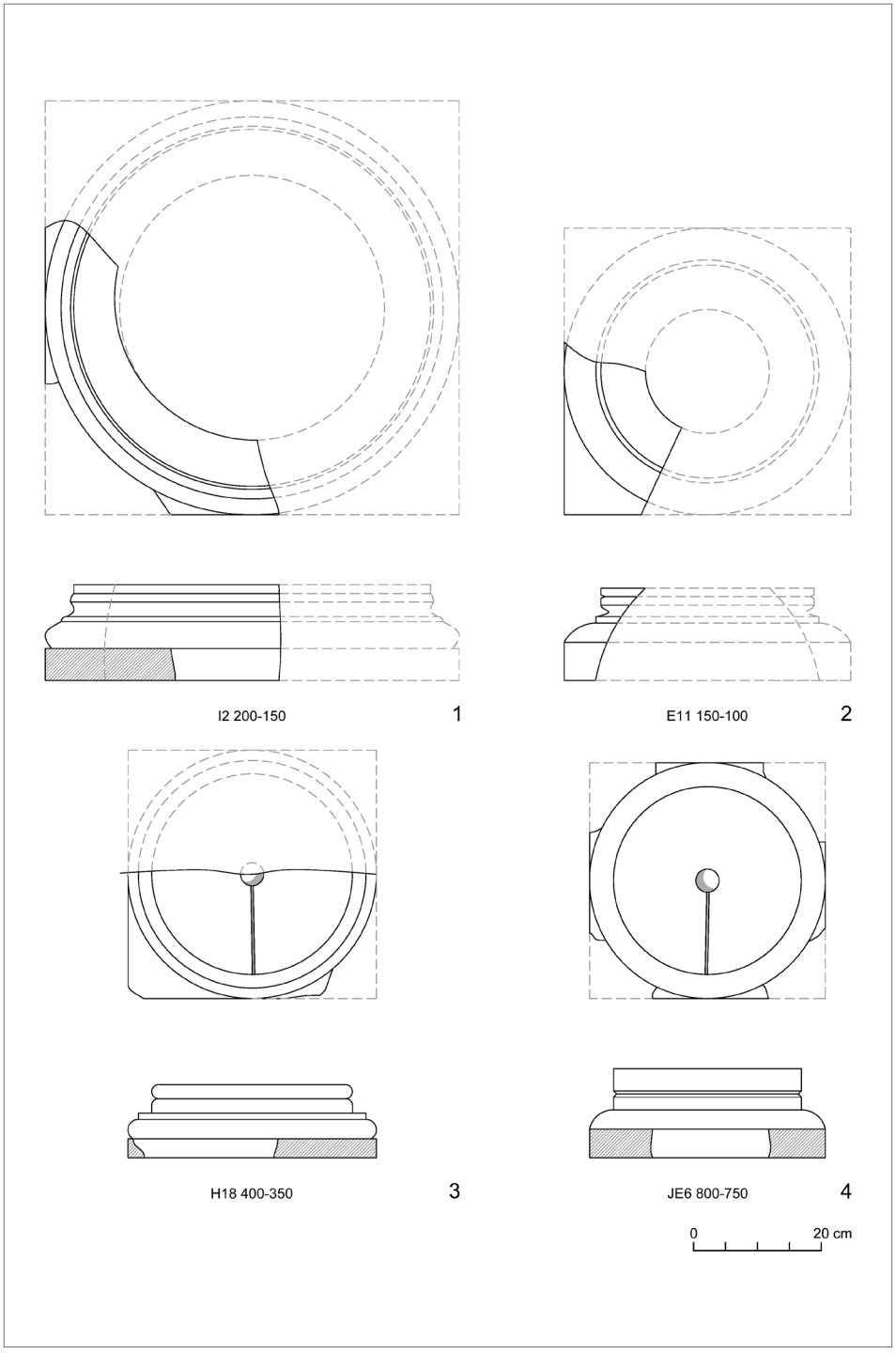

Fig. 5. Selected fragments of bases (Drawings H. Kahwagi-Janho)

wide variety of forms, unlike the fragments of posts, which represent fairly uniform types.

Posts

About 15 fragments of chancel posts were recovered from the cistern. They add to

Fig. 6. Examples of chancel posts (Photos H. Kahwagi-Janho)

the large collection of posts found in several parts of the site, particularly in the area of the Martyrium. It is noteworthy that three posts are almost complete.

The width of the posts varies between 15 cm and 21 cm. Most of them are rectangular in section, while a few have an L-shaped section indicating their corner position [*Fig. 7:3*]. The faces of the majority of these posts are decorated with concentric rectangular geometric motifs, generally incised superficially. In rare cases they are carved to greater depths and represent work of higher quality. One of these blocks has one of its main faces decorated with a motif of a branch with foliage [*Fig. 6:5*]. The side faces of the vast majority of these posts have notches for affixing chancel screens. These notches, which range in width from 3.5 cm to 5 cm, are mostly longitudinal and carved to match the full height of the respective screens.

Contrary to the great uniformity of their decoration, the fragments of posts vary in size, hindering a precise typological classification. Among the posts with preserved tops, one can distinguish some with ends in the shape of a pommel [*Figs 6:3; 7:4*] (for similar examples, see Ward-Perkins and Goodchild 2003: 241, Fig. 180), while a few others show the lower parts of small columns (for parallels, Ward-Perkins and Goodchild 2003: 259, Fig. 201; 276, Fig. 221; 277, Fig. 222). The remaining blocks, however, can only be classified according to their size. Based on the width of their main faces, two groups can be distinguished: posts with a width of 19 cm to 21 cm, and those with a width of 15 cm to 17 cm.

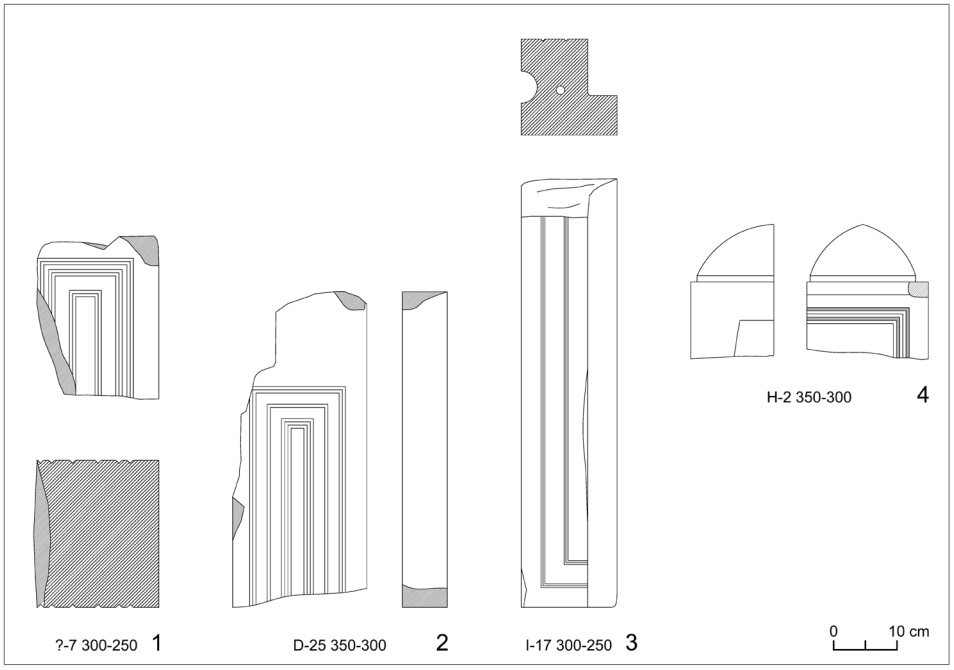

Fig. 7. Selected fragments of chancel posts (Drawings H. Kahwagi-Janho)

Screens

The screens are fairly varied in shape, appearance, and decoration. Three groups can be distinguished: solid screens, openwork screens, and double screens. They are mostly carved from Prokonnesian

Fig. 8. Examples of chancel screen fragments (Photos H. Kahwagi-Janho)

marble, while rare fragments from the Martyrium area (Sector 7) are made of a reddish marble.

a. Solid screens

Solid chancel screens are most commonly found as small fragments [*Figs 8:1–4; 9:2–3*]. The largest do not exceed 30 cm in size. Their thickness generally varies between 3 cm and 5 cm, while a few models have thicker profiles reaching 7 cm. Most are monofacial, rarely bifacial. The most common decorative motifs are parallel linear bands with either flat surfaces separated by notches or inclined surfaces articulated by fine incisions. As indicated by some corner fragments, these bands ran along the perimeter of their respective screens, forming a kind of rectangular frame. The panels within these frames were sometimes decorated with plant motifs, rectangles, or crosses. In the case of the bifacial screens, the patterns on the two sides were sometimes identical, but could also differ, particularly in the width and spacing of the peripheral bands.

b. Openwork screens

Openwork screens have only been recorded in two very fragmentary forms: as screen frames, which preserve attachments of the ribs that framed the openings, and as fragments of the ribs themselves [*Figs 8:5–8; 9:1*]. The frames usually range in height from 13 cm to 17 cm and in thickness from 5 cm to 9 cm. They often taper gradually, in two to three steps marked on both sides, to reach their minimum thickness at the point of attachment of the ribs. The preserved length of most fragments of this type does not exceed 50 cm.

Fragments of openwork screens are relatively rare, with about 20 found on

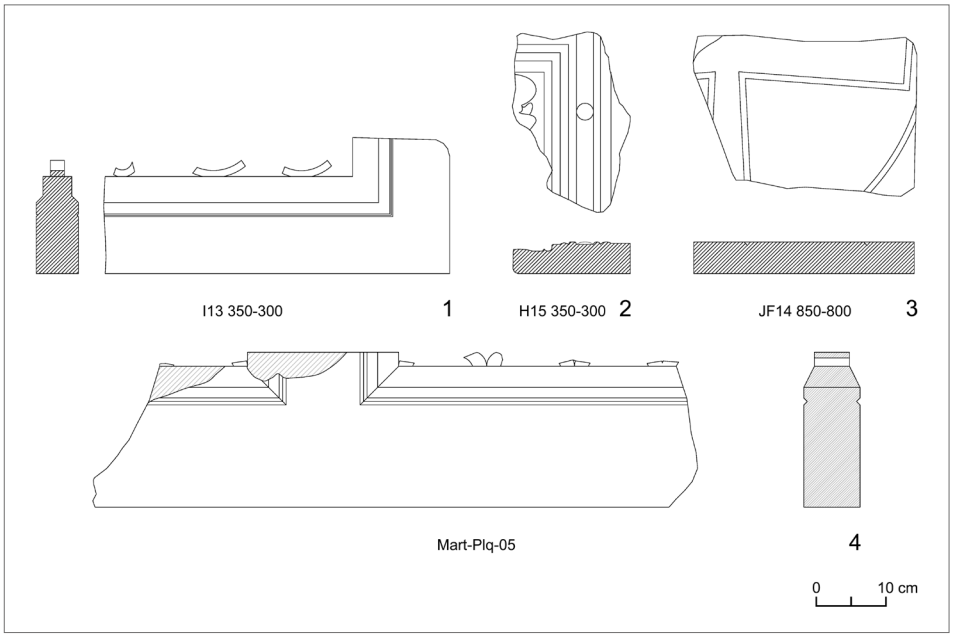

Fig. 9. Selected fragments of chancel screens (Drawings H. Kahwagi-Janho)

Fig. 10. Examples of small columns (Photos H. Kahwagi-Janho)

Fig. 11. Examples of decorated slabs (Photos H. Kahwagi-Janho)

the entire site. The largest pieces do not exceed 15 cm in size. Most of the fragments are circular in shape, with internal diameters corresponding to the voids of the openwork, measuring 8–9 cm on average. The ribs vary in thickness from 2.2 cm to 2.8 cm and their surfaces are mostly smooth. A minority of the fragments are rectilinear. The patterns they originally formed would have been composed of orthogonal and obtuse angles. Some fragments of this type have polygonal sections and their surfaces preserve concave linear reliefs and imbricated scales.

This type of decoration was rare in the churches of northern Syria, as demonstrated by Tchalenko (1979; 1990), who listed no openwork plaques. However, unlike the urban and Mediterranean assemblage at Tyre, Tchalenko's corpus was composed of fragments from village churches in the hinterland, where the decoration was mainly carved in local stones. On the other hand, several examples of openwork screens have been identified in Palestine, both in synagogues and in churches (Foerster 1989: 1812–1814). Similar examples have also been found in the Balkans and in North Africa (Ward-Perkins and Goodchild 2003: 152, Fig. 110).

c. Double screens

Among the screen fragments preserved in the cistern and in various sectors of the site of Tyre, some double screens have also been recorded. A fragment of an openwork screen found on the Martyrium site, measuring 86 cm, is unusually long compared to the other preserved blocks of this type [*Fig. 9:4*]. The central area of that fragment shows the beginning of a vertical partition that clearly divides it into two panels. Another fragment found in the cistern, but of unknown provenance, also seems to have been part of a double screen, as indicated by the duplication of its linear decoration on both sides of a wide band that forms the division between the two screen ar-

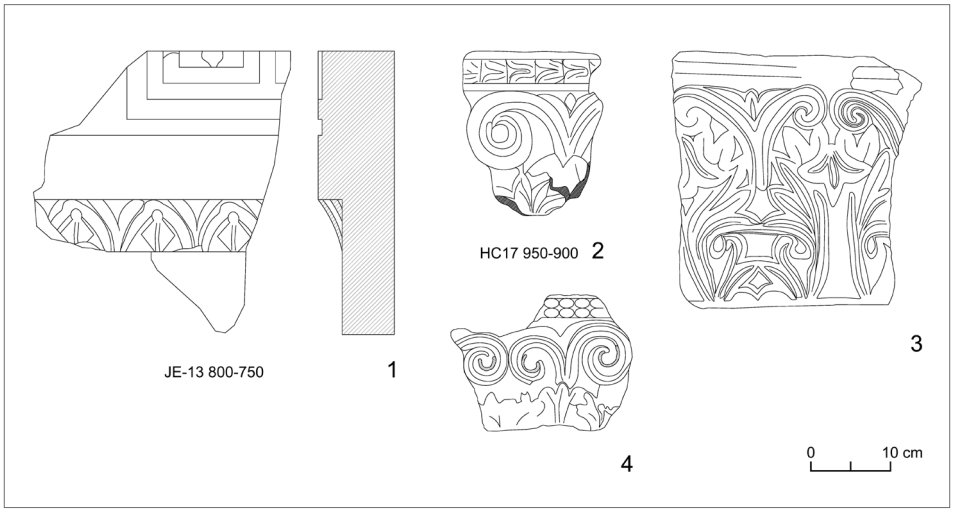

Fig. 12. Selected fragments of decorated slabs (Drawings H. Kahwagi-Janho)

eas. This type of double-paneled screen is fairly common in Byzantine architecture in northern Syria (Tchalenko 1990: 106, Fig. 182), as well as in parts of North Africa (Widrig 1978: Pl. 17).

Small columns

About 60 small columns were found in the cistern [*Fig. 10*]. They represent a wide variety of materials, shapes and sizes. However, they never reach a height of

Fig. 13. Examples of small cornices (Photos H. Kahwagi-Janho)

more than 40 cm, with diameters ranging from 6 cm to 14 cm. The sections of these columns are typically circular, smooth and twisted, but several fragments have ovoid or even polygonal, smooth or fluted sections. Some of these fragments preserve their upper parts, including the capitals. The latter are simple, with incised decorations on smooth surfaces or, more rarely, light superimposed moldings. The materials of these columns are also varied (white, grayish, black, and greenish marble). The great diversity of these small columns in terms of size, shape and material attests to their provenance from several different installations within their respective monuments. While most of the elements were carved in the round, some seem to have been placed against walls, and others can be interpreted as elements that either supported the dozens of tables found in a fragmentary state in the same cistern (see Nicolaou 2013: 169), or surmounted the chancel posts (see Młynarczyk and Burdajewicz 2013: 207, 210).

Wall decorations

Wall decorations are among of the most important elements of interior decoration in the Byzantine churches and chapels of Tyre. They generally take the form of wall veneer panels, as well as architectural detail (pilasters, capitals, cornices, etc.). A number of these elements were found among the blocks recovered from the cistern. They include a set of pilaster capitals and fragments of small cornices.

Decorated slabs

The cistern contained 11 slabs from 4 cm to 10 cm thick, decorated with various geometric, vegetal and architectural motifs. They were carved with geometric patterns, most commonly meanders, hearts and darts, organized in superimposed registers reminiscent of entablatures [*Figs 11:6; 12:1*]. Vegetal motifs, on the other hand, typically adorned plaques forming pilaster capitals [*Figs 11:1–5; 12:2–4*]. The latter were inspired by decorations on Corinthian capitals and usually featured two pairs of volutes and helices surmounting acanthus leaves. These types of moldings were common elements of interior decoration in Byzantine churches, where they capped thin pilasters with an average width of 40 cm. Similar examples have been found

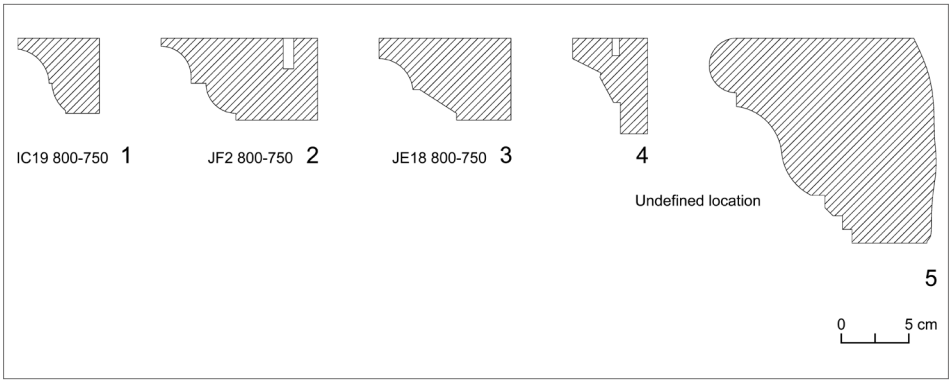

Fig. 14. Selected fragments of small cornices (Drawings H. Kahwagi-Janho)

in Cyrenaica, Libya (Ward-Perkins and Goodchild 2003: 122, Fig. 80 f), Syria (Vanderheyde 2003: 70–71, 80–82, Figs 18–22), as well as in Salamis, Cyprus (Roux 1998: 226, Fig. 266, and 227, Fig. 271), and in Egypt (Pensabene 1993: Pl. 63).

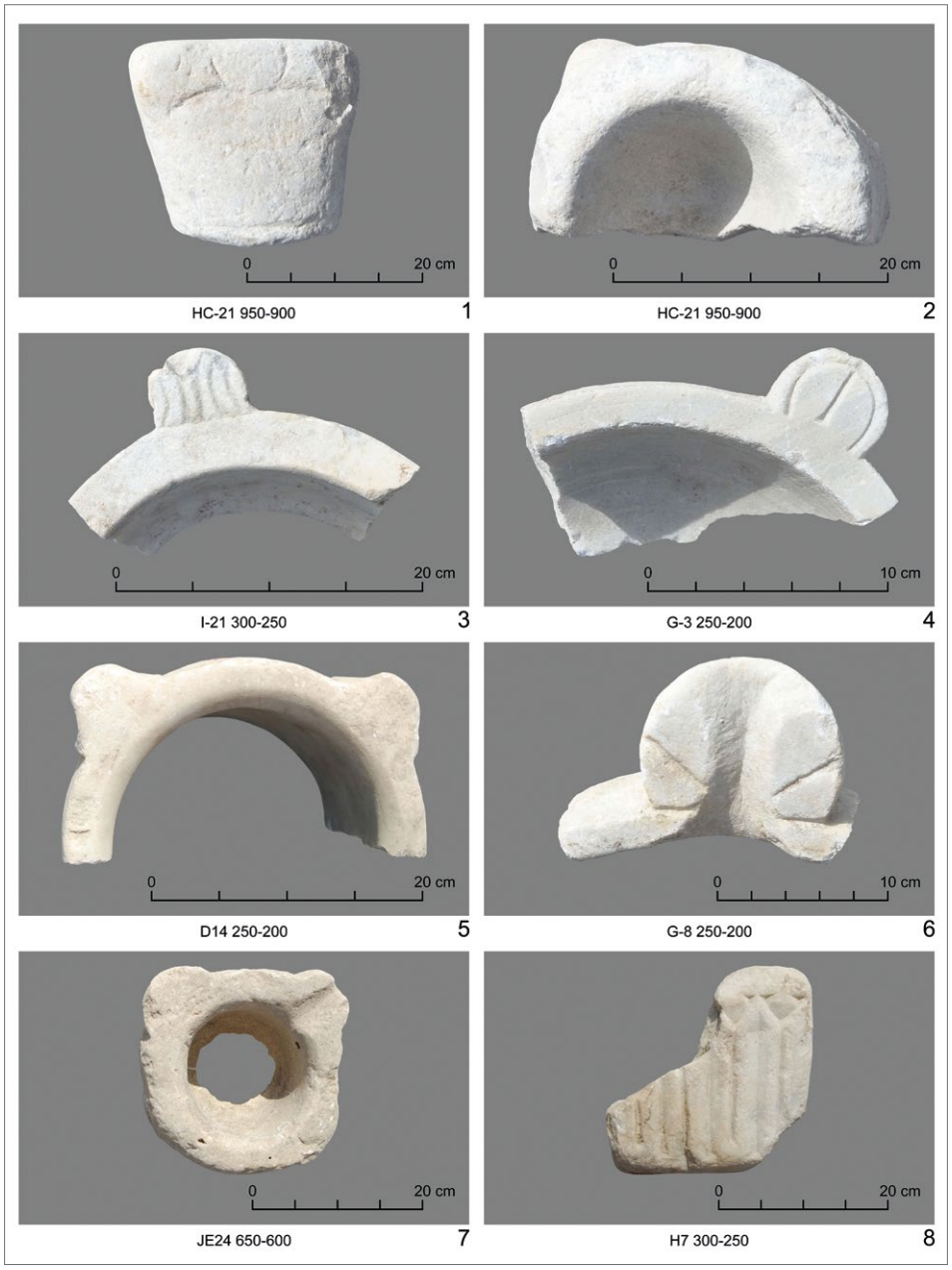

Fig.15. Examples of mortars (Photos H. Kahwagi-Janho)

Cornices

Dozens of fragments of small cornices were recovered from the cistern [*Figs 13–14*]. These are small elements ranging in height from 6 cm to 17 cm. One of the long sides is molded, usually forming a cavetto surmounted by a quarter round with an intervening band. The opposite side is usually smooth, allowing it to be pressed against a wall. Some of these pieces are pierced on their upper surface with small holes used to anchor the fixing cramps.

LITURGICAL AND UTILITARIAN FURNISHINGS

The liturgical and utilitarian furnishings, all found in a fragmentary state of preservation, consist mainly of mortars and tables. Each of these two groups comprises around 150 fragments in a wide variety of forms and materials.

MORTARS

Around 150 mortar fragments were found in the cistern [*Figs 15–16*], in addition to nearly 50 other fragments scattered throughout the site. Apart from the mortars carved from reused blocks (capitals, bases, etc.), the objects originally carved as mortars show a certain uniformity in their overall shape, with the body walls varying between 2 and 3 cm in thickness. Several shapes have been distinguished, the most common of which is a semi-ovoid shape with a flat or curvilinear base. Mortars of this type have a diameter that varies between 11 cm and 36 cm and a depth ranging from 5 cm to 18 cm. Most of the preserved fragments are handles with attached fragments of body walls. In rare cases, the mortar fragments preserve two orthogonally positioned handles, thus testifying to the presence of four handles on the entire perimeter. These handles usually bore incised decoration composed of lines in groups of three, following various directions, and were sometimes ear-shaped. Some of the handles were transformed into spouts by

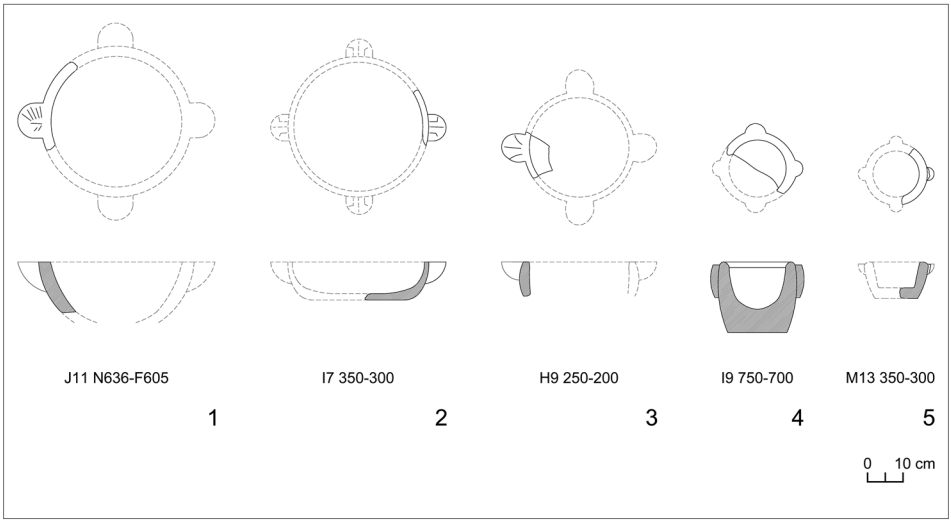

Fig. 16. Selected fragments of mortars (Drawings H. Kahwagi-Janho)

carving a thin channel that allowed water to flow out of the mortar. This type of mortar is very common on Byzantine sites in the region. Locally, similar examples have been found in Jiyeh (Gwiazda 2014: 528–531), Byblos (Dunand 1939: 39,

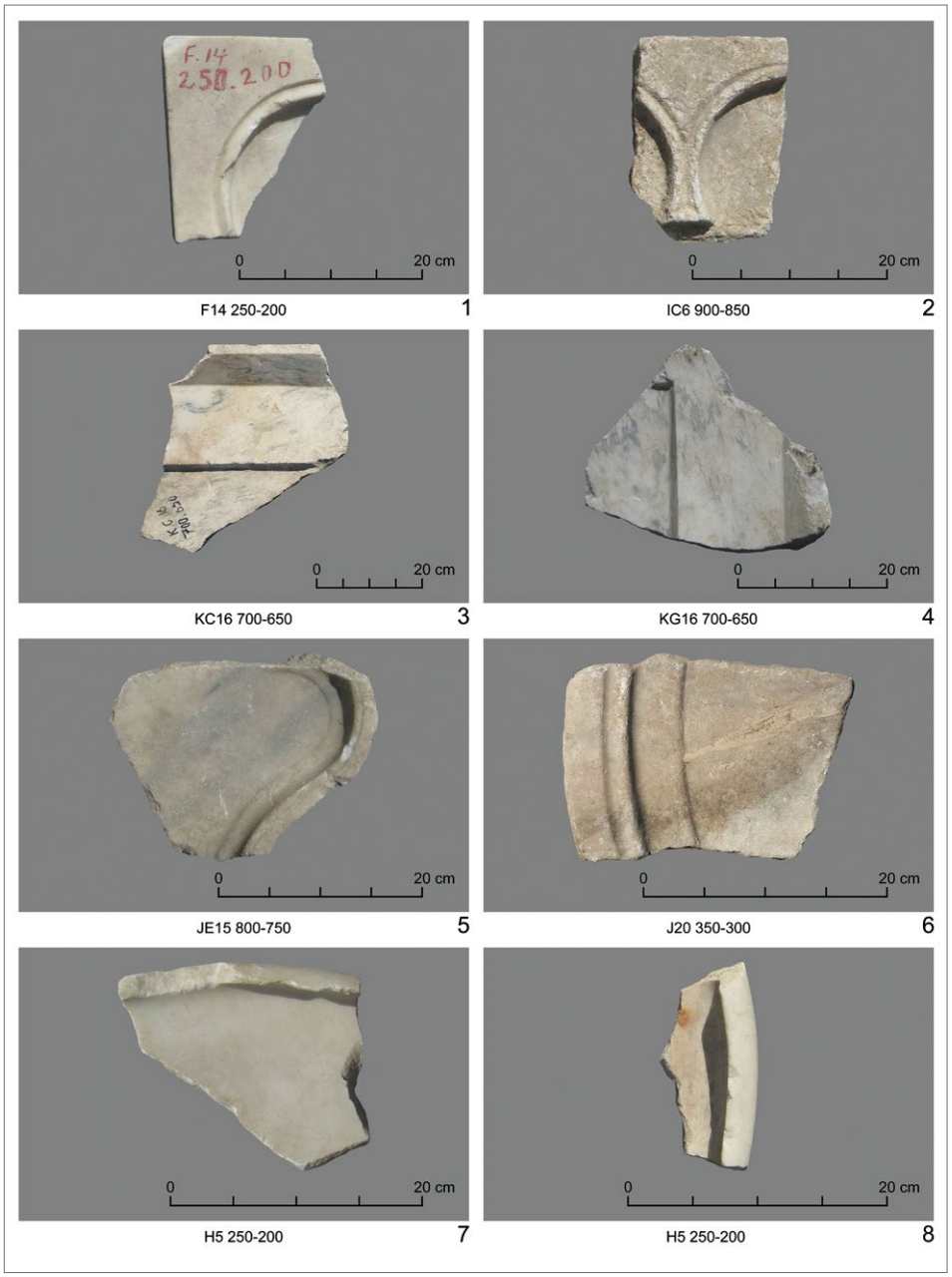

Fig. 17. Examples of tables (Photos H. Kahwagi-Janho)

no. 1197, Fig. 22; 1950–1958: 1048, Fig. 1157) and Beirut (Waliszewski 1997: 67–68). Regionally, several types have been found on many Palestinian, Syrian, and Greek sites (for an extensive list of these sites, see Gwiazda 2014: 528, for similar Syrian mortars from Apamea, Syria, see Vanderheyde 2003: 69–70, 76–78, Figs 9–12). The dating of similar mortars from sites in the region ranges from the 4th to the 7th century.

Apart from the ellipsoidal type, which was by far the most common, few specific types have been identified. Of note is a truncated pyramidal basin with faces decorated with stylized palms. A similar basin was found in the area of the Martyrium (Sector 4).

TABLES

More than 140 fragments of tables were found in the cistern [*Figs 17–19*]. They

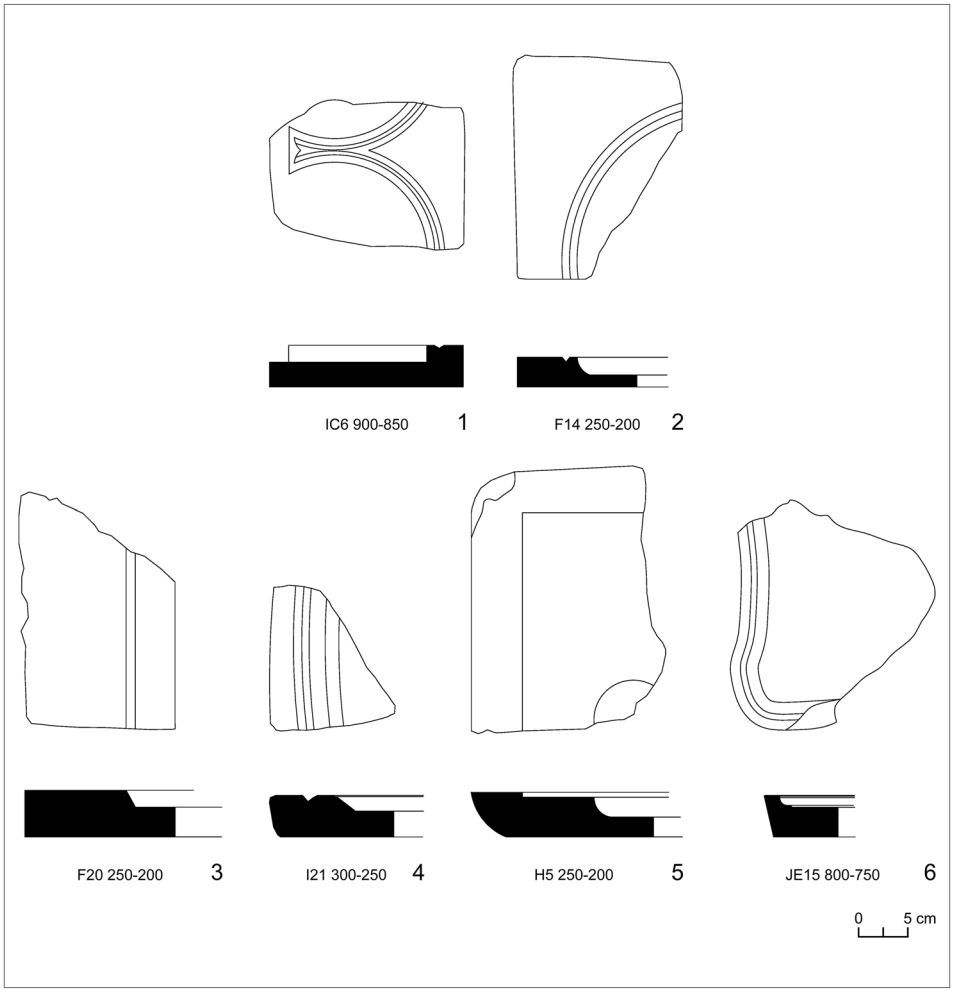

Fig. 18. Selected fragments of polylobed and enclosed tables (Drawings H. Kahwagi-Janho)

come in a wide variety of shapes and sizes and are made of three main materials: white marble, grayish-white marble and gray marble. They represent five main types: polylobed tables, enclosed (*clôturée*) tables with triangular rims, and tables with either molded, S-shaped or beak-shaped rims.

Polylobed tables

A dozen fragments of polylobed tables have been preserved in the cistern [*Figs 17:1–2; 18:1–2*]. They are largely carved in white marble. The pieces mostly comprise the walls of the lobes, whose thickness varies between 2 and 2.5 cm, more rarely the lobes themselves. These fragments are predominantly curvilinear, reflecting the circular or sigmoid shape of the tables. Other fragments correspond to the rectilinear, angular parts of this type of furnishings. Due to the fragmentary state of these objects, it is virtually impossible to determine the exact diameter and, therefore, the number of lobes per table. Several examples of this table type have been found in Greece, Bulgaria, and Cyprus (Roux 1973a: 134, Fig. 60; 169–174; 1973b: 141; Roux and Marcadé 1977: 455–457; Tenekedjiev 2014). They have between 7 and 14 lobes, 12 and 13 being the most common. According to Roux, this type of table is not earlier than the end of the 5th century (Roux 1973a: 173).

Enclosed tables with triangular rims

Several fragments of flat-rimmed enclosed tables were identified among the finds from the cistern [*Fig. 17:3–4*]. This type of table usually has a sigmoid shape. The fragments found are mostly flat and should therefore be assigned to the horizontal surfaces of their respective tables. The fragments, some up to 35 cm long, are divided into three zones: the bottom, with a total thickness varying between 1 cm and 2 cm, the peripheral band slightly raised above the bottom surface (0.5–1 cm) with an average width of 13 cm, and, finally, the rim with a triangular section 8 cm high and a sloping inner surface. This type of furnishing is usually cut in

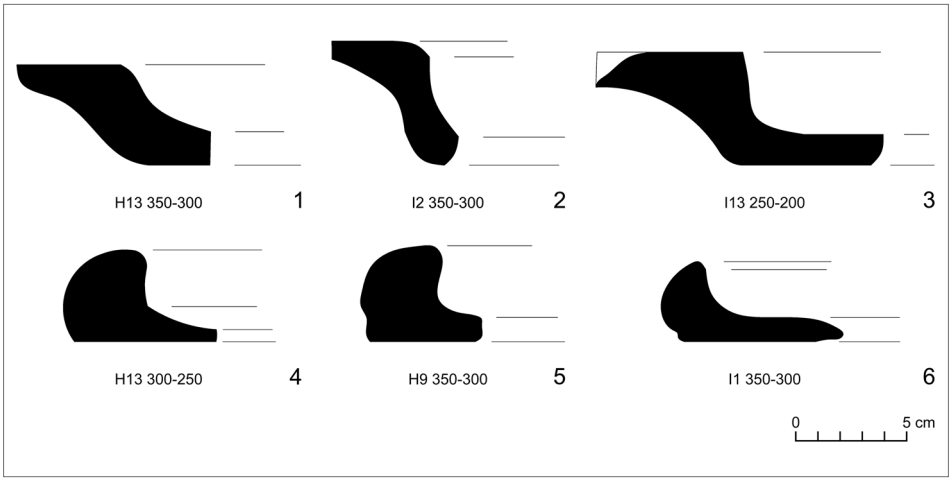

Fig. 19. Selected fragments of beak-shaped and S-shaped table rims (Drawings H. Kahwagi-Janho)

grayish or veined grayish-white marble. Looking to the specimens studied by G. Roux for comparison, it seems that this type of table generally had an almost square shape and its dimensions varied between 70 cm and 140 cm. The surfaces of all these tables are generally smooth and bear no traces of ornamentation. In contrast to the well-polished top surfaces of these fragments, their reverse sides are not always smooth, and they have been kept in a roughly polished state on some blocks.

Tables of this type have been excavated at several Greek, Cypriot, and Syrian sites (Roux 1973a: 159–169; 1973b: 138, 142). Similar specimens have also been found in Egypt (Pensabene 1993: 539–540, Pl. 110, Figs 1031–1033). They typically resemble those of Tyre on both formal and aesthetic levels. Roux estimates that this type of table was in use from the second half of the 4th century (Roux 1973a: 176).

Plates with molded rims

The first type of plate identified by the fragments of its rim is the type with a molded rim [*Figs 17:5–6; 18:3–6*]. These plates generally have slightly raised edges composed of two or three moldings, most often a band and a torus, separated by a miter groove. Fragments of this type, often rectilinear, are made of various types of marble. However, as with the previous type, plates carved in white marble are rare. The rims of these plates range from 2.5 cm to 8 cm in width. Examples of this type have been found in Delphi, Greece (Roux and Marcadé 1977: 460–462) and Salamis, Cyprus (Roux 1973a: 173, Fig. 92).

Plates with S-shaped rims

The second type of plate [*Fig. 19:1–3*] is related to the first, although its form is simplified: its rim is flat and horizontal, lacking the moldings usually found on specimens of the first type, and its profile is in the shape of an S. A fragment of a plate with a similar S-shaped rim was found in Jiyeh (Gwiazda 2014: 534). Several others have been found in Palestine, e.g. in Jerusalem (Mazar 2003: Pl. 1.13.3) and Avdat (Negev 1997: 143, Fig. 221). Most finds of this type are dated to the early Byzantine period.

Plates with beak-shaped rims

More than 50 fragments of beak-shaped rims were found in the cistern [*Figs 17:7–8; 19:4–6*]. They are made exclusively of white marble. None of these fragments is more than 10 cm in length, and in one case two joining fragments together measure 19 cm. Their height varies between 4 cm and 5 cm, their thickness between 0.6 cm and 1 cm. The profiles of these fragments are of two types: some have a curved outer profile that directly joins the flat bottom of the plate, while others slightly recoil in their lower part prior to reaching the flat surface. The rim surfaces are generally well polished, with rare exceptions in the areas between the rim and the flat bottom. All the fragments found are curved, attesting to the circular shape of these plates. The diameter, calculated in particular for the two joining fragments mentioned, reaches 105 cm. Like the types described above, several examples of this type have been found in Jiyeh (Gwiazda 2014: 531–533). On a regional level, many plate frag-

ments attributed to this type have been found in Syria (Gschwind and Hasan 2011: 224, Fig. 6), Palestine (Bagatti 1969: 203, Fig. 7.1–2), Cyprus (Roux 1973a: 179, Fig. 91), and Greece (Roux and Marcadé 1977: 457–459). Vessels of this type generally date from the early Byzantine period and are mostly found in religious buildings. The function of objects belonging to this group is still debated. Some hypotheses suggest that their main role was as side tables in auxiliary rooms and naves (Duval 1994: 199–200; Gwiazda 2014: 533).

CONCLUSIONS

In conclusion, the architectural decoration of the Byzantine religious monuments of Tyre has proved to be remarkably diverse and rich on both artistic and technical levels. The blocks are made of a wide variety of marbles. Barring the exceptional case of the tables with the beak-shaped rim, a particular type of furnishing was rarely carved in only one kind of marble. The cutting and polishing techniques are also diverse and vary from fragment to fragment, implying a variety of teams and craftsmen working on the site or even in the original workshops. For example, it is difficult to find two or more fragments of small columns that are similar or belong to the same series. The same is true for capitals, whether of free-standing columns or pilasters. On the other hand, we find greater uniformity in certain types of furnishings, such as small cornices or basins, at least as far as their shape and overall proportions are concerned. Despite this abundance and variety, the quality and richness of these objects remains far removed from the decorative types of Constantinople, especially during the Theodosian period. However, most of the Tyrian examples are similar to the most typical specimens from Cypriot, Greek, Syrian, Palestinian and North African religious sites.

The present study of the marbles found in the cistern and throughout the site of Tyre has focused on their artistic, decorative, and archaeometric aspects. It is hoped that it will lead to a better understanding of issues related to the production, importation and operation of manufacturing workshops. In the future, the geolocation of all the fragments will make it possible to reconstruct the architectural decoration of the various chapels and churches that existed in the districts of the Byzantine city.

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