Architectural Decoration in Roman and Late Antique Caesarea Maritima and Its Periphery: Production, Importation and Reuse

Rivka Gersht – Peter Gendelman

The excavations at Caesarea Maritima – the harbor city built by Herod the Great in 22–10/9 BCE on the northern part of the coastal Plain of Sharon – yielded plenty of evidence for local production of architectural decoration out of raw and recycled materials. As it is impossible to deal with all available evidence in the framework of this study, we will focus on selected examples of producing and recycling architectural members and reliefs, floor pavements and wall revetments.

**Architectural members and reliefs**

The earliest evidence of local production of architectural members is dated to the foundation of the city when local sandstone was the main building material. The most notable examples are the monumental fragments from the temple built by Herod in honor of Augustus and Dea Roma; all were originally stuccoed, endowing the impression of shining marble (fig. 1).

Limestone, together with sandstone, continued to be the principal materials for local production of architectural members and reliefs also during the 1st and early 2nd century CE. Among the prominent examples of reliefs carved in local stones is the fragment of a monumental relief of a Victory holding a trophy, which was found in front of the western façade of the temple platform, recycled as pavement slab (fig 2a). The excellent workmanship suggests that the goddess ornamented an official monument that may have belonged to the temenos of Augustus and Dea Roma. Of less qualified workmanship are the Victories accompanying the inscriptions of the detachments of *Legio VI Ferrata and Legio X Fretensis*, which worked on the Hadrianic aqueduct that supplied water to Caesarea.

Certain examples of sandstone architectural members retain stucco coating and molding; among these are the capital from the entrance court of one of the Caesarean hypogea (fig. 2b), and the column-drums from an unidentified building in Insula W2S5. Stuccoed and painted sandstone capitals and shafts were also part of the architecture of the atrium and peristyle court of the early 1st century domus in Insula W2S3 (fig. 2c), where a fragmentary marble statue of one of the Dioscuri brothers was found (henceforth the Dioscuri Domus).

The same domus also provided evidence for locally carved marble panels in champlevé technique, which were added to the decoration of the peristyle court in the beginning of the 2nd century. Only three fragments of these panels survived, with remains of
two hunters and a single red deer (*cervus elaphus*). In one of the fragments (fig. 3) the craftsman failed to remove a section of the background; this led us to believe that the panels were locally produced. For now, these panels are the earliest evidence for champlevé carving in Roman Caesarea, and the earliest examples known among the published examples from elsewhere. The champlevé technique continued to be used in Caesarea for centuries and became extremely popular in Late Antiquity.

Between the 2nd and the 3rd century Caesarea imported a variety of plain and carved stones, including different kinds of marble, granite, porphyry, conglomerate, sand and limestone, as well as alabaster and travertine. By the 4th century the city was flooded with either raw or sculpted imported materials. From this time onwards, reusing and recycling stones, customs already familiar to the former Caesareans, gradually became a common practice. A few examples will demonstrate the systematic use of spolia in the city and its surroundings.

Remains of an impressive late antique complex were recently found next and below the northern gate of the Crusader fortification. The bases, shafts and capitals of the portico and the other compartments of the complex differ in size and shapes, and are dated not later than the 3rd century. Of the two columns, which stood at the entrance to the compartments facing the portico, for example, one is larger and made of white and reddish-brown conglomerate, the other is smaller and made of red Aswan granite. Each of the architectural members uncovered in the complex bears Greek numbering letters, but the numbering of the capitals does not match the numbering of the columns. All – measures and materials – suggest that the architectural members of the complex were
Fig. 2: (a) Victory holding trophy, limestone (b) Roman Hypogeum: stuccoed Doric capital, local sandstone, (c) Dioscuri Domus: stuccoed and painted Doric capital, local sandstone.

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assembled from different sources. Some could have previously belonged to the Roman complex, which preceded the late antique one. The others – or maybe even all – could have been purchased from one of the city’s second-hand building materials suppliers. Although no direct evidence for such suppliers is available, we have no reason to believe that things were more different in Caesarea than in Rome, where a guild of demolition experts (collegium subrutorum) was active.8

There is plenty of evidence in Caesarea indicating that when a building went out of use, was abandoned or dismantled, its architectural parts were modified and reused differently if they were found unfitting to be reused according to their initial function, and when they were rated as useless they were disposed in the kiln.9 An example of such a scenario is Insula W2S3 where a Semi-public Complex replaced a late Roman bath-house during the 5th century. The eastern main entrance of the complex was then paved with recycled, locally carved limestone entablature members, all laid upside down with their frontal face hidden (fig. 4a).10 These stones may have formerly belonged to the monument mentioned in the inscribed limestone cornice found in secondary use nearby. The nature and location of this monument, built in 165 CE in honor of Gaius Iulius Commodus, governor of Syria Palaestina, is unknown.11

The same method of reusing architectural members – in this case of marble – was employed in building the 5th century Cardo Maximus next to its intersection with the Decumanus Maximus. A little bit further to the west, an unfinished Corinthian marble
capital was found. This and other unfinished architectural members uncovered in Caesarea clearly evince a local workmanship in raw material.

Further examples of local carving, yet of recycled materials, came from the excavations at the Crusader market. The two fragmentary reliefs, which were found there, were carved into half column shafts – one of white marble, the other of cipollino marble – and were similarly decorated with a four petals flower within a rhombus enclosed by a rectangle, and a pelta-shield at each acute angle. The rectangle’s corners contained a double-headed axe (labrys) each. Obviously the column-shafts were imported in the Roman period; the sawing and carving were carried out locally in Late Antiquity. We have no clue where the reliefs were originally placed, but assume that as a pair they meant to be used as doorposts.

Caesarea could have been a potential supplier of second-hand building materials also for the neighboring villas and settlements. In the Byzantine bathhouse at Khirbet Jābir, excavated by Orit Segal a few kilometers northeast of Caesarea, for example, the use of second-hand building materials was rather extensive. It is not unlikely that some if not all of them arrived from the neighboring Caesarea. In addition to the Roman items, which were reused in Khirbet Jābir in their original form, Roman column-shafts
were cut and reshaped into a female head and a water conduit (fig. 4b). Likewise, an Attic type profile column base was remodeled into a richly ornamented pediment (fig. 4c). Two other marble finds were remodeled from fragmentary Roman cornices, one was recycled as a bracket and decorated with a stylized head of a lion, the other was modified into a floor tile; both retained the dentils. 14

**Floor pavements and wall revetments**

In Caesarea the production of tesserae and *sectile* pieces out of raw and recycled materials flourished; on the procedure of manufacturing tessellated mosaic pavement and *opus-sectile* wall panels in the city, we learned from the remains of two temporary workshops, which were located within private mansions. The owners of these mansions allocated a space for the functioning of the workshops for only the period of time needed for completing the work. Based on these finds we assume, that setting a workshop where the work was carried out must have been a common practice in Caesarea.

The tessellated mosaic workshop operated for a short period of time during the late 1st century within one of the shops of the Dioscuri Domus. 15 When the craftsmen accomplished their work they took their tools, but left behind the working surface and three ashlar boxes with unused tesserae and raw material in a variety of colors, which were clearly purchased by the owner of the domus, otherwise they would have been taken by the craftsmen. The raw material and working surface suggest that at least some of the over million multicolored tesserae needed for composing the 1,200 m² of tessellated pavements, were cut within the workshop itself by hammering pieces of stone onto a chisel-like blade set into a block of wood. The process is illustrated on a 4th century grave stele in Ostia. 16 The room used as mosaic workshop in the Dioscuri Domus at Caesarea backed to function as a shop immediately after the temporary workshop ceased to function and a new floor was laid atop.

The workshop for producing elaborate *opus-sectile* panels functioned in one of the rooms of the Byzantine mansion in Insula W2S4. 17 In this mansion the renovation work was never finished. The *opus-sectile* workshop was sealed shortly before the house was abandoned in 640/41. The panels, which were meant to decorate the mansion’s walls, were found broken on the floor of the workshop. In this case the craftsmen left the stone and metal tools behind, apparently with the intention to return and accomplish their work. The excavation of this workshop yielded a large number of pieces cut out of recycled materials including flat slabs sawn from a spiral shaped column (fig. 5a).

Further evidence for employing architectural members for the production of *opus-sectile* shapes came from the Semi-public Complex located in the nearby insula W2S3 (fig. 5b). 18 About 10,000 pieces and more than hundred shape-types of *opus-sectile* came from this insula. Most of them were found scattered inside the ground floor of the northwest basilica, where they had been dropped in when the upper floor was
dismantled. Considering the amount of *opus-sectile* pieces needed for decorating the complex, there is no reason to doubt that an *opus-sectile* workshop, equal to the one in Insula W2S4 was also operating in this complex.

Many of the *sectile* stones bear parallel sawing marks and remains of rust on their underside (fig. 6a), the result of side-to-side movement of toothless metal blade or cord and/or of metallic abrasion tools. Manual sawing of slabs by means of frame-saw with toothless metal blade or cord, and of abrasive and water combination, was well known and widely used in antiquity. In Late Antiquity, in addition to the manually operated saw, water powered multi-blade sawing machines – such as those found in Hierapolis, Ephesus and Gerasa – came into use. The fragments of sandstone, limestone and marble with parallel saw slits, found in several locations at Caesarea, clearly suggest that water powered multi-blade sawing machines were also active within the city or in its vicinity. The local sandstone fragment with three parallel saw slits – and remains of additional two on the sides – was found in the Semi-public Complex (fig. 6b). Another fragment, of hard limestone with five saw slits, came from another late antique complex recently uncovered next to the Crusader fortification, and all the marble fragments with different numbers of saw slits came from the excavations now conducted in the western façade of the platform of the Temple of Augustus and Roma. The thickness of the sawed slabs, as evinced from the saw slits, was appropriate...
Fig. 5: *Opus-sectile* production: (a) 1993/94 excavations of the workshop in Insula W2S4, Photograph by A. Peri (b) *opus-sectile* pieces shaped of recycled architectural members, Semi-public Complex, Insula W2S3.

for wall revetments as well as for producing *sectile* pieces; evidence for both decorative elements were found in all three locations.

The next stage of manufacturing *sectile* pieces, after sawing, is the smoothing of the slabs receptive to abrasives and cutting them into shapes. Among the different forms of abrasives used by the Caesareans was pumice stone, as evinced by the multi-faceted pieces found in Insula W2S5 and in the Hadrianic amphitheater.

The technique of cutting the *sectile* shapes differed from one material to another, and depended on the stone’s receptivity to tools. The white and gray marbles were receptive to most tools. For shaping pieces out of harder stones a hammer and flat and rounded chisels were often used, usually held at a sloping angle, mostly to avoid micro-fractures beneath the surface, but also to achieve an applicable angle for a better and easier fitting of the stone into the pattern.

Many elaborate shapes bear red pigment along their rims; this must be the result of using negative templates. A negative template is a pattern matching the piece
Fig. 6: Opus-sectile production, Semi-public Complex, Insula W2S3: (a) opus-sectile pieces with sawing marks and rust, (b) multi-blade sawing machine marks on local sandstone, (c) proposed reconstruction of using negative template in the opus-sectile production process.

tested for accuracy in size and profile. After the template was brushed with red pigment it was held up against the sectile piece to test it for accuracy; the process could have been repeated several times until the whole area of the rims was covered in red (fig. 6c). The final shaping was mainly done by using rasps and abrasive
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Fig. 7: Semi-public Complex, Insula W2S3: (a) small bath caldarium, reconstruction, (b) proposed reconstruction of the dismantled basilica.

stones (such as pumice). Rasps and smoothing marks are visible on almost every sectile piece.

The opus-sectile panels decorated only sections of walls; the remaining areas were veneered with marble slabs – in most cases grayish – as evinced by the large number of bronze clamps and fragments of marble slabs still visible on the remaining walls. The reconstruction of one of the caldaria of the 5th–7th century Semi-public Complex well demonstrate wall facing with both, sectile panels and plain marble slabs (fig. 7a).

For the walls of the dismantled basilica of this complex the cipollino marble was favored (fig. 7b). This is deduced from the large number of fragmentary cipollino slabs found scattered in the basilica’s ground floor; some bear remains of a Greek inscription painted in red.

Each of the two sectile medallions that decorated the caldarium of the Semi-public Complex’s small bath was composed of an inner small medallion within three frames. The outer frame was a laurel wreath in champlevé relief, which is another craft widely employed in late antique Caesarea. The spaces between the leaves were painted red (fig. 7a).

In the champlevé technique the relief is almost flat and the surface is smoothed or polished. After the outlines of the design are marked on the stone, about 2 or 3 millimeters of the background are carved away by uneven point chisel strokes. The background is then filled with colored material, endowing the relief the impression of a painting.

Up to this day the ruins of late antique Caesarea provided a large number of champlevé fragments with geometric, floral and figural motives; some show resemblance to reliefs
uncovered in Antioch and Cyprus. Only a few Caesarean champlevé fragments retained the remains of the colored material, mainly red ocher and Egyptian-blue. Some of the reliefs were carved into recycled slabs, which indicate a local production. The single champlevé revetment panel uncovered in the Byzantine bathhouse at Khirbet Jābir was very likely also manufactured in Caesarea.

The geometric champlevé panel uncovered in one of the rooms of the administrative unit of the Semi-public Complex was part – together with fragments of related panels found nearby – of a long narrow frieze, which probably ornamented the room where it was found (fig. 8a). The molded underside of two of the related fragments indicates that spolia was employed for carving some of the panels.

In other instances champlevé revetments were inserted into an opus-sectile floor or used to cover a gutter. In the frigidarium of a recently discovered bath in Insula E3S3, a rectangular fragment cut from about four times larger panel, was incorporated into a rather simple opus-sectile floor. The relief, when intact, could have been part of the architectural decoration of the first phase of the bath, or of another Caesarea building.

The fragmentary champlevé relief, reused to cover a gutter in the southwest corner of the central corridor of the late 6th century macellum in Insula W2S4, probably belonged
to the wall decoration of the adjacent mansion (fig. 8b). The emblematic pattern of a four petals flower within a rhombus enclosed by a rectangle and four double headed axes, one at each of the rectangle’s corners, generally echoes the emblematic pattern of the two fragmentary reliefs carved into half column shafts from the Crusader market. The resemblance reinforces the idea that the late antique champlevé reliefs, like the earlier ones from the Dioscuri Domus, were carved in Caesarea. That the champlevé technique was considered a worthy decoration among the late antique Caesareans is deduced not only from the great number of revetment panels, but also from champlevé pilaster capitals and tabletops.

Conclusion

Between the 2nd and 6th centuries the port of Caesarea was the core of large-scale importation of a variety of plain blocks of stone and of fully or partially carved architectural members. Raw and partially carved stones required either temporal or permanent presence of skilled craftsmen at Caesarea, qualified to execute the carving in a variety of materials, including local stones. The availability of waste and second-hand building materials, especially in Late Antiquity, gave rise to a pragmatic and efficient recycling – public as well as private – of architectural members; enabled the paving of the streets with marble flagstones and the wealthiest inhabitants of the city to adorn the walls and floors of their own mansions and of the city’s public buildings with marble columns, capitals, revetment slabs, reliefs, opus-sectile panels and mosaics.

Notes

1 Stabler et al. 2008, 20 fig. 18.
2 Raban 2008, 1671; Gendelman – Gersht 2010, 32–33 fig. 8.
3 Lehmann – Holm 2000, cat. 49. 52. 53 figs. XL–XLII; Gendelman – Gersht 2010, 33 f. fig. 9; CIIP II, cat. 1204. 1207.
4 Gersht 1999, 37 fig. 40; Gendelman – Gersht 2010, 28 f. fig. 1.
7 A list of all champlevé fragments known till 2007 is published as an appendix in Boyd’s chapter on the champlevé revetments found in the episcopal basilica precinct at Kourion. The unpublished plaques with standing Muses from Crete were found in a 2nd or 3rd century Roman house, but Boyd (2005, 445; 2007, 299) notes that the plaques may well be later.
8 CIL VI 940; On supply of second hand material in Pompeii and Herculaneum, see Fant et al. 2013, 202–205.
9 A similar scenario can be deduced from a 4th century papyrus which provides a list of architectural
members available for reuse in a city, either Arsinoë or Oxyrhynchus. The list records the materials the architectural members are made of – either local or foreign stones – their measurements, their exact context, and whether the columns are standing or lying on the ground. The later seems to be valuable information for considering the ease, which the columns can be removed with. At the end of the list small fragments are noted as suitable for the kiln (Papaconstantinou 2012).

10 Gendelman – Porath (forthcoming).
11 CIIP II, cat.1228. The stone was unlikely used as a statue base, as suggested in the corpus, it was more likely part of the monument’s entablature.
12 Gendelman – Gersht 2010, 29–31 fig. 4.
14 Gersht forthcoming.
16 Dunbabin 1999, 281 fig. 287.
17 Gendelman – Gersht 2010, 43.
18 Our study of the decorative program of the complex was made possible through the support of the Israel Science Foundation, Grant No. 31/10.
19 As the underside in most cases is less smoothed, the sawing marks with remains of rust are there more dominant.
21 On these, see Kessener 2010, 284–293.
22 Cf. Rockwell 1993, 48; Wootton et al. 2013, 9 fig. 25.

Image Credits

All photographs, apart from fig. 5a, were taken by Peter Gendelman. Reconstructions are by T. Meltsen and Peter Gendelman.

References

‘Ad et al. 2017

Boyd 2005

Boyd 2007
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CIIP II

Dunbabin 1999
K. M. D. Dunbabin, Mosaics of the Greek and Roman World (Cambridge 1999).

Fant et al. 2013

Gendelman – Porath (forthcoming)

Gendelman – Gersht 2010

Gendelman – Gersht 2017

Gersht 1999

Gersht (forthcoming)

Kessener 2010

Lehmann – Holum 2000

Papaconstantinou 2012

Raban 2008

Rockwell 1993
Röder 1992

Stabler et. al. 2008

Wootton et. al. 2013