

# **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).<sup>1</sup>

Limestone, together with sandstone, continued to be the principal materials for local production of architectural members and reliefs also during the 1<sup>st</sup> and early 2<sup>nd</sup> 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).<sup>2</sup> 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.<sup>3</sup>

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.<sup>4</sup> Stuccoed and painted sandstone capitals and shafts were also part of the architecture of the atrium and peristyle court of the early 1<sup>st</sup> century domus in Insula W2S3 (fig. 2c), where a fragmentary marble statue of one of the Dioscuri brothers was found (henceforth the Dioscuri Domus).<sup>5</sup>

The same domus also provided evidence for locally carved marble panels in champlévé technique, which were added to the decoration of the peristyle court in the beginning of the 2<sup>nd</sup> century.<sup>6</sup> Only three fragments of these panels survived, with remains of

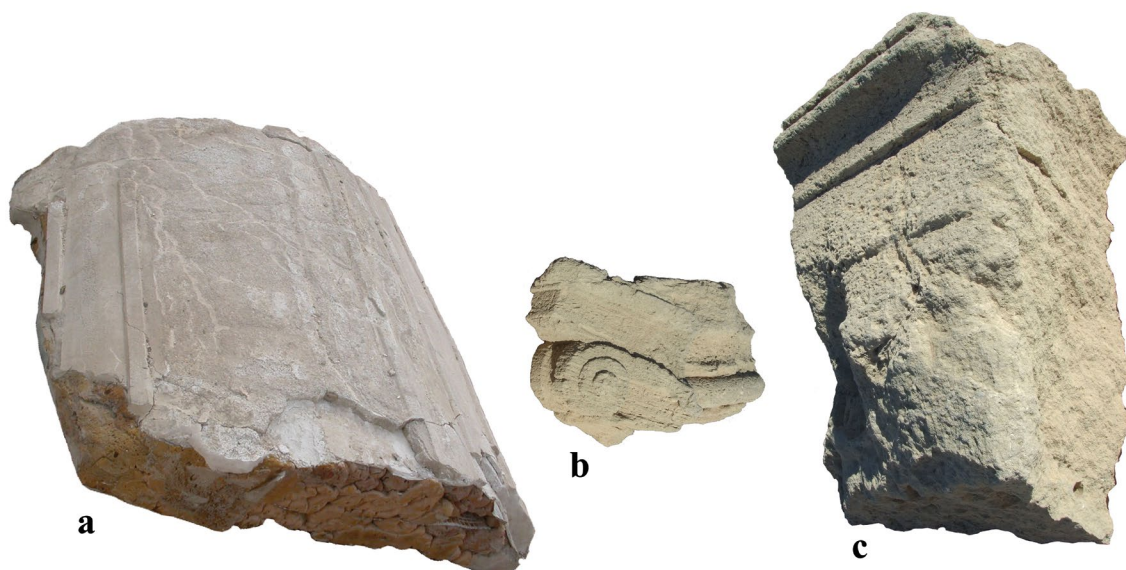


Fig. 1: Temple of Augustus and Roma: (a) stucco, fragment, (b–c) Corinthian capital and cornice, local sandstone.

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.<sup>7</sup> The champlevé technique continued to be used in Caesarea for centuries and became extremely popular in Late Antiquity.

Between the 2<sup>nd</sup> and the 3<sup>rd</sup> 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 4<sup>th</sup> 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 3<sup>rd</sup> 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

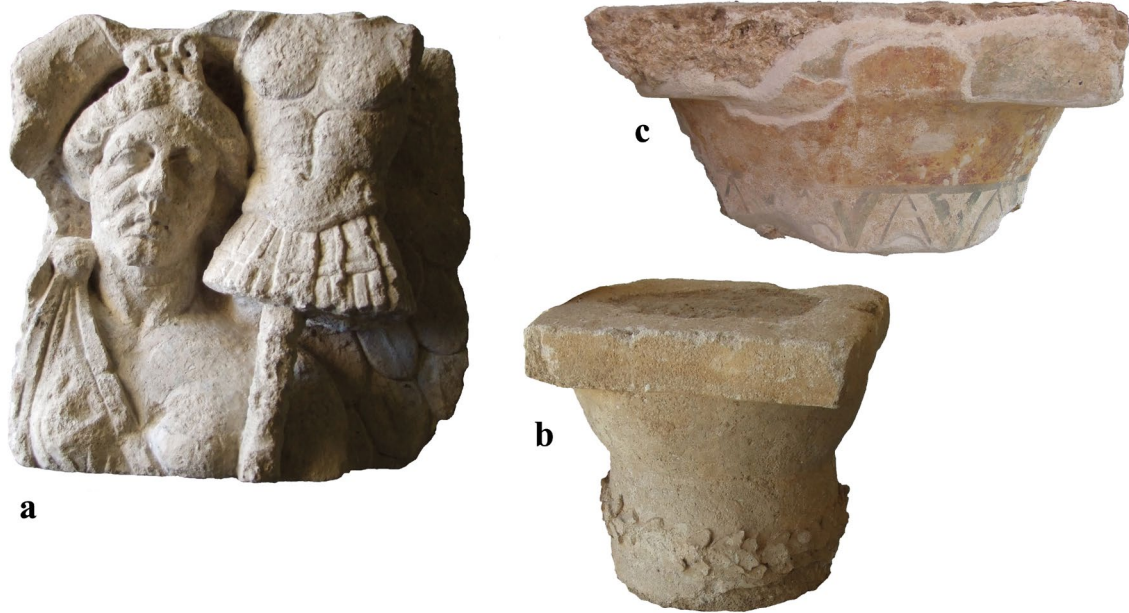


Fig. 2: (a) Victory holding trophy, limestone (b) Roman Hypogeum: stuccoed Doric capital, local sandstone, (c) Dioscuri Domus: stuccoed and painted Doric capital, local sandstone.

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.<sup>8</sup>

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.<sup>9</sup> An example of such a scenario is Insula W2S3 where a Semi-public Complex replaced a late Roman bath-house during the 5<sup>th</sup> 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).<sup>10</sup> 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.<sup>11</sup>

The same method of reusing architectural members – in this case of marble – was employed in building the 5<sup>th</sup> century *Cardo Maximus* next to its intersection with the *Decumanus Maximus*. A little bit further to the west, an unfinished Corinthian marble



Fig. 3: Domus of the Dioscuri, marble panel in champlévé technique.

capital was found.<sup>12</sup> 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.<sup>13</sup> 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.<sup>14</sup>

### 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 1<sup>st</sup> century within one of the shops of the Dioscuri Domus.<sup>15</sup> 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 m<sup>2</sup> 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 4<sup>th</sup> century grave stele in Ostia.<sup>16</sup> 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.<sup>17</sup> 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).<sup>18</sup> 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

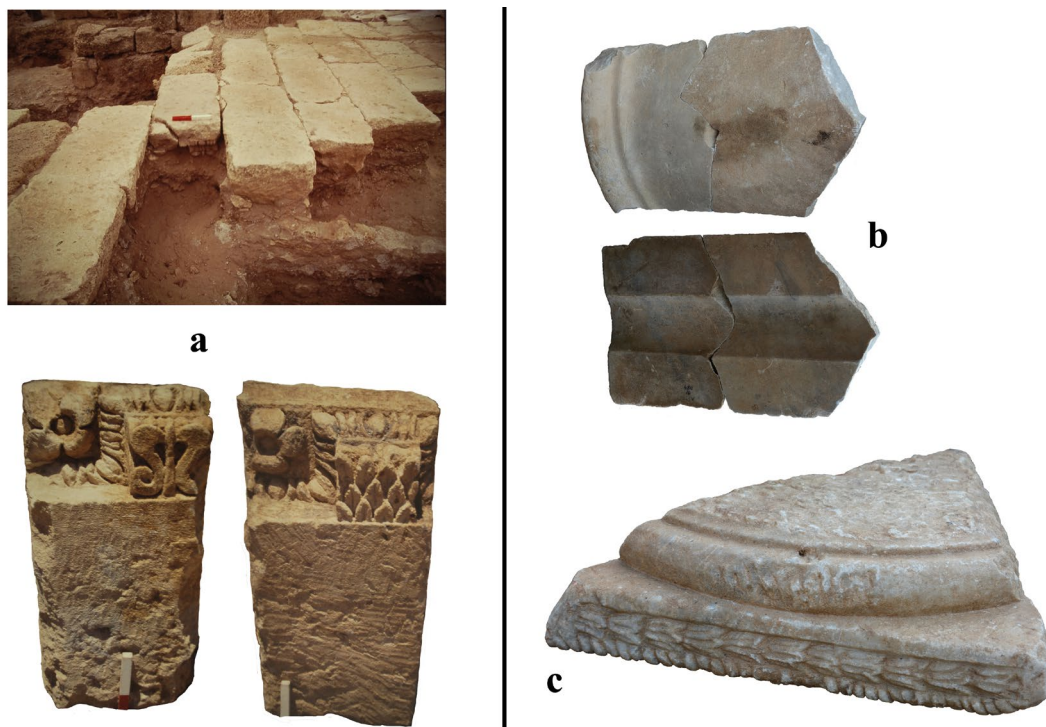


Fig. 4: Recycled architectural members: (a) Caesarea, Semi-public Complex, Insula W2S3, entablature fragments limestone (b–c) Khirbet Jābir, Byzantine Bath-house: marble conduit and pediment.

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.<sup>19</sup> 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.<sup>20</sup> 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.<sup>21</sup> 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

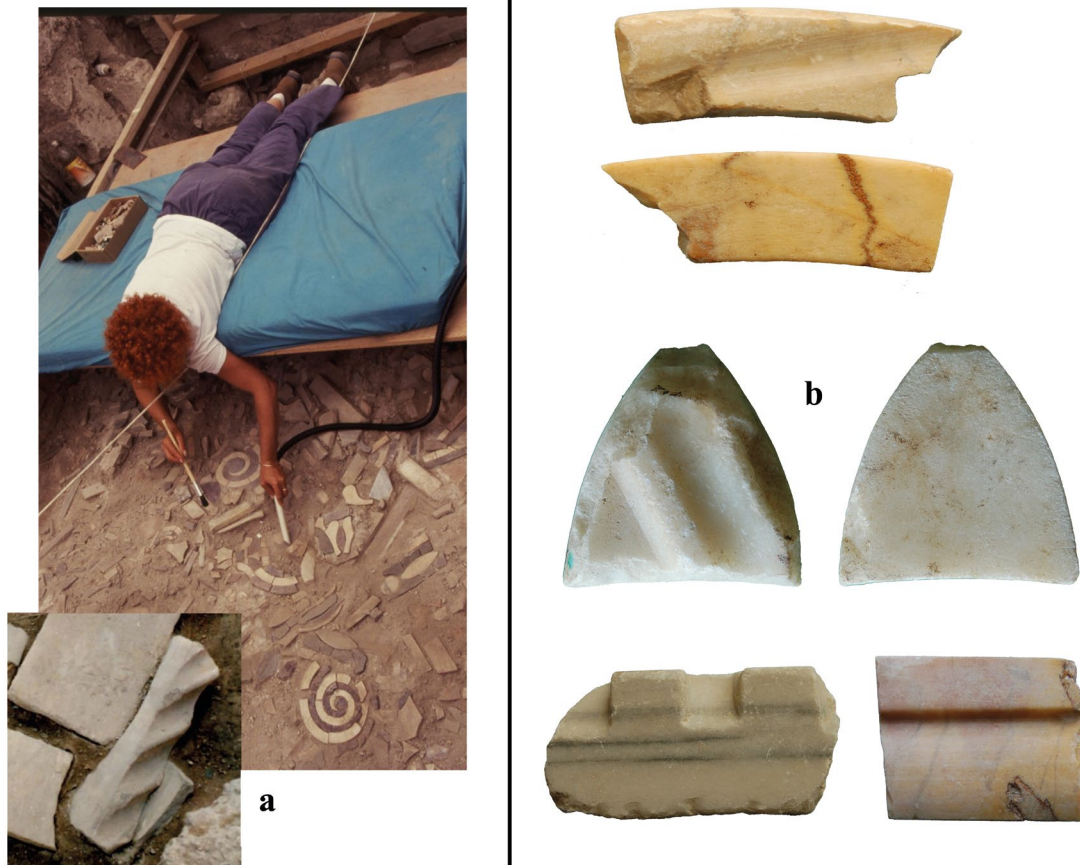


Fig. 5: *Opus-sectile* production: (a) 1993/94 excavations of the workshop in Insula W2S4, Photograph by A. Peri (b) *opus-sectile* pieces shaped of recycled architectural members, Semi-public Complex, Insula W2S3.

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<sup>22</sup>, 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

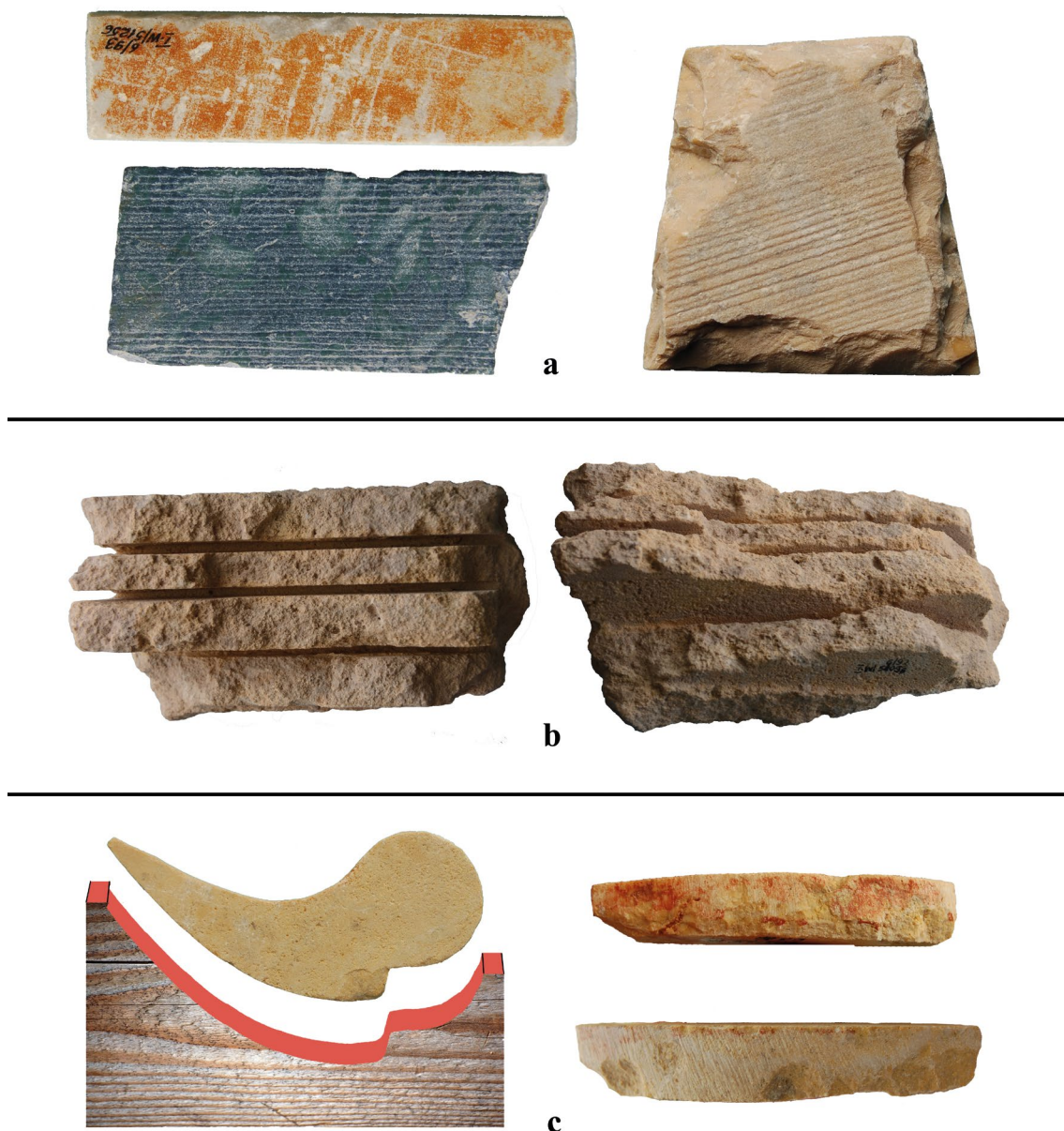


Fig. 6: *Opus-sectile* production, Semi-public Complex, Insula W2S3: (a) *opus-sectile* pieces with sawing marks and rust, (b) multi-blade sawing machine marks on local sandstone, (c) proposed reconstruction of using negative template in the *opus-sectile* production process.

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



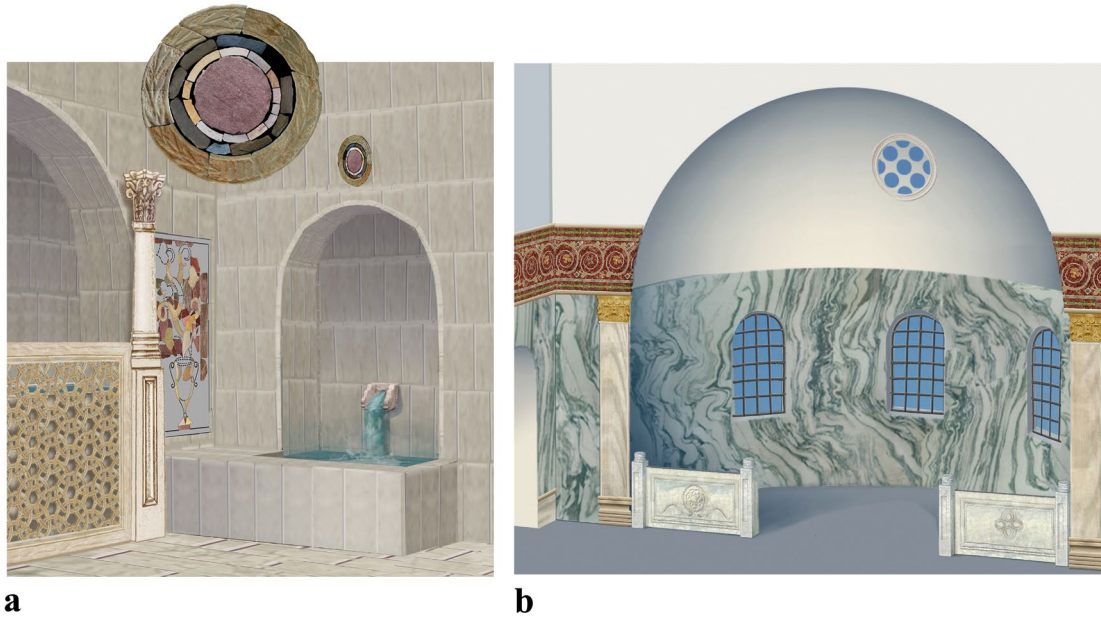


Fig. 7: Semi-public Complex, Insula W2S3: (a) small bath *caldarium*, reconstruction, (b) proposed reconstruction of the dismantled basilica.

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 5<sup>th</sup>–7<sup>th</sup> 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 champlévé relief, which is another craft widely employed in late antique Caesarea. The spaces between the leaves were painted red (fig. 7a).

In the champlévé 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 champlévé fragments with geometric, floral and figural motives; some show resemblance to reliefs

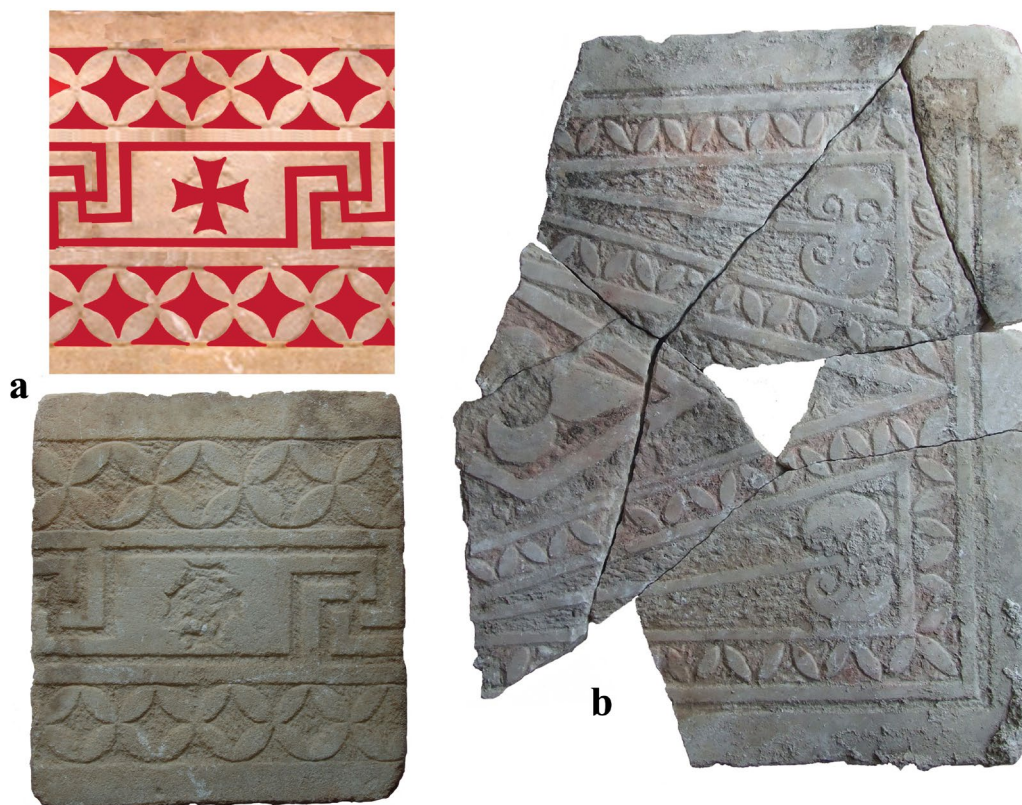


Fig. 8: Champlévé reliefs found in the: (a) administrative unit, Semi-public Complex, Insula W2S3 (b) *macellum*, Insula W2S4.

uncovered in Antioch and Cyprus. Only a few Caesarean champlévé 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 champlévé revetment panel uncovered in the Byzantine bathhouse at Khirbet Jābir was very likely also manufactured in Caesarea.

The geometric champlévé 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 champlévé 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 champlévé relief, reused to cover a gutter in the southwest corner of the central corridor of the late 6<sup>th</sup> 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 2<sup>nd</sup> and 6<sup>th</sup> 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

<sup>1</sup> Stabler et al. 2008, 20 fig. 18.

<sup>2</sup> Raban 2008, 1671; Gendelman – Gersht 2010, 32–33 fig. 8.

<sup>3</sup> Lehmann – Holum 2000, cat. 49. 52. 53 figs. XL–XLII; Gendelman – Gersht 2010, 33 f. fig. 9; CIIP II, cat. 1204. 1207.

<sup>4</sup> Gersht 1999, 37 fig. 40; Gendelman – Gersht 2010, 28 f. fig. 1.

<sup>5</sup> Gendelman – Gersht 2017, 35–39.

<sup>6</sup> Gendelman – Gersht 2017, 39.

<sup>7</sup> 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 2<sup>nd</sup> or 3<sup>rd</sup> century Roman house, but Boyd (2005, 445; 2007, 299) notes that the plaques may well be later.

<sup>8</sup> CIL VI 940; On supply of second hand material in Pompeii and Herculaneum, see Fant et al. 2013, 202–205.

<sup>9</sup> A similar scenario can be deduced from a 4<sup>th</sup> 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).

<sup>10</sup> Gendelman – Porath (forthcoming).

<sup>11</sup> 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.

<sup>12</sup> Gendelman – Gersht 2010, 29–31 fig. 4.

<sup>13</sup> 'Ad et al. 2017.

<sup>14</sup> Gersht forthcoming.

<sup>15</sup> Gendelman – Gersht 2010, 41 f.; 2017, 40.

<sup>16</sup> Dunbabin 1999, 281 fig. 287.

<sup>17</sup> Gendelman – Gersht 2010, 43.

<sup>18</sup> Our study of the decorative program of the complex was made possible through the support of the Israel Science Foundation, Grant No. 31/10.

<sup>19</sup> As the underside in most cases is less smoothed, the sawing marks with remains of rust are there more dominant.

<sup>20</sup> On sawing techniques, see Röder 1992, 132 f.; Rockwell 1993, 45–47; Kessener 2010, 283 f.

<sup>21</sup> On these, see Kessener 2010, 284–293.

<sup>22</sup> 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

U. 'Ad – D. Kirzner – V. Shotten-Hallel – P. Gendelman, Caesarea, the Crusader Market: Preliminary Report, Exclsr 129, 2017, [[http://www.hadashot-esi.org.il/report\\_detail\\_eng.aspx?id=25298&mag\\_id=125](http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25298&mag_id=125)] (accessed 18.09.2018).

### Boyd 2005

S. Boyd, A Note on Some Mythological Reliefs Carved in Champlevé. *Mélanges Jean-Pierre Sodini, Travaux et Mémoires* 15 (Paris 2005) 443–454.

### Boyd 2007

S. Boyd, The Champlevé Revetments, in: A. H. S. Megaw, *Kourion: Excavations in the Episcopal Precinct* (Washington 2007) 235–320.

**CIIP II**

W. Ameling – H. M. Cotton – W. Eck – B. Isaac – A. Kushnir-Stein – H. Misgav – J. Price – A. Yardeni, *Corpus Inscriptionum Iudaeae/Palaestinae Volume II: Caesarea and the Middle Coast, 1121–2160* (Berlin – Boston 2011).

**Dunbabin 1999**

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

**Fant et al. 2013**

J. C. Fant – B. Russell – S. J. Barker, *Marble Use and Reuse at Pompeii and Herculaneum: The Evidence From the Bars*, BSR 81, 2013, 181–209.

**Gendelman – Porath (forthcoming)**

P. Gendelman – Y. Porath, *Insula W2/S3: The Domus of Dioscuri, Late Roman Public Bathhouse and Byzantine Semi-Public Complex. The Israel Antiquities Authority Excavation Project at Caesarea 1992–1998, Final Reports Publications Vol. II. IAA Reports (forthcoming).*

**Gendelman – Gersht 2010**

P. Gendelman – R. Gersht, *Crafts and Craftsmen in Roman and Byzantine Caesarea*, *Michmanim* 22, 2010, 27–48 (Hebrew), 33\*–34\* (English abstract).

**Gendelman – Gersht 2017**

P. Gendelman – R. Gersht, *The House of the Dioscuri at Caesarea*, *Qadmoniot* 50, 2017, 33–42. (Hebrew)

**Gersht 1999**

R. Gersht, *The Sdot-Yam Museum Book of the Antiquities of Caesarea Maritima: In Memory of Aharon Wegman* (Tel Aviv 1999) Hebrew.

**Gersht (forthcoming)**

R. Gersht, *The Sculpted Decoration of the Byzantine Bath-House of Khirbet Jābir*, *Zikhron Ya‘aqov, ‘Atiqot*.

**Kessener 2010**

P. Kessener, *Stone Sawing Machines of Roman and Early Byzantine Times in the Anatolian Mediterranean*, *Adalya XIII*, 2010, 283–303.

**Lehmann – Holum 2000**

C. M. Lehmann – K. G. Holum, *The Greek and Latin Inscriptions of Caesarea Maritima. The Joint Expedition to Caesarea Maritima Excavation Reports. The American Schools of Oriental Research* (Boston 2000).

**Papaconstantinou 2012**

A. Papaconstantinou, *A Fourth-Century Inventory of Columns and the Late Roman Building Industry*, in: R. Ast – H. Cuvigny – T. M. Hickey – J. Lougovaya (eds.), *Papyrological Texts in Honor of Roger S. Bagnall American Studies in Papyrology* 53 (Durham, NC 2012) 215–231.

**Raban 2008**

A. Raban, *Caesarea*, in: E. Stern (ed.), *The New Encyclopedia of Archeological Excavations in the Holy Land Suppl. 5* (Jerusalem – Washington 2008) 1668–1673.

**Rockwell 1993**

P. Rockwell, *The Art of Stoneworking: A Reference Guide* (Cambridge 1993).

**Röder 1992**

G. Röder, Felsberg Granite as a Substitute for Claudianus Granite, in: M. Waelkens – N. Herz – L. Moens, *Ancient Stones: Quarrying, Trade and Provenance; Interdisciplinary Studies on Stones and Stone Technology in Europe and Near East from the Prehistoric to the Early Christian Period* (Leuven 1992) 131–136.

**Stabler et. al. 2008**

J. A. Stabler – K. G. Holum, The Warehouse Quarter (Area LL) and the Temple Platform (Area TP), 1996–2000 and 2002 Seasons, in: K. G. Holum – J. A. Stabler – E. G. Reinhardt, *Caesarea Reports and Studies: Excavations 1995-2007 within the Old City and the Ancient Harbor*, BARIntSer 1784 (Oxford 2008) 1–39.

**Wootton et. al. 2013**

W. Wootton – B. Russell – P. Rockwell, *Stoneworking Tools and Toolmarks* (version 1.0), *The Art of Making in Antiquity: Stoneworking in the Roman World*, 2013, 1–27

[<http://www.artofmaking.ac.uk/content/essays/2-stoneworking-tools-and-toolmarks-w-wootton-b-russell-p-rockwell/>] (accessed 14.04.2018).