# Herodian Glass Mosaics: A Study of the Promontory Palace's *Triclinium* Mosaics

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## **Abstract**

Recent excavations at Herod the Great's Promontory Palace at Caesarea Maritima (Israel) have revealed a series of glass mosaic fragments found out of their original context but assumed to be part of a decorative mosaic in the palace's triclinium, or dining room. This paper argues that these glass fragments were a part of a triclinium wall mosaic and can be dated to the time of Herod the Great. Roman governors used the palace after Herod's death and during the late 1st and early 2nd centuries CE, altering the original Herodian décor and making dating of the ex-situ glass fragments difficult. Analysis of coeval Roman examples of mosaic and glasswork along with an analysis of Herod's own architectural aspirations provide ample evidence that these fragments can be dated to the Herodian period. As such, these fragments are some of the earliest examples of glass mosaics in Judea and illustrate the influence of Roman art and design with Herodian material culture.

## 1. Introduction

Due to the fragile nature of glass, archaeological evidence of glass mosaics is rare before the Byzantine Period. While churches in the Byzantine Period provided an enclosed environment for these mosaics, glass mosaics from Roman houses, temples, and palaces often suffered from exposure to time and the elements. Excavations at Herod the Great's Promontory Palace at Caesarea Maritima off the coast of Israel, however, produced numerous glass tesserae possibly from a mosaic dating to the time of Herod the Great (late 1st century BCE- early 1st century CE). This paper looks at the archaeological evidence of these mosaics, many found *ex situ*, i.e. out of their original context, and considers both their probable location within the palace and their dating. Contextual evidence suggests that these mosaics were originally part of the *triclinium*, or three-seated dining room, built by Herod but later remodeled under the Roman prefects of Judaea. As such, these fragments could be some of the earliest glass mosaics in Israel and Palestine. Through the study of Roman glass production and techniques, contemporary Augustan grotto mosaics, and the building program of Herod the Great, this paper places these glass fragments in the late first century BCE/early 1st century CE, and provides a window into decorative schemes within Herod's palace and his continual self-fashioning as a Roman client-king.

## 2. Mosaic Application and Technique

Mosaics consist of small cut or broken materials that are arranged and set with mortar often creating a pattern or image. Mosaics fashioned from chips of stone can be dated to as early as the 4<sup>th</sup> century BCE while stone tesserae, or cut shape, did not appear for another 200 years. Glass mosaics, because of the cost and low durability, were not used until later in the 1<sup>st</sup> century BCE and then only by affluent patrons. The Roman writer Pliny offers the first record of

glass mosaics in 58 BCE and suggests that although the practice was used in both public and private buildings in Rome, glass was an opulent interior decoration reserved mostly for the wealthy.<sup>2</sup> Stone mosaics used in pavements and floor mosaics were much more common since they were both more durable and affordable depending on the sophistication of the work. The small amount of surviving evidence of glass mosaics from the 1<sup>st</sup> century CE suggest that the typical application would have been on walls and in vaults, associated with houses of wealthy patrons who chose these for their unique aesthetic appeal; glass could create colors not found in stone and had a reflective quality in the light. The location would also protect the fragile material from foot traffic damage. At Caesarea, the reflective quality of the glass mosaics at the Promontory Palace would have been enhanced by the immediate setting, beside the sparkling water of an internal pool and against the setting sun to the west of the palace. The orientation of the *triclinium* towards to west was one that created an intimate aesthetic for dining at Herod's seaside villa.

The fragments that are found at Caesarea classify as chips of glass rather than specifically cut tesserae.



Figure 1. Mosaic fragments *ex situ*, Promontory Palace, Caesarea Maritima, Israel (Photograph courtesy of L. Taylor)

These fragments would have been chiseled from larger mounds of glass and then sorted by size and color by the artisans.<sup>3</sup> When assembled from a distance, the colors imitate a painting as the eye visually mixes the colors in order to create the picture. After the pieces were chiseled, mosaic artisans could have then shaved down the chips to make them into uniformed tesserae. In the case of the *triclinium* fragments it seems like there was an aesthetic choice to leave the glass as chips.

Part of the aesthetic choice might be tied to the location of the glass mosaic on the wall of the *triclinium*. The scholar Roger Ling states in his book *Ancient Mosaics* that, "Wall and vault mosaics have no Hellenistic predecessors. They are an original contribution of the Roman age...By the beginning of the 1<sup>st</sup> century AD this specialized form of mosaic, very different from contemporary pavements, had become an established mode of decorations for walls and vaults." On the walls of the *triclinium*, the glass did not have to be the smooth cut tesserae reserved for floors, rather, the glass chips on the walls could have added texture and depth to the overall mosaic in the light.

In order to apply mosaics on walls instead of floors, artisans had to add another step in the application process. First, a thick layer of pebbles was distributed over the wall, followed by a layer of mortar with broken brick. The added step was to affix these layers to the wall with iron nails. Then a smooth layer of finely ground bricks was applied and this layer held the mosaic pieces. The force of gravity and preservation of vertical surfaces over thousands of years is yet another reason why glass wall mosaics do not survive until the present day. At the time of the completion, these mosaics would have been visually stunning to the viewer. The colors and reflective quality of the glass was the primary reason that glass was chosen over stone in ornate residences.

Glass provided a broader range of colors than stone, especially rich hues of red, green, and blue. Bits of glass could be used to sparingly in stone mosaics in order to highlight details, or like the glass mosaic of the *triclinium*, glass could be used throughout the whole mosaic to give it a lustrous depth in the light of oil lamps and in natural light. The *triclinium* fragments range from opaque cobalt blue, reddish-orange, peach yellow and green; opaque glass is made

from suspended crystals such as lead-antimonate, calcium, and tin oxide in the glass. These elements are naturally found in the terrain of the Mediterranean coast. The opaque nature of the glass would have added to the richness of the colors in the light. Overall the choice of glass over stone mosaic is an aesthetic one and is not based on cost or durability of the material.

Many scholars agree that mosaics imitated contemporary paintings. <sup>10</sup> Unlike the already mixed colors of a painting, the color of the mosaics would be optically mixed by the viewer. This can be seen in glass mosaics from the Fountain Court in the House of Neptune and Amphitrite at Herculaneum, which date from the late 1<sup>st</sup> century CE.



Figure 2. Fountain Court in the House of Neptune and Amphitrite, glass mosaic tesserae, late 1<sup>st</sup> century CE, Herculaneum, Italy<sup>11</sup>

The mosaic depicts union of the divine sea god Neptune and his wife Amphitrite. Both figures are rendered in the Fourth Style Roman wall painting technique characterized by illusionary realism and ornate decoration framing the composition. Gradation of colors creates the three-dimensional form of the figures in the mosaic. These "masterly effects of color and perspective in the illusion of depth and atmosphere developed in Hellenistic painting" and then later carried over to Roman wall painting and mosaics.

Because of the strict Mosaic Law regarding idols, Herodian mosaics do not have figurative motifs. The mosaics, instead, depict geometric and floral designs, typically the rosette. A rosette is a stylized form of a flower, usually a rose, found in ancient art. Although Herodian mosaics do not have figures, "the polychrome mosaics of the Herodian period reveal a Hellenistic influence in their composition which consists of broad and relatively rich framing bands enclosing a central emblem." The fragments found at the Promontory Palace make up a chevron like pattern of colored glass and white glass, which would have possibly framed a central emblem. This central emblem could be a larger ornate rosette or geometric shape framed by smaller bands and frames of floral motifs.



Figure 3. Chevron-Patterned Mosaic Fragments *ex situ*, Promontory Palace, Caesarea Maritima, Israel (Photograph courtesy of L. Taylor)

Wall mosaics imitated contemporary Roman paintings and frescos but had an advantage over the other two mediums. <sup>15</sup> Glass wall mosaics are often found in humid climates or near water works such as baths or fountains because unlike plaster, glass is unaffected by moisture and could easily be wiped clean, preserving the shine and luster of the glass pieces. <sup>16</sup> This quality made glass mosaics a standard in Early Roman waterworks.

## 3. Augustan Grottoes and Judean Glasswork

During the reign of Augustus and Tiberius (27 BCE-37 CE), baths and grottoes, or caves often containing water works, became popular in private and public architecture. Ling states that:

[Wall and vault mosaics] origins can be traced back to the imitation grottoes, often containing water-sources, which came to be an important feature of Roman Republican villas and gardens...By the beginning of the first century AD this specialized form of mosaic, very different form that contemporary pavements, had become an established mode of decorations for the walls and vaults of *nymphaea* and similar subterranean rooms.<sup>17</sup>

*Nymphaea* were springs sacred to nymphs often found in grottoes, or caves. These areas had a religious function attached to them with altars and images for the sacred deities. In the Late Republic and Early Empire, these naturally formed areas were adorned with wall mosaics in order to enhance their natural beauty and sacredness. Since water was a common natural feature in grottoes and *nymphaea*, mosaicists would also use pumice and shells along with glass on the walls. The glass pieces fashioned on the walls of these natural water works were chipped pieces similar to the *triclinium* fragments from the Promontory Palace. The rugged texture of the glass would have added to the natural feel of these waterworks. Glass tesserae, pieces specially cut for the mosaic, did not appear until the time of Tiberius (14-37 CE) in grottoes and nymphaea. Construction of Herod's Promontory Palace was between 22 BCE-10/9 CE<sup>20</sup> that is contemporary with the Roman grottoes bedazzled with glass mosaics.

Although glass mosaics were a Roman invention, the art of glasswork was not indigenous to Rome. Archaeological evidence of blown glass has been found in Syria and Judea and archaeologists have even discovered a garbage deposit from a Jerusalem glass workshop dating around 50 BCE.<sup>21</sup> Roman writer, Pliny the Elder even notes in his *Natural History* Volume VI that the first large scale glass making factories were settled in Jerusalem around 27 BCE.<sup>22</sup> Natives of Syria and Judea discovered glass making in the earlier centuries by burning the nitre, a mineral alkali, found naturally on the shores of Syria and Judea.<sup>23</sup> Pliny's first century CE account suggests that the art of glasswork was established in the area of Judea before the province became part of the Roman Empire. Herod would have had no problem finding glass artisans in ancient Palestine to adorn his lavish palace. Knowledge of glass technology could even be why Augustus had experienced glass artisans taken from Syria and the Judea as slaves for the Roman Empire.<sup>24</sup> Glasswork was endemic to Judea and thrived under the attentive eye of Herod the Great's building program.

# 4. A Roman City in Israel: Caesarea Maritima

Herod the Great came into power in the last third of the 1<sup>st</sup> century BCE. Contemporary with Herod were the Roman rulers Mark Antony and Octavian, later known as Augustus. For political reasons and in order to consolidate his power, Herod often traveled to Rome. While there, Herod also tried to gain public support in Rome that he lacked in Judea because of his status as a half-Jew and Roman citizen. Herod's early visits to Rome instilled an appreciation for Roman architecture, design, and art, which he then incorporated into his own building programs.<sup>25</sup>

After Mark Antony's defeat by Octavian at the Battle of Actium, Herod came to the new emperor, now called Augustus, to pledge his loyalty and the loyalty of Judea. Herod the Great became the client king of Judea, an autonomous ruler under the thumb of the Roman Empire. Herod's desire to incorporate Roman elements of design and architecture in his building program suggests his need to please Caesar Augustus. The Herodian scholar Silvia Rozeburg states that "the rulers of kingdoms under Roman influence and the states allied to the Empire, as well as the members of the social elite, tended to incorporate artistic elements of Roman culture into their own, or to copy them, thus demonstrating their loyalty to the Emperor and conspicuously linking themselves to fashion trends within the Empire." Caesarea Maritima built less than a decade after Herod ascended to power, demonstrates this ornate display of compliance to Roman traditions.



Figure 4. Caesarea Maritima, Israel, 22 BCE-early 1st century CE<sup>28</sup>

The port city of Caesarea, named after Augustus, the Caesar of Rome had all of the trapping of a contemporary Roman city. The city was laid out orthogonally, on a grid system of streets, with aqueducts running along the outskirts of the city. Other Roman architectural elements are the hippodrome, an athletic track, the theater used for plays and dramas, and Roman temples.<sup>29</sup> The main temple that faced the artificial harbor was dedicated to Caesar Augustus and to the goddess Roma. Whereas Judea itself was predominantly Jewish and largely shunned Hellenism, Caesarea Maritima stood out as a beacon for Roman traditions. Herod, not a full Jew or Roman, found the balance between the two personas at Caesarea Maritima where he spent his summers at his palace.

## 5. The Promontory Palace

Herod's palace, now named the Promontory Palace by Ehud Netzer who excavated the site in 1976, was one of the first super structures built in 22 BCE.<sup>30</sup> This suggests that Herod supervised the construction of the city from his

palace. The Promontory Palace is located on the southern coastline, with the Lower Palace facing the Mediterranean Sea.

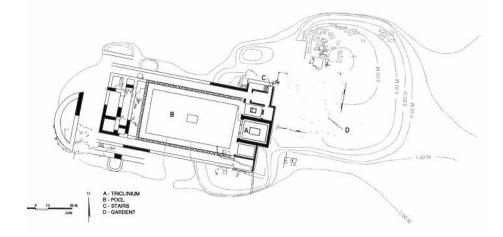


Figure 5. Promontory Palace, Caesarea Maritima, Israel, 22 BCE-Early 1st century CE Gleason, Katherine et al. "The Promontory Palace at Caesarea Maritima: Preliminary Evidence of Herod's Praetorium." (Image from *Journal of Roman Archaeology* 11 (1998): 28, Figure 4b)

Erosion caused by the water and wind has only left the foundation of the palace but the formulaic nature of elite Roman residences and ancient authors have provided the most evidence for the appearance of the palace. The two main parts, the Upper and Lower Palace, provided specific functions for Herod. The Upper Palace held public courts and entrances for visitors while the Lower Palace contained the private residences and recreational areas, like the *triclinium*. Since the purpose of this paper is the *triclinium* mosaics, the Upper Palace will not examined.

The main feature of the Lower Palace was the central courtyard saltwater pool (18x35m) cut into the foundation of the palace. <sup>32</sup> Located on the east end of the Lower Palace, *triclinium* faced the east end of the pool. A row of columns separated the space yet still allowed a view of the magnificent pool from the dining area. The *triclinium* would have also been open to the outside air and light. In a preliminary summary of the archaeological findings at the palace, archaeologist K. Gleason notes that, "The *triclinium* with its adjacent smaller rooms facing towards the pool suggest intimate entertainment and residential uses." The visual effects produced by the glass mosaics in the *triclinium* would have been dramatic; lit by oil lamps under the night sky as the salt water pool reflects the lights and the moon. The glass mosaics on the walls of the *triclinium* would have added to this reflective and radiant dining experience.

Glass offered an intimate aesthetic with its reflective quality in light that few mediums could also offer. The cost of glass and its fragility, while disadvantages for some architectural applications, are used as an advantage in wall mosaics for the wealthy. In the *triclinium* the mosaics fragments belonging to a wall mosaic<sup>34</sup> give an insight into the ornate adornment of the Lower Palace. This area was reserved for private guests and residents so the glass mosaic was meant for private viewing. Gleason states that "the designs of reception and dining areas especially flout nature, guests were to be impressed or, if possible, astounded"<sup>35</sup> and "the craftsmanship of the stonework, mosaics, and frescos is also excellent, if not among the finest."<sup>36</sup> Herod included the luxurious glass mosaics as a way to impress his Roman guests and to display his own Roman affiliation.

## 6. Conclusion

In his travels to Rome, Herod most likely viewed this new technique of glass wall mosaic and incorporated the technique into his own Roman city, Caesarea Maritima. In fact, one can see evidence in many of his residences of his adoption of new trends in Roman architecture and painting following his travels to Rome. Gleason also remarks "the dramatic siting of the building, its walls battered by the surf, provided the strongest clue that the palace was Herod's, recalling his palaces at Masada, Jericho, and Herodium, where Herod engineered luxurious residences into difficult and beautiful terrain."<sup>37</sup> The common thread in Herod's architectural programs is conquering the natural terrain in order to create grand palaces with Roman style architecture and design. The large-scale pool cut into the foundation of the Lower Palace is a testament to Herod's ability to overcome the natural landscape. The *triclinium* glass mosaics

also resonate with Herod's agenda of appropriating Roman style art and visual language in order to legitimize his Roman citizenship and relationship with the Roman Empire and Augustus.

Together the pool and the *triclinium* at the Promontory Palace created a unique private dining experience for Herod and his guests. The reflective quality of the glass mosaic in the *triclinium* would have been enhanced by the sparkling water and the setting sun of Caesarea Maritima which creates an intimate aesthetic for dining in the palace *triclinium*, much like contemporary Roman waterworks such as grottoes and *nymphaea*. This paper suggests the *triclinium* mosaics are from the time or Herod and influenced from the Early Roman grottoes and *nymphaea* which are contemporary with the time of Herod. The evidence would then place the mosaic in the early 1st century BCE to the early 1st CE, making it a rare find for glass wall mosaics in Israel.

#### 7. Endnotes

1. Katherine M.D. Dunbabin, "Technique and Materials of Hellenistic Mosaics," *American Journal of Archaeology* (83, no. 3 1979), 265.

- 3. Roger Ling, Ancient Mosaics, (Princeton, NJ: Princeton University Press, 1998), 13.
- 4. Ibid, 100.
- 5. Ibid, 104.
- 6. M. Dov and YoÊel Rafel, Mosaics of the Holy Land, (New York, NY: Adama Books, 1987), 20.
- 7. Karol Wight, "How was Glass Used?," in *Molten Color: Glassmaking in Antiquity*, (Los Angeles: J. Paul Getty Museum, 2011), 103.
  - 8. Dr. Laurel Taylor, October 23 2014
- 9. Paolo Ricciardi, Philippe Colomban, Aurelie Tournie, Michele Macchiarola, and Naceur Ayed, "A Non-Invasive Study of Roman Age Mosaic Glass Tesserae by Means of Raman Spectroscopy," *Journal of Archaeological Science* (36 2009), 2551.
- 10. Roger Ling, Ancient Mosaics, 103-104. Martin Henig, A Handbook of Roman Art: A Comprehensive Survey of All the Arts of the Roman World, 118-123. Ruth and Asher Ovadiah, "Summary and Conclusions," in Hellenistic, Roman and Early Byzantine Mosaic Pavements in Israel, (Roma: "L'erma" di Bretschneider, 1987), 150-151.
- 11. Fountain Court in the House of Neptune and Amphitrite, glass mosaic tesserae, late 1st century CE, Herculaneum, Italy. http://www.ancienthistoryarchaeology.com/neptune-and-amphitrite
  - 11. Martin Henig, A Handbook of Roman Art: A Comprehensive Survey of All the Arts of the Roman World, 121.
  - 12. Thalea Funerary Stela, Symrna, Turkey, 150 BCE: The Phaistos Disc, Crete, Bronze Age.
- 13. Ruth and Asher Ovadiah, "Summary and Conclusions," in *Hellenistic, Roman and Early Byzantine Mosaic Pavements in Israel*, 150.
- 14. Ling, *Ancient Mosaics*, 104. Scholars believe that some mosaics imitated Early Roman or Hellenistic Greek wall paintings such as the *Alexander Mosaic* (c. 100 B.C.E., Roman copy (Pompeii) of a lost Greek painting, c. 315 B.C.E., Hellenistic Period, Archaeological Museum, Naples).
  - 15. Ling, Ancient Mosaics, 104.
  - 16. Ibid, 100.
  - 17. Frank Sear, Roman Wall and Vault Mosaics, (Heidelberg: F.H. Kerle, 1977), 16.
  - 18. Henig 135.
- 19. Barbra Burrell, Kathryn Gleason, and Ehud Netzer, "BAR 40:05 | The BAS Library." BAR 40:05 | The BAS Library. http://members.bib-arch.org/publication.asp?PubID=BSBA&Volume=19&Issue=3&ArticleID=7 (accessed August 31, 2014).
  - 20. Henig 206.
- 21. Pliny the Elder, *Natural History*, trans. John F. Healy, XXXVI.189. Frank Sear, *Roman Wall and Vault Mosaics*, 39-41.
  - 22. Pliny XXXVI.378.
- 23. S.J. Fleming, and C.P. Swann, "Roman Mosaic Glass: A Study of Production Processes, Using PIXE Spectrometry," *Nuclear Instruments and Methods in Physics Research B* (150 1999), 623.

<sup>2.</sup> Pliny the Elder, *Natural History*, trans. John F. Healy, XXXVI.189. Martin Henig, *A Handbook of Roman Art: A Comprehensive Survey of All the Arts of the Roman World*, (Ithaca, N.Y.: Cornell University Press, 1983), 218.

- 24. Silvia Rozenberg and David Mevorah, et al, *Herod the Great: the King's Final Journey*, (Jerusalem: The Israel Museum, 2013), 29.
  - 25. Ibid, 24.
  - 26. Ibid, 222.
- 28. Caesarea Maritima, Israel, 22 BCE-early 1st century CE.
- http://www.basarchive.org/sample/bswbBrowse.asp?PubID=BSBA&Volume=33&Issue=5&ArticleID=4
  - 27. Ibid, 96.
- 28. Barbra Burrell, Kathryn Gleason, and Ehud Netzer, "BAR 40:05 | The BAS Library." BAR 40:05 | The BAS Library, http://members.bib-arch.org/publication.asp?PubID=BSBA&Volume=19&Issue=3&ArticleID=7 (accessed August 31, 2014). Katherine Gleason, et al, "The Promontory Palace at Caesarea Maritima: Preliminary Evidence of Herod's Praetorium," *Journal of Roman Archaeology* 11, (1998), 40.
- 29. Katherine Gleason, et al, "The Promontory Palace at Caesarea Maritima: Preliminary Evidence of Herod's Praetorium," 38.
- 30. Silvia Rozenberg and David Mevorah, et al, *Herod the Great: the King's Final Journey*, 96. Katherine Gleason, et al, "The Promontory Palace at Caesarea Maritima: Preliminary Evidence of Herod's Praetorium," 31.
  - 31. Gleason, et al, 40.
  - 32. Ibid. 50.
- 33. Burrell, Barbara, Kathryn Gleason, and Ehud Netzer. "BAR 40:05 | The BAS Library." BAR 40:05 | The BAS Library. http://members.bib-arch.org/publication.asp?PubID=BSBA&Volume=19&Issue=3&ArticleID=7 (accessed August 31, 2014).
  - 34. Gleason, et al, 46.
  - 35. Ibid, 29.