Glass Emerges from Sand

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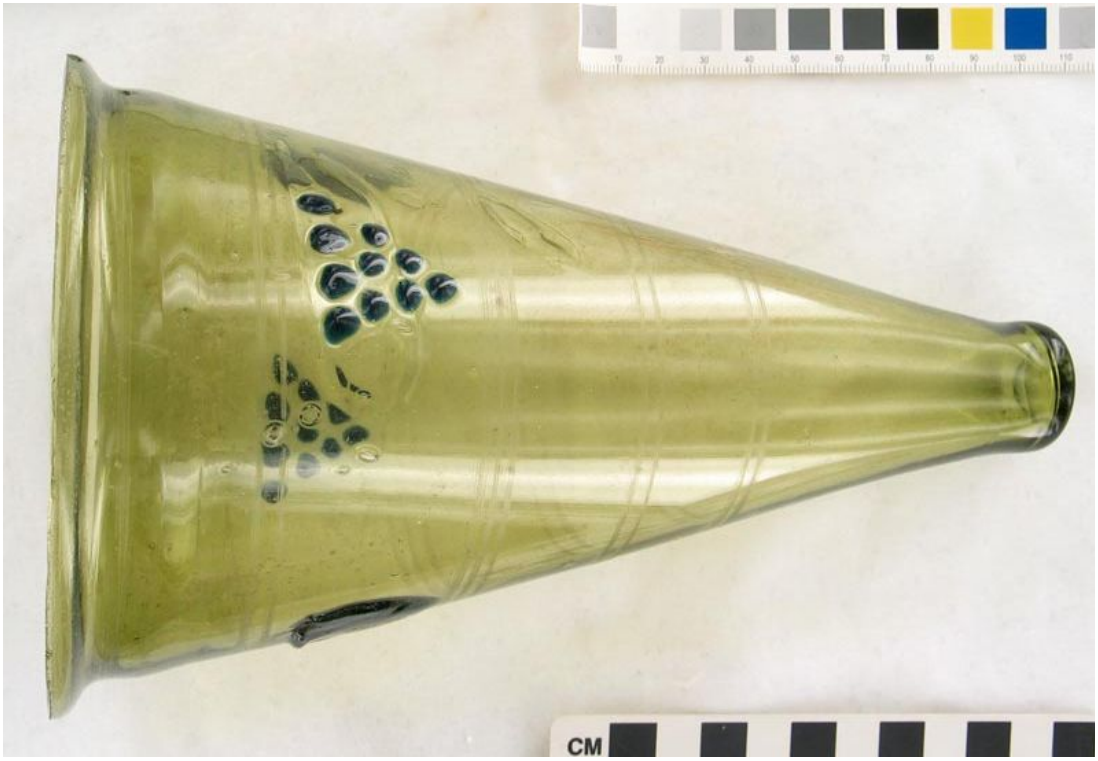

Buried beneath the sands of Egypt just west of the Nile River, lies the excavation site of Karanis which has produced an impressive collection of well-preserved artifacts. Francis Kelsey, for whom the Kelsey Museum is named, had a particular interest in this site, and a number of the artifacts found at Karanis are on display at Kelsey. Although the artifacts themselves do not provide all the answers to the questions historians ask, the excavation has allowed scholars to understand much more about Egyptian life. Karanis, being a more complete and well-documented site to begin with, produced artifacts with interesting connotations. These items reveal not only the daily lifestyle of the citizens of Karanis but also their variety of responses to impending disaster. Karanis and its ties to the Roman Empire were proven by items, such as coins, that could have only appeared in that area if they were a part of a trading system. More interestingly, however, are the items of glass found beneath the sand. The glass lamps in particular found at Karanis suggest how the rule of the Roman Empire in Egypt had an effect on the religion and trade of the region. In addition, the lamps provide information on how the citizens of Karanis reacted to the gradual climate change occurring during this time.

Among the Kelsey Museum's collection of artifacts from Karanis are a number of glass pieces. The display at the Kelsey places these objects into the following categories based on form and function: pitchers, bottles, flasks, and lamps. Lamps come in various sizes and shapes, though they are usually conical, and many feature patterns around their faces. One in particular, which originates around the 3rd to 4th century CE, is quite large compared to the others in the museum. This one does appear in a conical form with a lip around the top. The glass appears as a yellow-green color, distinct from the colorless glass common today. The glassmakers who

produced this lamp used a darker green glass to create designs on the lamp; on two sides there are shapes that look vaguely like triangles, and on the other sides, the darker glass takes the form of a triangle comprised of small dots, perhaps meant to depict a bunch of grapes. Lines scored onto the glass do not appear until closer inspection; these may be functional, perhaps to measure the height of the oil and water, or merely decorative. It has been suggested that these conical glass objects could have served as drinking vessels (Higashi 1990). No lamps were ever found "actually set within suspension devices … or stored with remnants of wicks or oil flasks" (Higashi 1990: 376). These conical vessels have been reportedly found with objects made for drinking like goblets and beakers, which supported the argument that they weren't lamps at all. The possibility that the conical vessels served a purpose besides providing light does not necessarily mean that they only served one of these functions; it is entirely conceivable that they acted as both. Despite this, Kelsey Museum has labeled this vessel as a lamp, so this paper will consider it as such.

Scholars likewise debate on what purpose the lamps of Karanis served--secular or religious. Although it remains unconfirmed by archaeological evidence, some believe even lamps found in homes have religious significance. In the present day, these lamps are prevalent in religious settings, especially in Jewish and Islamic places of worship ("Featured Works of Glass"). A wide array of objects discovered at Karanis suggest that the town was a melting pot of various beliefs and religions of the time, including traditional Egyptian, Roman, and Greek ideas along with Islamic, Judaic, and Christian values (Wilfong 2014). Roman ideals were introduced after Cleopatra VII's death in 30 BCE which marked the end of the ruling Greek Ptolemaic dynasty. This allowed the Roman Empire to take control of Egypt and implement its ideas

concerning religion. Both the Greek Ptolemaic emperors and the Roman rulers permitted temples and priests to keep many of their privileges, although some of the most valuable, such as the right to asylum and freedom of assembly, were suspended indefinitely (Tallet 2012). Priests suffered further as the Romans created the position of the High Priest of Alexandria and Egypt and attempted to watch over the Egyptian clergy by using imperial stipends (Tallet 2012). Monitoring the priests and temples that the Egyptian population looked up to arguably contributed to the reduced religiosity observed beginning in the 3rd or 4th century (Tallet 2012). As people began to turn away from strictly regulated religion as a result of Greek and Roman empire-building, they looked for a more personal spiritual outlet. Elizabeth Higashi's research suggests that the conical lamps found in Karanis could have been used for intimate religious needs or religious ceremonies. The strongest evidence for this private practicing concerns the Christian faith present in Egypt; Christianity was not necessarily hidden during the 4th and 5th centuries, but Christians did face on-again-off-again persecution from Roman authorities (Choat 2012). It's highly possible that Christians during these periods preferred to practice their faith in the safety of their homes. Archaeological evidence confirms that conical lamps and vessels could often be found alongside items imprinted with cross-like symbols (Higashi 1990). In House C42, Room F, two conical vessels and other glassware was discovered in the same box as "cross amulets and other jewelry, and terracotta lamps with cross motifs" (Higashi 1990: 386). They could carry significance for festivals held domestically and then tucked away until the ceremony came again (Higashi 1990). In addition, the lamps may not have been used solely for religious purposes. The lamps may have been utilized as pieces in a religious ceremony during a time of revel by residents, only to become ordinary objects after the festivities passed (Higashi 1990).

However, despite circumstantial evidence, archaeologists are unable to definitively prove that these glass lamps were used for private religious functions. The continued use of these types of lamps in public synagogues and mosques provides much of the indication that they had any religious significance.

Lamps and their implications for religion in Karanis remain a local characteristic of the multiethnic society with many faiths. The existence of multiple cultures can partly be contributed to the conquest by the Greek and Roman Empires and how ruling authorities interacted with the existing Egyptian society. Egypt in 30 BCE appealed to the Romans because of its fertile lands as well as the advantage that taking over the region would remove Cleopatra from power (Wasson 2016). In order to extract the natural resources in Egypt that drew the Romans there in the first place, the empire established a trade network along the Mediterranean coast and down the Nile River. Egyptians found the trade mutually beneficial because while their region was rich in natural resources, they were not enough to sustain such a large civilization throughout the year (Mark 2017). The metropolis of Alexandria, situated at the Nile delta, grew to become the cultural and commercial center of the Roman Empire. From here, goods could be moved from the center of the Egyptian lands to Roman ports on the sea and vice versa. Karanis's place in this network became known with the discovery of glass throughout the town. The possibility of ancient local manufacturing of glass in Karanis has been almost completely ruled out, because solid archaeological evidence of glassmaking has yet to be discovered at a thoroughly investigated site: glass kilns, if present, remain undiscovered (Susak Pitzer 2015); the absence of papyri and ostraca records of such a business further confirms that Karanis probably did not house any glassmakers (Higashi 1990). Scholars then began to ask how glass could appear in a

town where there was no evidence of it being manufactured there. The most likely answer is the Roman trading system already in place at the time the conical lamp being analyzed was thought to have been produced. A Polish excavation in the mid-1980s uncovered a number of houses within Alexandria that could have served as places of glass manufacture (Higashi 1990). The movement of products such as glass from Alexandria to Karanis is further proven with textual evidence; correspondence between a father living in Karanis and his son living in Alexandria tells of how the son bought glass for his father as a gift and had it sent downriver to him (Susak Pitzer 2015). Oxyrhynchus, a town in the nearby Fayum region, is suggested to have been a secondary manufacturing site connected to the workshops and kilns in Alexandria, which is evidenced by the existence of a glass workers guild coupled with papyrus writings (Susak Pitzer 2015). Whether the glass found in Karanis came from Oxyrhynchus or directly from Alexandria, its presence proves that Karanis was connected to and relied on the trade network present under the Roman Empire. As time passed, the ever-encroaching sandstorms that swept through Karanis would alter not only the trade network present but the survival of the town as a whole.

As discussed in previous paragraphs, the glass lamps found at the Karanis site help historians and archaeologists better understand religion and trade in Egypt under the Roman Empire. What makes Karanis an exceptionally unique excavation is its interaction with its environment as it became more hostile. Sandstorms often ripped through the town and over time, the pressures of loss of trade and nonstop adaption to the sand caused Karanis to collapse. Trade to and from Karanis relied on a canal that flowed from the Nile. This canal was vital to the continued survival of Karanis since, like the rest of Egypt, it couldn't produce everything necessary to maintain its citizens' livelihood. However, as the sandstorms routinely ravaged the

city, the canal slowly silted up, and the people of the city stopped maintaining it (Encina 2018). Consequently, Karanis became cut off from the rest of the world and thus became increasingly vulnerable to destruction. Sands piled up in homes and over fields, and people gradually abandoned Karanis to find a more prosperous life in other regions. Unlike most disasters, this one was expected, and society had time to plan for it. Those who chose to stay after the first major storms were forced to adapt to the sand that now covered their lower levels. The lamp being analyzed originated from the C level of a house, the lowest level excavated (Encina 2018). Higashi posits that lamps found in lower levels were likely the only source of light in the rooms, especially once those floors were essentially underground. Lamps served in the adaptive strategies of Karanis residents so they could continue to use their lower floors even as the sands altered the landscape. Unfortunately for the citizens of Karanis, the sands would continue to accumulate. Construction on houses had to continually go upwards in response to repeated and overwhelming sandstorms burying levels. Eventually, remodeling on a regular basis became difficult, prompting residents to leave the unforgiving climate of Karanis, and thus turning it into the abandoned site to later be found by Francis Kelsey.

The discovery of conical lamps in the sands of Karanis answered many of the questions in the archaeological and scholarly communities about trade in this corner of the Roman Empire and the impact that sandstorms had on the town. In terms of religion, the presence of lamps suggests the practice of private religion, but this cannot be completely confirmed with the artifacts available. Speculation is still necessary to determine the purpose of these lamps, whether secular or religious. Because the lamp this paper is interested in was found in a house, it becomes difficult to determine what it was used for in the context of that particular household

(Encina 2018). The symbolism behind the patterns and scoring on the exterior of the lamp, and whether there is any at all, remains a mystery with no evidence of any kind to provide an answer. While lamps can reveal bits and pieces of the religious and economic life of Karanis, there are other parts for which these aren't the most useful artifacts. Lamps had little to do with the agricultural sector of Karanis's economy. This particular type of conical lamp was used in houses and/or temples for light, which farmers in the fields would not need for the most part. The only possible connection between the two would be the utilization of the lamps in rituals to ask the gods for a good harvest, but since scholars are unable to even confirm the use of lamps in such ceremonies, this is pure speculation. Additionally, poor farmers presumably lacked the financial power to afford a lamp like the one being examined. In the ancient world, especially around the time glass was first created, its value was comparable to that of semi-precious jewels. By the 3rd or 4th century, it was not as rare to have glass pieces, but people still considered them luxury items. It's most likely that a poor family wouldn't have a glass lamp in their household, so the lamps present in museums today cannot offer insight into the lives of this social class. Like the other varieties of artifacts uncovered at Karanis, lamps help provide answers to some questions held by scholars but leave out some parts of the story, and in other cases, raise entirely new questions.

Conical lamps found at the Karanis excavation site provide evidence of trade and suggest domestic religious practices in what is known to be a multicultural society. The purposes and uses of these lamps are still mostly unknown, but other archaeological evidence has helped scholars piece the picture together. That picture changed as Karanis suffered through a multitude of sandstorms, and these lamps were used to adapt to the changing environment. The

preservation of lamps along with other household objects indicates to researchers how these storms disrupted life to the point that many residents of Karanis were forced to give up and desert their homes. While this gradual disaster devastated a town and its way of life, the nature of this calamity allowed the site to be a valuable source of information for scholars in the coming centuries. Despite its immeasurable value, Karanis only tells part of the story; other questions and answers remain buried under the sands of Egypt.

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