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Research Article

Preliminary Results on Flood Disasters in the Elbistan Plain during the Second Millennium BC: Findings from the Elbistan Karahöyük Excavations

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ABSTRACT

Elbistan Karahöyük is located in the centre of the Karahüyük neighbourhood, 10 km northwest of the Elbistan district of Kahramanmaraş province. On the western edge of the mound flows the Hurman Stream, and on the other side is Hamzatepe, another centre connected to the mound. These two centres, situated in the southwestern part of the Elbistan Plain and north of the Şar Mountain, are located side by side on either side of the Hurman Stream flowing into the Ceyhan River. Excavations carried out at Elbistan Karahöyük since 2015 mostly focused on the Iron Age and Late Bronze Age levels. The excavations conducted on the Northeast Slope of the mound aimed to reach the Middle Bronze Age layers and revealed two separate flood layers related to the flood disasters experienced at different times in the region. The 8th level, the oldest settlement level identified so far, was built on the flood layer left after a Middle Bronze Age flood disaster. Level 7, dated to the Late Bronze Age, was the site of the last flood disaster. These floods, caused by the Hurman Stream, must have affected all the mounds in the Elbistan Plain downstream from Tanır Yassıhöyük to Elbistan as much as Elbistan Karahöyük.

Keywords: Kahramanmaraş, Elbistan Karahöyük, Middle Bronze Age, Late Bronze Age, Flood Disasters



Introduction

The Elbistan Plain, situated north of the Kahramanmaraş provincial centre and Northeast Taurus Mountains, is in an important position between Central Anatolia and the Upper Euphrates regions, Syria and Mesopotamia. Surrounded by the Binboğa Mountains in the west, the Nurhak Mountains in the east, the Hizanlı Mountains in the north and the Berit Mountains in the south, most of the plains lie within the boundaries of the Afşin and Elbistan districts. The most important river in the Elbistan Plain is the Ceyhan River, which originates from the Pınarbaşı area east of Elbistan city centre. The Hurman, Sarsap, Söğütlü and Göksu streams also join the Ceyhan River at the west end of the plain (Çifçi, 2009: 10; 2013: 143-144; Çifçi and Greaves, 2010: 90-91).

Located 10 km northwest of the Elbistan district of Kahramanmaraş province, Elbistan Karahöyük is in the centre of the Karahüyük neighbourhood. The site is one of the largest settlements in the region, covering an area of 450x300 m and 21 m in height. On the western edge of Elbistan flows the Hurman Stream, and on the other side is Hamzatepe, another centre connected to the mound. Hamzatepe, a natural hill covered with rocks in some parts, measures 380x380 m in dimensions and 48 m in height. Located in the southwestern part of the Elbistan Plain and north of the Şar Mountain, these two centres are situated side by side on either side of the Hurman Stream flowing into the Ceyhan River (Fig. 1-2).

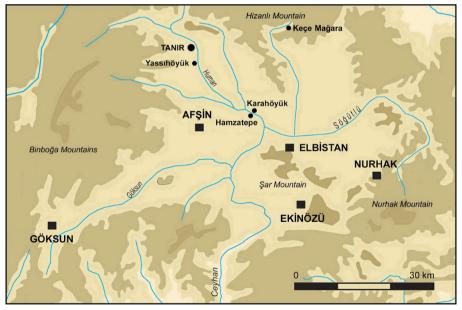


Figure 1: Map showing the location of Elbistan Karahöyük

¹ The Elbistan Karahöyük and Hamzatepe excavations have been supported by the Turkish Historical Society since 2021.



Figure 2: Aerial view of Elbistan Karahöyük and Hamzatepe from the east

The first settlement at Elbistan Karahöyük dates back to the Early Bronze Age. Research has shown that the site was one of the major settlements in the region throughout the Assyrian Trade Colonies and Hittite periods. This is also the case for the Iron Age. However, its importance seems to have waned although the settlement process continued in the Hellenistic and Roman periods.

The first archaeological research at Elbistan Karahöyük dates back to the early 20th century. Hugo Grothe, who is known to have conducted research in the regions between Kayseri and Kahramanmaraş, carried out a sounding excavation at Elbistan Karahöyük in 1906 (Grothe, 1911: CCLXXXX-CCLXXXXII). Later, in 1929, Hans Henning von der Osten also visited Elbistan Karahöyük (von der Osten, 1930: 115-116, fig. 124-125). The first proper archaeological excavation at Elbistan Karahöyük was carried out in 1947 by Tahsin Özgüç and Nimet Özgüç (Özgüç, 1948: 226-232; Özgüç and Özgüç 1949). After a long hiatus, excavations at Elbistan Karahöyük resumed in 2015 (Uysal, 2017; Uysal and Çifçi, 2017). The excavations were extended to Hamzatepe in 2017 (Uysal and Çifçi, 2019: 399-401) and are still being conducted by Bora Uysal at both centres.

The new excavations at Elbistan Karahöyük began in two areas close to one another, namely the Northwest Slope and the North Terrace. Iron Age levels were studied on the Northwest Slope excavated in 2015-2016, and Iron Age and Late Bronze Age levels were encountered on the North Terrace excavated in 2015-2020. In addition to these, mostly Late Bronze Age levels are being studied in the ongoing excavations started in 2019 on the Northeast Slope. The North Terrace and Northeast Slope, which are adjacent to each other, are generally referred to as the North excavation area (Uysal and Çifçi, 2023: 471-472) (Fig. 3).

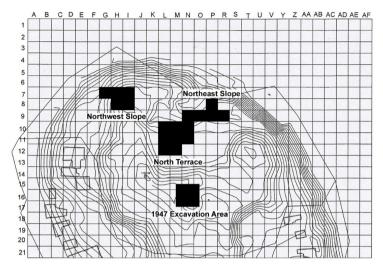


Figure 3: Topographical plan of Elbistan Karahöyük in 2023

The excavations conducted so far in the North Terrace excavation area revealed 8 occupation layers. The 1st level belongs to the Hellenistic-Roman periods, the 2nd-4th levels to the Iron Age and the 5th-7th levels to the Late Bronze Age. The dating of the 8th level has not yet been established. When this settlement layer was first excavated, it was thought that either it would increase the number of Late Bronze Age layers by one or that it would be the last layer of the Middle Bronze Age (Uysal and Çifçi, 2021: 102; 2022: 357). However, the radiocarbon analysis result of a sample taken from occupational level 8 was sent in an uncalibrated form without any information, which led to the evaluation of the layer as belonging to the Late Bronze Age. However, the calibrated result of this sample indicates that it belongs to the late Middle Bronze Age. For the dating of level 8, it is expected that this layer will be excavated in new trenches and new radiocarbon analyses will be obtained to date it more securely.

Flood Layers Identified in the Elbistan Karahöyük Excavations

In 2015, when the excavations at Elbistan Karahöyük resumed, investigations carried out to determine the destruction of the settlement after the 1947 excavations revealed that the mound was surrounded by an asphalt road and that large parts of archaeological deposition, particularly on the northern side, had been cut away (Uysal, 2017: 255; Uysal and Çifçi, 2017: 37; 2021: 102). In these areas that have become steeper due to soil removal, especially in the northeast direction, there are flood layers on the upper parts and a layer that has probably been subjected to fire (Uysal and Çifçi, 2021: 102; 2022: 357, fig. 9) (Fig. 4).

The aforementioned flood layers are related to the floods experienced in the Elbistan Plain in the 2nd millennium BC. The excavations started in 2019 on the Northeast Slope,

which is the continuation of the North Terrace area, aiming to reach the Middle Bronze Age occupational levels in this section, which is much easier for determining the stratigraphy of the mound. Excavations in this area were carried out in trenches N9 in 2019, N9 and O9 in 2020, O9 and P9 in 2021, O9 and R9 in 2022, and P8 in 2023.



Figure 4: Flood and fire layers in the northeastern part of Elbistan Karahöyük



Figure 5: Northeast Slope N9 and O9 trenches, second flood layer, and architectural remains of the eighth level

Two flood layers were identified on the Northeast Slope because of the aforementioned studies, revealing floods that occurred at different times. The second layer was exposed before the first layer. Level 8, the oldest settlement found so far at Elbistan Karahöyük, was built on top of the second flood layer. The foundation stones of this level, excavated in trenches N9 and O9, are located on a ground covered with small pebbles, which are loose in some places and tight in others (Uysal and Çifçi, 2021: 102, fig. 8-9; 2022: 357, fig. 8) (Fig. 5). The first layer, which is more recent, appears in level 7. The flood layer in this occupational level is

located in a small section to the north of the level 7 architecture excavated in trenches O9 and P9, but not in the areas further back (Uysal and Çifçi, 2023: 472, fig. 3) (Fig. 6). Later excavations in Trench P8 showed that the first flood layer also covered the area north of Level 7 (Fig. 7). In the southwest corner of the trench, the foundation stones belonging to a wall on level 7 were found to be just below the flood layer (Fig. 8). There is no evidence that this wall was destroyed by the flood. In this case, either it must have been a wall that was no longer in use during the 7th level or the 7th level must have consisted of two building levels in this section. The elevation difference between settlement levels 7 and 8 on the Northeast Slope is approximately 1 m. The people of the 8th level must have settled on the flood layer after such a disaster in the Middle Bronze Age. The settlement at level 7 must have encountered the last flood disaster during the Late Bronze Age.



Figure 6: Northeast Slope P9 trench, first flood layer, and architectural remains of seventh level



Figure 7: Northeast Slope P8 trench, first flood layer, and architectural remains of the seventh level



Figure 8: Northeast Slope P8 trench, wall remains under the first flood layer, and architectural remains of the seventh level



Figure 9: Northeast Slope P8 trench flood layers



Figure 10: Northeast slope trench P8 flood layers and small-sounding trench

Subsequent excavations in Trench P8 revealed that level 8 identified in the adjacent trenches in previous years was not found in this area. A flood layer consisting mostly of gravel, sand, and silt was excavated (Fig. 9). In a small 1.5x1.5 m sounding trench in the southwest corner of trench P8, no architectural elements were found despite a 3 m deepening from the elevation layer of level 7 (Fig. 10). However, it should be noted that due to some discolouration observed in the profile sections of this sounding trench, there is a possibility of finding an unseen level in the narrow excavated area. At this stage, the end of the flood layers has not yet been reached. It is expected that a layer belonging to the early Middle Bronze Age will be exposed at the end of these levels.

Thick flood layers caused by flood disasters were also found in some centres located along the Euphrates and Tigris rivers during excavations carried out in the past. These rivers, originating in Eastern Anatolia and flowing into the sea at the Persian Gulf after travelling a long distance, have a strong flow that swells especially in spring. In the Eastern Anatolia region, İmikuşağı (Sevin and Köroğlu, 1986: 169-170; Sevin and Derin, 1987: 190; Sevin, 1988: 308, 310-311; 1995: 1, 3, footnote 4; 1998: 384, fig. 2), Değirmentepe (Esin, 1987: 91-92; 2000: 81-83; Esin and Harmankaya, 1987: 1988: 89; 116; Esin et al. 1987: 78), Köşkerbaba, Kösehöyük, Kaleköy (Köroğlu, 2001: 28-29), Zeytinli Bahçe (Balossi et al. 2007: 359, 366, fig. 2) and Kavuşan Höyük on the Tigris River (Kozbe, 2009: 209; 2010: 185, 188; Kozbe & Köroğlu 2011, 629-630) are among the centres where flood layers dating from the late Chalcolithic to the Roman Period have been identified (Köroğlu, 2001: 26-30; 2006: 76; Özdoğan, 2006: 70-73). In southern Mesopotamia, Ur (Woolley, 1954: 27-29, fig. 3; 1955: 15-19, pl. 73, 83), Kish, and Fara (Shuruppak, Martin, 1997: 302), which may have

been affected by both the Euphrates and Tigris rivers, were identified in the late Ubaid Period to the late Early Dynastic Period, and Tell ed-Der (Paepe et al. 1978: 1-35) during the Old Babylonian period are among the settlements where flood layers were identified (Lenzen, 1964: 52-64; Mallowan, 1964: 62-82; Raikes, 1966: 52-63; Köroğlu, 2001: 29-31; 2006: 74, 76; Özdoğan, 2006: 69-70).

Conclusion

Although these flood disasters caused by the Euphrates and Tigris rivers yielded important archaeological data, these events occurred far away from the Elbistan Plain. Therefore, it should be noted that the Elbistan Plain, one of the wetland regions of Turkey, lost this feature a short time ago. The most important reason for this is the Afşin-Elbistan Thermal Power Plants, which were established in the Çoğulhan neighbourhood of the Afşin district, approximately in the central part of the regions where the Hurman Stream flows. Starting operations in 1984, the Afşin-Elbistan A Thermal Power Plant and Afşin-Elbistan B Thermal Power Plant, commissioned in 2004, use large amounts of water and lignite from the region in which they are located. Therefore, the water that was extracted from wells drilled in the Elbistan Plain close to the surface before the establishment of power plants can hardly be extracted from very deep levels today. Although this situation is not favourable for agriculture and animal husbandry, it is beneficial for power plants. The high water level in the plain causes cave-ins during coal mining.

The Hurman Stream, which is one of the important sources of water for the Elbistan Plain, flows calmly today, partly because of the construction of power plants, and irrigation of agricultural lands can dry up in the summer months. In previous years, floods have caused significant damage in the Afşin and Elbistan districts. In 1980, some settlements were displaced due to the flood disaster in the region (Afad, 2020: 33-34, 107-108; Dinç et al. 2022: 253-258). Karahüyük's residents, who experienced this disaster, recalled that the houses were destroyed and the neighbourhood was largely covered with water. Some houses in the Beştepe hamlet of the Karahüyük neighbourhood, situated to the south of Hamzatepe, were built as "disaster houses" after this flooding. Older residents of the neighbourhood also recounted swampy areas in the fields to the east of Elbistan Karahöyük during their childhood.

The issue of flood disasters that we have encountered since 2020 in the excavations carried out in Elbistan Karahöyük will continue to appear in the coming years. It is clear that at least one of these floods occurred in the Late Bronze Age, and it will be possible to determine the number of times these floods occurred in the Middle Bronze Age and to date them with the progress of our studies. The issue should also be evaluated in terms of other mounds in the Elbistan Plain along the route of the Hurman Stream. Tanır Yassıhöyük (Baştürk et al. 2023,

163-164), located in the Tanır neighbourhood of the Afşin district, seems to be the least affected by floods due to its location. This settlement, which was established on rocky ground about 30 km north of Elbistan Karahöyük, and on the east bank of the Hurman Stream, is higher than the plain level and Karahöyük. This region, where Tanır Yassıhöyük is situated, has a small valley formation and is also favourable for the acceleration of the river when the rainfall is continuous and intense. Therefore, all the mounds along the Hurman Stream from Tanır Yassıhöyük to Elbistan must have been affected as much as Elbistan Karahöyük (Fig. 11).

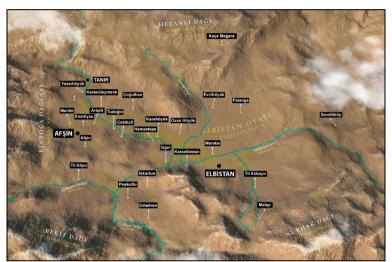


Figure 11: Map showing settlements located in Elbistan Plain

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