

Colloque du groupe **Fleuves et territoires**

LE ROI ET LE FLEUVE

EXEMPLES D'USAGES PLURIELS DE L'ESPACE

sous la direction d'Aline Tenu
et de Marine Yoyotte

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Central power and the harbour

Some thoughts on the main harbour of Avaris

in the Middle Kingdom and Second Intermediate Period

RÉSUMÉ

Le site d'Avaris est situé sur la branche pélusiaque du Nil, qui forme le flanc oriental et la limite de la zone fertile du Delta. Il occupe une position stratégique qui en a fait la passerelle entre la vallée du Nil et le Proche-Orient, à la fois comme point de départ des expéditions par voie terrestre via le Sinai et comme ville portuaire importante, à partir du Moyen Empire (vers 2030-1650 av. J.-C.) et de la Deuxième Période intermédiaire (vers 1650-1550 av. J.-C.). Avaris peut très probablement être identifiée comme le port de Pi-Ramsès à l'époque rameside (vers 1295-1070 av. J.-C.). Comme le Nil et ses branches formaient les principales lignes de circulation et de communication du pays, le système fluvial et les ports sont un facteur clé pour la compréhension de la fonction de cette ville à l'époque pharaonique.

Une analyse approfondie de l'étude magnétométrique du site réalisée au cours des dix dernières années a permis d'identifier plusieurs emplacements possibles pour les ports principaux, mais aussi pour les ports de moindres dimensions et les lieux d'amarrage. Des fouilles archéologiques ont récemment commencé dans le secteur du port principal présumé d'Avaris, dans les zones R/IV et A/VI. Le présent article donne un aperçu des résultats de ces fouilles et examine ensuite la manière dont les ports et le contrôle de l'État peuvent y interagir.

ABSTRACT

The site of Avaris is located on the Pelusiac branch of the Nile, which forms the eastern flank and limit of the fertile Delta. It lies in a strategic position that made it the gateway between the Nile valley and the Near East, both as a starting point for expeditions overland via the Sinai and as an important harbour town from the Middle Kingdom (ca. 2030-1650 BC) and the Second Intermediate Period (ca. 1650-1550 BC) onwards. It can most probably be identified as the harbour of Piramesse in the Ramesside Period (ca. 1295-1070 BC). As the river Nile and its branches formed the principal lines of traffic and communication, the fluvial system and harbours are a key factor to the understanding of the function of this town in the Pharaonic period.

A thorough analysis of the magnetometry survey of the site carried out over the last 10 years has led to the identification of several possible locations for main harbours, and also for smaller harbours and mooring places. Archaeological excavations have recently begun within the area of the assumed main harbour of Avaris, in areas R/IV and A/VI. This paper will give an overview of the results of these excavations, and will go on to discuss how harbours and state control may interact there.

INTRODUCTION ¹

Tell el Dab'a, ancient Avaris, lies in the eastern Delta in the modern Egyptian province of Sharqeya, approximately 8 km to the north of Faqus. (fig. 1) It was the capital of the Hyksos, the kings of the 15th Dynasty (ca. 1650-1550 B.C.)² which ruled over Avaris and its hinterland during the Second Intermediate Period, and – covering at least 260 ha – was one of the largest cities not only in Egypt but in the ancient Near East in the second millennium B.C.³

The town was situated on the Pelusiac Nile branch, the most easterly of the main Nile branches at this period, and had an important strategic position, connecting Egypt proper with the Near East and the Mediterranean. In the second millennium B.C. the Mediterranean seacoast was more easily accessed than today as the coast line was further inland at that time.⁴

The area was firstly settled at the beginning of the Middle Kingdom (late 11th Dynasty or very early 12th Dynasty, ca 2030-1917 B.C.)⁵ and, after a hiatus, again during the middle of the 12th Dynasty.⁶ In both cases it was the royal aim to activate this part of Egypt and to gain land for the crown. This political will is manifested by the presence of a “planned settlement,” which shows strong influence of the central government. In the first half of the 12th Dynasty, however, we do not find evidence for the town having an active harbour. This situation changes in the later Middle Kingdom. Epigraphically poor, this change of the character of Avaris manifests itself in its material culture.

From the late 12th Dynasty, when the first evidence of Asiatic immigrants / population is visible in the material culture of the site, Avaris was a trading centre and important harbour town, with connections to both the river Nile and the sea.⁷ The people who came and / or were settled there by the royal government served as soldiers, leaders of expeditions and merchants, their knowledge being valuable to the king. Hyksos culture developed from this conglomerate of immigrants, and culminated in a state separated from the rest of Egypt with Avaris as its capital.

1. I am deeply indebted to Pamela Rose for editing my English but also for giving me a lot of suggestions and inspiration for this article.

2. All the absolute dates given in the article have been added at the request of the editors following OPPENHEIM, ARNOLD et YAMAMOTO 2015, p. XIX, in order to facilitate reading for non-egyptologists.

3. For the work of the Austrian mission at Tell el-Dab'a, see recently summarized FORSTNER-MÜLLER 2014b; see also the webpage: www.auaris.at.

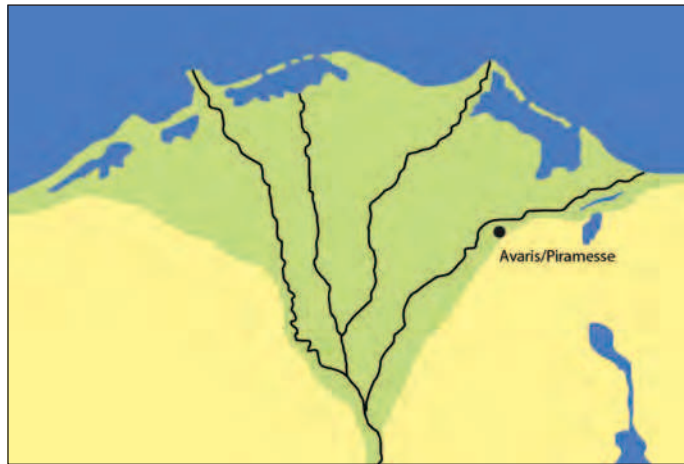
4. BIETAK 2009, p. 15 with further literature.

5. For this early planned settlement see CZERNY 1999.

6. CZERNY 2015.

7. See recently BIETAK 2010b, p. 159-156.

Fig. 1. Map of the Nile Delta with the localisation of the site of Tell el-Dab'a (graphic P. Rose, © ÖAI/ ÖAW)



During the Ramesside Period (ca. 1295-1070 B.C.), Avaris formed the southern part of Piramesse, the Delta residence of the kings of the 19th and 20th Dynasties. The temple of Sutech and the main harbour of the town were located here.⁸ Following the discovery of Minoan wall paintings within an 18th Dynasty (ca. 1550-1295 B.C.) palatial district in ‘Ezbet Helmi, Manfred Bietak suggested that the naval base of the 18th Dynasty, Peru Nefer, should be located in Avaris.⁹

The following text will discuss whether and how “King and River” interacted with each other, and how the agency of the central government had an impact on the riverine landscape and the fluvial system of Avaris.

FLUVIAL LANDSCAPE AND HARBOURS OF AVARIS (fig. 2)

During the last few years, the archaeological work of the Austrian Mission at Tell el Dab’a has concentrated on the reconstruction of the ancient landscape, and specifically the course of the Pelusiac Branch and its flood plain, the outlines of the city and connections with the rest of Egypt and the Mediterranean.¹⁰ The current research focus¹¹ is to localize and investigate harbours and mooring places within the town, and to identify the main harbour and its associated installations.¹²

8. For Avaris in the Ramesside Period see BIETAK and FORSTNER-MÜLLER 2011.

9. For the discussion see BIETAK 2004; BIETAK 2009; BIETAK 2010a; JEFFRIES 2006; FORSTNER-MÜLLER 2014a. See also recently BIETAK 2017, p. 53-70. See also discussion below in chapter “conclusions.”

10. FORSTNER-MÜLLER *et alii* 2010; FORSTNER-MÜLLER and MÜLLER 2016.

11. This project is financially supported by the Austrian Science Fund (FWF, Project Nr. 25804-G19) and is undertaken in cooperation with the University of Warsaw, the Polish Academy of Sciences (headed by T. Herbich), CNRS, the University Lyon, UMR 5133 Archéorient, and University Strasbourg, UMR 7362, (headed by J.-Ph. Goiran and L. Schmitt) and C. Vittori in the framework of her PhD thesis.

12. An overview on the current research and further literature see recently FORSTNER-MÜLLER and HERBICH 2013, p. 257-272.



Fig. 2. Overall map of Tell el Dab'a
(graphic L. Masoud/A. Hassler, © ÖAI/ÖAW)

Over recent years a geomagnetic survey was undertaken by the author in cooperation with Tomasz Herbich and Christian Schweitzer at Tell el-Dab'a. Several vertical electric soundings were also carried out by the author together with T. Herbich to gain a better insight into the fluvial system and the Nile branches. These investigations provided a reliable map of the ancient town as well as an idea of the landscape's appearance.¹³

13. This survey is now completed, see FORSTNER-MÜLLER *et al.* 2010.

In addition, Jean-Philippe Goiran, Laurent Schmitt, Hervé Tronchère¹⁴ and recently Cécile Vittori¹⁵ have extended the dense network of auger drillings, originally initiated by Josef Dorner in the 1980s and 1990s.¹⁶ The drill cores not only enhance our knowledge about differences in elevation of occupation throughout the area studied, but also support the results of the geomagnetic surveys and vertical electric soundings.

In 2013-2015 archaeological excavations were initiated in the area where the results of these surveys suggested that the main harbour of Avaris lay.¹⁷ It is situated in the middle of the ancient town and is connected to the Pelusiac Nile branch by two channels, one to the north and one to the south. J. Dorner's reconstruction,¹⁸ based on his auger drillings, suggested the existence of a channel from the west into the harbour area. However, as the vertical electric soundings and the geomagnetic surveys show, this part of the site was a place of intensive domestic activity, indicated by the outlines of numerous buildings. As a result, the feeder channel has been eliminated from the map; instead, another inflow has been identified south of the modern village of Ezzawin, slightly changing the appearance of the ancient town's outline.

The Main Harbour (area A/VI and R/IV) (fig. 2)

The main harbour was situated in the centre of the town within a depression still visible nowadays and seasonally inundated. From the magnetometry results this depression can be identified as a natural or artificial basin. The size of the modern depression is ap. 300x300 m, the ancient basin must have had at least this size.¹⁹ Given this knowledge, a large excavation project was launched in the immediate area in spring 2013. The aim was, and still is, to identify the harbour-basin's edge as well as possible installations related to harbour-based activities. The research focused on two areas: Area A/VI and Area R/IV.

A/VI (fig. 2)

To investigate the main harbour's location, a 2 m-square test trench was sunk into the aforementioned depression, almost in the centre of the basin. It was excavated to a depth of 4,5 m until the natural sand was reached. Its aim was to investigate the sediments which had accumulated there.

14. TRONCHÈRE *et al.* 2008, TRONCHÈRE *et al.* 2012.

15. Article in preparation.

16. DORNER 1993/1994, DORNER 1994.

17. For the recent research on the main harbour see FORSTNER-MÜLLER *et al.* 2015.

18. See footnote 14.

19. The investigation of the dimension of the basin was part of the research on site. Due to the fact that no work permit was issued to the Austrian mission by the Egyptian National Security in the following years work was interrupted temporarily.



Fig. 3. Overall photo of area R/IV (photo Irene Forstner-Müller, © ÖAI/ÖAW)

The excavated material showed a 2 m-thick layer of very rich dark clay with organic matter, typical of harbour deposits.²⁰

R/IV (fig. 2)

The second archaeological excavation was undertaken at the edge of the basin.²¹ Here the land is extensively cultivated and deep plough marks scar the uppermost layers of the ancient surfaces; the first structures lay immediately below the modern walking surface. Thus this part of Ancient Avaris is seriously threatened by modern agriculture. The aim here was to study the structure, organisation and length of use of the harbour as well as possible buildings and installations associated with it. Originally a trench of four 10x10 m squares was laid out along the assumed northern edge of the basin as suggested by the magnetic images. However it became soon clear that this was not correct, and the test trench was extended by 30x4 m to the south, the two areas separated by a modern irrigation canal (fig. 3).

20. Personal communication J.-Ph. Goiran.

21. FORSTNER-MÜLLER *et al.* 2015. This research is still continuing. Due to the fact that since 2016 no work permit has been issued to the Austrian mission by the Egyptian National Security it was not possible to study the find material in detail. A first assessment of stratigraphy and chronology was, however, possible.



Fig. 4. Overall view of area R/III (photo U. Matić, © ÖAI/ÖAW)

The harbour of the 13th Dynasty

In this period the area was used in a variety of ways. A layer of large silos or granaries was discovered, some of which had paved floors of mud bricks (fig. 5). These were datable to the late 13th Dynasty and all had been badly damaged by the deep construction pits of the later 15th Dynasty, described below. Below them, spacious buildings from the 13th Dynasty were identified, again mostly destroyed by the 15th Dynasty pits. The earliest installation which could be identified was a deep artificial canal with at least two phases of renovation or repair of its banks (fig. 6). The high number of sherds of imported storage jars in the fill of the canal area gives a good indication of intense trading connections with the Levant during the 13th Dynasty. Besides these storage jars further indicators of interconnections between Avaris and the Near East in the 13th Dynasty were found in the canal area. Numerous impressions from Near Eastern cylinder seals were retrieved here.²² According to Dominique Collon, these sealings are of Syrian origin. One has a style suggestive of an origin at Ras Shamra/Ugarit on the north Syrian coast (fig. 7), another shows the horns of ibexes

22. See FORSTNER-MÜLLER *et al.* 2015, p. 82, figs. 69-71. The cylinder sealings are being studied by D. Collon. I am very grateful to her for the information on these sealings.



Fig. 5. Silos from the 13th Dynasty (photo U. Matić, © ÖAI/ÖAW)

and also has a Syrian provenience (fig. 8).²³ These constitute a considerable quantity of imported objects in a very small area, items which one can assume to characterise a harbour district with international trading connections.

Besides the cylinder sealings, Egyptian seal impressions were also found (fig. 9).²⁴ The presence of seal impressions of officials in 13th Dynasty layers may indicate that at this point in time, the area was not used for domestic settlement, but for administrative procedures. Together with the imports and the large granaries, this may point towards the fact that the area functioned as a point of transshipment, as a harbour surely is.

To the east of a massive sand brick wall of the 15th Dynasty an earlier very similar wall could be discerned (fig. 10). The wall was first discovered as a negative magnetic anomaly showing up as a white feature in the magnetometry survey (fig. 11). It runs along the northern edge of the depression and can be traced for at least 500 m. The wall is approximately 7 m wide and is constructed using a casemate technique with two outer walls and a sand-brick infill in between. The wall is built on a natural rise,

23. Personal communication D. Collon.

24. The Egyptian sealings bearing the names of Egyptian officials are being studied by M. Marée.

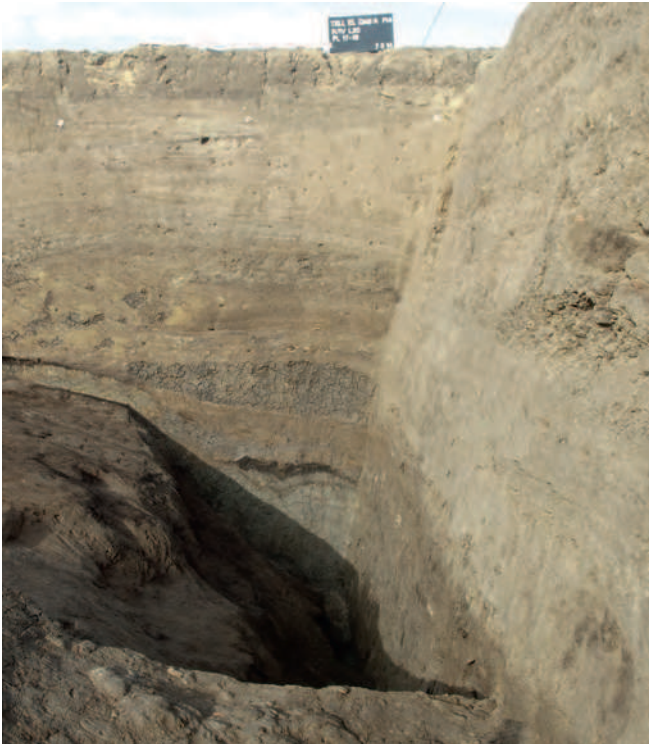


Fig. 6. Deep artificial canal from the 13th Dynasty
(photo P. Rose, © ÖAI/ÖAW)



Fig. 7. Syrian cylinder sealing,
from Ras Shamra, from the filling
of the 13th Dynasty canal
(photo N. Gail, © ÖAI/ÖAW)



Fig. 8. Syrian cylinder sealing,
probably from Ras Shamra, from the
filling of the 13th Dynasty canal
(photo N. Gail, © ÖAI/ÖAW)



Fig. 9. Egyptian stamp sealing bearing the
name of an Egyptian official: "Embalmer of
the temple, Cheni em-hat",
from the filling of the 13th Dynasty canal
(photo A. Krause, © ÖAI/ÖAW)

a sandy "turtleback". It is likely that this area was chosen intentionally in order to take advantage of this natural feature. Thus the foot of the wall was situated on high level and protected against erosion by water or other natural and anthropogenic influences. Sand of yellowish colour was deposited against both sides of the wall in order to raise the level of the surroundings. This most probably constitutes a city wall of the Late Middle Kingdom (ca 1700-1650 B.C.). The earliest stratigraphic units found in connection with the wall are tombs attached to its already slightly weathered faces which can be dated to the end of the 13th Dynasty or the beginning of the 15th Dynasty.

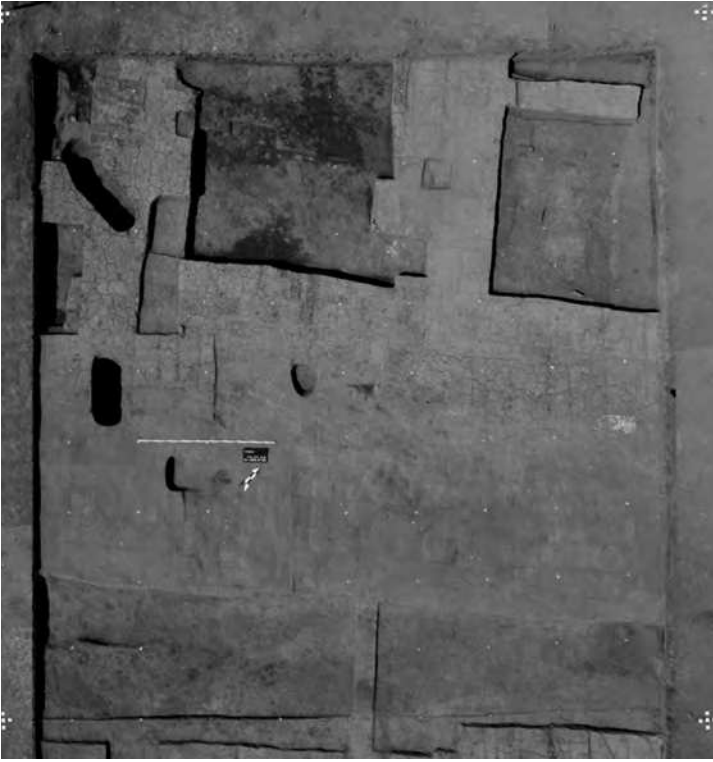


Fig. 10. City wall of the Late Middle Kingdom M1 (photo U. Matić, © ÖAI/ÖAW)

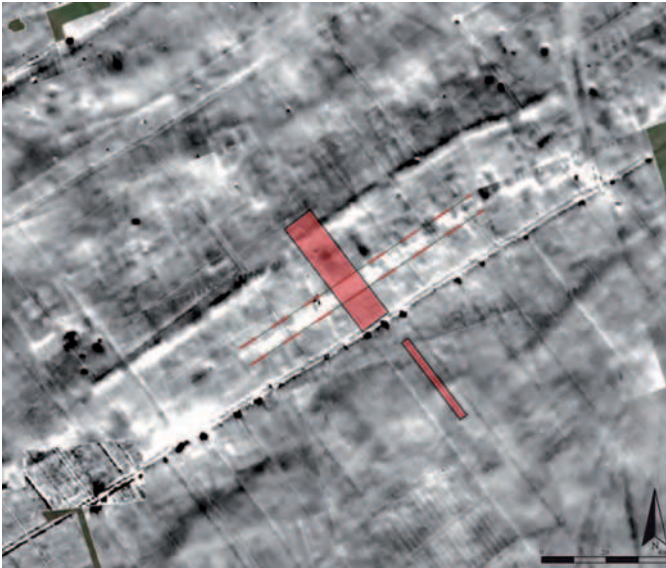


Fig. 11. City wall of the Late Middle Kingdom embedded in magnetic image (graphic A. Hassler, © ÖAI/ÖAW)

The main harbour during the 15th Dynasty

The dominant feature found in this area was a huge sand brick wall, about 2,5 m wide and preserved to a height of approximately 70 cm, clearly visible from the magnetometry as a wide white line. This wall was laid out during the early 15th Dynasty. The area to the west has hardly been investigated by excavation, but several buildings which were attached to the sand brick wall after the wall had been reinforced, probably after its initial function was already obsolete, were identified.

A wide street with a compact sequence of walking surfaces, which proved to be in use during the whole lifespan of the sand-brick wall was situated immediately to the east of it. It gave access to a conglomeration of buildings, made up of a mass of smaller mudbrick walls, marking the rapid building and re-building of several houses and courtyards which show the intense activity in this town quarter. This eastern part could be dated to the 15th Dynasty, with several sub-phases which still have to be assessed. Apart from the buildings of the settlement, the second distinct feature of the excavated area is a large number of burials. These tombs are built as single units and were sometimes combined with courtyards or earlier tombs.

Most significant is a row of chamber tombs with vaults aligned along a street which runs parallel to the massive wall. Numerous other tombs and graves were found over the area, including jar-burials for neonati, some of which were deposited in the vicinity of the large chamber tombs. Built cist-tombs with basic brick coverings and simple pit-graves are present; the more elaborately of these are almost all at least partly robbed, which makes their dating difficult, as apart from stratigraphical data, grave goods provide the best chronological evidence. The robberies, as can be seen from the pottery found in the pits as well as the bodies scattered in the vicinity of the tombs, sometimes took place very soon after the interment of the deceased; other intrusions happened much later during the Ramesside period.

Later use of the main harbour of Avaris

By the end of the 15th Dynasty this area was abandoned and reoccupied only in the 19th Dynasty (1295-1186 B.C.), when Avaris became the southern suburb and harbour of Piramesse, the Delta residence of the Ramesside kings. Massive mudbrick structures could be identified on the edge of the harbour basin from this period.²⁵

Recent research in the harbour area does not show any evidence for occupation during the 18th Dynasty (ca 1550-1295 B.C.), a time period when the naval base Peru Nefer is mentioned in written sources. Due to this lack

25. A detailed preliminary report on this topic is in preparation.

of evidence it is more likely that Peru Nefer was located in Memphis as has been proposed by most scholars.²⁶

Interestingly, no material post-dating the Ramesside period has been found, although the Late, Ptolemaic and Roman Periods are well attested at Tell el Dab'a in other areas of the town.²⁷

STATE CONTROL AND HARBOUR

The interaction between “King and River”, that is, state control and the riverine landscape, manifested itself in Tell el-Dab'a from the beginnings of human settlement there. The founding of the settlement at the eastern border of Egypt at the beginning of the 12th Dynasty clearly showed the political intention of the central government to extend the range of its control.

A significant change in the status of the town occurred during the later 12th Dynasty, when immigrants from the Levant were allowed by the Egyptian government to settle in this part of Egypt. Avaris then became an important trading centre, and intensive contacts between Egypt and the Near East are evident in the late Middle Kingdom.²⁸ During the 15th Dynasty, the “Hyksos Period“, notably fewer goods were delivered than in the Middle Kingdom reflecting a diminution in the number of trading connections.²⁹ Secession from the central Egyptian State meant also a cutting-off from the centrally-organized chain of supply which had previously coordinated foreign trade with the Mediterranean and the Near East.³⁰ Only in the later 15th Dynasty did the trade volume increase again.³¹ The first large-scale imports from Cyprus show that new foci of trade were acquired by the Hyksos rulers.³² These patterns can be at least partly confirmed in the recent excavations, since trade activities and goods exchange clearly reached their peak during the 13th Dynasty, when at least part of the area was used for storage, as the many silos attest.

In terms of the natural landscape and the harbour, changes can be documented over time, which involve the apparent diminution in the size of the basin through a combination of natural causes and human activity, and the expansion of the town to take advantage of this new land in the old harbour basin. The gradual infilling of channels, by both natural

26. See above.

27. See LEHMANN 2011; LEHMANN 2012.

28. As already shown by KOPETZKY 2010, p. 275.

29. See among others BIETAK 1994, p. 26; KOPETZKY 2010, p. 275.

30. For the formation of the Hyksos state see FORSTNER-MÜLLER and MÜLLER 2006.

31. Also KOPETZKY 2010, p. 275.

32. For the Cypriote imports cf. BIETAK and MAGUIRE 2009.

processes and human agency is a well-known phenomenon, which can be observed today all over Egypt.

To what degree the change of the basin's size were regulated is unknown, or indeed whether these issues were even relevant to the central government, the governor or the king. Was there more demand for a larger basin in the late Middle Kingdom when the central government still worked and the contacts with the Near East were intense? Was the harbour actively maintained in the Middle Kingdom and not allowed to silt up. Was there less demand in the 15th dynasty when the hinterland of the then capital Avaris was much smaller? Or was the size of the basin irrelevant as long as it served its purpose to ensure maritime and riverine shipping, whatever the volume of usage?

It is notable that no installations have been found which would suggest a "harbour" in the modern sense such as dockyards or quay installations. This may, however, result from a modern assumption that such features known from modern ports and harbours should have existed in Ancient Egypt before the Ptolemaic period. The recently discovered harbour of King Khufu at Wadi al Jarf, for instance, is only defined by a mole but no further installations.³³

Furthermore, the decision to build two massive walls along the southern edge of the town of Avaris is by no means arbitrary. Both lie along the northern edge of the basin and separate the town from the water. They are the most dominant features of the cityscape in the harbour area, and formed a means of controlling the access to the town. Here the special situation and legal treatment of the Late Period harbour of Naucratis comes to mind, where access to Egypt, and distribution of goods was legally regulated. Import of foreign goods was a royal prerogative and an important source of power and thus access had to be protected.³⁴ At Avaris, the harbour, an interface between the city and the world outside, perhaps required similar organised control. Interestingly, the known palaces of Tell el Dab'a were all located at a safe distance from the main harbour.³⁵

The research on the riverine system and the harbours of Avaris has produced many questions. Hopefully, this contribution will stimulate further discussion and research on the relation between state control and waterways, both concerning Tell el-Dab'a and more Egypt as a whole.

33. For this site see TALLET 2017.

34. I am indebted to Wolfgang Müller who pointed this out to me.

35. For the position of the palaces in the 15th Dynasty see FORSTNER-MÜLLER 2010, p. 111-114.

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