

Vorwort

Schon im vorigen SKYLLIS-Heft sind fünf Beiträge erschienen, die als Referate während der 19. Tagung „In Poseidons Reich“ gehalten worden sind – bei einem Ereignis also, das allen Teilnehmern in dauernder Erinnerung bleiben wird. Schließlich konnten wir dank der großzügigen Gastfreundschaft des Direktors des Pfahlbaumuseums Unteruhldingen, Prof. Dr. Gunter Schöbels, und seines Stabes in einer Umgebung, die nicht besser zum Tagungsthema „Leben auf dem Wasser und am Wasser“ hätte passen können, genau diese Art zu leben unmittelbar nachempfinden.

Hier können nun weitere acht Referate jener Tagung vorgelegt werden. Drei davon, die den Anfang der Reihe bilden, widmen sich methodologischen Untersuchungen: V. Jansa trägt eine neue Technik vor, die künftig der verbesserten Überwachung unterwasserarchäologischer Fundstätten dienen kann, D. Kofel, M. Popok und A. Pydyn denken anhand alter Befunde zur Fischerei in polnischen Seen über den Begriff „Zeit“ nach und O. Bounegru skizziert ein neuartiges interdisziplinäres Projekt zur Erfassung historischer und umweltmäßiger Veränderungen im Donau-Delta. Hieran schließt sich passend der Beitrag von M. Capulli an, der Ökologie und Geschichte einer Landschaft darstellt, die über Jahrhunderte von einem kleinen Fluss

im norditalienischen Friaul geprägt ist. Ging es hierbei um mehr oder weniger überschaubare historische Epochen, so geht der folgende Artikel von L. Sanna und F. Tiboni weit in prähistorische Zeiten zurück mit der Frage nach dem Einfluss maritimer Tätigkeiten auf die steinzeitliche Kultur der Küste Liguriens.

In die östliche Hälfte des Mittelmeergebietes führt uns H. Hristov: er verfolgt mythologische Themen in der Bildenden Kunst der mykenischen Epoche, die aus dem Alten Orient herleitbar sind, und diskutiert die Frage, auf welchem (See-)Weg sie nach Griechenland gelangt sein können. In die Eisenzeit, genauer ins späte 8. Jh. v. Chr. führt uns der Beitrag von A. Fantalkin, der Ergebnisse neuer Grabungen in Ashdod Yam, einem einstigen Hauptort der Levanteküste, vorlegt. Abermals weit in die Vorgeschichte reichen die Funde zurück, die ein kroatisch-deutsches Team an der kroatischen Adria-Küste gemacht hat. Soweit diesmal die auf Unteruhldinger Referate zurückgehenden Artikel dieses Heftes – weitere stehen in Aussicht.

Die folgenden Beiträge stehen nicht mit unseren Tagungen in Zusammenhang. F. Tiboni untersucht kleine bronzene Schiffs„modelle“ aus der sog. Nuraghen-Zeit Sardinien auf ihre gesellschaftliche

Bedeutung hin. V.R. Chepelev schildert das Schicksal von fünf kleinen Booten, die der Überlieferung nach eng mit Zar Peter I. verbunden sind, jenem großen Herrscher und Begründer des modernen Russland, der auch als „Zimmermann“ in die Legenden eingegangen ist. Die drei aus seiner Lebenszeit erhaltenen Exemplare dürften zu den wenigen auf uns gekommenen Beispielen der Bootsbaukunst jener Epoche gehören. Als letzte Beiträge setzen zwei Studien von N. Liphshitz die Reihe der Untersuchungen zu Schiffsbauholzern vergangener Jahrhunderte fort, wobei es diesmal um die Verwendung der Platane und des Buchsbaums geht. Den Abschluss bildet ein kurzer Bericht von B. Mijat über eine kürzlich in die Antikensammlung der Erlanger Universität gelangte Schenkung antiker Transportamphoren. Das Heft führt also durch etliche Weltgegenden und Perioden, weshalb sich hoffentlich für jeden unserer Leser etwas Interessantes darin findet.

Zum Schluss möchten wir der Aufmerksamkeit unserer Leser noch zwei Ankündigungen empfehlen, nämlich die eines Archäologischen Praktikums in Sachsen auf S. 26/27 sowie des 6. Internationalen Kongresses für Unterwasserarchäologie (IKUWA 6), der im Herbst 2016 erstmals in Australien stattfinden wird, auf S. 65.

Die Redaktion
Februar 2015

Ashdod-Yam on the Israeli Mediterranean Coast

A First Season of Excavations

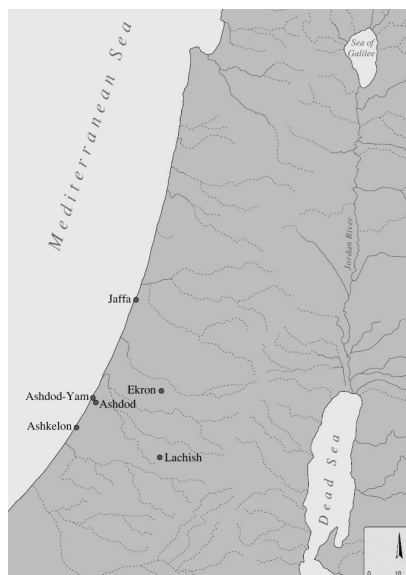
Alexander Fantalkin

Abstract – The site of Ashdod-Yam is located on the coast of Israel, ca. 5 km northwest of Tel Ashdod, serving as its main coastal settlement during the Iron Age. Following the uprising of Yamani, the rebel king of Ashdod against the Assyrians, Ashdod was destroyed in 712/711 BCE and the region's center of gravity was shifted from Ashdod to Ashdod-Yam. The Iron Age enclosure of Ashdod-Yam was tested archaeologically between 1965 and 1968, under the directorship of Jacob Kaplan and according to him, the impressive fortifications were built at Ashdod-Yam by Ashdod's rebels in anticipation of the Assyrian attack. Following the first season of renewed excavations, the remains of massive ancient fortifications have been rediscovered. The construction, however, appears too impressive to have been done in hurry and the fortifications were probably erected in order to protect a man-made harbor, created either before the rebellion or slightly afterwards. During the period of Assyrian domination, Ashdod-Yam became one of the most important Assyrian international emporia at the empire's Mediterranean frontier. More recent ruins from the Hellenistic period were also discovered. These buildings were found destroyed as a result of an earthquake, most probably accompanied by a palaeo-tsunami.

Inhalt – Ashdod-Yam liegt an der Küste Israels etwa 5 km nordwestlich von Tel Ashdod und diente während der Eisenzeit als Hauptküstensiedlung. Nach dem Aufstand des rebellischen Königs Yamani von Ashdod gegen die Assyrer wurde dieses 712/711 v. Chr. zerstört und der Schwerpunkt der Region verlagerte sich nach Ashdod-Yam. Dessen eisenzeitliche Umfassungsmauer wurde 1965-1968 unter der Leitung Jacob Kaplans archäologisch untersucht, und nach seiner Meinung wurden die imposanten Befestigungen von den Aufständischen errichtet, um dem Angriff der Assyrer zuvorzukommen. Im Verlauf der ersten neuen Grabungskampagne wurden die massiven antiken Festungsanlagen wiederentdeckt. Ihre Bauweise erscheint aber zu beeindruckend, als dass sie in Eile hätten aufgeführt werden können, und sie wurden wahrscheinlich zum Schutz eines künstlichen Hafens errichtet, der entweder vor dem Aufstand oder bald danach angelegt worden ist. In der Zeit der assyrischen Herrschaft wurde Ashdod-Yam einer der wichtigsten internationale Handelsplätze an der mediterranen Grenze des assyrischen Reiches. Jüngere Ruinen hellenistischer Zeit wurden ebenfalls entdeckt. Diese Bauten sind durch ein Erdbeben, höchstwahrscheinlich begleitet von einem Tsunami, zerstört aufgefunden worden.

1. Introduction

The site of Ashdod-Yam (Ashdod by the Sea; *Asdudimmu* in the neo-Assyrian sources; *Azotos Paralios* in Byzantine times) is located on the coast of Israel, within the southern boundaries of the modern city of Ashdod and ca. 5 km northwest of Tel Ashdod (Fig. 1). The fate of Ashdod-Yam was always connected to the capital city of Ashdod, one of the five major Philistine cities during the Iron Age¹. Already during the Late Bronze Age there was probably a small port of trade at Ashdod-Yam (Nahshoni 2013), which served the



capital city, while its main port of trade was located at Tel Mor, ca. 7 km northwest of Tel Ashdod, on the northern bank of the Lachish River (Barako et al. 2007). Tel Mor's significance was diminished during the Iron Age and Ashdod-Yam became the main coastal settlement connected directly to the inland city of Ashdod. In Byzantine times, as is evident from the 6th century AD Madaba mosaic map (Fig. 2) and a number of historical sources, the coastal city of Azotos Paralios became more important than its for-

Fig. 1: General location map.

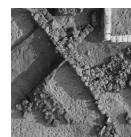




Fig. 2: Representation of Ashdod-Yam (Azotos Paralios) and Ashdod (Azotos Mesogaaios) on the section of the Madaba mosaic map from the 6th century AD.



Fig. 3: Aerial photograph taken in 1944.

mer capital Azotos Hippenos, known also as Azotos Mesogaaios (Tsafrir – Di Segni – Green 1994, 72). It seems that this shifting of the region's center of gravity from Ashdod to Ashdod-Yam can be detected much earlier, perhaps already during the Iron Age (below).

The site of Ashdod-Yam is quite impressive, covering some 2 km from north to south, and ca. 1.5 km from east to west, as is evident from the aerial photograph taken in 1944 (Fig. 3). As such, it consists of a number of clearly definable segments. In the southern part of the site, there is a mound (enclosure) that belongs to the Iron Age (Fig. 4) and ca. 1 km to the south of this mound, a site from the Late Bronze Age was excavated in 1994

(Nadelman 2013) and, more extensively, between 2006 and 2007 (Nahshoni 2013). Both excavations were conducted on behalf of the Israel Antiquities Authority. The remains of the Roman-Byzantine city, covered by dunes, are spread to the north of the enclosure, and an impressive fortress, dating from the Early Islamic up to the Crusaders' period, is located at the northern part of the site. This citadel was excavated on behalf of the Israel Antiquities Authority between 1997 and 1999 (Nachlieli 2008).

The Iron Age enclosure of Asdod-Yam was excavated in intervals from November 1965 until March 1968 under the directorship of J. Kaplan (1969), on behalf of the Museum of Antiquities of Tel Aviv-



Fig. 4: Aerial photograph of the southern part of the site – the fortified enclosure (looking south), taken in 2013.

Jaffa. This excavation, however, was quite limited, with the main aim to explore the Iron Age fortifications of the site. Ten cross-sections were cut along the edges of the glacis and the segments of the city wall, with the aim of exploring the fortification elements consisted of a ca. 3-4.5 m thick mud-brick city wall, which also served as a core for a large earthen embankment laid on both sides (Fig. 6). According to Kaplan, the western ends of the rampart were destroyed by erosion; if they are reconstructed according to the orientation of the existing part, the rampart would have enclosed an area of some 15 hectares. The fortified enclosure could have been part of a much larger site, which may be buried under the later accumulation of the classical periods, located to the north of the enclosure.

Modest amounts of pottery sherds and vessels (mainly locally-produced and of Phoenician origin) retrieved by Kaplan from the embankment and inside its perimeter allow the association of the compound with the 8th - early 7th centuries BCE (Fig. 7). The site, therefore, was reasonably identified with *Asdudim-mu*, mentioned as one of three cities (together with Ashdod and Gath) conquered by Sargon II following the uprising of Yamani in Ashdod. Due to surviving historical documentation, the course of events is well-known (see, e.g., Tadmor 1958; Rollinger 2001). There was some anti-Assyrian sentiment in the city of Ashdod, which caused its king Azuri to stop delivering tribute. In 713 BCE, Sargon II tried

to solve the problem by choosing Azuri's younger brother Ahimiti as a new, loyal king. However, Ahimiti was overthrown by a certain Yamani. Although a son of nobody, a commoner, Yamani took power, apparently with the help of the inhabitants of the city. Having heard that, Sargon promptly assembled a modest but reliable force and in 712/711 BCE his commander-in-chief (*turtanu*) marched against Ashdod. Yamani fled to Egypt without a fight. However, later on, the Egyptians handed him over to the Assyrian king. He was sent to Assyria in fetters and details of his further fate are unknown. On its way to Ashdod, the Assyrian army conquered Ashdod's dependent cities (including Ashdod-Yam). In order to prevent further rebellions, Sargon reorganized the territory of Ashdod, conducted deportations, and settled there a considerable number of newcomers. More so, he made it the centre of a newly established Assyrian province. Sennacherib, his heir, adopted a different policy a few years later, and let the former royal house of Ashdod rule over the kingdom, side by side with the Assyrian governor.

According to Kaplan (1969), the construction of the massive Iron Age fortifications at Ashdod-Yam belongs to Yamani's preparations

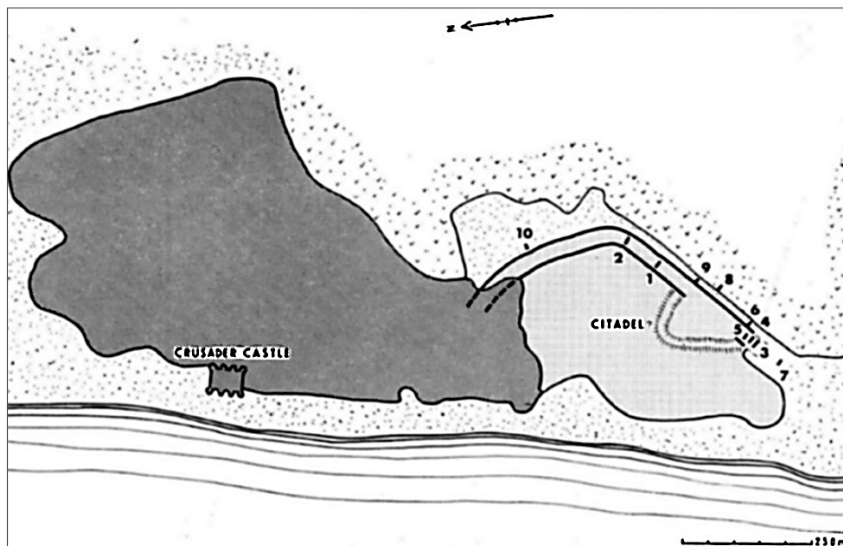


Fig. 5: General plan of the site, showing the location of Kaplan's excavation.

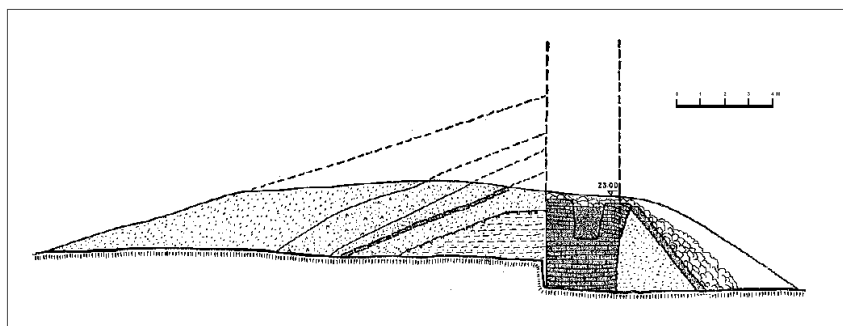


Fig. 6: Kaplan's Section 1 within the system of fortifications.

for the rebellion against Assyria. Other scholars, however, have offered different scenarios. Thus, according to Finkelstein and Singer-

Avitz (2001), any significant activity at Tel Ashdod ceased immediately or a few years after the conquest of the city in 712/711 BCE by Sargon. According to their reconstruction, Sargon moved the remaining population to the then small coastal settlement of Ashdod-Yam, together with deportees from northeastern parts of the empire. The newly established city at Ashdod-Yam was furnished with a massive brick and earth fortification. Ashdod, however, is mentioned as a major power on a number of occasions in 7th - early 6th centuries historical records. Except for a mention in the late monarchic Biblical prophecies (Jer. 25, 20; Zeph. 2, 4; Zech. 9, 6), Mitinti, King of Ashdod appears in the annals of Sennacherib as a loyal vassal of Assyria, to whom Judean territories were transferred after the campaign of 701 BCE; Ahimilki king of Ashdod is mentioned as paying tribute to Assyria in the days of both

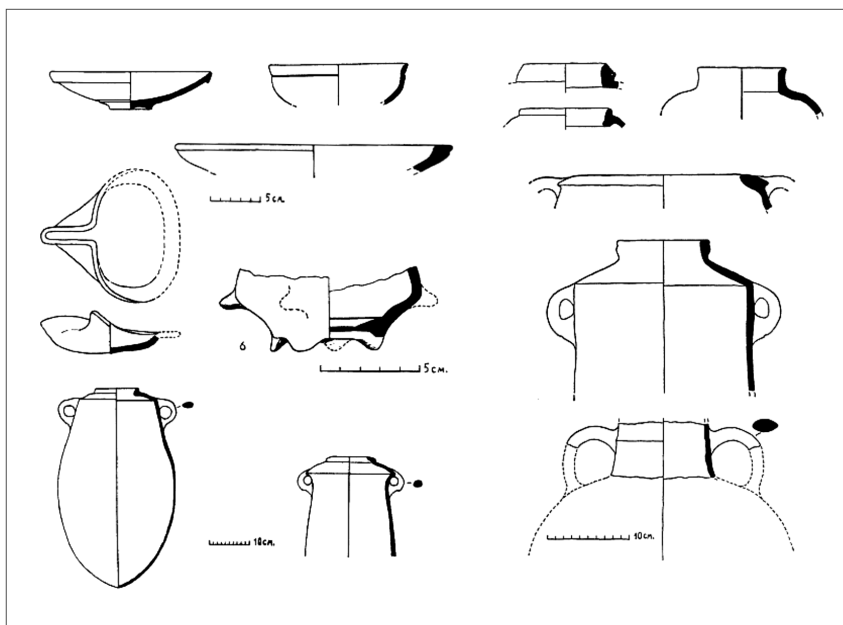
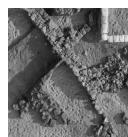


Fig. 7: A selection of Iron Age IIB pottery types from Kaplan's excavations.

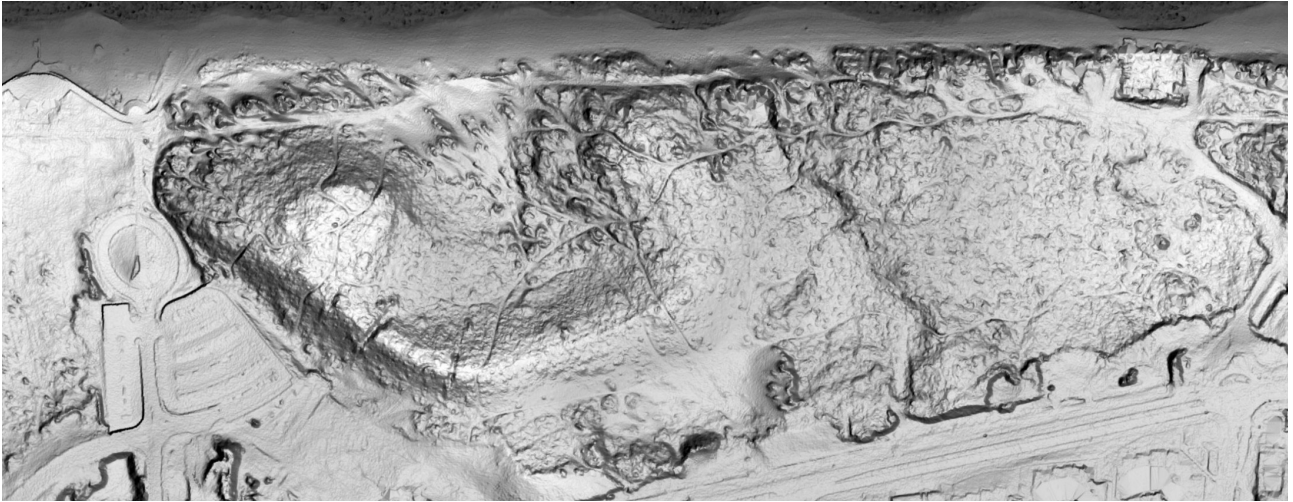


Fig. 8: The LIDAR image of Ashdod-Yam. Kaplan's sections are visible along the perimeter of fortifications.

Esarhaddon and Ashurbanipal; a governor of Ashdod was the eponym of the year 669 BCE; and Herodotus (2, 157) recounts how Psammetichus I laid siege for 29 years to Ashdod and then took it. Likewise, Ashdod still possessed a king in 598 BCE, as the Istanbul prism of Nebuchadnezzar II indicates.

Finkelstein and Singer-Avitz have suggested therefore, that after the Assyrian destruction of Ashdod in 712/711 BCE, Ashdod-Yam took its place as the kingdom's capital; that is mentions of Ashdod in the historical sources of the 7th - 6th centuries BCE refer in fact to Ashdod-Yam. Following this reconstruction, Na'aman (2001) has offered a slightly different view of events. According to him, Sargon founded the harbor at Ashdod-Yam immediately after he crushed the anti-Assyrian rebellion that broke out upon the death of Shalmaneser V in 720 BCE. Before the Assyrian intervention, Ashdod-Yam was a small port of trade that served the capital city. Sargon's building operations at this site threatened to block Ashdod's access to the sea, depriving it of maritime trade revenues. Na'aman suggests that the revolt at Ashdod should be seen as a local event and as a direct outcome of this building project. In this scenario, the rebels probably seized and fortified the newly established Assyrian emporion at Ashdod-Yam. Sargon took advantage of the revolt, destroyed Ash-

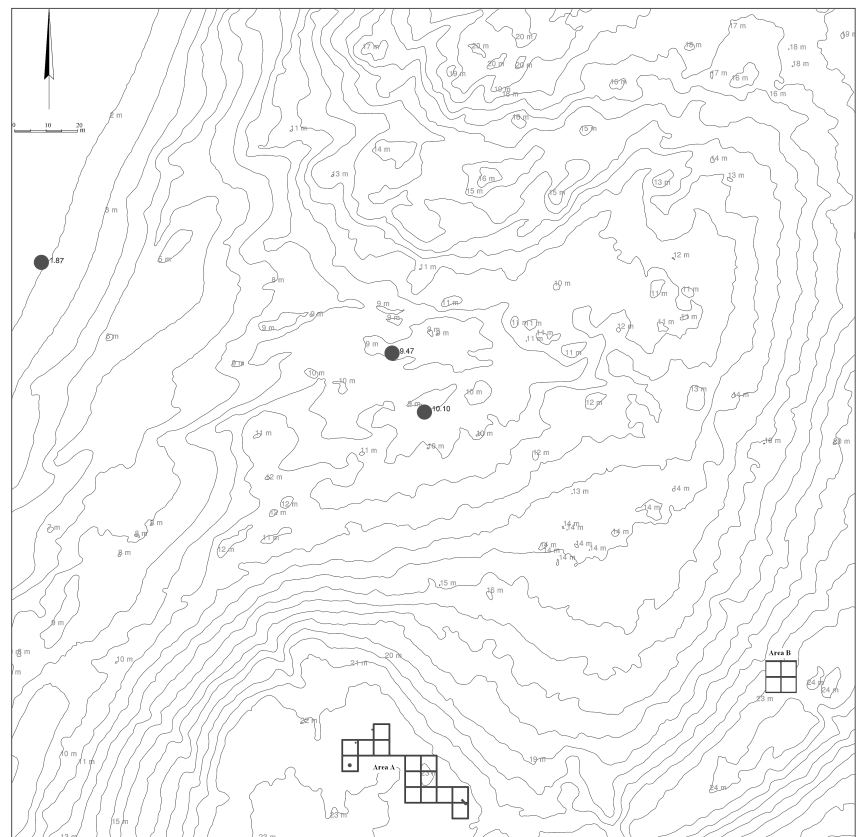


Fig. 9: Topographical plan of the site with excavated areas and test-boreholes.

dod, brought his building activity at Ashdod-Yam to completion and made it the capital of the newly established province. The city of Ashdod remained devastated – although not entirely deserted – and Ashdod-Yam took its place as the kingdom's capital.

These reconstructions have already been criticized by those who do not accept the existence of a chronological gap at Ashdod during the 7th

century BCE (Ben-Shlomo 2003; Shavit 2008). Even before Finkelstein and Singer-Avit's suggestion with regard to a chronological gap at Ashdod, I have argued elsewhere that there is indeed a chronological gap at Ashdod, but only during the last third of the 7th century BCE; that is during the period of Egyptian domination in the area, which starts after the Assyrian withdrawal from the Southern Levant (Fantalkin 2001, 135-136). This claim was

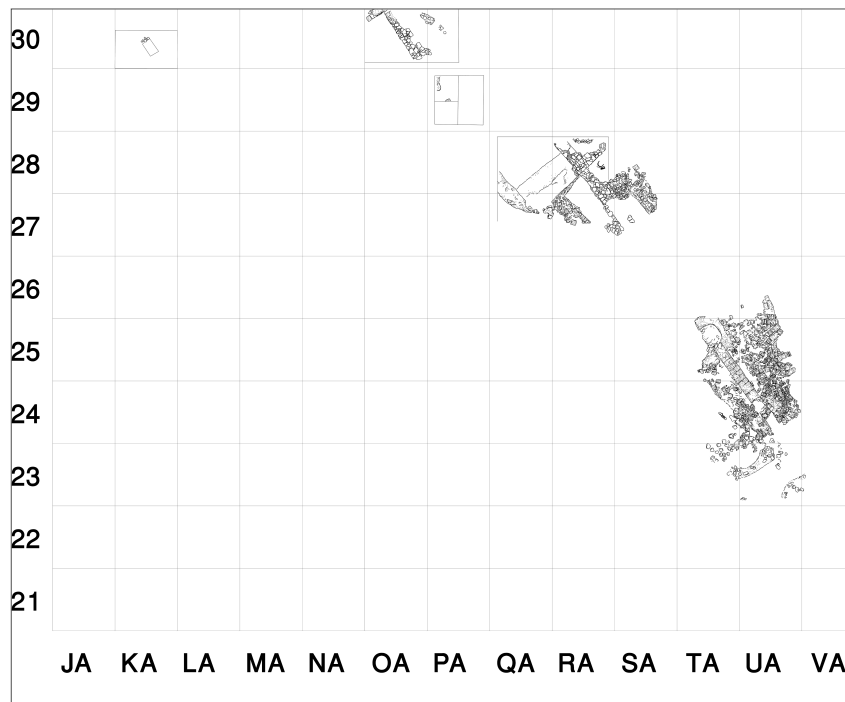


Fig. 10: Area A, General plan.

based on archaeological grounds and also takes Herodotus' information about Psammetichus I's conquest of Ashdod as reliable (although the 29 year length of the siege is certainly an artificial construction).

A few years ago, Kogan-Zahavi and Nahshoni from the Israel Antiquities Authority, have excavated the remains of what seems to be the administrative palace of the Assyrian representative (Kogan-Zahavi 2007). The building is located in the immediate vicinity of Tel Ashdod, and its existence implies that the city of Ashdod continued to be the capital of the province during the better part of the 7th century BCE. The transfer of the capital to Ashdod-Yam (if it happened at all) could have occurred only after Psammetichus' destruction of Ashdod, most probably in his 29th regnal year, that is around 635 BCE (Tadmor 1966, 102)². Saying this, however, one should probably agree with the identification of an Assyrian emporion at the site of Ashdod-Yam. The Assyrian interest in the southern coastal area of the Levant is well known (e.g., Fantalkin – Tal 2009; Berlejung 2012) and it is reasonable to assume that the location of Ashdod-Yam made it an important intermediate station

and port of trade on the maritime and overland route between Phoenicia and Egypt.

2. First season of the renewed excavations

Starting in July-August 2013, a new excavation project on behalf of the Institute of Archaeology at Tel Aviv University (TAU) was launched at Ashdod-Yam, under the directorship of the author³. In 2014, the Institut für Alttestamentliche Wissenschaft of the University of Leipzig joined the project under the directorship of Prof. Angelika Berlejung, but the second season of excavations did not materialize due to the lack of security following military conflict between Israel and Gaza. The second season therefore is intended to take place in summer 2015. Already following the first excavation season, the results were encouraging. Parts of the extremely well-preserved fortifications from the 8th century BCE were excavated and impressive collapses of the buildings from the Hellenistic period were discovered at the top of the mound. These structures, apparently built after the Iron Age fortifications, had been abandoned and then probably destroyed by an

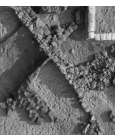
earthquake in the 2nd half of the 2nd - very early 1st centuries BCE (and see in more detail below).

In preparation for the first season of excavations, the aerial photographs from different periods have been studied. Likewise, a LIDAR high-resolution digital elevation map was created and a grid, 5 × 5 m, has been established (Figs. 8-9). In addition, new remote sensing technology from airborne domain, known as hyperspectral remote sensing (HSR), was used (Ben Dor et al. 2013). The innovative HSR sensor, sensitive to the Long Wave Infra Red (AisaOWL, provided by SPECIM), acquired images over the site both at day and night during June 2013⁴. The registration system employed during the excavations was based on a well-known locus/basket system (Aharoni et al. 1984), with a few modifications. Thus, the research design included the extensive use of photogrammetry, which allows for the generation of realistic and extremely accurate 3D models in real time⁵.

2.1 Area A

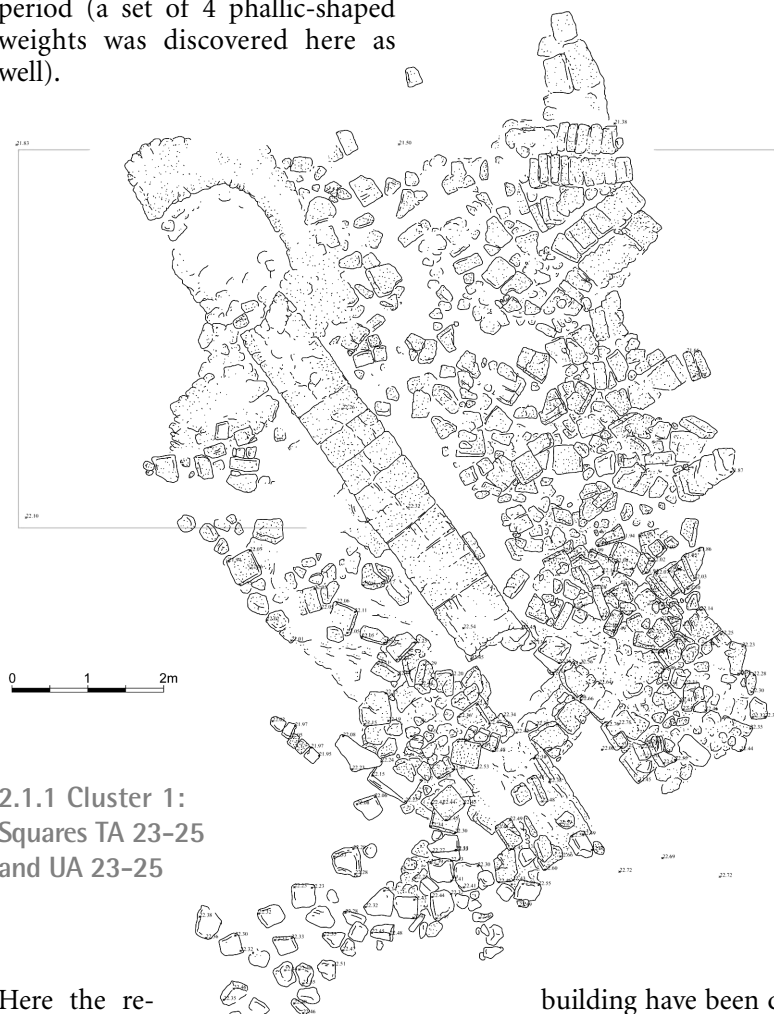
During the first season, we started the excavation in the area inside the enclosure. At the southern part of the enclosure, there is a relatively small but high mound of earth (some 120 × 80 m – mentioned as citadel? on Kaplan's plan; see Fig. 5) adjoining the inside of the southern fortifications. Kaplan has reasonably suggested that this mass of earth probably conceals the remains of the 'citadel' of Ashdod-Yam. If so, this artificial mound could have supplied us with stratigraphically positioned remains for the Iron Age phase. In this Area, labeled Area A, some 16 squares have been opened, following an initial cleaning of the upper level, consisting of vegetation.

In all squares remains of the Hellenistic period have been unearthed, with no remains so far from the Iron Age. General orientation of the Hellenistic buildings, exposed in three clusters, is from northwest to southeast (Fig. 10). In Sq. KA 30,



the upper layers were removed due to the indication of a possible grave. It turned out to be a pile of stones, surrounded by fills with numerous pottery sherds from the Hellenistic period (a set of 4 phallic-shaped weights was discovered here as well).

Fig. 11: Area A, Cluster 1.



2.1.1 Cluster 1: Squares TA 23-25 and UA 23-25

Here the remains of a mud-brick wall (W. 117) have been exposed, with adjoining remains of an impressive collapse (L. 118) (Figs. 11-12). The dimensions of the bricks are roughly $0,39 \times 0,39 \times 0,1$ m and they were sun-dried with many small pottery sherds inside (Fig. 13), some of them datable to the Hellenistic period. The wall has been preserved to the height of 5 courses and it was established directly on the sand, without stone foundation (Fig. 14). The nature of the collapse points to a major earthquake as a possible cause for a destruction of this structure.

2.1.2 Cluster 2: Squares QA 27-28, RA 27-28 and SA 27-28

In this cluster the partially preserved remains of a Hellenistic

building have been discovered (Figs. 15-16). Here, the mud-brick walls, made of mud-bricks similar to those in the previous cluster, stood on the stone foundations made of local beach-rock. Some of the foundations have been robbed, as the massive robber trench is evident in case of a wall W. 140, running from SW to NE. The width of these foundations is around 1 m and they stood for a height of some 0,5 m. The collapsed mud-brick upper walls have covered the traces of poorly preserved living surfaces. A modest amount of Hellenistic pottery as well as coins, found under the collapse, date the end of this structure to the late Hellenistic period and it seems that here too the building was destroyed following a major earthquake. A tabun installation⁶ (I 108) was found in one of the rooms.

Fig. 12: Area A, Cluster 1—a view from above.



Fig. 13: Area A, Cluster 1, looking southwest.

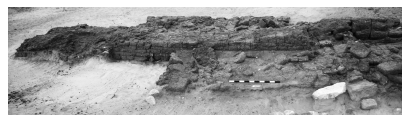


Fig. 14: Area A, Cluster 1, looking northeast, after removing part of the collapse.

2.1.3 Cluster 3: Squares OA 30 and PA 29-30

In this cluster the remains of a poorly preserved structure, dated similarly to the Hellenistic period, were discovered (Fig. 17). Two lower foundations (W. 102 and W. 111) were built of beach-rock stones. One mud-brick (of similar dimensions to previous structures) was inserted in one of the foundations. The significance of this cluster comes from a probe of a few meters deep, undertaken in the northwestern corner of square PA 29 (section CC). The probe has revealed that beneath the Hellenistic structure



Fig. 15: Area A, Cluster 2.

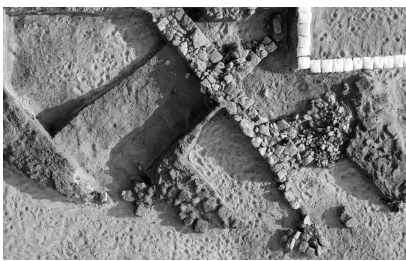


Fig. 16: Area A, Cluster 2 – a view from above, after removing parts of the collapse.

there is a very thick layer of pure sand. That is to say, the Hellenistic occupation was probably established after a long period of abandonment.

It is not clear what was the nature of the settlement during the preceding Persian period, since only a few pottery sherds from this period

have been discovered so far at the excavated area. This is quite surprising given the prominent position of Ashdod during the Persian period, attested archaeologically at Tel Ashdod and mentioned specifically in Nehemiah 13, 23-24. One special find from this period, despite being unearthed out of context, should be mentioned in particular though, since it presents a previously unattested type of Philistine Athenian-styled silver coin, most probably minted in Ashdod in the late 5th - early 4th centuries BCE (Fig. 18, 1; and see Gitler – Tal 2006, 76-79, for other known types of these coins minted in Ashdod). The nature and the extent of the Persian period remains at Ashdod-Yam should be clarified in the future, but the excavation of the deep probe in square PA 29 was terminated due to the danger of collapse.

Based on the pottery and coins, it seems that the excavated Hellenistic buildings were abandoned somewhere in the 2nd half of the 2nd century BCE and finally destroyed following a major earthquake, accompanied, perhaps by a palaeo-tsunami (for relevant historical sources, see Karcz 2004; and see below). It is quite plausible that these buildings and their abandonment, prior to the final destruction, should be viewed within the framework of Seleucid military activity in the area, perhaps representing mercenaries in the service of the empire. More or less similarly dated Hellenistic establishments excavated at Ashqelon (Barne'a) to the south of Ashdod-Yam (Haimi 2008) as well as at Gan Soreq (South) to the northeast of Ashdod-Yam ('Ad – Dagot 2006) were interpreted along the same lines. A few bronze coins from the city of Side in Pamphylia attested at Ashdod-Yam (Fig. 18, 2) may strengthen this reconstruction if one accepts Ariel's view (2010), according to which the bronze Hellenistic coins from Side found in the southern Levant could be connected to mercenary activity. This issue certainly demands further clarification.

2.2 Area B

In this area, located within the squares MB 35-36, we have reopened Kaplan's section 2 (Fig. 5). This section was created by Kaplan with mechanical tools and during this operation the upper part of the fortification line (including the mud-brick wall) was removed. From the inner side of the fortification we cleaned down the retaining rampart to the foundation of the massive wall of some 4 m width (W. 2002), made of sun-baked hamra mud-bricks, which stood in the center of the fortification system to the height of some 5 m, with a massive glacis at its outer side (Fig. 19).

The top of the eastern part of the wall was fairly well preserved (although the wall was already cut by Kaplan's mechanical tools), with a series of clearly visible rectangular

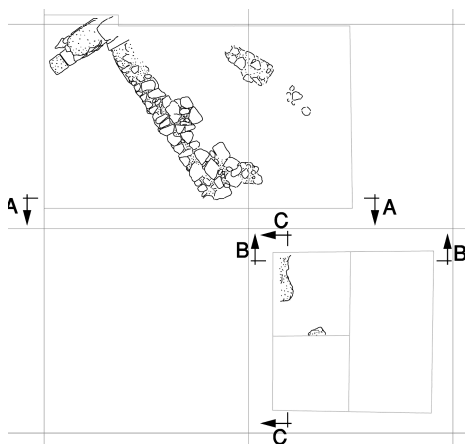
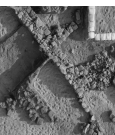


Fig. 17: Area A, Cluster 3.



Fig. 18: The Philistine silver coin and the bronze coin of Side.



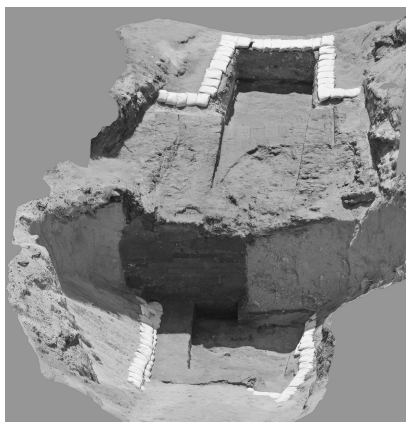


Fig. 19: Area B, Iron IIB mud-brick fortification wall, a view to the southeast.

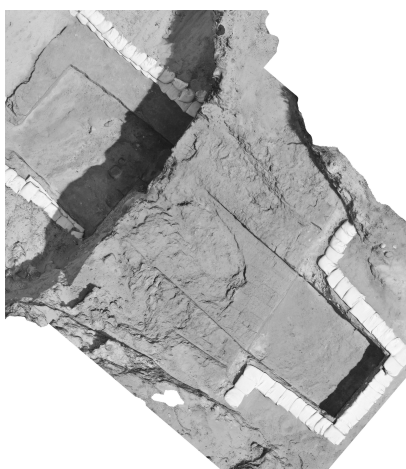


Fig. 20: Area B, Iron IIB mud-brick fortification wall, a view from above. A favissa was located to the right of the wall.

mud-bricks. The bricks were tightly attached one to another, with very thin joints, while some gaps caused by a defective arrangement of the layers have been filled with mud material to assure uniformity. The measurements of these bricks broadly correspond to those reported by Kaplan for the bricks founded in his trench no. 1 ($55 \times 35 \times 15$ cm). The central and western parts of the top of the exposed wall were destroyed by erosion (Fig. 20).

Within the upper part of the outer glacis, close to the wall, a *favissa* with thrown cultic objects was discovered (with broken remains of some 6 chalices and a bowl). One of the chalices was almost complete after the restoration (Fig. 21), while the rest were in a bad state of preservation. The residue analyses undertaken on the inner bottoms of some of the chalices

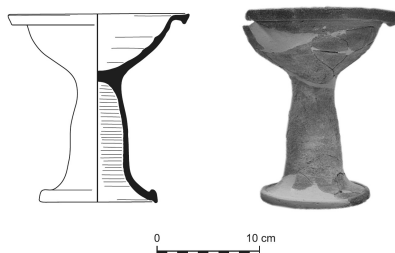


Fig. 21: Area B, one of the chalices from the favissa.

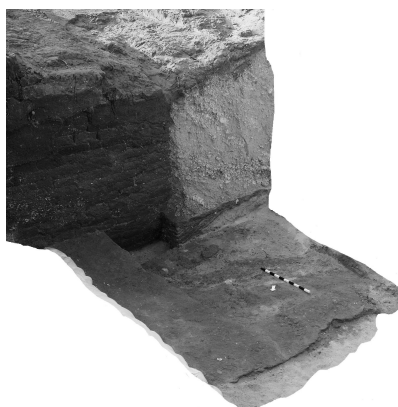


Fig. 22: Area B, the clay surface, abutting the fortification wall, after its partial removal.

reveals that organic compounds are relatively well preserved, which should permit further promising analyses⁷. More importantly, although the chalices belong to the well-known cult types of Philistine pottery, their organic residues differed significantly from those previously analyzed from a number of Philistine chalices from other Philistine sites (Gadot et al. 2014). Those have yielded the remains of lipids; prominent among them being myristic acid, isopropyl myristate and other myristate-derivatives. It has been suggested that the chalices were used as incense burners, in which an oily bed was liquefied in order to help evaporate the hallucinogenic substances (Namdar et al. 2010). The residues from the Ashdod-Yam chalices, however, have yielded completely different chemical fingerprints, which require additional study. Due to the presence of deportees at Ashdod-Yam mentioned above, is it possible that we are wit-



Fig. 23: Area B, the mud plaster, covering the upper courses of the fortification wall.

nessing a hybridity of cult, where typical Philistine cult vessels obtain new meaning in the ritual behavior of a mixed population at Ashdod-Yam?

As mentioned above, from the inner side of the wall, the retaining rampart, consisting of several layers, was cleaned down to the base of the wall. Here, a clay surface (L. 2010), abutting a wall, was discovered (Figs. 19-20; 22). This surface extends some 3,5 m to the southwest of the wall, sloping down from the base of the wall toward the surface's terminus. It seems that it had an engineering purpose: to remove penetrating rain water from the base of the wall. The same idea can be detected behind a mud plaster that was detected on the upper courses of the wall (Fig. 23). Likewise, the wall had an inclination of some 15 degrees on its inner part (Fig. 24). A similar inclination was detected by Kaplan in his section 1 (Fig. 6).

Quite a number of Iron Age IIB sherds and some organic material were detected embedded within the outer edge of the surface, providing, together with the finds from the *favissa*, a good corroboration of Kaplan's dating of the fortification system to the Iron Age IIB⁸. After partially removing the surface L. 2010, it was discovered that there is another beneath and abutting the lowest course of the wall, with a fill of sand separating the surfaces and containing some Iron Age IIB pottery. The nature of this badly preserved lower surface (Fig. 25) remains to be clarified, since it could have been in existence prior to the establishment of the wall that might have destroyed it.

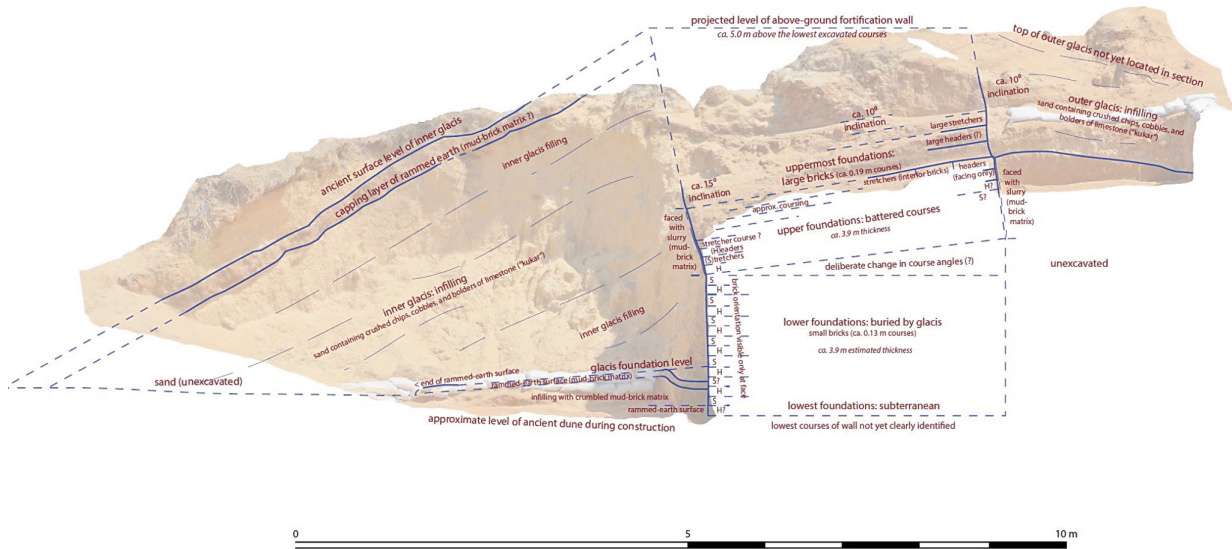


Fig. 24: Area B, a reconstruction of the fortification line, with the inner retaining rampart, the outer glacis and the fortification wall slightly inclined inward.

Unlike some previous assumptions (Finkelstein – Singer-Avitz 2001; Na’aman 2001), the measurements of the bricks and the construction techniques attested so far support the notion that the defensive wall represents a local construction and not an Assyrian one (compare the dimensions of the sun-baked *hamra* mud-bricks from the Iron Age strata of Tel Ashdod, Dothan – Porath 1982, 13. 19). However, the absence of Assyrian architectural features does not necessarily exclude imperial intervention.

It has been suggested that a relief from Room V from the Palace of Sargon II at Khorsabad (lower register, Slab 6-L) may represent either the siege of Gaza (El-Amin 1953) or the siege of Ashdod (Franklin 2001). It seems to me, however, that the topography and the outline of Ashdod-Yam’s Iron Age IIB fortifications (Figs. 8–9) resemble more faithfully the scene depicted on this relief (Fig. 26), which might represent the reconquest of rebellious *Asdudimmu* by the Assyrian army of Sargon II. In this regard it would be wise to check if the heap of earth and stones abutting the acropolis and fortifications from the southwest and clearly seen on LIDAR’s image (Fig. 8) actually represent the Assyrian siege ramp depicted on the relief.



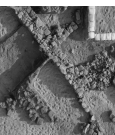
Fig. 25: Area B, the lower surface.

3. Further perspectives

One of the major questions concerning the site’s history aims at understanding the reasons behind the establishment of an impressive fortification system at Ashdod-Yam in the Iron Age IIB – be it on behalf of the Assyrian ruling regime or on behalf of the Kingdom of Ashdod, incorporated later into the Assyrian realm. Kaplan’s suggestion that the western end of the rampart and defensive wall were destroyed by erosion appears to be inaccurate. The fortifications seem to be designed from the beginning in a crescent-shaped defensive form over an area of more than 15 acres with a wide opening to the sea (Fig. 8). Following the excavations of section 6, 8 and 9 (Fig. 5), Kaplan made the following observation: „Away from the glacis, towards the centre of the sections, the number of alternate, thin varves of reddish earth and sand increased propor-

tionally. Section 8, for instance, showed many such varves, which became almost horizontal. This sort of laying is characteristic of sedimental deposits in choked estuaries or lake bottoms. The complete absence of any artifacts below the pottery layer makes it unlikely that these varves were formed during the Iron Age. Long before, a stream apparently had passed near where the fortifications were erected, and its choked outlet led to the creation of a sediment basin“ (Kaplan 1969, 143 n. 8).

It seems that the fortification system was erected on the highest natural spot in order to protect a man-made harbor created at Ashdod-Yam in the 8th century BCE. The Mediterranean coastline of the southern part of Israel had almost no natural haven for building and operating suitable harbors during this period. The only natural anchorages, probably utilized for trading purposes, were located in Jaffa, Yavneh-Yam (near modern Rishon LeZion), and Tel Ridan (south of modern Gaza) (Galili – Sharvit 1991). If a man-made harbor was indeed created in Ashdod-Yam – as topography and remains suggest – this would be a discovery of great significance since it will be the first known harbor of its kind in the southern Levant. Assyrian



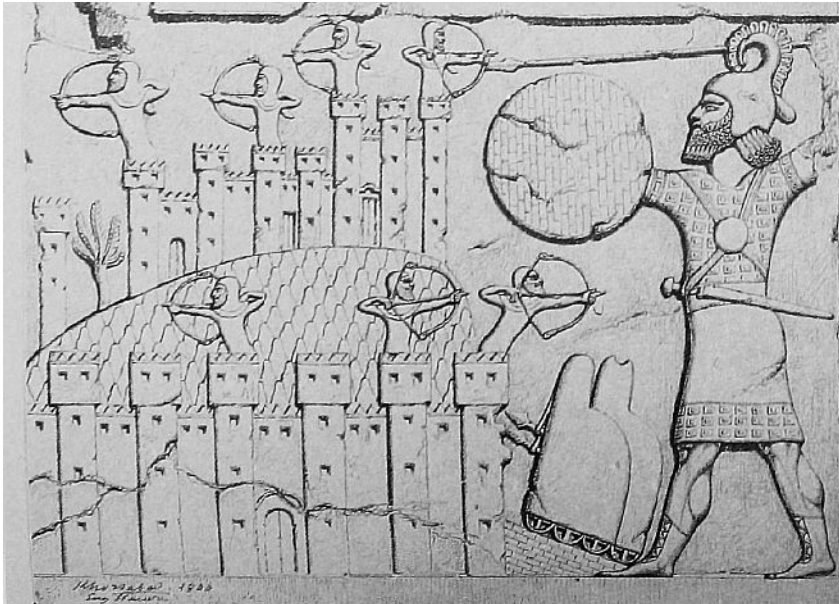


Fig. 26: Slab 6 (lower register) from Room V from the Palace of Sargon II at Khorsabad: A reconquest of Asdudimmu?

imperial demands along the sea-coast are of special importance here. The Assyrian interest in this area is known to have stemmed from their desire to be involved in, and obtain their share from revenues of the international trade among Phoenicia, Philistia and Egypt (e.g., Elat 1978; Fantalkin 2006; Fantalkin – Tal 2009). As a result, on the one hand the Phoenicians enjoyed the stability of the *Pax Assyriaca* and exclusive access to trade routes and mercantile centres, but on the other hand Assyrian administrative officials closely monitored trade and levied duties on it (Frankenstein 1979; Na’aman 2001; Fales 2008; Berlejung 2012; Bagg 2013). There is no doubt that the Assyrians invested a great deal of effort in the routing of commerce and its concomitant taxes – an effort that required constant supervision over main points of control, among them seaports and emporia. Given Assyrian interests in the coastal area it is more than reasonable to assume that the location of Ashdod-Yam was one of the most important Assyrian international emporia at the empire’s Mediterranean frontier, and a meeting point of Philistia, Assyria, Egypt, Phoenicia, Judah and Cyprus. Ashdod-Yam’s location in the Land of the Philistines, situated very far from the Assyrian centre, demanded applying new imperial strategies, which were specifically developed for frontier populations against the background of confrontation with the only other remaining great power of the time, Egypt. Relations between the Assyrians and the Egyptians were complex; encompassing political rivalry as well as various encounters and exchanges via Phoenician and Philistine mediators. Thus, renewed excavations at Ashdod-Yam in subsequent years will provide a unique opportunity for excavating and defining a Neo-Assyrian type site on the Mediterranean coast. It is likely to shed light on modes of Neo-Assyrian imperial control in the Levant.

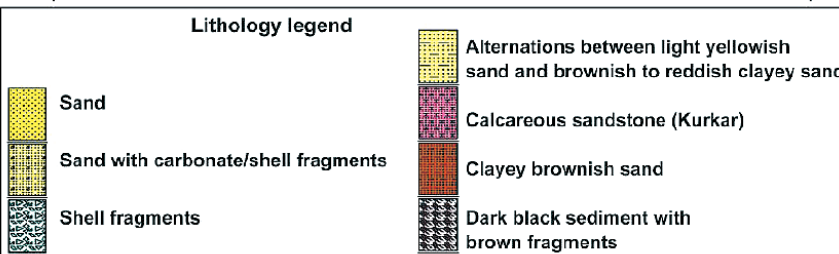
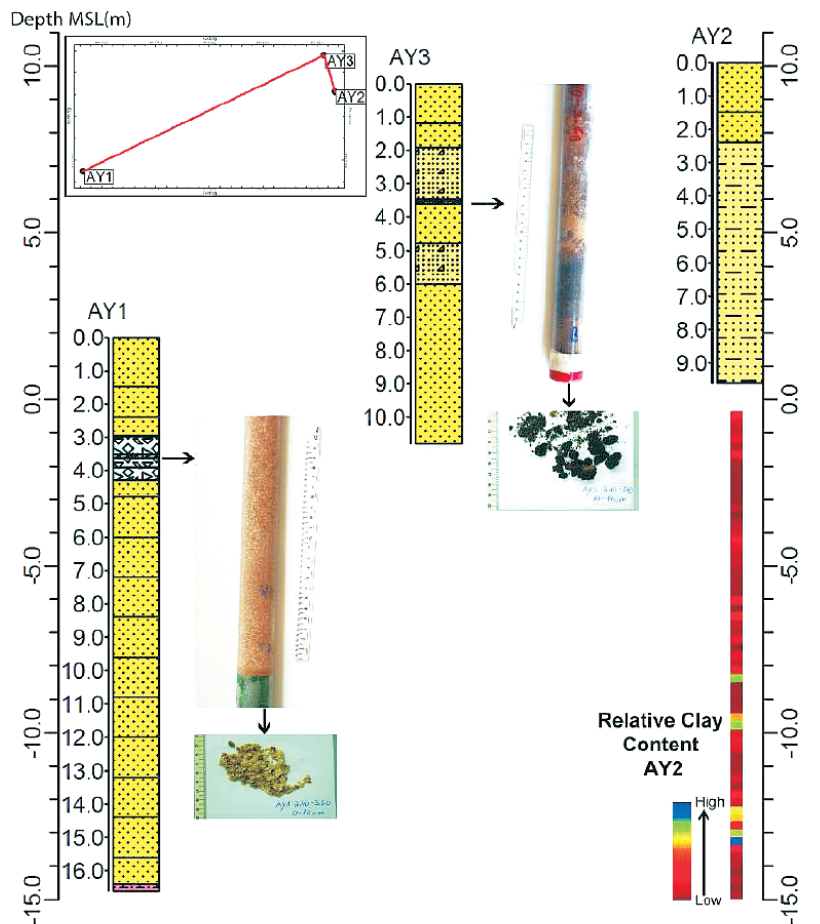


Fig. 27: Sections of Ashdod-Yam preliminary boreholes with lithology legend.

The major parts of the site, however, are covered by many meters of sand dunes, demanding extensive use of geoarchaeological techniques. In order to clarify these issues, a regular archaeological excavation would be accompanied by a thorough geoarchaeological investigation and palaeo-environmental reconstruction.

A preliminary investigation in this direction was conducted in June 2013, in cooperation with Simona Avnaim-Katav from the Leon Recanati Institute for Maritime Studies at the University of Haifa. For geoarchaeological purposes, continuous cores from three boreholes were retrieved (Fig. 9: black dots) and preliminarily examined in order to elucidate the sedimentary column. Borehole AY 1 was drilled west of the site, some 70 m away from the present coastline. Boreholes AY 2 and AY 3 were drilled in the lower part of the mound, in a wide depression surrounded by crescent-shaped fortifications (Table 1; for geological profiles, see Fig. 27)⁹.

Reflectance spectroscopy was used in order to determine relative clay content along the cores, in order to obtain rapid information on the relative occurrences of fine-grained sediments which act as aquatic habitat for many palaeoenvironmental recorders. Sedimentological and palaeontological analyses were carried out on 6 samples composed of loose fine sand, mainly from borehole AY 3. Palaeontological analysis on the sandy fraction under a binocular microscope aimed at extracting micro- and macrofossil components (foraminifera, ostracods, molluscs). The sedimentary sequence of the three boreholes was mainly sandy. The sedimentary sequence of borehole AY 2 is composed of alternations between light whitish to yellowish sand and dark brownish to reddish-brown clayey sand with different thickness, covering a sandy unit. The reddish-brown clayey sand layers have a relatively low to medium clay content. Most of the sedimentary sequence of borehole AY 3 consists of yellowish to brow-

Borehole	Coordinates		Altitude (m)	Core length (m)
	Latitude (N)	Longitude (E)		
AY 1	31.77508	34.61863	+ 1.87	16.6
AY 2	31.77539	34.61987	+ 10.10	9.6
AY 3	31.77554	34.61982	+ 9.47	10.8

Table 1: The location and elevation of the boreholes.

nish sand, with a few fragments of biogenic carbonates (i.e. molluscs). Alternations between lighter coloured and brownish-reddish sand occur at the lower part of the core. The sand fraction is 69-97 %; it mainly consists of rounded quartz grains of medium to coarse size. Neither foraminifera nor ostracods could be identified. It should be noted that in boreholes AY 2 and AY 3, we basically did not penetrate below the sea level. Much deeper drillings, especially reaching below mean sea level (MSL), and further processing of numerous samples are needed for a detailed characterization and differentiation of the palaeo-ecosystems.

In coming seasons, special attention will be given to locate silty-clayey or pebble-sized sediments in order to validate Kaplan's (1969) hypothesis on the existence of a former branch (oxbow), most probably, of the Lachish River, characterized recently by fine-grained sediments. These strata are assumed to be the best sedimentary archives (in terms of macro/micro faunal and floral constituents) for palaeoenvironmental reconstruction. Potential findings of marine fauna as well as sherds with vermetid overgrowth will shed light on the existence of a harbor at the river-mouth of this coastal site.

Borehole AY 1, close to the present coastline, was composed of fragments of *kurkar* at its lowermost part (ca. 15 m below MSL), probably representing the top of the Late Pleistocene *kurkar* ridge. A more than one metre thick layer at ~2 m below MSL consists of reworked fragments of mollusk

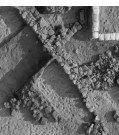
shells (up to 1 cm), mixed with rounded and spherical components (up to 8 mm; calcareous sandstone, a few coarse quartz sand grains). The fragmented mollusk fossils, the rounded sandstone pebbles, and the lack of other faunal remains may indicate that this stratum was deposited by a high energy wave event, probably a storm or an earthquake-triggered tsunami. It remains to be clarified if this bed can be ascribed to the earthquake of the Hellenistic period, presumably recognized during the excavations.

Notes

¹ For excavation reports, see Dothan – Freedman 1967; Dothan et al. 1971; Dothan – Porat 1982; 1993; Dothan – Ben-Shlomo 2005.

² Until recently many scholars have followed Na'aman's interpretation (1991), according to which the Egyptian expansion to the Levant following Neo-Assyrian withdrawal did not begin before 626 BCE. New evidence suggests, however, that the Egyptians may have been already active in the Levant from at least 636/635 BCE (Chauveau 2011).

³ The excavation (permit: G-52/2013) took place during July-August 2013. A core group of staff members comprised: Ifat Hartshtein (data base administrator and registrar); Shahar Krispin, Alexander Zuckerman, Adam Kaplan (senior field archaeologists); Marzia Merlonghi, Owen Chesnut, Luciano Monti, George Mavrounanos, Eli Itkin, Rima Abu-seif, Oron Schwartz, Ynon Choresh, Epraim Lytle (field archaeologists); Lily Singer-Avitz, Mark Iserlis (pottery analysts); Philip Sapirstein, Nathan Morello (digital technologies and architecture analysts); Nili



Lipschitz, Dafna Lunggut (archaeobotany); Lidar Sapir-Hen (archaeozoology); Mati Johananoff (metal finds); Slava Pirsky (surveyor); Pavel Shrago, Pascal Partouche (photography); Amir Eshhar (administration).

⁴ The extensive use of geophysical/remote sensing techniques has been coordinated by Eyal Ben-Dor from the Department of Geography and Human Environment at TAU.

⁵ The photogrammetric analyses were conducted by Philip Sapirstein, with the use of the equipment provided by the University of Nebraska-Lincoln.

⁶ tabun: an installation for cooking or baking.

⁷ The residue analyses were conducted by Dvora Namdar from the Hebrew University in Jerusalem, Earth Science institute.

⁸ Note that a few chalices from the *favissa* (*favissa* = Latin: a pit for disposing of sacred objects broken or otherwise out of use) may belong to the Late Iron IIA horizon as well, which is not surprising, since these vessels could have been in use for a very long period due to their ritual purposes.

⁹ The description of the samples was provided by Simona Avnaim-Katav.

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