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Underwater surveys and rescue excavations along the Israeli coast

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Along the area of the coastline and the shallow continental shelf extended human activity took place during recent millennia. Trading, shipping, fishing, invasions and wars left many traces in the form of wrecked ships, cargoes, port installations and prehistoric settlements covered by the sea.

Most of the underwater archaeological finds of Israel are concentrated within a narrow strip approximately 200 m wide along the Mediterranean seashore, and the shores of the Sea of Galilee and the Dead Sea.

During recent decades, these finds have been in danger of destruction, for the following reasons:

(a) Sand quarrying and building breakwaters resulted in the exposure of archaeological remains, which had been covered with a thick layer of sand for thousands of years. These remains were protected by the sand from the destructive activity caused by waves. The layer of sand made the salvaging and rescue of any items beneath it impossible.

(b) Due to an obvious regression of the Sea of Galilee and the Dead Sea, large sections of the sea bottom became dry. The archaeological remains were thus exposed and became available for treasure hunters.

(c) Demand for land in the coastal area, especially around the cities, is increasing. Since the price of reclaiming land from the sea is relatively small, a large number of project developments are being planned.

In order to find and record the archaeological remains which have been uncovered and prevent treasure hunting for antiquities and the destruction of sites, the Marine Branch of the Antiquities Authority is carrying out underwater rescue surveys along the Israeli seashore throughout the year.

We present here some of the sites and finds which have been discovered lately during surveys and rescue excavation (Fig. 1).

Southern coastal plain—Palmachim (Yavneh Yam), an ancient anchorage

The area between the sandstone (*kurkar*) reefs and the coastline is in the shape of an oblong basin: the depth of the water in the area close to the eastern edges of the sandstone reefs is approximately 3–6 m. This makes anchoring relatively safe for most of the year other than during winter storms.

In the north-western part of the area, bordered by *kurkar* reefs (Fig. 2, shown by dashed lines), dozens of stone, lead and iron anchors were found scattered over the seabed

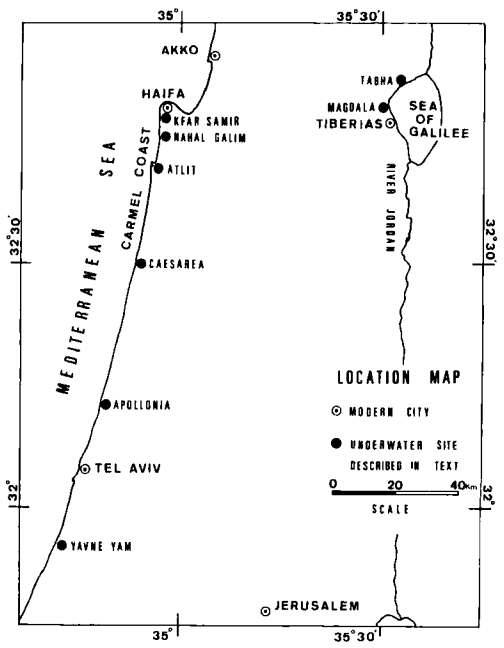

Figure 1. Location map of Sites.

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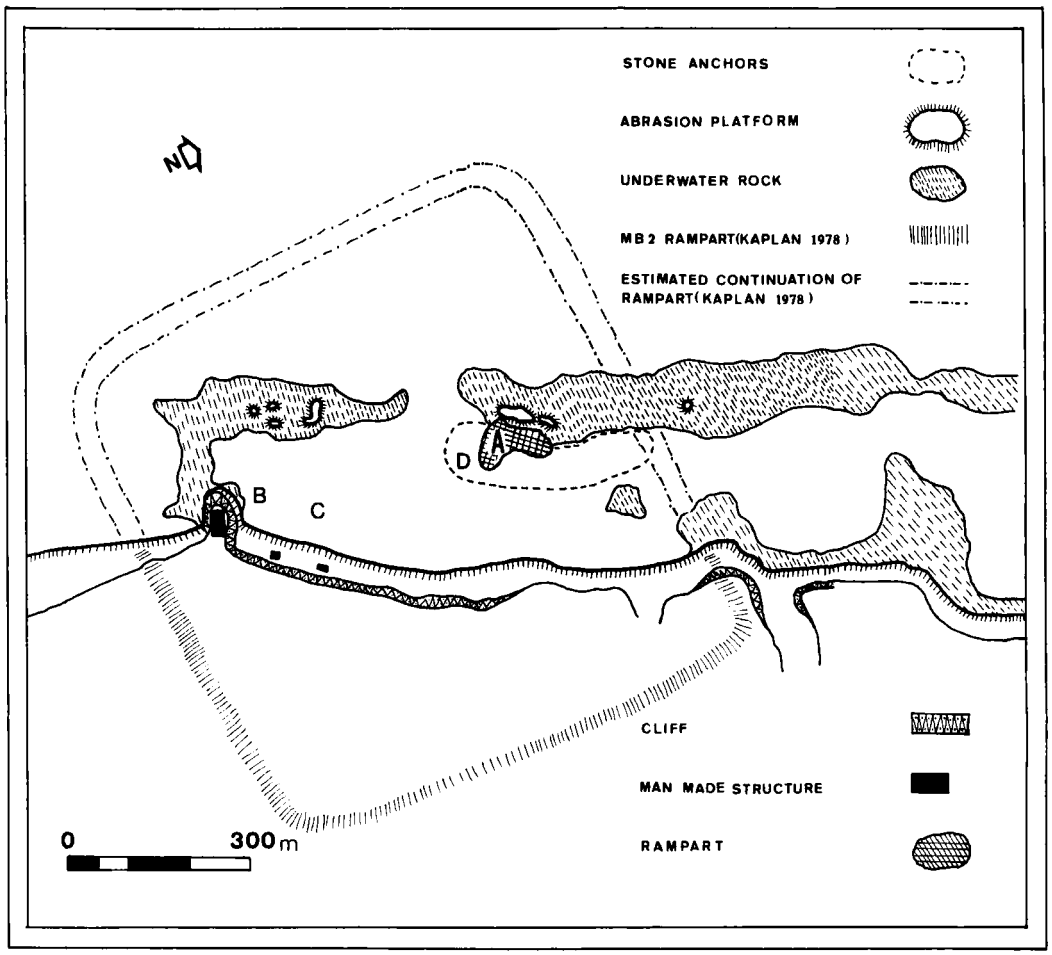

Figure 2. Palmachin (Yavneh Yam) anchorage.

(Fig. 3). Potsherds, metal objects and ballast stones made of non-local marble, granite and slate were also found. All this indicates the presence of an anchorage at the site (Raban & Galili, 1985; Guerin 1880, II: 52–53).

In the area of the central reefs a stone rampart, starting at its fringes and facing east, is present (Fig. 2—Area A). The width of this rampart is approximately 50 m, and the length is approximately 100 m. It is made of crude stones, measuring 20–40 cm across. There is a possibility that the rampart was built in order to protect the anchorage area from south-westerly waves.

In the north part of this rampart, many rectangular ashlar stones of *c.* 110 × 50 × 40 cm are dispersed on the sea-bottom (Fig. 2—Area A). A large part of these stones have grooves (Fig. 3—Item C), probably so that ropes could be attached.

Twenty-five of the stone anchors found (Fig. 3—Item A) had a single perforation. These weighed 18–100 kg. Some of them are amorphous, while others have symmetrical shapes. These typological characteristics help us to date them to the Late Bronze Period. Some of the anchors have three perforations, and weigh 15–40 kg (Fig. 3—Item B). Dozens of the ashlar stones scattered on the sea-bottom are rectangular with cavities, weighing 100–200 kg (Fig. 3—Item C). A few leaden parts of wooden anchors (mainly stocks) (Fig. 3—Items F, H, I and J), stone stocks of wooden anchors (Fig. 3—Item G), and Byzantine iron anchors (Fig. 3—Item E) have also been found.

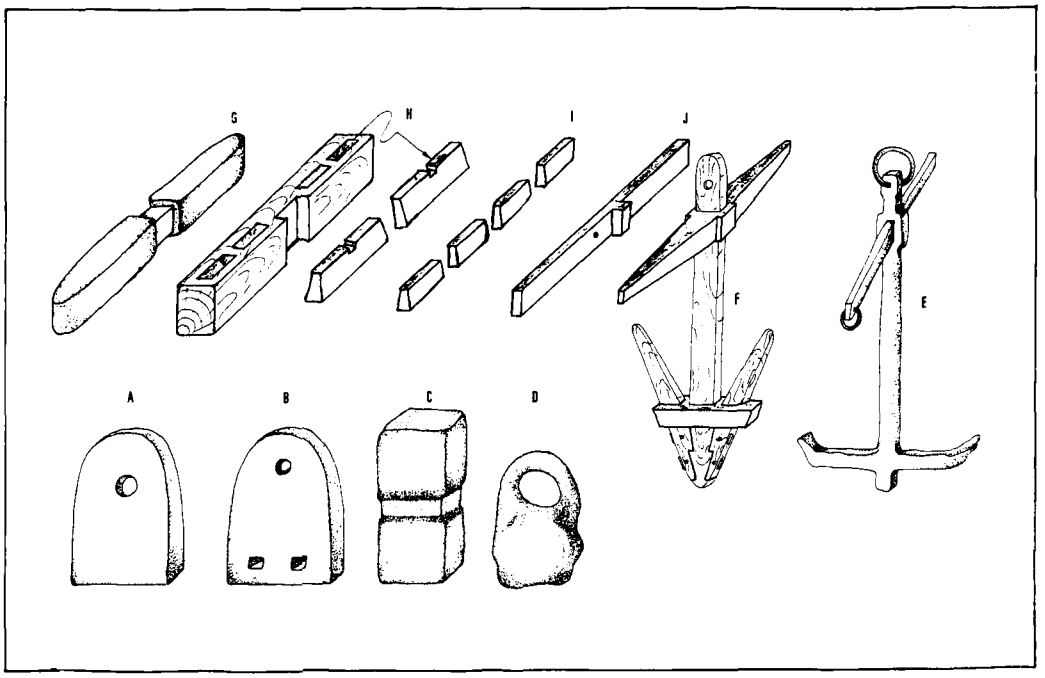

Figure 3. Anchor types from Palmachim anchorage (schematic scale).

At the northern part of the site, which is marked by an interrupted line, a Roman oven made of lead, decorated with three astragals, was found. The potsherds are mostly broken amphoras, used in sea trade during the Iron, Persian, Roman and Byzantine periods.

Great numbers of rectangular stones with cavities are found in the above-mentioned concentration of ashlar stones, in addition to those scattered over the entire area of the anchorage. Anchors of this type are rare, and only a few of them have been discovered in Israel. Perhaps their source can be attributed to some local culture, or to part of a large cargo from a shipwreck. The ship probably hit the reef and the stones than scattered on the sea-bottom.

Some years ago, on the southern, shallow (1–3 m) part of the anchorage (Fig. 2 B and C), the following items and cargoes were discovered: marble pillars; metal objects (mostly bronze nails); and lead weights for fishing nets, from several periods. A complex of several items of the Late Bronze Age was also discovered (Raban & Galili, 1985). The character of these remains and the shallow depth where they were found testify that their source was navigational vessels. These were probably trapped in the anchorage, due to a storm, or hit the *kurkar* reefs, disintegrated and were cast ashore.

According to archaeological traces, it seems that the north-western part of the basin, which is flanked by the reef (the area marked with a dashed line), served almost without interruption as an anchorage for shipping vessels from the Late Bronze Age onwards. Because of the lack of other natural shelters for shipping vessels in the area, it is feasible to suppose that in antiquity this place served as the main anchorage site on the southern shores of Israel (from Tel Ridan to Jaffa).

Central coastal plain—Apollonia (Arsuf), an ancient anchorage

South of the ruins of Arsuf, there is a sandstone reef, which is connected to the shore at its northern edge below the ruins, facing the south-west (Fig. 4). Between this strip and the shoreline, there is a relatively protected area with a depth of 3–5 m, which makes anchorage possible.

During the surveys remains of vessels and their cargoes from various periods were exposed

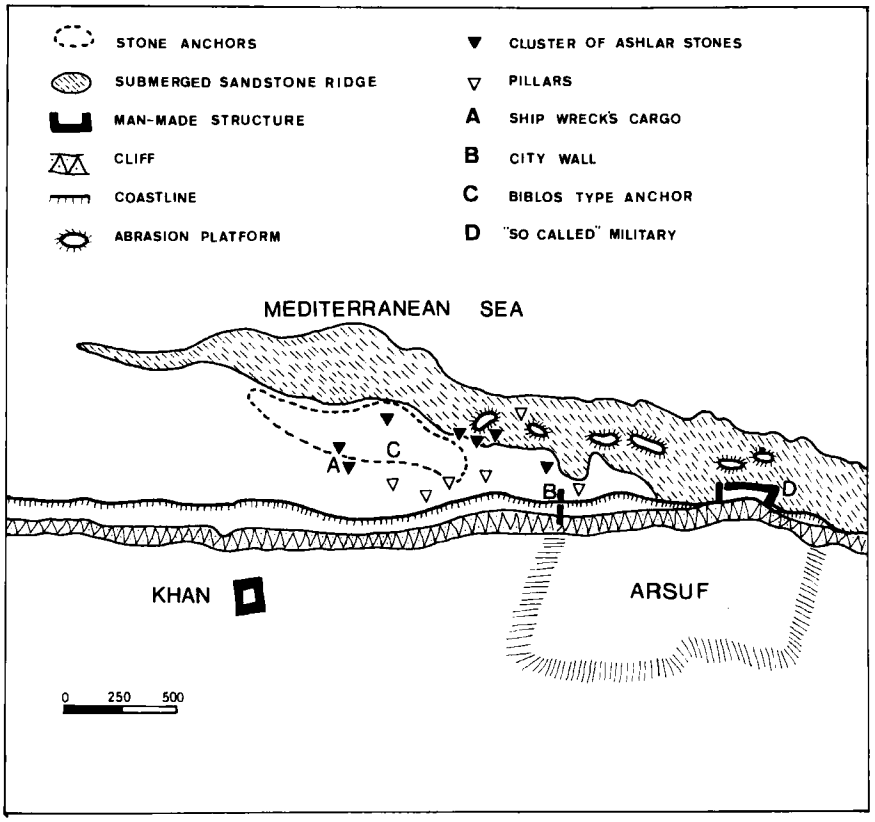

Figure 4. Apollonia (Arsuf) anchorage.

by natural causes and recorded (Fig. 5). Around 45 stone anchors of several types were discovered. Among them were 15 anchors with a single perforation obviously dating from the Late Bronze Age (Fig. 5 A) and three anchors with three perforations (Fig. 5 B and C) of the Iron and Persian period. It is worthwhile mentioning that a Byblos-type anchor, which we attribute to the Middle Bronze Age was among the stone anchors with one perforation (Fig. 5 G) as well as three unusual anchors with one perforation and two grooves in the bottom (Fig. 5 E). One remarkable anchor was found with a single open perforation at the bottom, and another, T-shaped, perforation in the upper 'frontal' area (Fig. 5 F). There are no known comparisons for the last two types of anchor. A marble ring, with two perforations in its upper part was found (Fig. 5 G). Similar rings, made of lead, were discovered in a shipwreck at Porticello from the end of the 4th or the beginning of the 5th century BC (Eisemen, 1979: 80).

In addition to these stone anchors, a Roman iron anchor was found. Most of the anchors were discovered in the deep water area where anchorage was probably preferred (Fig. 4, indicated by a dashed line). In the south-west part of the anchorage area (Fig. 4—Area A), a cargo of metal was found, including fragments of a broken bronze life-size statue of a male figure. There were also bronze and lead items, as well as a section of lead cladding carrying an inscription in Latin. In several parts of the anchorage and on the *kurkar* reefs there were a few dense concentrations of small and medium-size ashlar stones. In addition to the objects mentioned above, many columns of various sizes, made of granite, marble and *kurkar*, were found. All over the anchorage area, many potsherds, mainly incised Byzantine amphoras, Byzantine pythoi, and some 'basket handle'-type amphora handles were discovered as well as ceramic fragments from the Persian, Hellenistic and Roman periods.

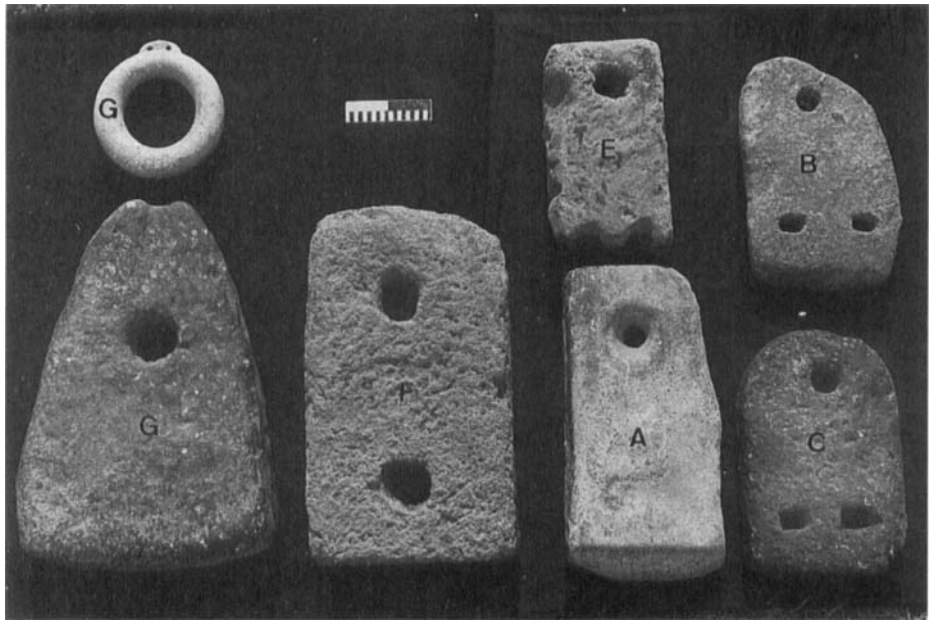

Figure 5. Anchors and a hawser ring from Apollonia (Arsuf) (scale = 20 cm).

Of most interest were the discoveries of several broken glass ingots, fragments of glass and glass chips, probably originating from the local glass industry.

Victor Guerin, who surveyed the remains of Arsuf, described the protected area in the *kurkar* reef as a natural anchorage, used as a trading port without anchoring facilities (Guerin, 1880, II: 374–82).

In fact, with the exception of the continuation of the city wall into the water (Fig. 4—Area B), no other ashlar stone structures in the area of the anchorage, were discovered. There is a possibility that part of the reef was raised slightly, by assembling unworked stones on its top.

Kurkar stone, from natural sources in the Apollonian area, is very soft. There is no possibility of using it for construction. The anchorage looks to have been used for the import of building stones, in addition to merchandizing activity. The ashlar stones, which are scattered over the area of the anchorage and on the reefs, appear to have dropped from vessels. This probably happened at the time of discharging or they may have been scattered when vessels were wrecked. Judging by archaeological finds, notably the stone anchors, it seems that the *kurkar* reefs were used as an anchorage for shipping from the Middle Bronze Period onwards. Most of the broken amphoras, the columns and scattered remains in the shallow water area near the sea shore, and on the *kurkar* reefs, would seem to be from shipwrecked vessels. The deep water area where the anchor finds are concentrated, was the preferred anchorage in antiquity.

Carmel Coast, Caesarea South

Underwater surveys south of Caesarea are being conducted by the Israel Antiquities Authority and Haifa University. Marine installations, cargoes originating from shipwrecks and prehistoric remains were documented on the seabottom between the coastline and the *kurkar* reefs (Fig. 6) (Galili *et al.*, 1989).

Prehistoric remains

The sandy clay exposed under the loose sand yielded flint flakes and fragments of cores. Some of the flakes are retouched, but cannot be dated by typology (Fig. 6—Area A).

A collection from the Late Bronze period (Fig. 6—Area B)

The remains from this period consist of four semi-convex lead ingots with script markings

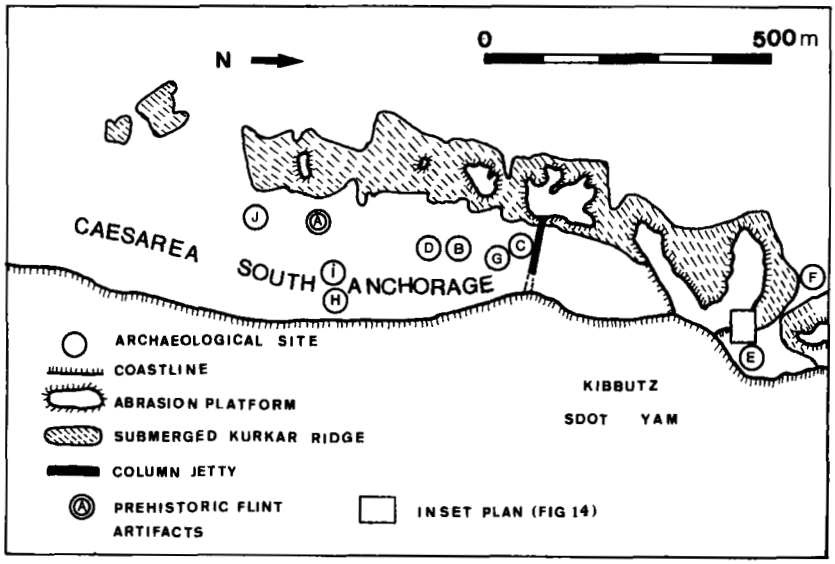

Figure 6. Caesarea South anchorage.

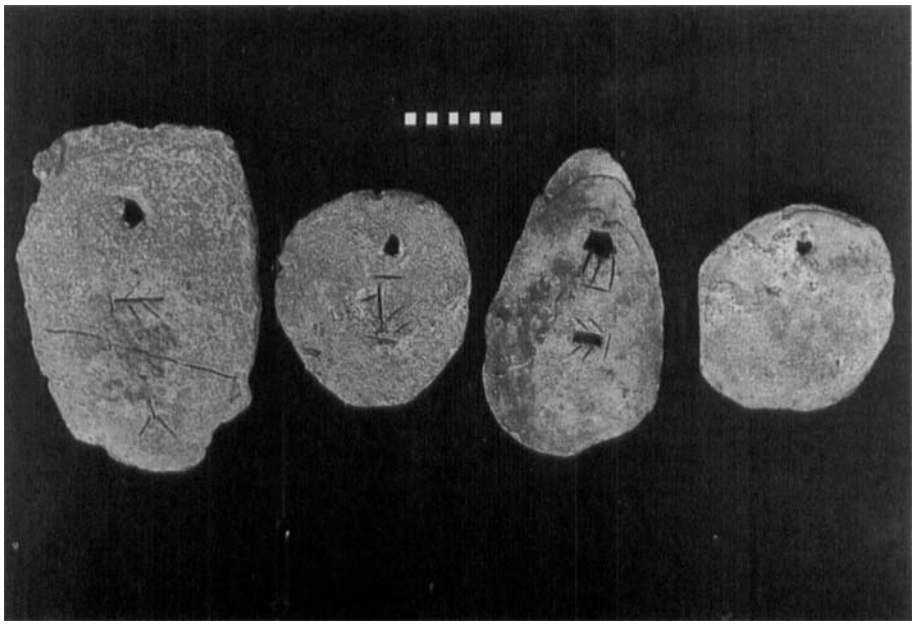

Figure 7. Lead ingots with inscriptions from Caesarea (scale = 9 cm).

(Fig. 7), a bronze axe and several stone anchors.

The ingots weigh 7–20 kg and differ in shape. Since identical markings appear on ingots of different sizes, these signs presumably do not indicate the monetary value of weight. The hole in the upper part of the ingots was probably used for weighing on scales. The script evidently originates in the Aegean area. The collection may, by comparison with similar lead ingots found at Kfar Samir (Raban & Galili, 1985), be attributed to the Late Bronze period. The six

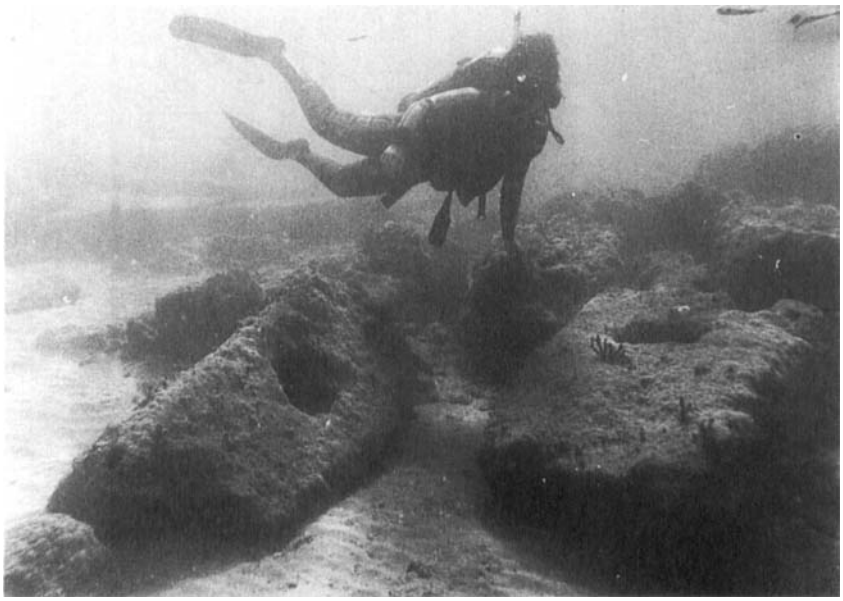

Figure 8. A diver checking pierced stones on the jetty.

stone anchors which have been discovered have a single hole and vary in weight from 50–100 kg.

The jetty (Fig. 6—Area C)

This structure begins at the eastern edge of the *kurkar* reef and continues eastwards. Consisting of two parallel lines of pierced stones (Fig. 8), it is about 75 m long and 5 m wide. It lies at a water depth of 1·2–3 m. The stones disappear under a layer of sand at a distance of 30 m offshore and it is reasonable to suppose that they extend eastward. The size of the pierced stones is 50 × 60 × 130 cm, while their holes are round and 20–25 cm in diameter. A few stones are broken in two. Apart from the pierced stones, many ashar-stones of various sizes are scattered about, these apparently were once part of the jetty. At the base of the jetty, there is a formation of large boulders running southward, parallel to the eastern edge of the *kurkar* reef. It seems that these undressed stones are a natural product of the sea's effect on the *kurkar* reef and did not originate in a harbour installation.

It may be assumed that the pierced stones were bases for wooden columns supporting the jetty (Fig. 9). This installation may have served either for the mooring of boats, as a bridge, or as a breakwater. In this way, a well-protected area was formed where small vessels could shelter. The shallow depth here indicates that the installation was useful for small craft, notably only at times of relatively calm seas.

A Roman collection (Fig. 6—Area D)

The artefacts include bronze coins of the Emperors Nero, Vespasian, Titus, Trajan and Gordian, and of the Roman procurators Pontius Pilate (under Tiberius) and Antonius Felix (under Nero). Other finds are a bronze figurine of Aphrodite (Fig. 10; Angart, 1988); a bronze figurine representing the upper part of a woman's body, wearing a toga (Fig. 11). This object appears to have served as a weight. The forehead shows two rows of curls covering the ears and the nape. Two broken protrusions stand out of the head and may be the remains of a suspension ring. Other finds in the area which may be attributed to this complex are five conical bronze bells, blocks of crude yellow glass, the ornamented handle of a dagger, a bronze lion's paw and a handle of a very large decorated bronze volute-krater (Fig. 12). In addition many bronze nails, lead weights for a net, pottery handles of pithoi and amphoras and two leads for sounding-lines were found.

Apart from the sestertius of Gordian, all the Roman coins stem from the second half of the 1st century AD and presumably were in the

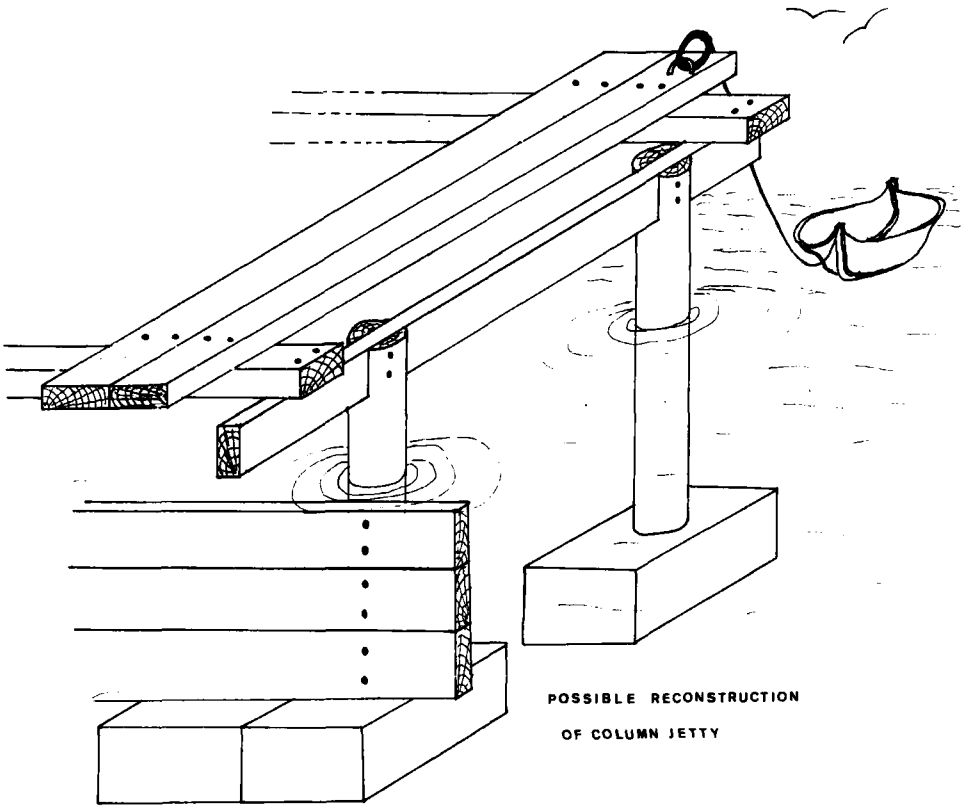

Figure 9. A possible reconstruction of the jetty.

cargo of a vessel of that period. It is to be noted that the two coins of the Emperor Nero show an impression of the city of Caesarea, and bear the imprint KAI, meaning Caesarea. Worth noting also is the fact that 'Aphrodite Taking Off Her Sandal', which is customarily ascribed to Alexandrian Hellenistic art, appears here in a Roman context.

Ships' cargoes from the Late Roman period (Fig. 6—Areas G and H)

Among the finds were 20 lead sheets. Their dimensions were 120 × 900 × 5 mm and they were rolled up, reducing their size to one-third, apparently for convenience of transport. The sheets have holes for broad-headed nails, with round or square cross-sections, 8–10 mm in diameter. Therefore, we may conclude that the sheets were stripped from some installation to be re-used or to be melted down. The total weight of the sheets is 750 kg. Among the other finds are six bronze coins of the Emperor Constantine, remains of amphoras of smooth conical and ribbed spherical types, bronze nails and two iron anchors. Another cluster of Late Roman artefacts includes a hoard of approximately 1500 bronze coins of the Emperor Constantius II (Fig. 6—Area H).

Recently, a cargo of marble tablets, pillar links and bowls was found at the south edge of the anchorage (Fig. 6—Item J). The 35 tablets are of various sizes and they are crudely cut. An incised cross on some of the bowls' handles and a 40 numias coin help us date the cargo to the Byzantine period.

Other finds

In addition to the objects so far described, many scattered finds were located. These cannot be attributed to any particular complex. Among them are several bronze Byzantine coins of 40 numias, coins from the Hellenistic period, pieces

Figure 10. Bronze statue of Aphrodite taking off her sandal as she leans on Harpocrates.

of marble, ashlar stone, lumps of volcanic tufa, fragments of non-local stones and various bronze artefacts.

The entire stretch of water east of the *kurkar* reefs in the area of Kibbutz S'dot Yam seems to have served as an anchorage from the Late Bronze period onwards.

The weight of most of the stone anchors found in the area of the kibbutz does not exceed 50–60 kg. This indicates that small ships used the *kurkar* reefs as a temporary shelter while waiting for a fair wind.

In the region east of the southern reefs the water depth is 6–7 m. Here larger ships may have anchored. So far the only finds that could be related to such vessels are three stone anchors weighing 150–180 kg each, pierced with one hole (Fig. 6—Area I). The Bronze Age complex, with the five anchors, mentioned above, might well have belonged to such a vessel.

However, the Caesarea South area could not be used as a shelter in winter storms. It is possible that some ships were wrecked while anchoring here. It thus seems that all the remains of cargoes found here originate from shipwrecks.

The White Bay

In this bay, which is located west of Kibbutz S'dot Yam, north of the natural anchorage (Fig. 6), a new pier made out of boulders was constructed recently. A survey conducted after completion of the construction revealed that the rocks of the pier were placed on an ancient pier, or a submerged wall, which was built of large ashlar stones (Figs 6—Area E, and 13).

In the entrance of the bay, the cargo of a shipwreck, including large pillars and square bases of columns, was found (Fig. 6—Area F). Poor visibility in this bay, caused by industrial effluent, means that underwater surveying can only be executed very rarely.

Northern Carmel shores: remnants of shipping vessels and their cargoes

In September 1990, a concentration of metal items from the Roman period was discovered off the Carmel Beach of Haifa. On this site a massive treasure hunt was carried out.

In the course of rescue surveys performed at the site many bronze and silver coins, and metal artefacts were discovered, scattered in a small area. After examination of the finds, it was obvious that there were two collections at the site, originating from different vessels which had been wrecked at this spot.

Roman collection from the 3rd century AD

Thirty-three silver denarii of the Emperors Vespasian, Titus, Domitian and Trajan and some provincial coins were found.

In addition to the silver coins, 56 bronze coins were found, originating from the cities of Tyre, Acre, Caesarea and Alexandria, and also a number of Roman imperial coins. Most coins are of the Emperors Elagabalus and Alexander Severus; the remainder belong to the Emperors Caracalla, Julia Domna and Macrinus. The most recent coins in the collection belong to Alexander Severus (Meshorer, Y., pers. comm.). This observation may lead to the conclusion that the vessel was shipwrecked between the years 215 and 222 AD.

In the collection are bronze statuettes of Mercury (Fig. 14) and Serapis (Fig. 15). Also

Figure 11. Bronze bust of a woman probably part of a weight (scale = 1 cm).

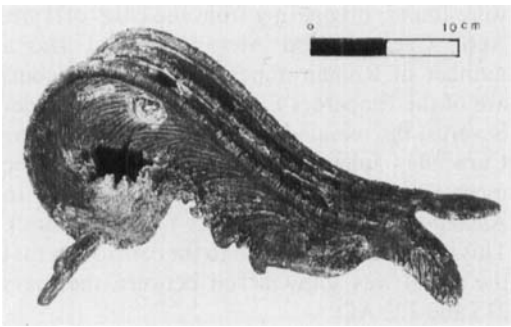

Figure 12. Bronze handle of volute krater decorated with two duck heads, a fish tail and leaves.

recovered were a bronze strigil, sections of bronze fittings, broken ingots of glass, many nails from ships, lead sheathing from the ships' hulls, weights for fishing-nets (some of them with decorations), fish hooks, bronze needles, lead rings and a silver ring in the shape of a two-headed snake.

The finds seem to originate from a merchant vessel sailing between the shores of Lebanon and Alexandria.

Among the coins minted in Akko was a rare coin showing the Acropolis of the city, a boat and a lighthouse (Fig. 16).

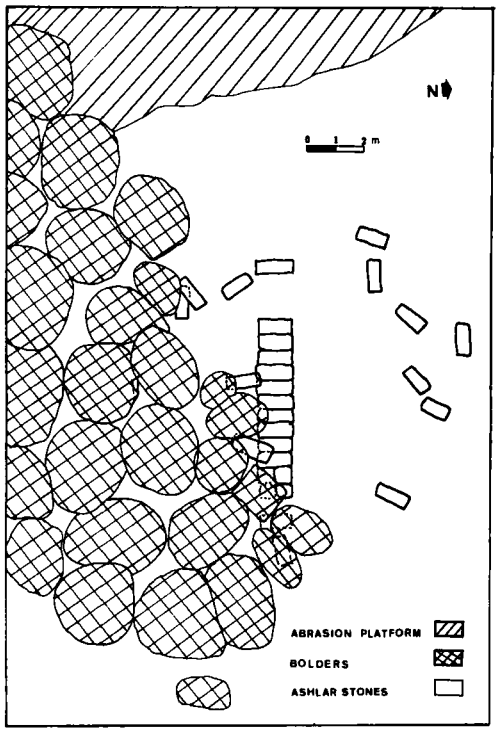

Figure 13. The submerged wall in White Bay, Caesarea.

Figure 15. Bronze figurine of Serapis from the Carmel coast (scale = 5 cm).

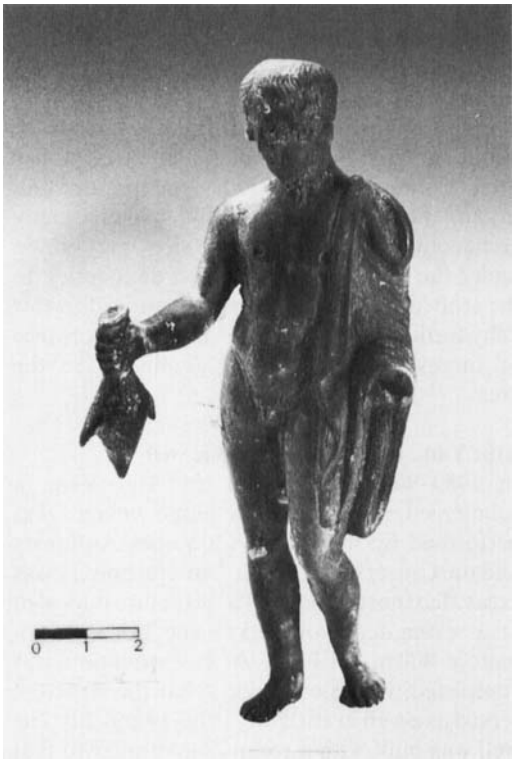

Figure 14. Bronze figurine of Mercury from the Carmel coast, Roman period.

Figure 16. Bronze coin of Akko, Roman period (scale = 2 cm).

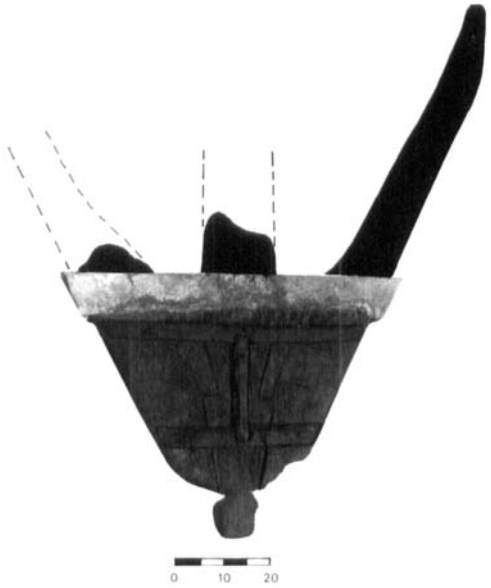

Figure 17. Roman anchor made of wood and lead (scale = 20 cm).

Late Roman collection from the beginning of the 4th century AD
The inventory includes 35 coins of the Emperors Constantinus and Maximianus.

Hachotrim: a wooden Roman anchor
Near the inlet of the Galim River, at a depth of 3 m, a Roman wooden anchor with a lead joint was discovered on the sea-bottom. The anchor (Fig. 17) consists of two wooden arms and a centre shank, joined together by a lead fitting, and mortise and tenon joints. Similar Roman wooden anchors were in use from the beginning of the 2nd century BC until the 3rd century AD (Haldane, 1984). In addition to the above-mentioned wooden construction, wooden reinforcements in the shape of a horizontal *H* were found on both sides of this anchor. This type of wooden construction has never been found before in Roman wooden anchors (Kapitan, G., pers. comm.).

Kfar Samir: a wooden bowl from the ceramic Neolithic period (Fig. 18)
At a depth of 2 m, a deep wooden bowl in an excellent state of preservation was found (Galili & Schik, 1991). The bowl is made of carob wood and it is easy to identify the tool marks made by the flint chisel used for carving it.

Figure 18. A 7000-year-old wooden bowl from Kefar Samir.

The site and the bowl were shown to be from the ceramic Neolithic period (*c.* 5000 BC) by a carbon-14 determination.

On the northern Carmel coast, south of Haifa, a large-scale development project has been planned. This includes the reclamation of an entire strip of shoreline where many archaeological artefacts and sites are buried under the sand. The most recent discoveries on the seabed, in the area which is assigned to this dehydration process, emphasize the importance of surveys which are now conducted in the area.

Atlit Yam: submerged Neolithic well
In 1989–90 an excavation in Atlit Yam, a submerged pre-pottery Neolithic village, was performed by the Israel Antiquities Authority and the University of Haifa. Structure no. 11 was excavated most recently. The structure is located at a water depth of 10·5 m and lies approximately 400 m offshore. After excavation was completed, it was concluded that the structure served as a well in antiquity (Figs 19 and 20). The well was built with a technology similar to that used in building modern wells, using crude stones which were set into the clay. The well was

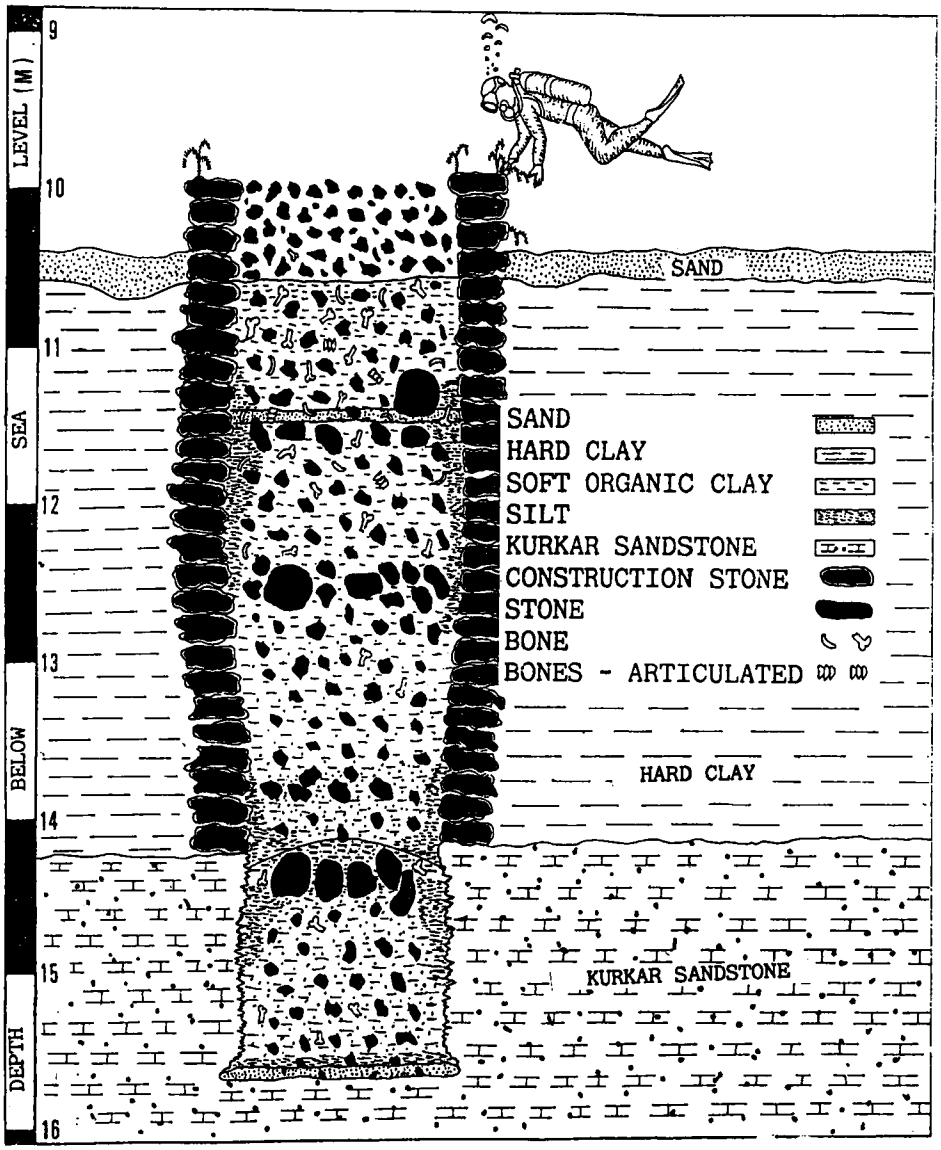

Figure 19. Cross-section of the Neolithic well from Atlit Yam.

dug to a depth of 5·5 m beneath the seabed. The lower part was dug into the *kurkar* rock. In the upper layers of the well's fill, a large amount of animal bones was discovered. Therefore, the assumption is that this structure ceased to function as a well and was used as a garbage pit some time before the abandonment of the settlement. It is most likely that the use of the well was discontinued because the rising level of the sea water caused salination. The well was filled with soft clay, hundreds of stone pebbles, animal bones, charcoal and waterlogged wood fragments and seeds, flint tools and artefacts, limestone artefacts, bone tools and ornaments (Fig. 21) (Galili & Nir, 1991).

From the excavation we can conclude that at the beginning of the 6th millennium BC, the sea-level was about 16 m lower compared with the present day sea-level and that the opening of the well was about 5 m above sea-level, at a distance of some hundreds of metres from the ancient seashore.

Figure 20. The well of the submerged Neolithic village of Atlit Yam.

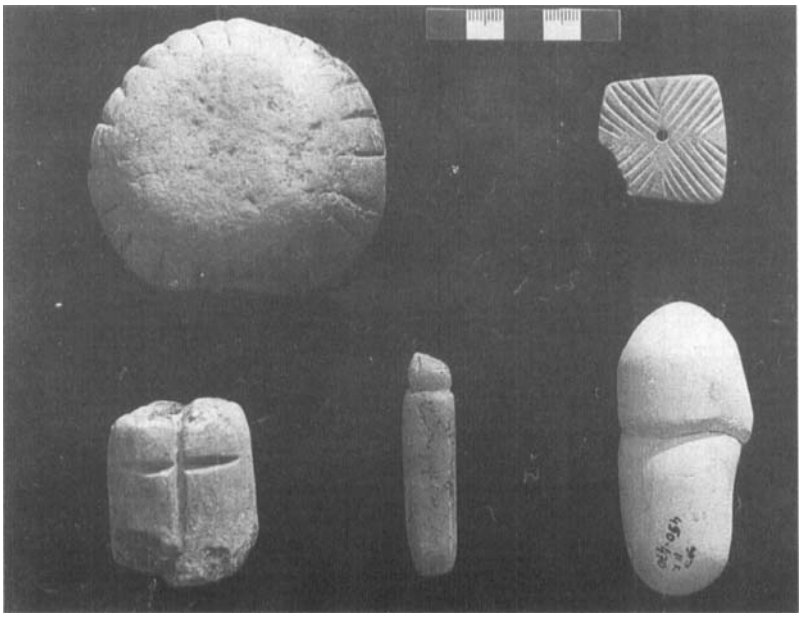

Figure 21. Ornaments from Atlit Yam, Neolithic site (scale = 5 cm).

Sea of Galilee: Tabgha shore ancient anchorages
As a result of a few relatively dry winter seasons and large-scale usage of water from the Sea of Galilee, the sea-level dropped in 1990 to nearly 213 m below the Mediterranean. Many archaeological artefacts and sites were discovered on the drained shores. It seems that the present level is the lowest in the last few millennia. During the underwater survey, which took place in September 1989 on the western shoes of the Sea of Galilee, north of Tiberias, a rampart made of boulders was found (Fig. 22).

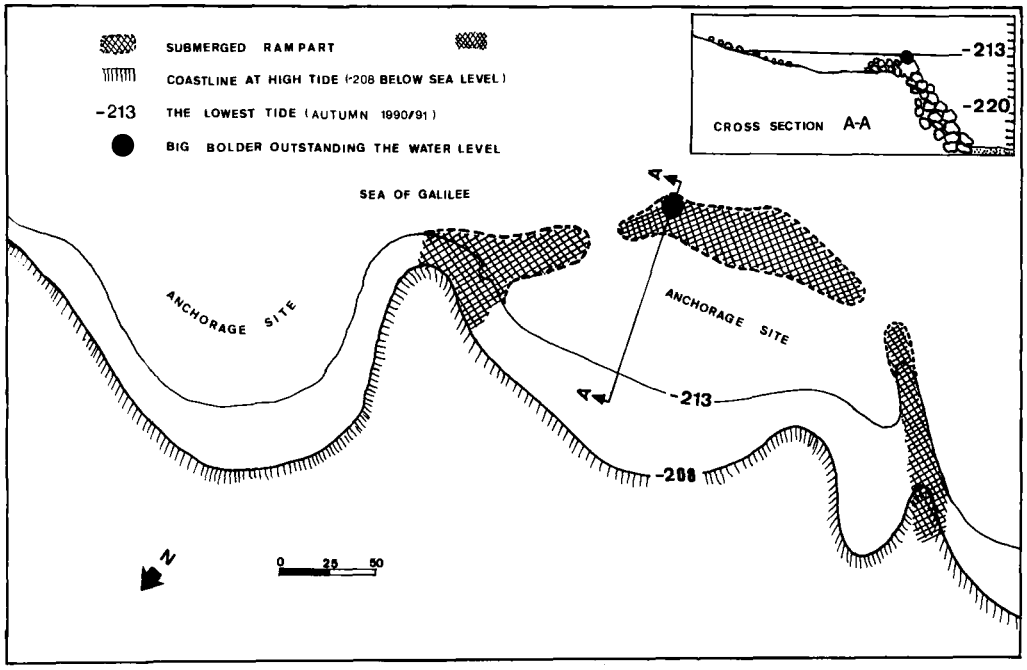

Figure 22. Submerged anchorage north-east of Tabgha, Sea of Galilee.

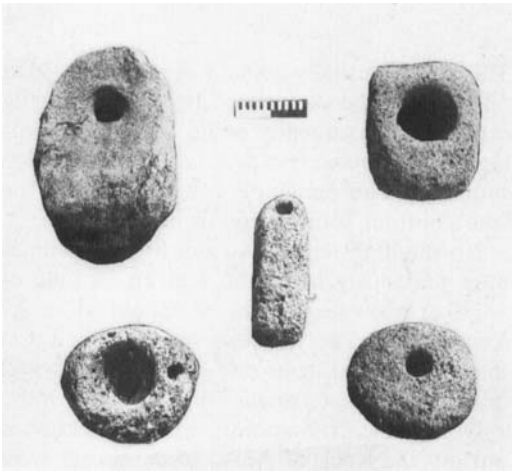

Figure 23. Stone anchors from Sea of Galilee anchorages (scale = 20 cm).

It begins at the shore and continues along the bottom of the sea as far as a big boulder which emerges from the water during seasons of low water levels.

The site is situated about 1500 m north-east of Tabgha. The rampart is set on a slightly tilted platform, creating a closed basin suitable for anchorage in low sea-levels. The depth of the basin is 1·5–1·8 m, with two openings towards the lake.

Within the basin a number of basalt stone anchors (Fig. 23) and broken cooking pots from the 3rd and 4th centuries were found.

Some of the huge boulders of the ramparts are too large to have been moved by man. Therefore the anchorage seems to have been built on a basis of natural features.

It is possible that small and medium-sized boulders were manually removed from the centre of the basin in order to clear it, to raise the dike at the end of the platform and to create a breakwater. The dikes of this anchorage were probably higher in antiquity and could protect vessels during southerly and south-easterly winds.

Victor Guerin described an ancient rampart which he saw while riding a horse from Tabgha to Capernaum (Guerin, 1880, I: 224–225). According to the description and the schedule of the tour, this is the rampart he seems to have described.

About 100 m north-east of the above-mentioned anchorage, a small natural bay exists (Fig. 22). Underwater surveys in this bay

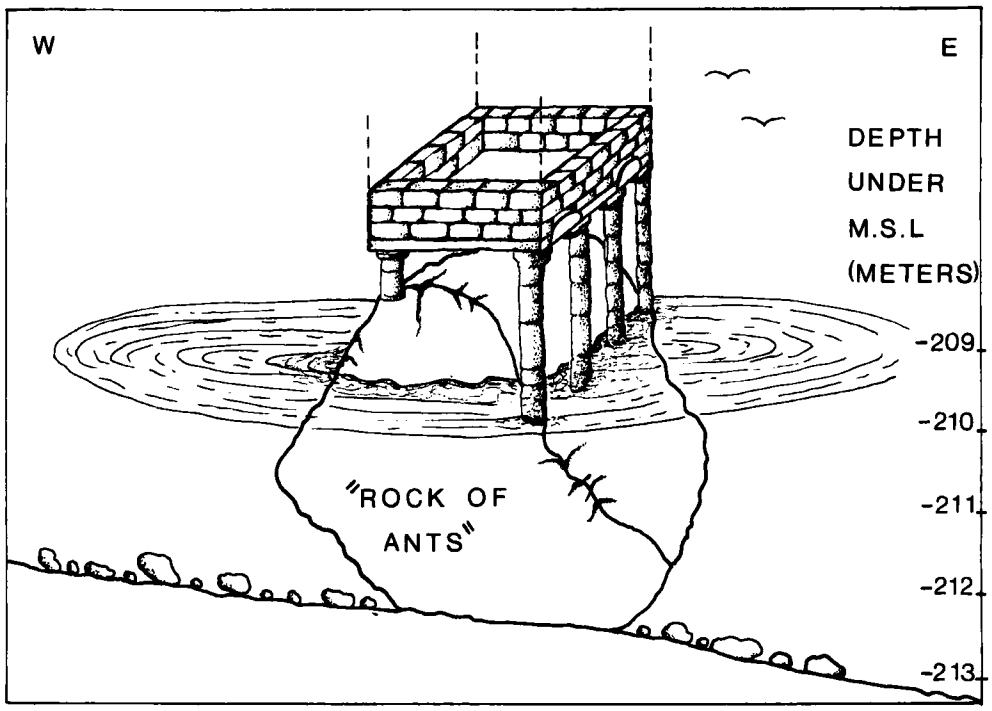

Figure 24. Possible reconstruction of the structure in Magdala (lighthouse). −212·97 m = lowest recorded water level (autumn 1990–91).

revealed stone anchors (Fig. 23), cooking pot sherds, jugs from the Roman period, two bronze spear heads, a broken, decorated, hollow bronze spear handle, fishing-net lead weights and unidentifiable bronze artefacts that had lost their shape due to fire. Inside the hollow bronze spear handle, charcoal was found: it may be the traces of the spear shaft. The melted bronze and the charcoal may be an indication of a vessel that suffered from fire in battle. The fairly protected bay, which reaches a depth of 5 m, was probably used as an anchorage for shipping.

Victor Guerin also supposed that this bay was used by the Beit Tsaida fishermen in antiquity.

The Sea of Galilee, Magdala shore: ruins of a structure and underwater finds

In the course of the underwater survey carried out in the summer of 1990 on the sea bottom and shoreline of ancient Magdala, ashlar basalt stones, pillar links, pillar capitals, a bronze mirror and many potsherds from the Roman period were found. All the artefacts were scattered around a huge rock, situated at the present shoreline and nicknamed 'the Rock of Ants'. This rock is usually a small island, some 30 m offshore. In the summer of 1990 it was totally exposed. Consequently some of the archaeological artefacts were exposed on the dehydrated shoreline. The remainder were found on the lake's bottom, some metres from the rock.

No building remnants from historical times have previously been found at an altitude of −213 m below sea-level in the Sea of Galilee. As a consequence, a hypothesis was presented that the architectural items originated from a vessel or that they slipped down from the nearby hill.

During the examination, which was carried out on 'the Rock of Ants', round niches were found. Further examination showed that the niches fitted the diameters of the pillars, which were found at the foot of the rock and on the bottom of the lake nearby. It now seems that on the upper part of the rock a building once stood which was the origin of all the stones and pillar links. Based on the architectural remains, a possible reconstruction of the building has been proposed (Fig. 24).

The structure may have been a small shrine, a lighthouse or a Nilometer (a structure used to

indicate sea-levels). Magdala is known for its fishing industry, and it was also called 'Migdal Nunyiah' ('Tower of Fishermen'). The name of the modern Jewish settlement, near ancient Magdala, is Migdal (English *tower*), originating from the ancient name of Magdala. Nobody knows the source of the ancient name *Magdala* after which Mary Magdalen was named. There is a possibility that the lighthouse, or structure, which was built on the Rock of Ants, was the origin of the name Migdal Nunyiah ('Tower of Fishermen').

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