Mersa/Wadi Gawasis, an Egyptian Harbor on the Red Sea

by Kathryn Bard and Rodolfo Fattovich

Archaeological investigations continued in 2005-06 and 2006-07 at the pharaonic harbor of Saww, ca. 22 km south of the modern seaport of Safaga on the Egyptian Red Sea coast, under the direction of Kathryn Bard (Boston University) and Rodolfo Fattovich (University of Naples “L’Oriente’’). This was the harbor (see site plan, Context 18:2, page 1) from which seafaring expeditions were sent to the land of Punt, ca. 1300 km to the south in what is now eastern Sudan and Eritrea. Although the Egyptians built huge mud-brick forts in Lower Nubia during the Middle Kingdom, there was no planned fort at Saww. The archaeological evidence here, of temporary shelters on top of a fossil coral terrace (tent circles and light structures with post-holes), ceremonial structures along the sea shore, and rock-cut storerooms, suggests temporary camp sites.

Further investigations of Cave 2, excavated by the ancient Egyptians into the coral terrace from its western slope and first located by our team in 2004, revealed four other man-made caves (Caves 3–6). These five cave rooms were used as a kind of ship arsenal, and Cave 5 (ca. 19 x 4 m in area) contains an estimated 30 coils of ship rope, neatly tied and knotted on the cave floor as the sailors left them almost 4000 years ago. These coils, possibly 20–30 m long, are in two different sizes (3 cm and 4 cm in diameter). In 2006–07 a new man-made cave (Cave 7) was located and the entrance to Cave 6 was cleared, but much collapsed rock from the ceilings of these two caves made investigations too dangerous to continue here.

Outside Caves 3–5 whole ship timbers—planks and decking—of cedar, imported from Lebanon, have now been excavated. In 2005–06 the ship remains were studied by nautical archaeologists Cheryl Ward (Florida State University) and Chiara Zazzaro (UNO), and in 2006–07 by Claire Calcagno (Boston University) and Zazzaro. Excavated timbers included one complete deck beam, 3.29 m long, with ends adzed into curvatures that reflect the hull shape. Shorter planks with beveled ends and planks that had been lashed were also excavated. One knife-shaped plank had been fastened to other timbers by deep mortise-and-tenon joints, secured by copper bands threaded through the mortises. Twelve dovetail tenon halves and a cedar ship timber with two dovetail mortises were excavated in 2006–07—the earliest known evidence of this technology used on ships. The context of the ship remains suggests continued on page 26
that ships were disassembled outside the caves, and at the cave entrances, where much gribble was excavated, carpenters salvaged ship timbers by hacking off the destruction from shipworms, the result of long periods in sea water.

The well preserved remains of 43 wooden cargo boxes were also found outside Caves 6 and 7, and clay sealings of late Middle Kingdom style (only two of which had hieroglyphic inscriptions) were excavated in association with the boxes. The boxes had been constructed with mitered edges held together by tiny dowels. Several box samples examined by Rainer Gerisch (Free University, Berlin) were of Nilotic woods: *Acacia nilotica*, *Ficus sycomorus*, and *Ziziphus spina-christi*, with dowels of *Tamarix sp.*, and the boxes had been covered with gypsum plaster. Elsayed Mahfouz (University of Assiut) translated the partially preserved, painted hieroglyphic inscription on Box 2, which included a date of year 8 of the reign of a king, and a description of the box’s contents: “...the wonderful things of Punt.” Two boxes later excavated in 2006–07 included the cartouche of this king, Amenemhat IV (ca. 1786–1777 B.C.).

Thus, there is now inscriptive evidence at Mersa/Wadi Gawasis that most of the rulers of the 12th Dynasty (ca. 1285–1773 B.C.) sent seafaring expeditions to Punt and/or Bia-Punt in the southern Red Sea region from the harbor of Saww. In 2005-06 a stela with all five royal names of Amenemhat III (ca. 1851–1786 B.C.) was excavated, and in 2006–07 a stela with three of Senusret III’s names (ca. 1870–1831 B.C.) was identified by Elsayed Mahfouz. The remains of more (uninscribed) stelae were also excavated outside Cave 4 by Chen Sian Lim (National University of Singapore; Boston University B.A., 2001).

Most of the ship timbers examined by Gerisch are of cedar (*Cedrus libani*) imported from Lebanon through the Nile delta, and then brought upriver to Coptos, where there was a shipbuilding site. An inscription found at Wadi Gawasis in 1977 by the site’s discover and first excavator, Egyptologist Abdel Monem Sayed (University of Alexandria), described an expedition to the harbor of 3,756 men, who not only carried the disassembled ships across the desert in a 9–10 day trek, but also brought all of the equipment, supplies, and food needed for the expedition. Charcoal pieces identified by Gerisch in an industrial area at the site include not only cedar, but also two species of oak and pine,
which were also brought to Egypt from southwest Asia, and charcoal remains of ebony from Punt.

The few imported artifacts found at the site, which have been studied by Andrea Manzo (UNO), indicate contacts with the southern Red Sea region, and possible Egyptian navigation around the Bab el-Mandeb into the Gulf of Aden. These artifacts include the following.

1) Potsherds of wares from the western coast of Yemen and the Aden region in southern Yemen.

2) A grey-ware sherd with reddish brown external surface and basket-like incised decoration, from the Eritrean-Sudanese lowlands.

3) A few obsidian flakes, most likely from sources in Eritrea or Yemen.

The Egyptian ceramics from Mersa/Wadi Gawasis, which have been analyzed by Cinzia Perlingieri (UNO), suggest that the site was used from the late Old Kingdom and/or First Intermediate Period to the early New Kingdom, with a main phase of use in the Middle Kingdom. The pottery is of both Nile silts and marl clay wares, imported from the Egyptian Nile valley. Rough organic-tempered ceramics were made at the site with local clay.

The complex stratigraphy in the industrial area is now better understood as a result of excavations by Terry Childs (National Park Service, Washington, D.C., Boston University Ph.D., 1986) and Cinzia Perlingieri. Different types of fire pits, hundreds of Middle Kingdom bread molds, and large open dishes, provide new information on the production activities in this area. In 2006–07 Childs and Ksenija Boroević (Boston University, Department of Archaeology) conducted a bread-making experiment using ancient bread molds from the industrial area and dough from a modern bakery in Safaga. They were successful in making bread after preheating the molds.

Boroević also identified spikelets of emmer wheat (Triticum dicoccum) from dry-sieved soil samples taken inside Cave 3, where the wheat had probably been stored. The spikelets were hollow, with the seeds eaten by pests, most likely weevils. Burnt grains of emmer wheat and hulled barley (Hordeum vulgare) were identified in the industrial area, where a residue of barley seeds adhering together was also excavated—perhaps from porridge or beer-making.

One important aspect of the project is to determine where the ancient harbor was located. In 2006–07 coastal

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geologist Duncan FitzGerald and his graduate student Christopher Hein (Department of Earth Sciences, Boston University) conducted geological test trenches and auguring in the wadi to the southwest of the site. Initial results suggest that ca. 4000 years ago the wadi in front of the caves was a shallow, semi-enclosed bay, with sea water coming at least 700 m inland from the present beach. Geophysical prospecting by Glen Dash (Center for Remote Sensing, Boston University) and Boston University archaeology graduate student, Benjamin Vining in 2005–06, and by Vining in 2006–07, helped to locate the ancient beach area, part of which was excavated in 2006–07 by Tracy Spurrier (Boston University BA, 2004). Geoarchaeological investigations by Trina Arpin (Boston University Ph.D., 2005) have identified a large area of anthropogenic burning along the western slope of the coral terrace, where ceramic ovens were excavated in earlier field seasons.

Thus, at Wadi Gawasis there is significant evidence of a major pharaonic harbor, including ship timbers and rigging, stone anchors, and boxes that were probably used to carry imported materials back to Egypt. Texts on stela left at the site describe the royal expeditions, and obsidian, ebony, and pottery from the southern Red Sea region demonstrate the distant contacts of this trade. Other excavated material is providing information about how the site was used before and after seafaring expeditions.

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