

# **Wooden and Reed Objects from Shahr-i Sokhta**

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## **Abstract**

During the excavations in Shahr-i Sokhta, many items made of organic materials including wood and reeds were found in residential areas and the graveyard. The archaeological layers have yielded remnants of wood, charred structures, fabrics, plant fibres, rope, animal bones and marine organisms, each of which provides useful information. The study of these samples helped the initial reconstruction of the natural environment of Sistan and the Hirmand river and lake Hamun, showing that the lower stretch of the river and its main branches had abundant vegetation in the third millennium BC. The most frequent objects made of these materials are baskets, carpets, combs and wooden boxes.

## **Wooden and reed items**

Among the artefacts and other items found during the excavations in the residential areas and graveyard of Shahr-i Sokhta, a considerable number were composed of organic materials.

The survival at Shahr-i Sokhta of countless specimens of plants and animals, some of large dimensions, as well as artefacts produced from them, is mostly

due to the regional climate. Among the waste and soils of the various layers, the excavations have found the remains of wood, textiles, fabrics, plant fibres, ropes, animal bones, marine crustaceans and more.

Examination of specimens of plant and tree species found in Shahr-i Sokhta has contributed greatly to the reconstruction of the natural environment of Sistan, especially the Hirmand River and Lake Hamun. The study of these samples has shown that during the life of the city, the lower part of the Hirmand River and its main tributaries had dense coverage of plants such as *Populus*, *Acer*, *Ulmus* and *Fraxinus*. The wood of these trees, especially the trunks and branches of poplar, was transported to other areas along streams and branches of the Hirmand River. These parts of Sistan, then as now, were covered in various types of Tamarix, which grows on the margins of dry lands, and its growth follows the seasonal floods affecting the lake. The remains of small plants and tall reeds (*Phragmites*), found in various parts of the archaeological site on the broad area by the lake near the site, show that the area had abundant vegetation. These plants, in addition to *Juncus* and *Cyperus*, probably formed dense groves of reeds. The presence of a large quantity of plant-based rope fragments (Fig. 1) and fishing nets, the remains of freshwater fish and crustaceans and the presence of countless bones of birds that nest in canebrakes and reedbeds, as well as signs of slow-flowing streams, are all further evidence of the existence of a natural, green environment at that time (Costantini - Tosi 1978).



Fig. 1: plant based rope.

Many artefacts and objects made of reeds and other plants have been found in Shahr-i Sokhta, which distinguishes this area from other ancient sites on the Iranian plateau. In a number of graves, objects made of straw have also been recovered in various forms, some fairly well-preserved. The use of rush mats to cover the floor of the tomb was common, and rush mats have been seen in graves from all periods. In some cases, the walls of the tombs were also covered with mats (Figs. 2 and 14: 3). The rush mat of G.N.1900 was in poor condition with destroyed parts, but the specimen from G.N.1400, measuring 130 by 50 cm, was reasonably well conserved (Figs. 3 and 14: 2).

Fragments and remnants of wicker baskets and wiskets in various sizes have been found among the graves. In some cases, food and other offerings are placed in cloth bags or wicker baskets, which in turn are placed inside a container, usually a bowl. Large wicker baskets, along with other objects, were placed in various parts of the tomb. In one case (G.N.1709), two wicker baskets were found next to each other (Sajjadi 2007). Circular baskets of various sizes have been found in



Fig. 2: the wall of GN.2700.

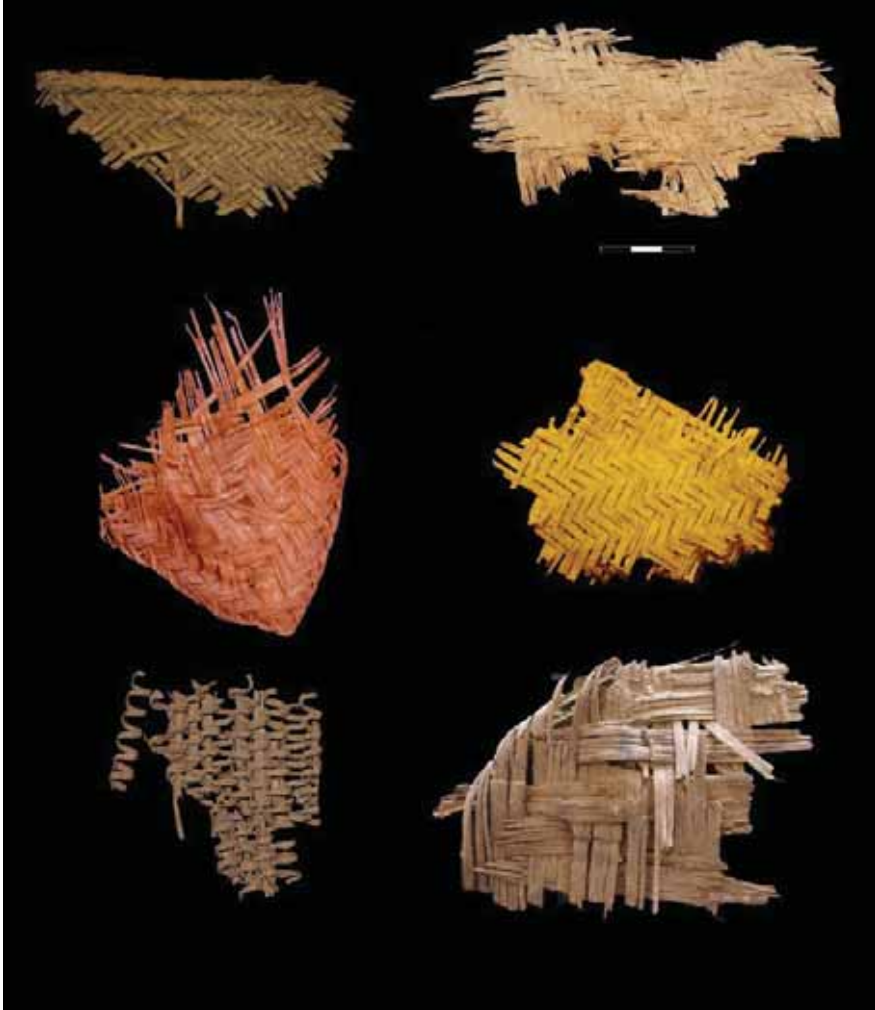


Fig. 3: types of rush mats.

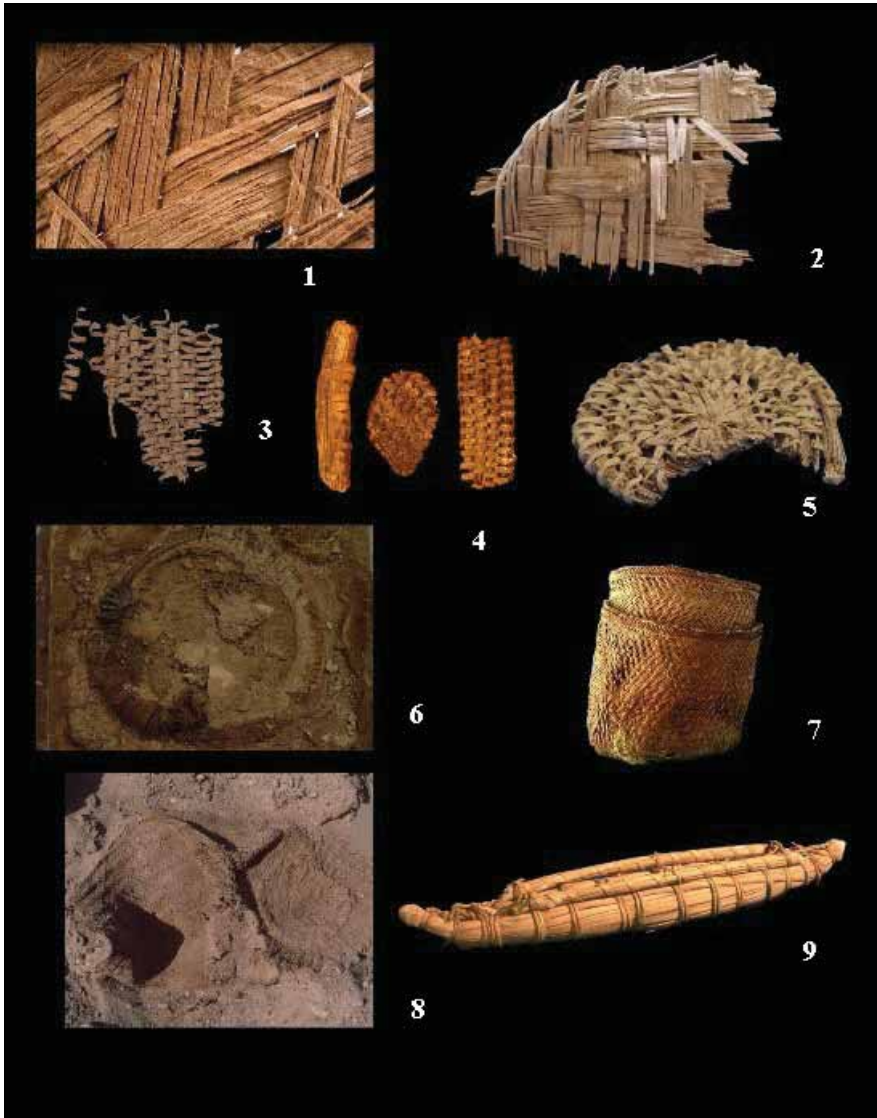


Fig. 4: various objects made of reeds from Hamun lake: 1-3. Fragments of mats; 4-5. Remains of baskets from Workshop No. 1; 6. Recovering a basket; Workshop No. 1; 7. Two baskets from G.N.5803; 8. Two baskets from G.N.1709; 10. *Tutan* (a local boat made of reeds from Hamun lake).



Fig. 5: G.N.1400. Right to left: wooden ladle; wooden box; metal mirror.



Fig. 6: G.N.5803. Baskets and leather bag.

graves from Periods II and III (Fig. 4). The largest basket, with a diameter of 33 cm, was found in G.N.1400, while only about 12 cm is left of the height of the basket found in G.N.1405.

In G.N.1400, the remains of four wicker baskets were found. In the same grave, the body of a young woman was deposited on a wicker mat with her makeup basket containing a wooden mirror box (Figs. 5 and 16: 2), a comb, a mortar, a cosmetics bottle and a pin, next to a small Grey Ware bowl for mixing ingredients, in a basket that was placed close to her head (Sajjadi 1982).

Another notable case is G.N.5803, which belongs to a 13 years old girl, whose grave goods included two baskets without handles and a leather bag (Sajjadi 2017b) (Fig. 4: 7; 6).

Apart from the remains of objects made of reeds, the remains of wood can be seen in various forms such as fragments, branches, objects, firewood and charcoal. The most common types of wood found in this site are *Populus*, *Haloxylon*, *Fraxinus* and *Tamarix*, as well as *Acer*, *Celtis*, *Pistacia*, *Ulmus* and *Vitis*. Other types of vegetation that are not native to the Sistan region have also been found, including *Dalbergia sissoo*, *Adenanthera Pavoniana* and *Adina Cordifolia*. The inhabitants of Shahr-i Sokhta used these woods to make precious and luxury objects such as combs, boxes and small wooden figurines (Costantini 1977; 1979). Ebony probably existed on the borders of Sistan and in the sedimentary valleys of south-eastern Iran as well as in western Pakistan, and its presence in Shahr-i Sokhta indicates trade over short-to-medium distances. *Adenanthera Pavoniana* and *Adina Cordifolia* are tree species that cannot be grown in Sistan or its surrounding regions, because they grow in temporary groves with small deciduous trees. In ancient times, as today, the original home of these trees was the hot and humid lands of north-western India. These woods travelled distances of up to 2,000 kilometres through lands with various climates and characteristics to reach the site, and again they constitute evidence of long-distance trade. Also found in Shahr-i Sokhta are some small fragments of palm wood, which are the first ancient specimens of palm (*Phoenix dactylifera*) to be found in Sistan and Baluchistan (Costantini and Costantini Biasini 1985).

The wood, roots and foliage of these trees were used in various ways. The roofs of houses were first covered with large beams, usually of poplar wood, and then covered with mats and foliage (Fig. 7). In addition to its use as fuel for warming homes and cooking, wood provided energy and power for industrial kilns and furnaces making a variety of everyday objects and utensils.

The wooden objects of Shahr-i Sokhta are very diverse and include decorative pins and other items, spindles, fireworks, figurines, beads and all kinds of tools and industrial utensils and the like (Figs. 8-10). These objects were found both in residential areas and the graveyard. A notable example of this group of wooden objects is a game board found in catacomb G.N.731. Microscopic examination of this board in cross section shows that it was made of the wood of a 60-year-old ebony tree. It was carved with blades of varying size, including fine chisels, creating the shape of a snake on the background of a chequerboard, its movement showing the location of the game pieces (Piperno - Salvatori 2007)

Combs are another wooden object found in both the cemetery and the residential area. The combs are usually made of precious woods such as ebony (*Dalbergia sissoo*) and *Fraxinus*, in various sizes between 5 and 25 cm. Regarding their structure, three distinct groups have been identified. Simple crescent-shaped handles (Figs. 11: 1; 20: 1); crescent-shaped handles with appendages on each end (Figs. 11: 2; 19: 1-4); and crescent-shaped handles with an appendage on one end (Figs. 11: 3-4; 18: 1-6). Most of the combs are not decorated, but some specimens have a kind of decoration on their handles. The handle of a comb from Workshop 1 (Cat. No. 2912) is decorated with six parallel vertical lines (Fig. 12). The decorative design on the handle of comb No. 679 from Building no. 1 is very impressive, the geometric patterns being very similar to those seen on the pottery of Shahr-i Sokhta I and Namazga III (Fig. 13) (Sarianidi 1983: 196, Fig. 6). Undoubtedly, some of these combs were used in the spinning process. Reconstruction of a spinning comb 25 cm wide recovered from the residential area clearly shows this type of usage (Costantini 1977: 24).





Fig. 7: 'Eastern Residential Area', ceiling beams. Above: Room No. 88; below: Workshop 35.

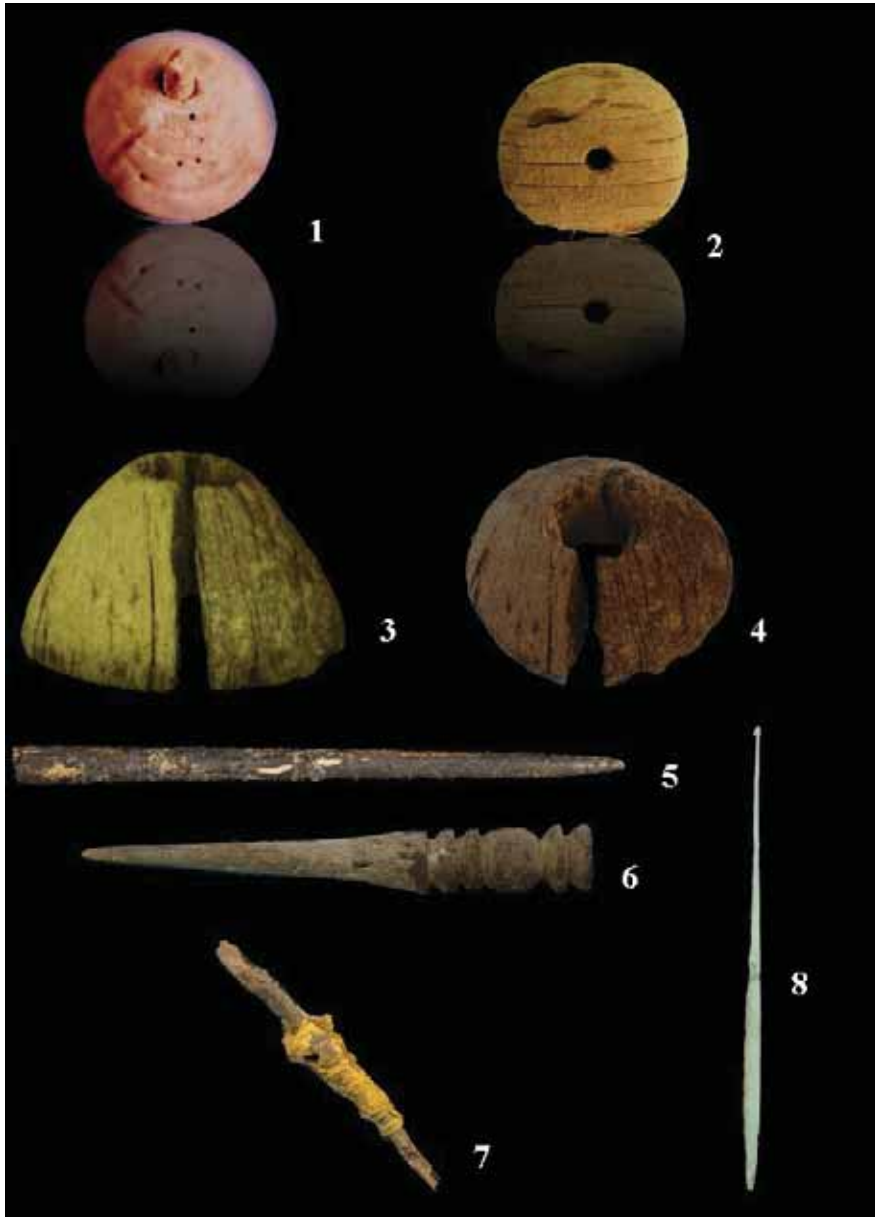


Fig. 8: wooden objects: 1-4 Spindle whorls; 5. Undecorated pin; 6. Decorative pin; 7. Knitting needle; 8. Pulley.

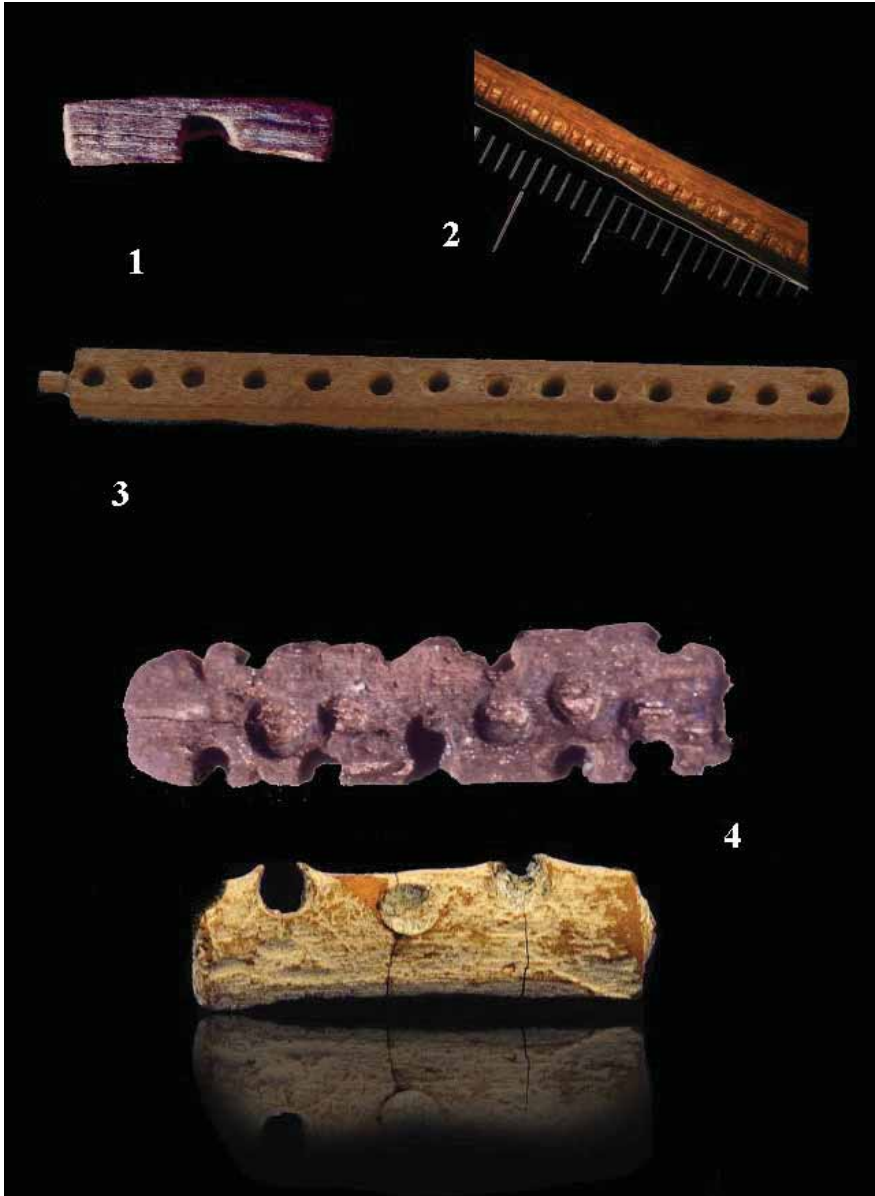


Fig. 9: wooden objects: 1. Fragment of a wooden tool; 2. 'ruler'; 3. Decorative fragment; 4. Kindling.



Fig. 10: 1. wooden figurines; 2 wooden horn.

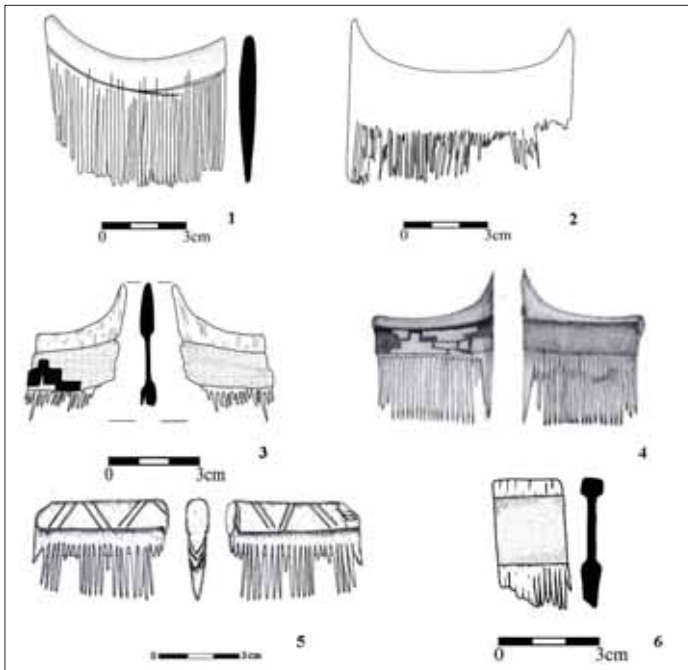


Fig. 11: types of comb handle. Workshop 1: 1. Crescent-shaped handle, Cat. No. 1758; 2. Crescent-shaped handle with two appendages, Cat. No. 638; 3-4. Crescent-shaped handles with one appendage, Cat. Nos. 675, 679; 5-6. Flat handles, Cat. Nos. 2912, 1810.



Fig. 12: wooden comb with decorated handle. Workshop 1, Cat. No. 2912.



Fig. 13: Namazga III and Shahr-i Sokhta I pottery patterns on the handle of a wooden comb. Workshop 1, Cat. No. 679.

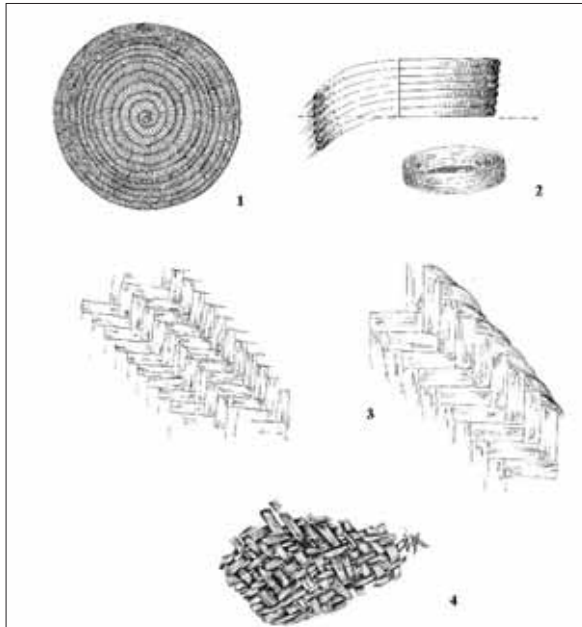


Fig. 14: wicker items: 1. Basket, G.N.1400; 2. Mat, G.N.1400; 3. Wall covering, G.N.2700.

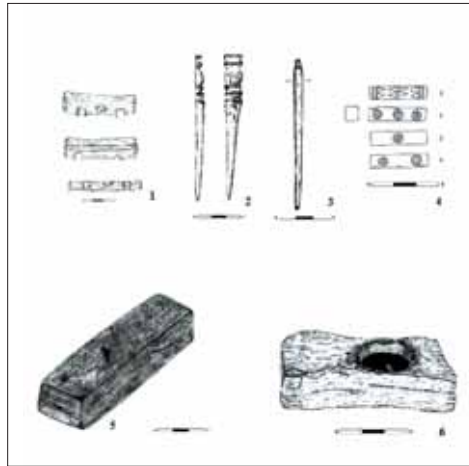


Fig. 15: wooden items: 1. Kindling; 2-3. Pins; 4. Beads; 5. Wood fragment; 6. Work tool.

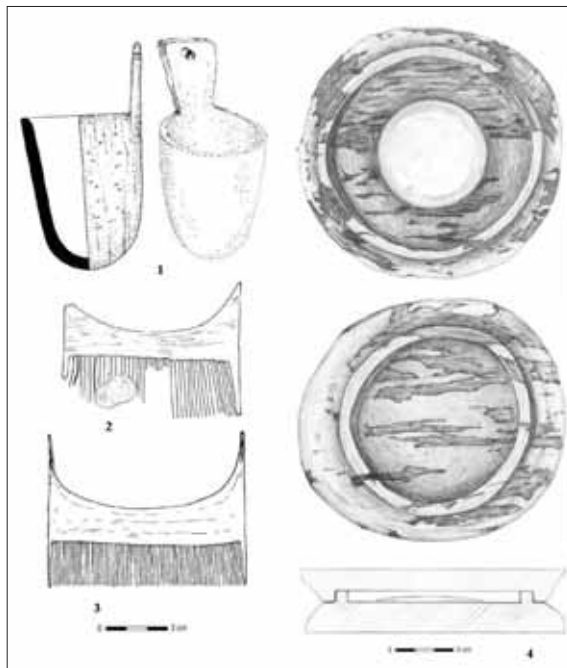


Fig. 16: wooden items: 1. ladle, G.N.1400; 2. Comb, G.N.1400; 3. Comb, G.N.1401; 4. Mirror box G.N.1400.

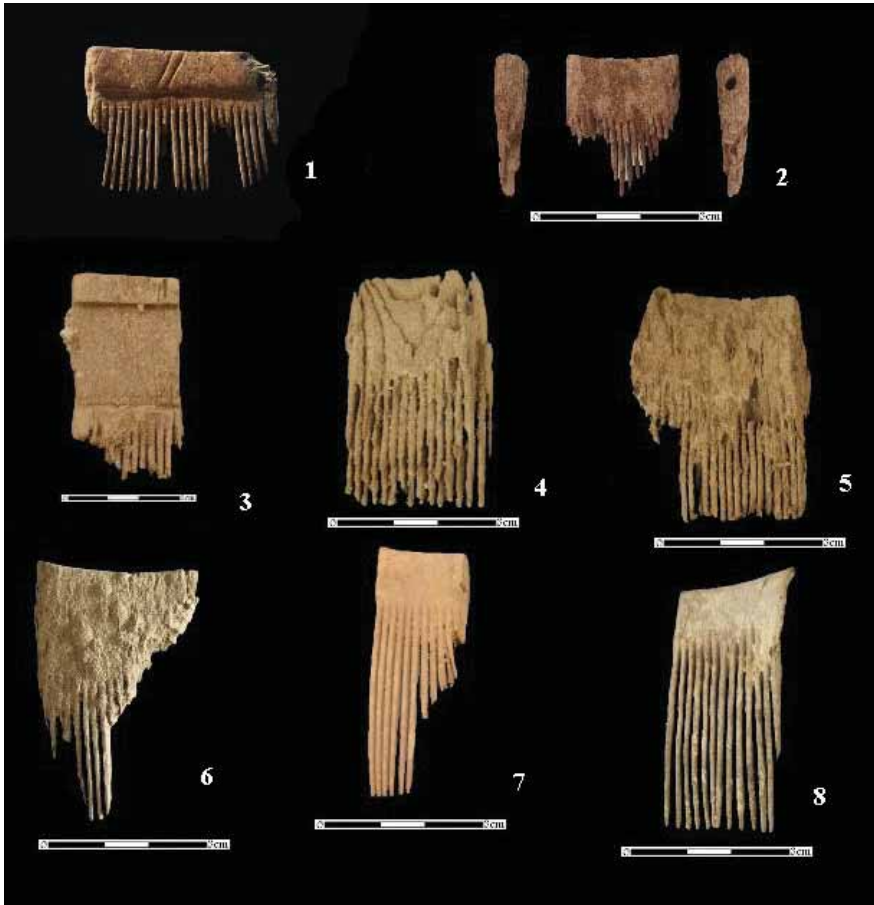


Fig. 17: combs with straight handles, Workshop No. 1: 1. Cat. No. 2912; 2. Cat. No. 2937; 3. Cat. No. 1810; 4. Cat. No. 617; 5. Cat. No. 2405; 6. Cat. No. 2404; 7. Cat. No. 1796; 8. Cat. No. 2405.

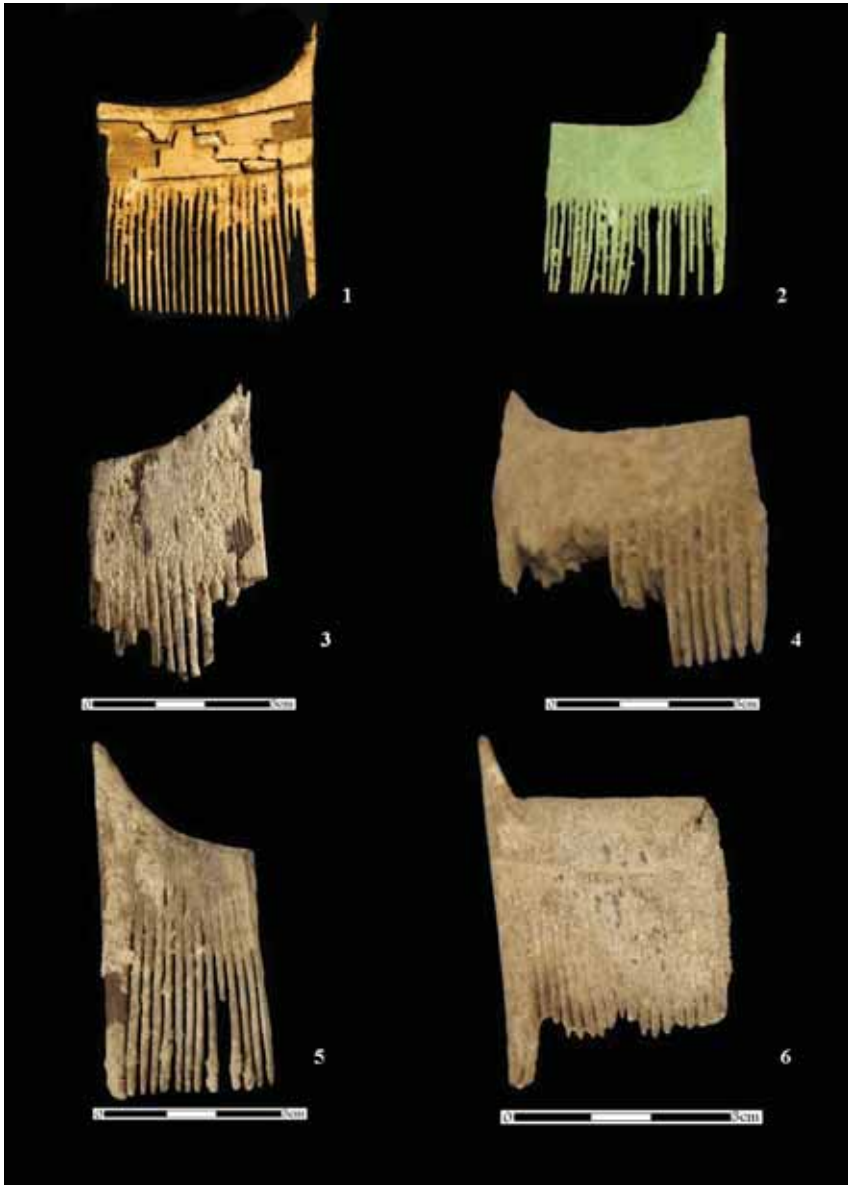


Fig. 18: combs with semi-crescent-shaped handles and appendages on one end. Workshop 1: 1. Cat.no. 679; 2. Cat. No. 795; 3. Cat. No. 2406; 4. Cat. No. 1955; 5. Cat. No. 2397; 6. Cat. No. 2401.





Fig. 19: combs with semi-crescent-shaped handles and appendages on both ends: 1. Workshop No. 1, Cat. No. 2396; 2. G.N.1404/3; 3. G.N.1713/62; 4. G.N.1400/62.



Fig. 20: combs with simple crescent-shaped handles, Workshop No. 1: 1. Cat. No. 1757; 2. Cat. No. 1656; 3. Cat. No. 312; 4. Cat. No. 1758; 5. Cat. No. 820; 6. Cat. No. 1758.

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