### Torihama Shell Midden and Reinan Area in the Jomon Period

### Overview

The Jomon period (approximately 13,000–400 BCE) was characterized by the development of clay pottery and increasingly settled patterns of living in addition to the hunter-gatherer lifestyle. Over 60 archaeological sites from that time have been discovered in the Reinan area in the southwestern part of Fukui Prefecture along Wakasa Bay. Excavations of a prehistoric settlement and waste dumping site in Torihama, which became known as the Torihama Shell Midden, revealed remains of dwellings, storage pits, and a remarkable quantity of well-preserved artifacts and organic matter from the first half of the Jomon period. These finds provide invaluable insight into the lifestyle of the Torihama settlement's inhabitants, who made use of plentiful resources from the nearby forests, lakes, rivers, and sea.

### **Learn More**

# Discovery and Origin of the Torihama Shell Midden

The shell midden was discovered deep underground in the Torihama neighborhood of the town of Wakasa, where the Hasu and Takase Rivers meet. A lot of well-preserved remains were found at the site, which was covered with cold groundwater and calcium from shells, protecting it from oxidation. Judging from the remains, the inhabitants of the settlement harvested and processed mollusks, edible plants, and other types of food available depending on the season, discarding the shells and other waste at a lakeshore, which gradually formed the midden.

# Plant and Animal Matter

The plant and animal remains from the midden show that people lived in a relatively permanent settlement, which contrasts with the migratory hunter-gatherer lifestyle that was predominant prior to the Jomon period. The nearby lakes, sea, and forests with abundant flora and fauna ensured the availability of food throughout the year. Over 75 species of edible plants and animals were identified in the midden, including boar, deer, shellfish, nuts, and berries.

### Man-Made Artifacts

Dugout canoes, bows, axe handles, wooden containers, and other crafted objects were discovered at the Torihama Shell Midden site. Some of the objects were coated with lacquer. Other finds included twisted and braided rope, fragments of woven baskets

made of plant fiber, animal-bone needles, and a mallet that may have been used to soften fiber. Excavations also produced a wide array of personal accessories, such as combs, hair ornaments, earrings, bracelets, and pendants made of wood, stone, tusks, deer antlers, shells, clay, and other materials.

## Pottery Items

Scientific studies determined that the pottery excavated from the layers of the Torihama Shell Midden dates from around 11,700 to 3,800 BCE. Items from approximately 4,300 to 3,800 BCE are particularly good examples of earthenware that illustrate gradual changes in shapes and designs. The majority of the pottery discovered at Torihama was covered with soot and charred food remains, and analysis demonstrated that the vessels were used for cooking seafood and plants.

### **Exhibition Items**

A large collection of earthenware from the Torihama Shell Midden is displayed in chronological order, making it easy to see the differences in design and form. Many of the items are deep vessels with thin walls, wide mouths, and relatively narrow bodies. The decorative patterns in the clay were made with sharp tools or fingernails.

The dugout canoe is the first of two that were excavated in 1981–1982. The body of the dugout is made from a large Japanese cedar tree, thought to have been hollowed out by burning and then carving with stone tools. Among the fragments of rope and cloth on display, the thin, two-strand rope was found in the layer dating to approximately 9,500 BCE. Digging tools made of deer antlers, stone axes, wooden axe handles, and bone spearheads that were used for fishing are a few examples of the tools of Jomon people. The various organic remains from the Torihama Shell Midden are in good condition and include animal and fish bones, nuts, and shells that give the site its name.