

# **Chapter 2**

## **An Overview of the Mawaki Archaeological Site with a Focus on Its Archaeological Significance**

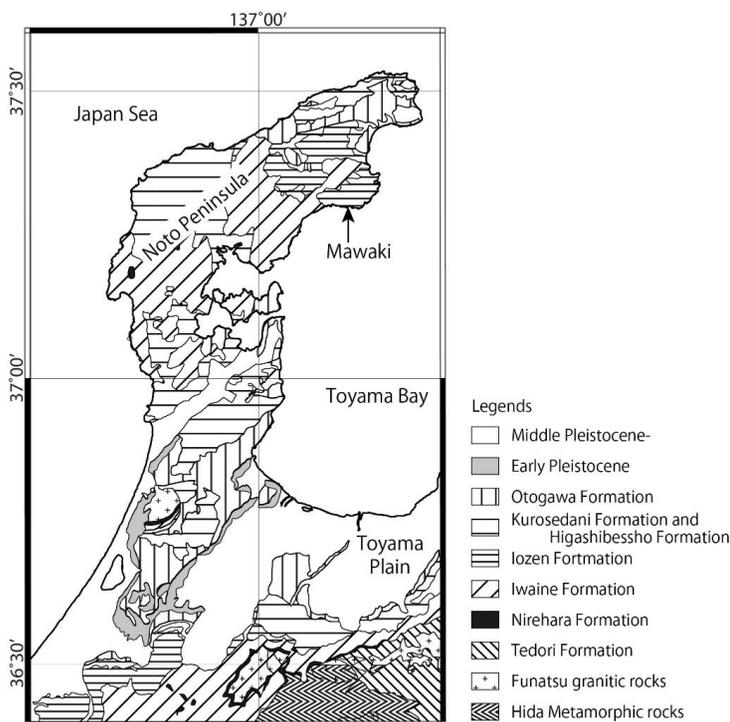
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## Abstract

The archaeological site of Mawaki is famous for its long history of occupation from the Jomon period to the present. In particular, the discovery of abundant dolphin bones is a significant source of information on lifeways during this period. The history of excavations may be divided into two phases. The Early Phase was one marked by the discovery of Jomon pottery associated with abundant dolphin bones and other archaeological remains. The Late Phase is marked by its designation as a National Historic Site post 1987; this phase included research on the distribution of deposits with dolphin bones, and the discovery of a circular array of wooden columns from the late Jomon period, as also tombs and human bones from the middle Jomon period.



**Figure 2.1** The location of the Mawaki site at the Noto Peninsula with geological information.

## 2.1 Introduction: The Significance of the Site of Mawaki

Mawaki is located on the eastern coast of the Noto Peninsula in central Japan (Figure 2.1). In 1982 and 1983, this important discovery occurred owing to farmland consolidation (The Integrated Improvement Act of the Agricultural Foundation), and many dolphin bones were discovered with remains of Jomon pottery. This was a very important discovery as regards evidence of past human subsistence strategies.

The site represents a village with evidence of habitation from around 7000 to 2500 cal. yr B.P. This period was marked by an early Holocene high sea level, as compared to the larger regional chronology of 15,000 years with evidence of various sea level fluctuations. The period corresponds to the Early through Final Jomon periods of the Japanese archaeological timescale. The Jomon period is divided into six ages characterized by differing pottery remains; these are shown in Table 2.1 (Kobayashi, 2008). The Mawaki site is surrounded by hills about 100 m high, and is located on an alluvial plain between 4 m and 12 m above sea level. As shown in Figure 2.2, this archaeological site was found beneath cultivated fields and is located between a hilly terrain and the present day coastal residential area.

*Table 2.1 Archaeological timescale in Japan.*

Age Name (Japanese)	Age Name (English)	Calendar Age
Jomon Sosoki	Incipient Jomon	15,700 - 11,550 cal. yr B.P.
Jomon Soki	Initial Jomon	11,450 - 6,950 cal. yr B.P.
Jomon Zenki	Early Jomon	6,950 - 5,470 cal. yr B.P.
Jomon Chuki	Middle Jomon	5,470 - 4,420 cal yr B.P.
Jomon Koki	Late Jomon	4,420 - 3,220 cal. yr B.P.
Jomon Banki	Final Jomon	3,220 - 2,350 cal. yr B.P.

The surrounding archeological sites during the Jomon periods are distributed as shown in Figure 2.3. However, only Mawaki was continuously occupied from the early to final Jomon periods. The site of Himenishiueno (No. 2 in

Figure 2.3) is located on a marine terrace of the Last Interglacial (Koike and Machida, 2001) and has three pit dwelling dugouts with several kinds of early Jomon pottery remains. This site is about 400 m to the east, and is located on the shore of an inlet of Mawaki Bay. These two sites may have had close and strong relationships in this region in the past. Mawaki must have been a very significant region for human occupation during the Jomon period.



2A: View from North

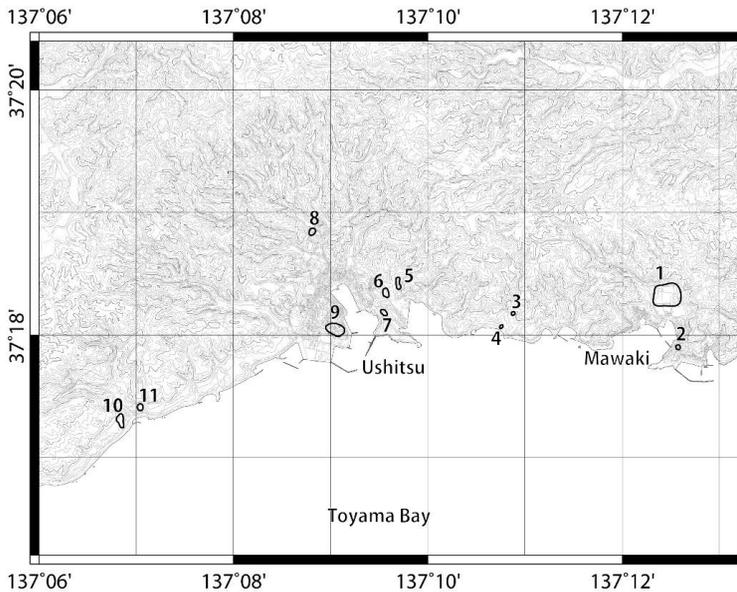


2B: View from South



2C: View from hill-side

**Figure 2.2** *The modern embayment and adjacent Mawaki archaeological site on the alluvial plain.*



**Figure 2.3** *Surrounding archaeological sites around Mawaki site during Jomon period. 1: Mawaki site, 2: Himenishiuwano site, 3: Hane C site, 4: Hane site, 5: Tanoura-koyada site, 6: Ushitsu-Shironomachi site, 7: Toshimayama site, 8: Urushiwara site, 9: Ushitsu-Sakiyama site, 10: Donoue site, 11: Nishinoue site.*

## 2.2 History of Excavations Since 1982 at Mawaki

### 2.2.1 The Early Phase Excavations: Phase of New Discoveries



4A: The length of the dolphin skull near the center of the photograph is ca. 40 cm.



4B: Dolphin bones and Jomon pottery from the Mawaki archaeological site. The diameter of the pottery is ca. 30 cm.



4C: Human bones and related tombs.

**Figure 2.4** *Dolphin bones in the sedimentary record at Mawaki.*

Farmland consolidation (The Integrated Improvement Act of the Agricultural Foundation) planned by the government was an opportunity for finding important archaeological sites from the Jomon period to the present. The first and second stage excavations were carried out in 1982 and 1983 (Figure 2.4). The most important discoveries were those of numerous dolphin bones and of Jomon pottery. These excavation reports were published in 1986 (Board of Education of Noto Town and Investigating Commission for Mawaki Site, 1986). In 1987, after the publication of reports on the new discovery of the coexistence of numerous dolphin bones and Jomon pottery, the Mawaki archaeological site was designated as a National Historic Site.

### **2.2.2 The Late Phase Excavation: The Establishment of Mawaki as a National Historic Site**

The third to sixth stages of excavations were carried out from 1998 to 2002. Before excavation, a committee on Further Excavation for Effective Settlement as a National Historic Site was established. The excavations were restarted under the leadership by this committee. The results of this stage were summarized in a report published in 2002 (Board of Education of Noto Town and Investigating Commission for Mawaki Site, 2002). The main discoveries of this phase are human bones and related tombs (Figure 2.4C).

The seventh to ninth stages of excavations were carried out in 2003 to 2005. The results of this stage were summarized in a report published in 2006 (Board of Education of Noto Town and Investigating Commission for Mawaki Site, 2006). The main discoveries are archaeological relics, such as a circular array of wooden columns from the late Jomon period. Further, bore samples were extracted for purposes of investigating deposits associated with dolphin bones.

The tenth to thirteenth stages of excavations were carried out from 2006 to 2009. The results of this stage were summarized in a report published in 2010

(Board of Education of Noto Town and Investigating Commission for Mawaki Site, 2010). The main discoveries include those of a dwelling site (a prehistoric settlement) during the Middle Jomon period.

## 2.3 Overview of Its Archaeological Significance

Archaeological relics, such as the circular array of wooden columns from the late Jomon period and tombs and human bones from the middle Jomon period, have been excavated here. The strata at the site contain large amounts of pottery, stone artifacts and animal bones. Jomon pottery excavated from the Mawaki site is categorized into as many as 23 types. The historical transition of pottery types in central Japan along the Japan Sea can be recognized within this single site (e.g., Board of Education of Noto Town and Investigating Commission for Mawaki Site, 1986, 2002, 2006). As the ceramic sequence is exceptionally well preserved in this region, excavation and geoarchaeological surveys are still in progress.

As Mawaki is an archaeological site in an embayment buried during the Holocene marine transgression, it is characterized by marine animal remains. Numerous dolphin bones (Figure 2.4) were excavated in 1982 and 1983 occurring within the late early to earliest middle sequences of the Jomon period, along with abundant Jomon pottery (Figure 2.4) and other remains. In many cases, dolphin bones were found as a consolidated, stratified occurrence. Over 286 individual dolphins were counted. No other occurrence of this size has been reported from any coeval coastal archaeological sites in East Asia. Six species of dolphin are represented here (e.g., Hiraguchi and Miyazaki, 1986; Hiraguchi, 1986, 1989, 1992, 2006): *Lagenorhynchus obliquidens*, *Delphinus delphis*, *Tursiops truncatus*, *Pseudorca crassidens*, *Globicephala macroyynchus*, and *Grampus griseus*. *Lagenorhynchus obliquidens* accounted for 60% of the dolphin bones found here. Stone artifacts within these strata comprise numerous chert arrowheads, arrows, knives, and scrapers. Dolphin bones at the Mawaki

site are thought to be the result of dolphin fishing, as reported in archaeological discussion on dolphin fishery (e.g., Hiraguchi, 1992; Yamamoto, 1997). A key aim of our geoarchaeological investigations is understanding the relationship between the formation of the layer intercalated with many dolphin bones and the site's paleoenvironment in relation to sea-level changes (Itoh et al., 2011).

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