

Special Feature 3: Passing down the history of civil engineering to the future

3-1. Hirokawa-cho Tsunami Festival

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Interview: Tuesday, December 12, 2006 at Hirokawa Town Hall



Location of Hirokawa-cho

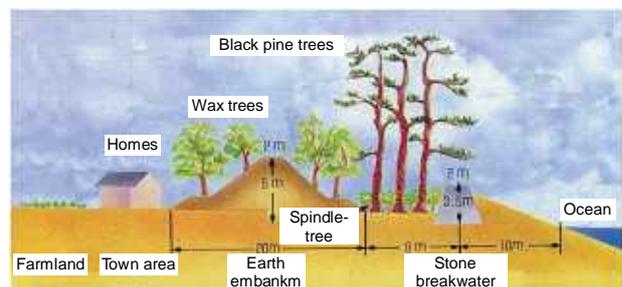
Hiomura Embankment, supported by local residents

Q: First, please tell us about the Hiomura Embankment.

Nishioka: The local people sometimes call it the Hamaguchi Embankment or the Goryo Embankment. After the former village of Hiomura was destroyed by the Ansei Tsunami in 1854, the Hamaguchis, a prosperous local merchant family, invested private funds to build this embankment (Fig. 1). Goryo Hamaguchi, famous for having lit fires of rice sheaves to warn residents to flee the coming tsunami, played a central role in this endeavor. He was 35 years old at the time of the Ansei Tsunami. Hamaguchi

himself was caught up by the tsunami but survived when the waves carried him to high ground. Fearing that the independent spirit of the villagers could be eroded if he merely gave them food and other necessities, he decided to hire local residents during seasons with little farm work, paying them wages to build an embankment on rice fields subject to heavy land taxes, thereby securing the future safety of the village of Hiomura. The work began just three months after the tsunami disaster.

Stricken by the disaster, local residents worked eagerly on the embankment for the opportunity to earn daily wages. To this day, the Hiomura Embankment is still appreciated and supported by local residents.



A cross-sectional diagram of the Hiomura Embankment, from the north side looking southward. (Distance to the sea is prior to land reclamation.)

From the sea side (from right to left): Stone breakwater built by the Hatakeyama family in the early 18th century, pine trees (forest breakwater) planted by Goryo Hamaguchi, and earth embankment constructed by Goryo Hamaguchi.

Fig. 1. Cross-sectional diagram of the Hiomura Embankment

Tsunami Festival conveys spirit of disaster prevention to the next generation

Q: Next, please tell us about the Tsunami Festival.

Nishioka: The Tsunami Festival, which is unparalleled anywhere else in Japan, is held every year on November 3rd in gratitude for the important contribution of Goryo Hamaguchi, who used private funds to construct a breakwater. Elementary and middle school students participate in ceremonies and embankment restoration events, developing a deeper awareness of tsunamis (Photos 1 & 2). There is also a reenactment of Goryo Hamaguchi's act of lighting rice sheaves on fire to guide the people who failed to escape the Ansei tsunami, which is described in many books (Photos 3 & 4).



Photo 1. A ceremony at the Tsunami Festival.



Photo 2. Elementary school students help to restore the Hiromura Embankment.



Photo 3. Setting rice sheaves alight.



Photo 4. Rice sheave fires show the evacuation route.

Q: Would you say that the people of Hirokawa-cho have a higher level of disaster awareness than people living elsewhere?

Nishioka: Observers do seem to come away with the impression that general residents are quite familiar with tsunami countermeasures. In disaster countermeasures, awareness among local residents is even more important than steps by the government, so we are conveying this awareness of disaster prevention to the next generation through these kinds of events. We are fortunate that some people who experienced the Showa Nankai Tsunami of 1946 are residents of Hirokawa-cho, and the region has a high level of tsunami disaster awareness because of the

activities of autonomous disaster prevention organizations.

Q: What are the current tsunami countermeasures?

Nishioka: We are taking steps in terms of both infrastructure and human services. Regarding infrastructure, with the goal of reducing damage to the inland region, an 850-meter tsunami breakwater is being constructed about 900 meters out to sea from Yuasahiro Port (Photo 5). When this breakwater is completed, it will lead to a 55% reduction in the area expected to be submerged to a depth of one-half meter or more.



Photo 5. Tsunami breakwater under construction.

In the case of a tsunami exceeding the anticipated magnitude, our response will be based on human services. The Hirokawa-cho Tsunami Educational Center, scheduled to open in the spring of 2007, will offer opportunities for practical learning about earthquake and tsunami disaster prevention as well as simulated experiences. This is to become a central facility for practical disaster prevention education and community disaster prevention activities, based on the modern disaster prevention philosophy of emergency response, restoration, and prevention, while also drawing on the community's characteristics and the spirit of its forefathers. It will also serve as a tsunami evacuation site and a

warehouse for emergency supplies.

We are also pursuing other measures in preparation for a future earthquake or tsunami, including the establishment of solar-powered emergency lights along the evacuation route which will serve as a modern version of the rice sheave fires.

Q: Thank you for sharing this valuable information today.

Interviewers:

Kiyoshi ARAI

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Takeshi YAMAMOTO

Editorial committee member (see earlier article)

History lessons from civil engineering; civil engineering lessons from history