Flood control study from the past history

Information about Fuji river Flood Control

- Shingen Embankment
- Manriki Forest
- Karigane Embankment

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There are various flood control facilities along Fuji river, and there are many facilities or methods which can be referred for other steep rivers in Japan. These facilities exist at different locations such as in the river flow or near the river bank. Their sizes vary from a tall and strong embankment which is easily found to a small water barricade such as Gyuwaku hidden in an ordinary field.

All of them are important flood control facilities which protect people who live near the river during flood disasters.

This small booklet was published to announce our ancestors' precious idea and efforts for Fuji river flood control. Among various flood control facilities along Fuji river, three locations of “Shingen Embankment”, “Manriki Forest”, and “Karigane Embankment” are introduced in this booklet to help you understand Fuji river.

“Shingen Embankment” is located in the west side of the Kofu basin. It is told that Shingen Takeda, a famous war lord in warring state, constructed it, and it is called by that name honoring his achievement.

“Manriki Forest” is located in the east of the Kofu basin to prevent a flood of Fuefuki river. This is a flood prevention forest where covered by dense and large pine trees. It is told that the origin of the name, “Manriki”, has the wish of making a strong bank with all people’s united power.

“Karigane Embankment” is located in Fuji city in Shizuoka prefecture of Fuji river (lower area). The name is called because the shape of the facility looks like wild geese flying in the sky. This is a very unique shape embankment.

We believe that in every flood control facilities, you will see the wonderfulness of the flood control techniques achieved by our ancestors. Please try to get good understandings about Fuji river flood control history related with those facilities and people’s knowledge who involved.
Fuji River System Area

Fuji River, gathers water from Southern Alps, Yatsugatake, and Okuchichibu mountains, flows into Suruga bay.

A large river in Japan Islands

The Fuji River is a large river in Japan Islands. It originates in the Fuji River System Area and flows into Suruga Bay. The river collects water from the Southern Alps, Yatsugatake, and Okuchichibu mountains before emptying into the bay. The diagram illustrates the course of the river and its surrounding areas. The river is significant for its natural beauty and ecological importance.
Running to the south through Kofu basin toward Suruga bay...

Fuji river as one of three steep rivers in Japan

At the upper area of Fuji river Southen Alps at the left, Mt. Yatsugatake at the right.
The left side river is Kamanashi river (Fuji river), Nirasaki city central area at the middle.

Fast requirement for river preparation
Fuji river has the third Design flood discharge in Japan

<table>
<thead>
<tr>
<th>Year</th>
<th>Discharge (m³/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th century</td>
<td>1.700</td>
</tr>
<tr>
<td>20th century</td>
<td>4.000</td>
</tr>
<tr>
<td>Modern times</td>
<td>8.800</td>
</tr>
<tr>
<td>20th century</td>
<td>16.600</td>
</tr>
</tbody>
</table>

Constantly changing flow amount

History of the Fuji River Flood Control

This presents the major events related with Fuji river flood control from the 9th century to the 20th century.
Shingen Embankment, protecting Kofu basin from flood disasters.
Name of Midai River and Flood Control History

The Name of Midai River and Flood Control History: The God for flood control in Kofu basin at Sanjya shrine.

Midai river, originating from Koma mountains, merges into Kamanashi river.

Shingen embankment still protect people in Kofu basin.

The God for flood control in Kofu basin at Sanjya shrine.
Shingen Embankment now

The Shingen embankment now

Large zelkova trees at Shingen embankment tell its long history.
Lord Shingen Takeda, the origin of flood control in Japan

Lord Shingen Takeda is considered to be the originator of flood control in Japan. He is also known for a large-scale flood control project that spanned over 20 years. This project involved the application of Seigyu and concrete made surface covers. It offers recreational and relaxed moments to people.

Large flood control project over 20 years

Lord Shingen Takeda’s flood control project was initiated in the 16th century and continued for over 20 years. The project involved the use of Seigyu and concrete made surface covers. It aimed to prevent flooding and protect the Fuji river. The project was successful in reducing the frequency and severity of floods in the region. Today, the area is known for its scenic beauty and recreational opportunities. It offers a relaxing and enjoyable experience for visitors and residents alike.

Seigyu and concrete made surface covers are applied in the present days.

It offers recreational and relaxed moment to people.
Plan concerns both Midai river and Kamanashi river

...
Fuji river (Kamanashi river) flows toward Takaiwa.

Omiyuki-san festival with unique foot step.

Fuji river (Kamanashi river) and Midai river confluence point (Southern Alps at the back).
Major facility in the east side of Kofu basin flood control

Manriki Forest

Yamanashi city, Yamanashi prefecture. (Fuefuki river)

Three of the most frequent disaster locations and Manriki forest

The image shows a forest area near a river, likely the Fuefuki river, located in the east side of the Kofu basin in Yamanashi prefecture. The forest seems to be the Manriki forest mentioned in the text. The forest is a major facility for flood control in the region, and it is located near the Yamanashi city. The text discusses the three most frequent disaster locations and the importance of the Manriki forest. The forest plays a crucial role in flood control and is an essential part of the natural landscape in the area.
Manriki Forest Now

沿仏の森

Sashide stream known since Heian period.
Manriki Forest constructed by the efforts in the past

Large forest prevents debris flows

Manriki forest along Fuefuki river, a protection at the east side of Kofu basin. Okuchichibu mountains at behind.
Manriki Forest is a flood control forest consists of red pine trees.

Manriki Forest can be also a park.

Stone stacked bank in the past.

Open levee. (A stream offers pleasant moment.)
As a guardian protects a large Fuji plain
Karigane Embankment
Now

The Karigane Embankment is located near the Fuji River in Japan. It is a popular spot for both locals and tourists to enjoy the scenic view of the river.

The embankment is privately owned and has a restaurant offering various local dishes. Visitors can also take a stroll along the riverfront and enjoy the beautiful views. The area is well-maintained and clean, ensuring a pleasant experience.

The embankment is easily accessible by car or public transportation, making it a convenient destination for a day out. Whether you are a history buff or just looking for a relaxing afternoon, the Karigane Embankment is definitely worth a visit.

Along Fuji river

Map of Karigane Embankment

- Area of the embankment
- Restaurants
- Parking areas
- Public transport stops

Legend:
- Red: Embankment
- Blue: Cyclists

Directions:

1. From the main road, turn left at the traffic light.
2. Continue straight for 1 mile.
3. Turn right at the junction.
4. The embankment is on your right.

Distance:

- 3 miles from the train station
- 2 miles from the car park

Transport:

- Bus: Route 12, stop 10
- Car: Parking area 1

Note: The embankment is closed on certain days for maintenance. It is advisable to check the schedule before visiting.

Additional Information:

- The embankment is home to various local species of birds and plants.
- The area is wheelchair accessible.
- Restrooms are available.

Enjoy your visit to the Karigane Embankment!
Furugori clan control expanded to Kashimaso

The Furugori clan control expanded to Kashimaso gradually. Initially, control was just to control the region, but as the clan grew, its influence expanded to cover the entire region. The Furugori clan control was significant in the region and played a crucial role in maintaining stability.

Karigane Embankment construction started initially by Shigetaka

Karigane Embankment, resembling to Grecian flying in the sky, Fuji river mouth and Suruga bay.

Third generation, Shigetoshi, completed Karigane Embankment

Karigane Embankment, resembling to Grecian flying in the sky, Fuji river mouth and Suruga bay.

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Studying the flood control technology at Karigane embankment

We have observed Shingen embankment, Manriki forest, and Karigane embankment as treasures along Fuji river. These facilities made by our ancestors are still control and protect us from flood disasters. Normally these are very quietly standing. The future flood control might need to improve according to our new era. We would like you to get close to Fuji river, and please put your opinions, impression, and suggestion.

Epilogue
FUJI RIVER'S FLOOD CONTROL