Conservation work on local documents damaged by the Great East Japan Earthquake finished

This article is a translation of the article in Japanese of the same title in NDL Monthly Bulletin No. 644 (November 2014).

Since October 2012, as a part of activities to support recovery from the Great East Japan Earthquake, the National Diet Library (NDL) conducted conservation work on the series of "Yoshida-ke monjo," historical documents damaged by the tsunami. The work has finished, and "Yoshida-ke monjo" were sent back to the Iwate Prefectural Museum in September 2014. Please refer to the article "Conservation work begins on local documents damaged by the Great East Japan Earthquake" for details about "Yoshida-ke monjo" and the circumstances of how the NDL started the conservation work.

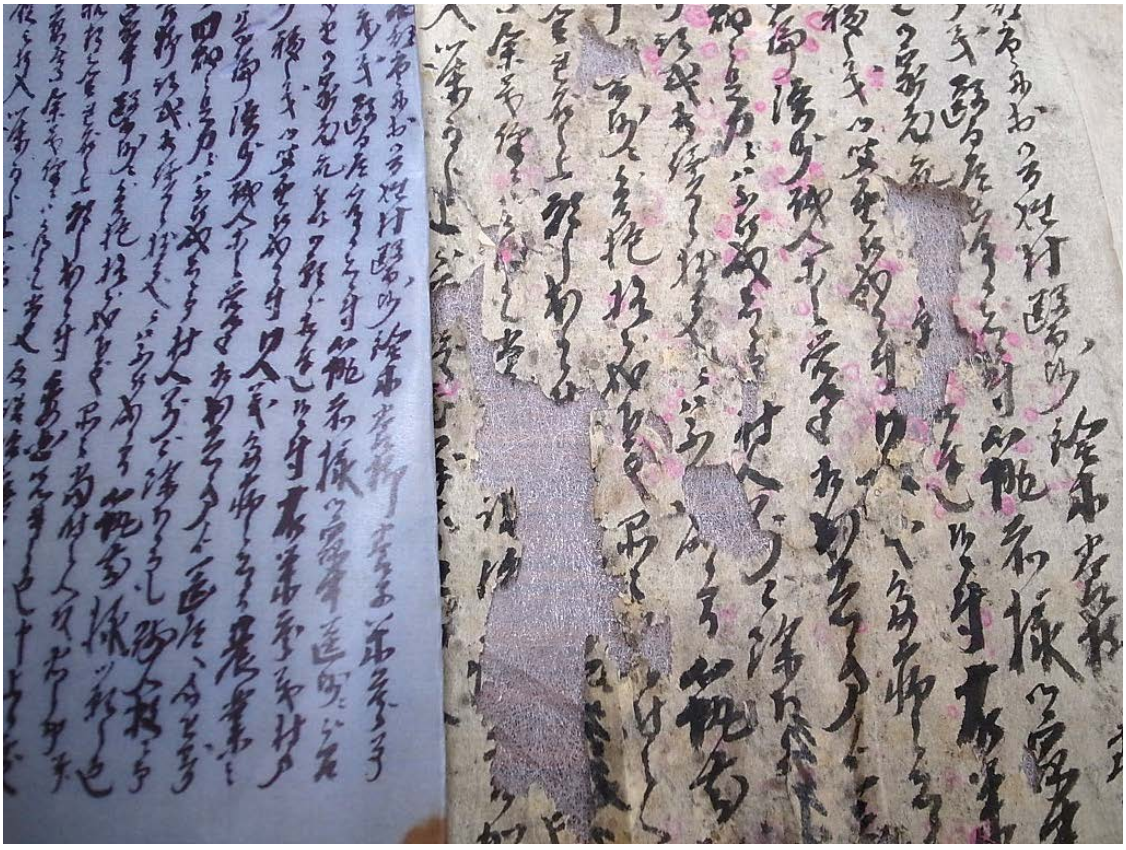
<<Document before treatment>>

<<Document after treatment>>

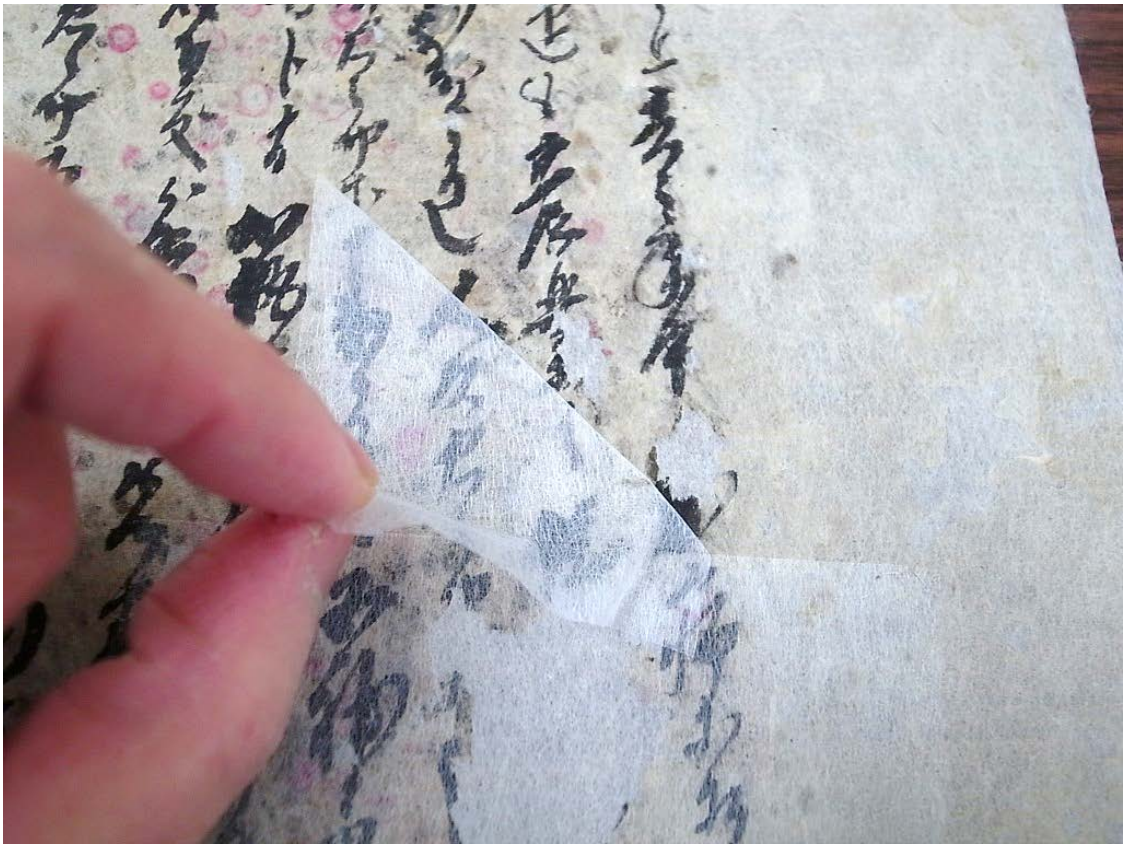
The NDL conducted the restoration in consultation with the Iwate Prefectural Museum. The conservation work was aimed at improving the condition of the documents to enable long-term, stable preservation, and also to enable browsing, exhibiting and other academic uses.

The documents are bound in a Japanese style, sheets of double-wide paper printed on one side are folded in half, and bound with hemp cords, with a front and back cover. There are approximately 35,000 leaves in total. We first removed the binding cords, and then checked the condition of every leaf, to see whether it could endure the repairing process: washing, repairing, leafcasting and reinforcing the damaged part.
The unbound leaves were washed with water twice. By removing the cords and unfolding the paper, we could wash out the dirt and sand that remained inside the folds and around the binding cords.

Then we repaired the damaged parts of each leaf. A leafcasting machine was used for repairing the leaves that were seriously damaged. The leafcasting machine applies the hand-making process of Japanese paper, and it is able to infill the missing parts by pouring water containing dispersed Japanese paper fiber into the gaps. Thickness of the paper used for "Yoshida-ke monjo" varies widely according to the period the documents were made, so the density of paper fiber was changed for each volume, in order to adjust the color and texture fit to the original leaf. For heavily damaged leaves which were crushed into pieces, we carefully compared them with the photos that we borrowed from the Iwate Prefectural Museum of the documents before they were damaged, and tried as much as we could to arrange the pieces in the correct order. Sticky labels on pages were replaced where they were, as much as possible, and leaves stuck together were carefully separated while humidifying.



<<Comparing a damaged leaf with the picture taken before the tsunami>>



<<The leaf repaired with a leafcasting machine>>

Each volume of the "Yoshida-ke monjo" is 5cm to 15cm thick, thicker than common Japanese-binding books. When we rebound the documents, tatami needles and pliers were used, since ordinary needles for binding books were not long or hard enough.

<<Rebinding with tatami needles and pliers>>

The progress of repairing was posted on Facebook (Page preserved in PDF file, 1.4MB). We were greatly encouraged by many people who visited our page.

Disasters and libraries

Japan suffers not only earthquakes but also flood damage caused by heavy rain. The NDL, as part of its preservation cooperation activities, introduces daily practices for disaster preparedness and practical methods for librarians to recover their materials from water and mold damage. This information is available in our Japanese website. A part of them is also available in our English website "Preservation and Conservation." The Preservation Division of the NDL accepts inquiries on disaster preparedness at any time.