

FINDINGS ON MOTHER-OF-PEARL INLAY TECHNIQUES USED FOR SHOSAIN TREASURES

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While being involved in the production of copies of the Five-Stringed Red Sandalwood Biwa Lute with Mother-of-Pearl Inlay (North Section 20), the author had the opportunity to observe approximately 20 additional Shosoin treasures typifying mother-of-pearl inlay. The mother-of-pearl inlay techniques found at Shosoin are broadly categorized into the following types: *heiraden* (plain inlay), *kijiraden* (inlay on a wooden base), and *urushijiraden* (inlay on a lacquered base). Good-quality turban shells with a thickness of approximately 1 to 2 mm and perpendicular cutting faces are used as inlay pieces. The exterior of shells is mostly used for the visible side of the inlay, but the interior is also used in some cases. Use of shells with very shiny ribs is also observed.

With regard to the *heiraden* (plain inlay) technique, five mirrors including the Round Mirror decorated with mother of pearl inlay No. 11 (North Section 42) were investigated.

An unidentified resin is found between the pieces of *heiraden* (plain inlay) works, where crushed turquoise and/or lapis lazuli are embedded. The hairline engraving on the shell surfaces is very delicate, sharp and skilful, showing masterly arrangements of hairlines with filled up black coloring as well as those left plain.

With regard to the inlay-on-a-wooden-base technique, five treasures including the Five-Stringed Red Sandalwood Biwa Lute with mother-of-pearl inlay were observed. The author has an assumption that on the surface of an article made of such materials as red sandalwood, pits are first made with a *nezumibakiri* (a rat tooth gimlet) to outline the inlay patterns, followed by the engraving of more precise patterns in which shell pieces are inlaid to finish.

Some of the inlay pieces collected from turban shells are fairly large in size, the largest ones including those used for the left leg of the camel (6.1 cm × 2.5 cm) and the area between the lower limbs of the person and the saddle flap (5.0 cm × 3.9 cm), both found on the pickguard of the Five-Stringed *Biwa* Lute.

These articles show varied levels of technical ability in terms of the inlay technique on the wooden base and the expression of *gyokukazari* (precious stone decoration) and hairline engraving, but the Five-Stringed *Biwa* Lute is found to have achieved a distinctive excellence and a higher degree of perfection.

Abalone is used only for the *Kaede* Stained with *Sappan* Juice *Biwa* Lute with mother-of-pearl inlay (South Section 101).

The Lacquered Box decorated with Mother-of-Pearl Inlay (Middle Section 146) and the Lacquered *Kugo* Harp decorated with mother-of-pearl inlay (South Section 73) were observed with regard to the inlay-on-a-lacquered-base technique.

The Lacquered Box decorated with mother-of-pearl inlay is distinct from other mother-of-pearl inlaid items in that it has gold inlays and stone decorations with crystals color-stained on the lining. A mother-of-pearl inlay technique, called the “embedding technique” is applied, in which the inlay pieces are placed on the cloth-covered wooden base so that they are embedded, filling the depth of the bedding. Black lacquer mixed with lampblack is used as the second coat followed by a translucent lacquer, which is left

unpolished. The lacquer layers on the shells are peeled afterwards to allow finishing with hairline engraving.

For the *Kugo* Harp, another mother-of-pearl inlay technique called the “engraving technique” is adopted, where the bedding is prepared on paulownia wood and shells are embedded into the engraved patterns of approximately 2 to 3mm deep made after the second coat.

In connection with the above observations, experiments including experimental production, were conducted on such issues as the plain inlay (*heiraden*) technique, processing technique for thick turban shell plates and cutting technique for mother-of-pearl inlay patterns to deepen the understanding of mother-of-pearl inlay treasures.

ON THE ORIGINAL PLANT OF SHOSOIN'S “*KOBOKU*”—A SUPPLEMENT TO THE MATERIAL QUALITY SURVEY OF MEDICINAL SUBSTANCES OF SHOSOIN

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The original plant of Shosoin's *Koboku* has been a matter of concern that calls for resolution, as the first and second phase medicinal substances surveys both failed to identify it. Comparative studies have been made on *Koboku* and plants of *Magnolia* genus and their affinities because the original plant of the crude drug *Koboku* is currently widely recognized as the bark of *Magnolia* spp. of the *Magnolia* genus of the magnolia family. However, the relevant species remained unidentified, and it has been left as an unknown. On the grounds that in recent years the bark of several species of plant has been used as *Koboku* for medical purposes in China, a wide variety of species were collected and subjected to comparative studies based on histological anatomy. As a result, it became clear that the Shosoin's *Koboku* was the bark of *Engelhardia roxburghiana* of the walnut family.

With no ancient herbariums such as Xin Xhu Pen Cao having clearly described the original plant, the interpretation of it as a plant of *Magnolia* genus, which was derived from some descriptions on shapes found in Ming Dynasties period and later herbarium has remained to date. However, a Japanese herbalist from Edo period wrote that there was a variety in Chinese *Koboku*, and it can be inferred from his descriptions that it was *Engelhardia roxburghiana*. Recent surveys have shed light on the fact that Chinese *Koboku* made of plants other than those of the *Magnolia* genus also used to be regarded as a medicine. The current study supports the existence of a variety of *Koboku* in ancient times, which will serve as a valuable reference for future *Koboku* studies.

A STUDY ON THE WEAVING TECHNIQUE OF ANTIQUE FABRICS—FOCUSING ON *NISHIKI* OF THE SHOSAIN

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No single written document that can give concrete details of the weaving techniques of the 8th century is available. Thus, it is necessary to shed light on the weaving techniques of the time based on such factors as the patterns, blemishes and the density and strain of the warp and weft observed in the fabrics of the 8th century.

Shinzaburo Sasaki wrote that even if you managed to produce a fabric with the same weave as that of an 8th century fabric, it would not mean you figured out the weaving technique used in those times. Some researchers have examined the weaving technique through careful observation of weaving errors in pieces of cloth using the method of weave type analysis suggested by the Centre International D'étude des Textiles Anciens (C. I. E. T. A.).

Conventionally, inquiries into 8th century weaving techniques have been made as part of studies on weave types. This paper demonstrates the importance of identifying the weaving technique through accumulation of results of past weave type surveys, presenting the findings of surveys on selected fabrics, including *Nishiki* with Lions and *Karahana* on a Purple Background, *Chohankin* with Strips of Mountains and Flowers, and *Nishiki* with a Birds, Animals and Flowering Plants on a Light Green Background.

NOTE ON A DOCUMENT FRAGMENT WITH THE NEWLY DISCOVERED SEAL OF OSHIMA COUNTY

Takehiko Iida

In the 29th issue of Bulletin of the Office of Shosoin Treasure House, the author reported on a document fragment bearing the seal of Oshima County (大嶋郡) in Suo Province (周防国), which had been discovered in the large storage chest no. 80 (Middle Section 202). A similar fragment turned up among the already classified document fragments. Having been recovered from large storage chest no. 84 (Middle Section 202), it measures 87mm long and 70mm wide and bears 5 impressions of the seal of Oshima County and 4 lines of *bokusho* (calligraphic writing in India ink). It gives some descriptions about the size of rice fields using a hitherto unknown term *shionari* (成潮), which means a rice field that has become infertile due to tidal flooding. While it may have been a record of rice fields to be reclaimed for the construction of flood control facilities, it is more likely to have been a record of the total number of public rice fields and the area of those that had become infertile, which can provide some insights into the state of agricultural land in Oshima County. With regard to the relationship between the current fragment and another one reported in the previous issue, they were presumably two layers of the same section, separated by the breakage of the first leaf that had been folded several times. Based on these results, the assumption in the previous report that the document fragments may have been used as the material for articles the wrapping material for articles to be brought to Shosoin should be corrected. Now, therefore, the investigation into how they arrived should consider fairly broad ranges of possibilities, from the possibility of having been delivered due to the close relationship between Todaiji temple and Oshima County to the possibility of having got mixed by chance into the vast quantity of goods brought to Todaiji temple.

A Personal View on the List of Treasures

Keita Kita

When the Emperor Shomu died in 756, various articles associated to him were dedicated to various temples. The List of Treasures is an inventory of these articles, of which six volumes have been handed down from antiquity. All the volumes are the original copies, which rank among the best documents of the time, and the volumes dedicated to Todaiji Temple are concerned with the provenance of Shosoin Treasures. This paper reviews these copies of the List of Treasures.

1. Four volumes of the List of Treasures were compiled in a relatively short period of time during the year 756, of which the “List of rare treasures of the State” and “List of folding screens and patterned rugs” dedicated to Todaiji Temple and the “List of treasures dedicated to Horyuji Temple” were included in a series of dedication projects completed for donation to 18 temples. Of these, the “List of folding screens and patterned rugs” was an inventory additional to the “List of rare treasures of the State”, while the “List of various medicines” donated to Todaiji Temple is tentatively supposed to have been concerned with a separate dedication.
2. There is a presence of a tiny part of seal remaining on the right edge of the 2nd leaf of the “List of rare treasures of the State” that does not connect with the one on 1st leaf. It has conventionally been considered as the evidence of a cut there, however this is not true because the discontinuity occurred when the original 1st leaf connected to the 2nd leaf was replaced with the current one. Therefore, the conventional interpretation that a part of the contents was deleted after the completion of the list is not necessarily self-evident. Furthermore, the replacement of the 1st leaf is supposed to have been made after the document was completed and sealed, but before it was handed to Todaiji Temple.
3. Findings on the details of the compilation process of the “List of rare treasures of the State” are reported. The findings are derived from inconsistencies of description and duplicate listings of certain articles and estimate the number of days that would have been needed for making fair copies.
4. The ways in which the dedicated articles have been expressed in the “List of rare treasures of the State” are discussed. The Prayer, which serves as the preamble, has some expressions that convey the rare and noble nature and character of some articles which are noted as having been imbued with a special nature due to Emperor Shomu’s use. Certain articles have also been identified as symbolically portraying the idealized vision of the Emperor. In the list section, a certain strategic effort of placing the Emperor Shomu at the heart of the listing in order to reinforce his central position to readers is observed.