

# Structure and Technique of *Kanshitsu Gigaku* Masks at the Shosoin Treasure House: Study based on Samples and Experiments

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There are 36 *kanshitsu* (dry lacquer work) masks for *gigaku* at the Shosoin Treasure House, and here the authors present new knowledge about the masks' structure and technique, as obtained through examination of 15 of these masks.

The *kanshitsu* masks for *gigaku* are categorized into three types denoted as 11, 12 and 13. Those of type 11 are the work of *Shōri no Uonari* 相季魚成 and have detailed structural features. The masks have a fabric foundation that is lined with several pieces of fabric and coated with black *urushi* lacquer. On the outer surface of the foundation, a layer of *kokuso* (roughly powdered wood mixed with *urushi*) is applied, which is further coated with black *urushi* and finally colored. The masks of type 12, which are similar to type 11, are characterized by a simpler structure and lower purity of the materials, and are inferior to the type 11 masks in terms of quality. Although some type 13 masks are superior to type 12 masks, they are physically weaker due to their even simpler construction, and many of them have been damaged. Specifically, there is no lining, and the *kokuso* surface is colored directly without the base layer of black *urushi*. Without the lining, the foundation fabric has retained some traces of clay from the original mold, and the application method of *kokuso* can be observed. Therefore, the masks of type 13 are valuable for the evidential information they provide about the preparation process.

Yamazaki focused on a *kanshitsu gigaku* mask, No. 25 (*Baramon*) and attempted to elucidate the *kanshitsu* technique by reproducing an actual mask. Okada attempted to prepare a *kokuso* mixture based on a previous microscopic examination of *kanshitsu* Buddha statues from the Nara period at the Toshodaiji temple, which are contemporary with the Shosoin treasures. It is considered that the *kokuso* was prepared by kneading the powdered inner bark of elm tree with water (producing a sticky substance) and mixing it with powdered wood and very small amounts of *urushi*. This is different from *urushi kokuso*, a mixture of wheat flour, *urushi* and wood powder, as is commonly used today. In the actual experiment, the authors were able to reproduce both the texture and color of the *kokuso* used in the Buddha statues, and used this *kokuso* in the trial reproduction of mask No. 25. This was found to be a superior material that allowed for easy application and minimal shrinkage after drying. In addition, although the mask No. 25 has deformed considerably due to structural damage, its original shape was recreated on a clay mold, which was used to make the replica mask.

# Technical Analysis of *Kanshitsu Gigaku* Masks with a Focus on Mask No. 20

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This paper discusses the preparation technique of *kanshitsu* (dry lacquer work – pasting fabric substrates using *urushi*) for *gigaku* masks by focusing on the mask No. 20 in the Shosoin treasures. The techniques for making *gigaku* masks kept at the Shosoin has been reported in the results of a special examination (“*Shosoin no Gigaku-men*” (text in Japanese), Office of the Shosoin Treasure House (Ed.), Heibonsha, 1972), which was conducted between 1965 and 1967 and remains a dependable reference containing important results. Through the present research, the understanding of *kanshitsu* technique was updated from the earlier study.

The *kanshitsu* masks found in the Shosoin treasures are categorized into three types: types 11, 12 and 13. Note that particularly type 11 were used in the eye-opening ceremony of the Great Buddha in 752. The most notable difference between types 11/12 and type 13 concerns the presence or absence of a layer of black *urushi* lacquer. The *kanshitsu* masks have a fabric foundation (made of bast fiber, possibly hemp or ramie) with *urushi* applied, and the outer surface is further coated with *kokuso* (roughly powdered wood mixed with *urushi*). With masks of types 11 and 12, a layer of black *urushi* is further applied on the *kokuso* as a base for coloring with pigments. The inside of the masks is lined with several pieces of fabric and also coated with black *urushi*. A characteristic feature of the masks is their hardness and heaviness due to the abundant application of *urushi*. In contrast, masks of type 13, represented by mask No. 20, have simple construction: the color is applied directly on the *kokuso* layer and the inner surface has no lining or *urushi* coating. These masks generally tend to be lighter weight and more flexible.

The foundation of mask No. 20 was found to be a large piece of fabric. In contrast to *kanshitsu* Buddha statues, whose foundation consists of several pieces of fabric pasted together, the masks are made of a single piece of fabric which is fitted to the shape of the mold with a spatula and fixed with a wheat flour and *urushi* paste. There are also some remnants of finely-grained clay inside the mask, which could be a release agent that facilitated the removal of the clay mold.

Masks of type 13 were made in a simple manner with limited time and materials. In contrast, masks of type 11 and 12 were finely created without concerning time and materials. These may indicate that these discrepancies could be related to different workshops where the masks were produced.

# The Horyuji Textiles Kept at the Shosoin Treasure House: Focusing on *Nishiki* and *Aya*

Mutsuyo Sawada

Part of the treasures in the Horyuji temple was offered to the Imperial Household by the temple in the 11th year of the Meiji era (1878). They became nationalized after the World War II, and are now kept and displayed in the Gallery of Horyuji treasures at the Tokyo National Museum (TNM). These artifacts, together with the Shosoin treasures, are the greatest of the ancient, and the Horyuji ones are important because they contain a number of works from the *Asuka* and *Hakuho* periods (7th century AD), which date earlier than the Shosoin treasures, which are mainly from the Nara period (8th century AD).

Prior to the transfer to the TNM from the Horyuji temple, the treasures were temporarily stored at the Shosoin. In the 15th year of the Meiji era (1882), they were transferred from the Shosoin to the TNM. During this, some chests containing Horyuji textiles were confused with ones kept at the Shosoin, and the latter were transferred to the museum instead. Consequently, both Shosoin and TNM now hold those textiles that had not been originally associated.

The author had an opportunity to examine photographs of the Shosoin textiles (fragments mounted on old and modern screens; between glass sheets; and on albums). It was attempted to identify, to the greatest extent possible, those textiles that were originally part of the Horyuji treasures from among the ones currently considered as the Shosoin treasures. In the research, the author focused on *aya* (self-patterned weave silk, so-called *damask*) and *nishiki* (polychrome woven silk such as compound weave, double weave, *kanton* (warp-*ikat*) and tapestry weave) with recognizable design patterns. In addition, some of the textiles with dyed pattern (include tie-dyeing, wax-resist dyeing and hand-painting) and some with embroidery were examined. These textiles were distinguished by using the TNM owned textiles and those still held by the Horyuji temple as reference materials. As a result, 43 items of *aya*, 45 items of *nishiki*, 3 items of textiles with dyed pattern, and 6 embroidered items (a total of 97 items) were identified. It should be noted that those textiles that are only found in the TNM collection and not seen in the Shosoin photographs were beyond the scope of this investigation.

Through this study, those Horyuji textiles kept at the Shosoin are clearly defined now, and a more complete understanding of the Horyuji treasures comes to be obtained.