

Encountering Unexpected Challenges in Okinawan Lacquer Conservation

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Abstract: Okinawa is known for its unique material culture, including lacquerware. As the southern-most Japanese prefecture, the Okinawan islands have a truly international history involving links to China, Southeast Asia, mainland Japan, and the United States. In Japan, lacquerware has been traditionally conserved by highly trained conservators using *urushi*-based materials. We expected to see these types of repairs in Okinawan lacquer. However, we instead encountered a variety of deteriorating restorations using synthetic materials. We also frequently encountered flaking lacquer and structural damage caused by exposure to Okinawa's tropical environment. Here we highlight the study and treatment of three 20th century lacquer objects from the Yomitan Museum of History & Folklore. We strove to develop an appropriate and culturally sensitive treatment philosophy; balancing our ethical boundaries and skill sets with the Japanese setting.

Okinawan Lacquer Introduction:

Okinawan lacquerware has been heavily influenced by lacquer from the Fujian Province of China.¹ Okinawan lacquerware usually has a wooden substrate coated with a water sensitive *shitaji* or ground layer, on top of which layers of *urushi* are applied. The use of red lacquer pigmented with cinnabar is widespread (Fig 1). *Tsuikin* is a popular and uniquely Okinawan technique (Fig 2), involving the application of raised designs cut out from pigmented sheets of dried lacquer.²

Juubako:

A *juubako* is a type of ceremonial stacking box (Figs. 2-4). This object has a wooden substrate and is mostly coated in red lacquer. A raised palm tree decoration is applied to the lid using the *tsuikin* technique.

Condition Challenges:

The object was in very poor aesthetic condition. A highly fluorescent synthetic resin was unevenly applied to the surface (Fig 3), which had become discolored and was delaminating. The corners had been filled and a discolored overpaint was extensively applied beneath the coating (Fig 2). Smaller areas of tenting lacquer and loss were present.



Fig 2: Juubako BT

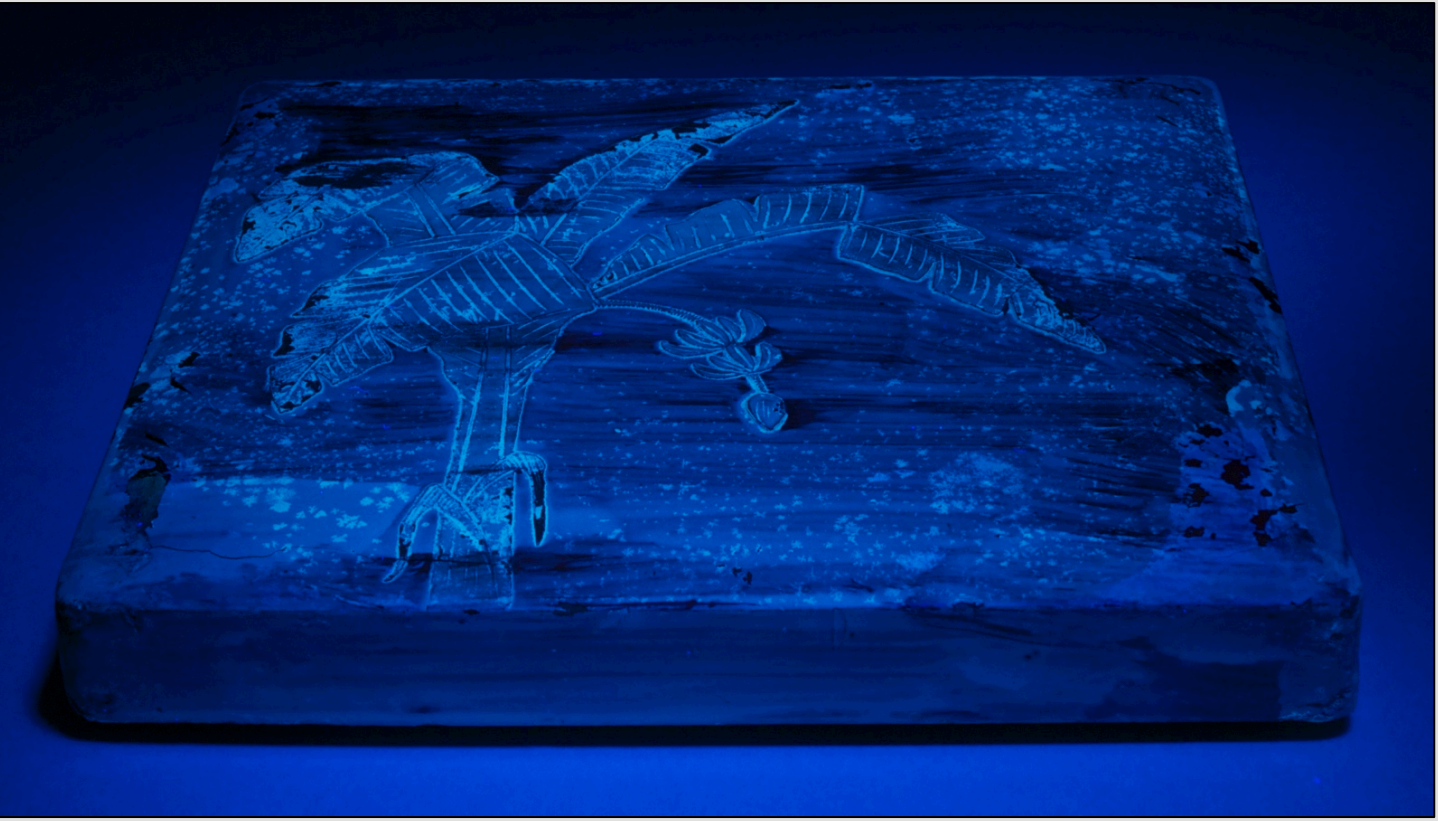


Fig 3: Juubako lid BT, UV light, fluorescent synthetic coating

Treatment:

- Synthetic coating was carefully removed using acetone (with the assistance of magnification and UV light).
- Overpaint was reduced with pH adjusted deionized water (pH 3.5 & 4).
- Mineral spirits/water emulsion was used to clean water sensitive areas.
- Lifting lacquer was consolidated with fish glue.
- A large area of loss was filled with Flügger putty.
- Selective aesthetic compensation using dry pigments in Acrysol WS-24 acrylic dispersion to mimic the lacquer surface.



Fig 4: Juubako AT

Marubon:

A *marubon* is a circular serving tray (Figs. 5-8). This object has a wooden substrate. The top is coated with red lacquer and has a papaya tree design made by building up layers of ground. The bottom is coated in black lacquer.



Fig 5: Marubon BT

Condition Challenges:

The tray's many areas of loss included the large patch on the PR side and one of the papayas (Fig 5). There was lifting/flaking lacquer (Fig 6), surface dirt, and staining overall.



Fig 6: Marubon BT, flaking lacquer underside

Treatment:

- Extensive lacquer humidification was performed, followed by consolidation using dilute fish glue. Consolidated areas were clamped using both western clamps and Japanese *shimbari* (Fig 7).
- The tray was cleaned using ethanol and deionized water adjusted to pH 3.
- Loss compensation of the red lacquer and missing papaya were executed with highly reversible colored acrylic putty inserts. Liquitex® Acrylic Flexible Modeling paste was mixed with dry pigments and acrylic paint, cast out, cut to shape, and lightly adhered to the object with fish glue. Although distinctly non-Japanese, this technique is highly reversible.



Fig 7: Japanese *shimbari* clamping method



Fig 8: Marubon AT

Kakubon:

A *kakubon* is a rectangular tray (Figs. 9-12). This object has a wooden substrate and is mostly coated in red lacquer with interior black and gold designs (crane and tree motifs).

Fig 9: Kakubon BT



Fig 10: Kakubon, cracking along join & thick overpaint

Condition Challenges:

Lacquer cracking and losses were present, especially along the joins between the base and side walls (Fig 10). Areas of thick and discolored overpaint were visible (Fig 10), as well as heavy surface dirt. Surprisingly, the overpaint had been executed with synthetic paint, not pigmented *urushi*.

Treatment:

- Raised areas of lacquer were humidified, consolidated with fish glue, and clamped using either western clamps or Japanese *shimbari*.
- The overpaint was reduced in 3 ways - 1) mechanically, 2) with acetone, 3) with an acetone/Carbopol gel.
- Thick surface dirt was reduced using a mild citrate solution
- The tray was cleaned overall with deionized water adjusted to pH 4.
- Gaps in danger of snagging were stabilized with pigmented fish glue bulked with fumed silica.

Fig 12: Kakubon AT



Fig 11: Join area after cleaning



Conclusion: When conserving Okinawan lacquer, we routinely came across non-traditional restorations. This is likely due to the remoteness of Okinawa in relation to mainland Japan where *urushi-based* repairs are more common. In Okinawa, severe lacquer damage from poor environmental conditions and the resulting use of synthetic restorations are prevalent. Gels, emulsions, and aqueous solutions were needed to reverse these restorations. Overall, we developed a treatment philosophy of using natural aqueous consolidants that would be familiar to local conservators and taking advantage of Japanese techniques as much as possible. At the same time we utilized reversible aesthetic compensations that fit within our western training and ethics.

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References:

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