

## Urushi Lacquer in Japan: Restoration of Cultural Properties and the Current State of Urushi Production

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### Translator's note

- “Urushi ”

After the first mention of the phrase “urushi lacquer” in the title and main text, the word “urushi” alone is used to refer to the Japanese lacquer as a raw material and “urushi tree” or “lacquer tree” to refer to the plant. In Japanese, “urushi” is a noun that refers both to the plant and the lacquer derived from it.

- “Production Site / Production Region”

Production site or region refers to a geographic area, historically known for the production of finished urushi products and/or urushi as raw material.

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### Urushi Lacquer in Japan

At present, there are 23 nationally designated urushi lacquerware production sites in Japan. Most of these regions are known for making everyday household items such as dishware. Urushi production sites exist all across the country, and have developed region-specific techniques that are adapted to the local environment and lifestyles. These techniques have been passed down by artisans.

On the other hand, urushi is also used in many traditional buildings. The urushi production sites involved in architectural applications are not limited to the abovementioned 23 areas. In recent years, there have been many instances of urushi reapplication during repair and restoration of buildings that are over 100 years old and nationally recognized as important cultural properties.

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This paper will summarize the current state of urushi application in repairing important cultural properties, and offer context to the issues raised in Japan's domestic lacquer industry and supporting systems of production.

### Urushi and the Restoration of Important Cultural Properties (Buildings)

In December 2020, UNESCO announced that “Traditional skills, techniques and knowledge for the conservation and transmission of wooden architecture” will be inscribed on its list of intangible cultural heritage in Japan. Based on the fact that traditional Japanese structures are built primarily out of natural materials such as wood, earth, and straw, this comes as a recognition of the various highly-evaluated skills used in periodic restoration and conservation of such structures, and an acknowledgement of cultural knowledge surrounding spatial utilization. The 17 types of techniques that are subject to this designation include but are not limited to carpentry, cypress bark shingles, urushi application on buildings, and domestic production and refinement of lacquer.

Today, there are 5,033 buildings that are designated Important Cultural Property (of which 289 are National Treasures). Many of these buildings are wooden structures such as temples, shrines, and castles. Since the Ancient Shrines and Temples Preservation Act went into effect in 1897, buildings from each of the eras between 7<sup>th</sup> century and early 20<sup>th</sup> century have received this national designation in Japan.

During the approximately 120 years after the legislation was implemented, much debate has taken place over the link between society and the continuation of relevant techniques and knowledge. There are two main types of restoration methods for important cultural properties: Structural Repair to protect from foreseeable damages in the next few hundred years and the periodic Maintenance Repair. In the past 120 years, approximately 2,200 buildings received structural repairs, which included the application of urushi.

The primary function of urushi in wooden buildings is to cover and protect the lacquered surface and maintain the appearance of the coated area over a long period of time. Additionally, there is also a decorative aspect.

Because of its unique chemical composition, urushi hardens under humid conditions through oxidation when it comes into contact with moisture in the air. As time passes, it gradually increases in hardness. Once thoroughly hardened, it is an extremely durable coating that is almost impossible to peel off, however, it degrades easily under UV radiation. Therefore, periodic reapplication is a precondition for outdoor use, especially in the context of long-term maintenance.

In 2015, the Agency for Cultural Affairs in Japan determined that domestically produced urushi will be used for all future repairs of buildings, which are deemed Important Cultural Property or National Treasure. Only the middle coating (*naka-nuri*) and top coating (*uwu-nuri*) were subject to this new decision immediately following the announcement, but the intent was to aim for domestic urushi to be used at all stages of the process, including the undercoating (*shitaji*) after 2018. This decision was issued in line with the principle requiring repairs and restorations of important cultural properties be conducted using techniques and materials employed at the time of original construction. Behind this decision are the objectives to increase domestic production of urushi, which has seen a steady decline, and to revitalize regions that had previously calibrated production of urushi. Following this declaration, future plans for Japanese urushi came to be discussed in a manner that *equates* the ability to maintain important cultural properties with the revitalization of former urushi production sites and increase in domestic production.

#### The Natural Environment and Domestically Produced Urushi

To harvest urushi, grooves are carved into the bark of the lacquer tree and the seeping sap are collected from the “scars.” This process is known as *urushi-kaki* (literally, “lacquer scraping”) and it was practiced extensively in farming villages across Japan in the past. As this was seasonal work limited to the months between June and August, it could not serve as the sole source of income. Farmers would often harvest urushi during their off-season as a means of earning supplemental income. In fact, farmers in mountainous regions often held multiple jobs in addition to crop cultivation, such as urushi tapping, forestry, livestock farming, and silkworm raising. In regions where urushi tapping thrived, urushi forests were planted around the farmland. The fruit was also used to make candles before electricity became widely available, making lacquer a profitable crop.

The most common method of urushi tapping in Japan is to completely harvest the sap in one summer and to subsequently cut down the tree. This is known as *koroshi-kaki* (from the word *korosu* or “to kill”). It takes about 15 years for an urushi tree to mature for harvest and the total amount of urushi that can be tapped from a single tree is merely 200 ml. In postwar Japan, such a small yield was deemed insufficient for the amount of land and time it required and the labor-intensive nature of this work (taking place in the mountains), almost leading to the end of *urushi-kaki* as a profession. Furthermore, because urushi trees can cause rashes upon contact, residents living near the area did not welcome the planting. As farming villages became increasingly urbanized, the areas suited to planting decreased.

Today, domestically produced urushi makes up less than 2% of the total amount consumed in Japan. While dishware and other daily items rely heavily on imported lacquer from China, imports can no longer be used for important cultural properties. The urushi industry in Japan

is caught between the aforementioned national policy to only use domestically produced lacquer for repairs of important cultural properties, and the difficulties of increasing domestic production. In the past, the difference between imported and domestically produced urushi was apparent due to the distinct methods of urushi tapping. However, it has been many years since the overseas producers partnered with Japan-based urushi refineries--it should be noted that the quality of more recent imported lacquer is at par with urushi produced in Japan.

### The Future of Urushi-kaki

Today, Ninohe-city in Iwate Prefecture produces over 70% of domestic urushi. There are about 20 urushi-kaki practitioners in Ninohe, but due to an aging population and difficulty securing successors, the profession is facing the risk of dying out.

Outside of Iwate, there is a movement to revitalize former urushi production regions such as Ibaraki (15% of all domestically produced lacquer), Tochigi (10%), Kyoto, Yamagata, Fukushima, Nagano, Okayama, and Ishikawa prefectures (together adding up to 5%).

However, from the start, urushi-kaki was never sufficiently profitable to be the sole profession for those who took part. Today, new urushi-kaki practitioners face challenges in finding agricultural work or other jobs to supplement their income. Additionally, securing land for planting urushi trees is another serious obstacle. Urban development has diminished the size of agricultural land and expanded residential areas, making it difficult to plant new urushi forests to be cut down in 15-year cycles. To secure land for planting, it is necessary to receive support not only from industry professionals but also from the local administration.

Another critical issue is the decline in the production of tools needed for urushi-kaki. Sickles, spatulas, and other sharp metal implements and blades are used in the process. Originally these were made by the local metalsmiths who also worked on knives and farming tools nearby urushi production regions, but today, this profession is also at risk of disappearing.

To conclude, the protection of important cultural properties in Japan directly hinges on the establishment of an appropriate system of production for a sufficient yield of domestic lacquer in the future. To achieve this, it is vital to approach the challenges from a multi-disciplinary perspective, examining relevant issues within the fields of urban development, natural environment, and the maintenance of traditional industry as a whole.