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What is Urushi ?

# **This is Urushi.**

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# The Beginning of Urushi

- Urushi is the sap drawn from the urushi tree [*Rhus verniciflua*] and among all the varieties of natural lacquer, urushi has the most superlative qualities. It is said that in China lacquer has been used since 4000 B.C. while in Japan urushi lacquered items such as combs and trays have been excavated from the Fukui Prefecture Shimahama tomb that were used earlier than the Jomon Period or roughly 5500 years ago.
- It is thought that the Japanese word 'urushi' is derived from 'uruwashi' (beautiful, pleasing) and 'uruosu' (to be moist and luxurious). Elsewhere urushi objects are frequently called "japanware."
- At first urushi was utilized for its adhesive quality in the making of hunting and warrior equipment. Later other good qualities of urushi were observed, such as the property to paint surfaces and to preserve what it had been painted on. Innovative applications beyond the original purpose brought about a culture which valued the decorative qualities of urushi.

## **(The Urushi Tree)**

The urushi tree is a deciduous tree that grows to around 10 meters in height and 10 cm in diameter. The leaves emerge around April or May, around June bear yellowish-green flowers, and in autumn turn brilliant red.

## **(The Range of the Urushi Tree)**

The urushi tree ranges widely from Japan to China, Vietnam and Southeast Asia. Though unusual, urushi has been gathered in Mexico and various crafts are made there. However of all the countries in the world in which urushi tree is found, those flourishing in Japan are of the highest quality.



## **(The Properties of Urushi)**

- Urushi differs essentially from paint in the way in which it dries. Urushi is not cured through a drying process but rather requires exposure to specific temperatures and humidity ( that is, between 10-20 degrees centigrade and between 70 to 90 percent humidity). Within these conditions the significant components of urushiol and lacquer undergo a chemical transformation that produces a “curtain” or layer of lacquer.
- Once urushi has hardened, it creates a lacquer sheath that can withstand acid, alkali, alcohol and high temperatures. With its adhesive strength, urushi is completely different from any other kind of paint.
- Urushi is not dissolved with water, but rather turpentine, camphor oil, or kerosene are used. When water is applied to urushi instead of dissolving it, the hardening process is hastened.

## **(The Cautions of Urushi)**

- Due to a toxic element within the urushiol component, if urushi comes into direct contact with the skin it can create an irritation much like poison ivy. However there are some people who have no reaction to contact with urushi.
- With contact, in addition to the strong itchy sensation there may be blisters and puffy redness. However as long as there are no germs or suppuration from the blisters, the skin will return to normal. Exposure to urushi in this way may even result in a degree of immunity to further exposure.

## **(Other Uses of Urushi)**

- It is said that urushi has some medicinal properties with effect on acid stomach, chapped hands and feet, and as a tonic. It appears that in order to be ingested, the outer skin of the urushi seeds should be removed, the inner portion only parched and ground to a fine powder that is prepared as a beverage like coffee.

## **(The Purification of Urushi)**

- From the urushi sap drawn from the urushi tree foreign material and impurities are filtered out. Then slowly the water content is evaporated. The purification process is intended to produce the appropriate seasoning, viscosity, glossiness and transparency for a painting medium. This work is called “nayashi” or “kurome.”



## (The Gathering of Urushi)

- Urushi is harvested by making cuts on the trunk of the urushi tree. From June through November, at intervals cuts are made in the tree to gather the sap (raw urushi). This is the Japanese method of harvesting urushi.
- Over the 14 to 15 year life of the urushi tree during which sap can be harvested, it yields only about 200 grams of urushi.

## (The Components of Urushi)

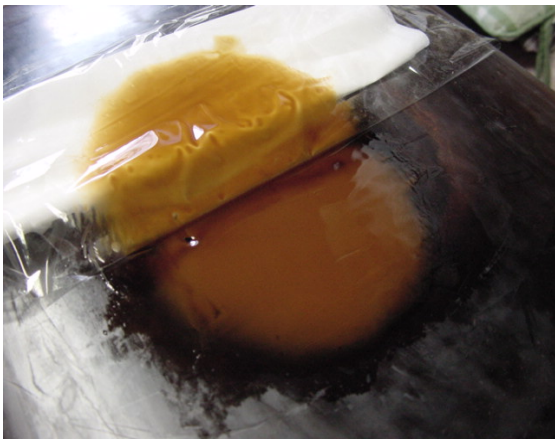
- The urushi sap is composed of urushiol, gum, nitrous elements, liquid and so forth. Of the primary components urushiol and lacquer, urushiol is responsible for the special characteristics that urushi possesses. The higher the content of urushiol, the higher the quality the urushi becomes. In terms of the proportional content of urushiol, urushi produced in Japan has the highest, that produced in China is next, and that from Vietnam next.





## (The Varieties of Urushi)

- The sap which is drawn from the urushi tree is called **raw urushi**. When water content is evaporated from raw urushi it makes **clear urushi**. Mixing iron powder into clear urushi makes **black urushi**. These three broad categories of urushi are the basis for decorative lacquer techniques, to which we will now turn.



**Ki-Urushi(Raw-Urushi)**



**Suki-Urushi(Clear-Urushi)**



**Kuro-Urushi(Black-Urushi)**



# 1.The Core (Wood Core) analogous to human skeletal structure

In addition the core may be ceramic or metal. In olden times animal skins were used.

## **lathed core**

wood turned and lathed on a wheel.  
Primarily for tea containers, bowls, etc.

## **joined core**

boards fitted together and joined.  
Primarily for items such as writing boxes

## **bent core**

boards steamed and bent into shape



## 2.The Foundation analogous to human muscles and organs

Raw urushi attaches cloth to the wood core to strengthen it. A sticky substance called sabi, made from mixing urushi, a polishing powder and water, is applied over the cloth layer with a spatula to perfect the shape.



### 3.Lacquer analogous to human skin

In order to make a good lacquer sheath over the foundation, an under coat of lacquer and a middle coat of lacquer are applied. After that the upper coat of lacquer goes on.

- **Varieties of Lacquer**

- kakiawase nur*

- wood grain visible under lacquer

- nunome nuri*

- cloth texture visible under lacquer

- kiji tamenuri*

- wood grain visible under toffee-colored lacquer

- Tamenuri*

- toffee-colored lacquer

- Ikkannuri*

- lacquer over papier mache

- roshoku nuri*

- waxy black lacquer, mirror finish

- shin nuri*

- opaque reflective surface



## 4. Decoration (makie or lacquer painting) analogous to human fashion

Additional decorative techniques include inlaid gold (chinkin), incised patterns (kinma), hidden image (mittae), etc.

### Materials

kinpun	gold powder
ginpun	silver powder
kanagu	metal work
kirikane	cut gold foil
raden	inlaid mother of pearl





### Hira Makie (flat makie)

most basic technique a pattern is painted with urushi, gold powder is sprinkled on top, over which urushi is painted again and polished

### Taka Makie (relief makie)

painting on raised motif using sabi (see above in Foundation section), sumi powder, urushi, gold or silver powder and so forth, a bas relief foundation is created, after which an urushi sheath is applied and lacquer painting is rendered.

### Togidashi Makie (polished makie)

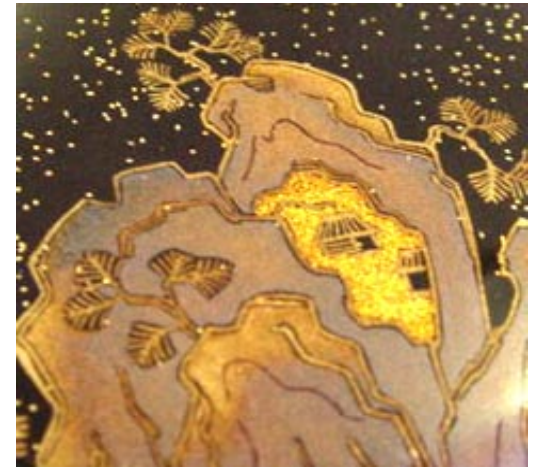
a technique for which a painted design is applied at the time of the middle lacquer, on top of which urushi is layered. Then the entire surface is polished so that the painted design floats into view. Said to be the origin of makie.



**Hira Makie (flat makie)**



**Taka Makie (relief makie)**



**Togidashi Makie (polished makie)**