

History and Transmission of Korean lacquer crafts

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1. Introduction

Human has made great progress beyond the speed of biological evolution by using tools. First, human used stones and wood as tools for hunting and gathering and then invented earth-baked earthenware such as bowls for food, appropriate to farming life. The defects of wooden ware and earthenware, however, were obvious. Due to their moisture absorbency, it was not able to contain liquid and easily damaged. Earthenware has evolved into glazed ceramic but it required a high-tech kiln with high temperature, accompanied by refining technology as a key prerequisite. In East Asia, moisture proof and insect proof techniques of coating objects were invented much earlier. That is lacquer technique.

Production process of lacquer is delicate and complicated including handling lacquer sap at the risk of skin disease and creating hot and humid environment for hardening process etc. Nevertheless, in East Asia, people have used lacquer technology in many regions from Neolithic Age, knowing its merits earlier on. Lacquer was used for adhesion and surface protection of leather, earthenware, ceramics and metalware. In particular, it has been inextricably bound up with wooden objects. Whereas in West Asia and Europe various varnishes mixing drying oil and resin has been used, in East Asia lacquer was used as a basic varnish in common and in that point lacquer is great material and technology which represents the commonality of Asian culture. This article aims to briefly look into the origin of lacquer technology in Northeast Asia and share the information on it and its current status of transmission.

2. The Origin of Lacquer Technology and Ancient Lacquer Crafts in Korea

1) The origin of lacquer technology in Northeast Asia

The technique of collecting sap of lacquer trees (*Toxicodendron vernicifluum*) and spreading the lacquer on the surface of an object to form a coating layer got already started in Neolithic Age. There are over 200 species of lacquer trees from tropical region to temperate climate region, out of which 6 species, Chamot tree, *Toxicodendron trichocarpum*, *Toxicodendron succedaneum*, *Toxicodendron sylvestre*, *Toxicodendron orientale* and *Rhus chinensis* are native to Korea. The species for lacquer tapping is different depending on regions. In Northeast Asia the lacquer sap is tapped mainly from Chamot tree and in Southeast Asia, mainly from *Toxicodendron succedaneum*. The lacquer technology has developed natively in each country of Asia.

Around 5,000BCE, lacquered artifacts such as a container of lacquer, a red-colored

lacquer bowl and hoe were excavated from the ruins of Hemudu, Zhejiang Province in China, which revealed that lacquer was used both as a paint and an adhesive. Given that full-fledged lacquerware was unearthed from the earliest farming site in China, the origin of lacquer can be dated back to prior to that time. At the Kakinoshima ruins, Hokkaido in Japan, pottery painted with mixture of lacquer and iron oxide pigment around 7,000BCE, was excavated and at Toryhama shell mound off the coast Mikata Lake in Fukui Prefecture, lacquerware was also uncovered, such as wooden comb decorated with red lacquer made around 4,500BCE. The assumption that lacquer in Korea has been used since Neolithic Age was testified by analyzing the component of red colored pottery excavated from Sinan site in Miryang, Gyeongsangnam-do Province, and the sites in Nongso-myeon, Geoje. On the surface of earthenware made around 3,000BCE, phenolic compound, a main ingredient of urushiol, was detected, which evidenced that lacquer was used as an adhesive for applying pigment. At dolmens around the 5th ~ 6th century, located in Jeoknyang-dong, Yeosu in Jeollanam-do, a fragment of lacquer was excavated and it is assumed to be painted on the wooden sheath of Mandolin-shaped bronze dagger. Lacquer culture of three countries in Northeast Asia is thought to occur spontaneously from Neolithic Age. Since then, Asian lacquer culture has in earnest developed, influencing interactively in historic period.

2) Lacquer crafts before the period of Three Kingdoms in Korea

At Dahori in Changwon and Sinchang-dong in Gwangju, weapons such as sheath and handle of Korean-style bronze dagger, vessels for rites such as bowls and plates and ceremonial goods were excavated intactly. Those relics are dominated by Moksimchilgi(木心漆器), a type of lacquerware painting lacquer directly on the surface of wood base, and some of them are Dotaechilgi(陶胎漆器) lacquered on the ceramics and Namtaechilgi(藍胎漆器) interwoven with strips of bamboo. From the site of Sinchang-dong in Gwangju, along with above mentioned relics, earthenware containing lacquer sap, a spatula for lacquer application, hemp cloth for rubbing were excavated together, which tells that the production site coincided with use site. In aspect of form and technique, lacquerware excavated from Dahori and Sinchang-dong is different from those in China, which suggests that lacquer in Korea has developed natively. The lacquer premeated deeply into the base material, which proves that low viscosity lacquer was mainly used in this period. Mostly without priming coat/underpainting, lacquer was applied thinly to wooden material several times. And there remain many artifacts applying black lacquer and transparent lacquer by turns 4~5 times, too. As the site for refining lacquer sap by boiling was identified at the sites such as the site of Gochon-ri in Gijang, it can be seen that the technology to reduce moisture in raw lacquer liquid and refine transparent lacquer was already developed from that time.

On the other hand, around CE, Chinese lacquerware was imported through Lelang Commandery located in Pyeongyang area. In this area, a variety of lacquerware were excavated. Among them, Hyupjeochili(夾紵漆器), adding lacquer on the fabric frame, is a basic type and there are Moksimjeopi(木心苧被), applying fabric on the wood base, and Namtaechilgi. Cup with ears, bowls called 'hap' and 'ryeom' were unearthed as well. Inside of bowl in red color and outside in black color is basic decoration and Chilhwa(漆畫), a technique drawing patterns with mixture of lacquer and various pigments, and gold leaf technique were also used. As a result of examining and analyzing the layer of lacquer applied to a cup with ears and plates housed in National Museum of Korea, a underpainting layer to apply mixture of soil powder, bone powder and wood flour was identified beneath a red lacquer layer. This coincides perfectly with techniques of lacquer production in Han Dynasty, China. In case of lacquerware of Han Dynasty, lots of efforts were put into making the surface of base material smooth. So, the process of filling small holes and cracks has been developed in various and delicate ways and mixture of various powder such as bone powder, wood flour, wild rice powder was suitably used for underpainting. Although it is hardly to know whether those lacquerware discovered in Lelang area was produced in China, then imported into Lelang or produced in the Korean Peninsula by lacquer experts from China, it is evident that Chinese lacquer heavily influenced on lacquer in the period of Three kingdoms in Korea.

3) Lacquer crafts in the period of Three kingdoms and the united Silla

The period of Three kingdoms was an era that enjoyed high quality of lacquer culture, combining lacquer traditions inherited since Early Iron Age with lacquer culture of Lelang Commandery and newly introduced decorative technology from Tang Dynasty. Silla established a central government office called Chiljeon(漆典) and supervised the production of lacquer objects under control of royal court. A variety of lacquerware excavated from burial mounds such as Hwangnamdaechong Tomb, and Cheonmachong Tomb and ruins of royal palace indicate true lacquer culture of Silla. In Baekje, a plenty of lacquer artifacts were excavated from archaeological sites related to royal family such as pit burial No.5 in Seokchon-dong, Tomb of King Muryeon in Gongju, and Neungsanri temple ruins in Buyeo and ancient mural paintings, which shows that lacquerware was produced in national and royal family level in Baekje, too. The situation must be the same in Goguryeo, looking into mural paintings in which it was portrayed that upper class used lacquerware in everyday life.

In the period of Three Kingdoms, like Early Iron Age, basically Moksimchilgi, wood base lacquerware, was still dominant but it can be said that the techniques were influenced by

Han Dynasty, for instance, placing fabric on the wood base and applying a mixture of unrefined lacquer with bone powder and soil powder. It is confirmed that on the wooden coffin excavated from the Tomb of King Muryeong in Baekje, 101 μ m-thick-lacquer layer was applied and 160 μ m-thick-lacquer layer on the foot rest from the same tomb. Fabric was not applied to and 3 lacquer layers were flattened and smooth. Soil powder or bone powder was not clearly identified, but it is possible that filling up tiny holes and cracks may not be probably important because the surface of the base was smoothed enough.

In the Unified Silla, black and red colors were evidently revealed by using well-refined, highly transparent lacquer. In addition, the trend of technology standardization, for instance, applying priming coat more than twice by adjusting the degree of rough or fine powder, has emerged. Examining Eunpyeonghwahyeongchilgi (flower-shaped silver lacquerware using Pyeongtal technique) and lacquer bowl discovered in Anapji, underpainting using comparably coarse bone powder and soil powder was applied to the bottom and then additional underpainting with fine bone powder on it once more. After that, 2~3 layers were added more. Lastly, it was painted with red color lacquer, then finished with applying transparent lacquer. The thickness of layers is about 338 μ m~565 μ m except for a fabric layer. It is much thicker than that of lacquerware made in the period of Three Kingdoms. The Pyeontal(平脫) technique, pasting pattern plates made of precious metal with lacquer, is regarded as the origin of Najeonchilgi (mother-of-pearl lacquerware) in Korea since then.

3. The Lacquer and Najeon Crafts of Korea since the period of Goryeo

1) Lacquer and Najeon(mother-of-pearl) craft

Although the number of lacquerware in Goryeo Dynasty is small, Najeon(螺鈿, mother-of-pearl) craftworks such as Gyengham(經函, box for Buddhism scriptures), Mojahab(母子盒, a bowl set) remain, from which we can get some senses of technological features in Goryeo. In addition, it is recorded that Goryeo was continuously exposed to lacquerware from Song, Liao and Japan through trade. During Goryeo Dynasty, Chiljang(漆匠, lacquer artisans) were subordinated to Jungsangseo(中尙署), an authority responsible for supplying royal commodities. It can be assumed that high quality lacquerware was produced in central workshop, receiving tribute of lacquer sap from chilso(漆所, local lacquer workshops) scattered all over the country. Existing lacquerware of Goryeo Dynasty tells that it was used regularly for daily necessities such as takjan, a cup with stand, and religious objects such as gyeongham by upper class. It appears that ordinary people may have used lacquered woodenware in everyday life but

it is rarely reported as relics or records.

In Goryeo, Moksimjeopychilgi, which fabric was layered on the surface of wood base, was general. Because moksim(wood base) was too thin to be assembled using nails, the overall strength was reinforced by connecting parts using adhesive such as a glue or a fish glue and then covering fabrics on it. In case of a bow set, housed in the National Museum of Korea, its total thickness of layers is 523 μ m and thickness of underpainting mixed with bone powder is maximum 380 μ m. On the underpainting, lacquer is applied by 3 layers. The colored layer mixed with cinnabar and orpiment is evident. This layer composition has been more delicately improved based on the techniques passed down from the unified Silla. Najeon Poryu-Geummunhyangsang(螺鈿蒲柳水禽文香箱, a perfume box decorated with plants and animal motifs) has attracted keen attention for its various decoration techniques. Unfortunately, the overall shape of this artwork can be seen only in the black and white photograph in the book, *Joseon Historic Dobo*. Its extremely thin base material was destroyed during Korean war and it is left in a fragment at present. After underpainting, silk fabric was layered and then priming coat mixed with bone powder was applied on it. After that, transparent lacquer was applied 2 or 3 times to polish. Then, it was decorated with prepared shell piece of hawksbill sea turtle or mother-of-pearl on the underpainting and gold leaf was decorated on the top layer. As a result of these complex and delicate processes, light reflection of patterns must have been colorful according to several transparent lacquer layers and also its decorative effectiveness must have been greatly delicate.

Najeonchilgi of Goryeo shows delicate and elaborate composition of patterns. Xu Shihui(徐兢, 1091-1153), an envoy of North Song Dynasty to visit Gaegyeong, the capital of Goryeo in 1123, recorded in his book that the technique of lacquer application on objects was not that skillful but the technique of Najeon was very sophisticated and precious. This record tells that although the technique of applying lacquer of Goryeo was inferior to that of the Song Dynasty, the decorative technique with mother-of-pearl was very delicate. It can be said that the sophistication of Najeon techniques reached the highest quality level while Goryeo was not good at the lacquer carving techniques that were popular in contemporary China. The Najeonchilgi of Goryeo is characterized as forming the whole patterns by cutting each component of patterns in small pieces and combining them. On the basis of foliated patterns, flower motifs such as lotus, chrysanthemum, peony etc, composed decorative designs. The size of each pattern is less than 1cm and the smallest one is only 2~3mm. Highly advanced skills was required for cutting avolon shells into such a small size even in an era when there were no tools for crafting such as a wire saw. Najeon artisan in Goryeo achieved elegant and decorative features using mother-of-pearl shell, bronze wire, etc together which were delicate yet not excessive. During Goyreo under Yuan Dynasty, it was recorded that Goyreo

temporarily established an office, in complete charge of producing Najeonchilgi boxes for Buddhist scripture, as Empress of Yuan Dynasty requested Najeon lacquer boxes for Buddhist scriptures. Today, about 10 pieces of the boxes of Najeon scriptures remaining in the world can be also related to this request.

2) Lacquer and Najeon crafts in Joseon

In Joseon Dynasty, lacquerware crafts has developed in the direction to expanding the base of production and use and varying its own techniques based on inherited techniques from Goryeo. Until the middle of Joseon Dynasty, chiljang(lacquer craftsmen) and Najeonjang(mother-of-pearl craftsmen) were subordinated to central and local government workshops. In "The Annals of King Sejong", it is recorded that Yebinsi(a central government office in charge of receiving foreign envoys) purchased juchilgi(red lacquerware) every year and secured woodenware offered as tribute from locals. Through this records, it can be inferred that expensive red lacquerware, being time-consuming and labor-intensive, was made by order to professional craftsmen, paying costs and relatively cheap woodenware was covered by tribute. King Sejong wanted to be cautious about luxury and raise royal dignity by proclaiming a decree to prohibit using red lacquerware in the public and this keynote to make social hierarchy clear by imposing a ban on luxury crafts and making luxury objects ordered only by royal family continued until the 18th century. According to this prohibition, lacquerware in Joseon Dynasty was divided into red lacquer for royal family and heukchil(black lacquer) and jeobchil(applying lacquer directly to the wood base) for the public. During Joseon Dynasty, lacquerware made by copying red lacquerware used in royal family has become popular, which shows well the desire and longing for the color. The demands for lacquerware increased more and more in the late of Joseon Dynasty.

Comparing to the fact that the remaining Najeonchilgi of the early period of Joseon are mainly boxes of official uniform decorated with lotus and foliage patterns using mother-of-pearl for upper class, it is very obvious that Najeonchilgi made after the 19th century was expanded to the public, which was evidenced by daily commodities including comb boxes and large wooden bowls.

It is undeniable that wood lacquer techniques in Joseon Dynasty was transmitted from Goryeo Dynasty, however, there are only a few real examples of the early Joseon period and full-scale researches on lacquer layers are not entirely satisfactory, either. Nevertheless it can be assumed that it was the customary processes to underpaint on the wood base, apply fabric on top of it, then put a base coat mixed lacquer with soil, and lastly, apply several layers of transparent lacquer. The boxes of official uniform decorated with Najeon(mother-of-pearl) in the 16th~18th century are representative and typical examples showing this process. In accordance to recent research on lacquerware of the late of Joseon through the analysis of lacquer layers, in many cases, unrefined raw lacquer

was used for batangchil (underpainting/priming coat) and some cases of mixing bone and soil powder or using only soil powder are found together. Also there are many cases that lacquer was applied to wood base directly without hemp cloth layer. Sometimes it is found that transparent lacquer layers on the underpainting are thinner than those of Goryeo Dynasty and is finished only with once or twice application of transparent lacquer. It is simplified technique compared to that of previous period. It can be interpreted as saving lacquer in accordance to increasing the demands for lacquerwares but it can be also related to the popularity of jeobchil, applying lacquer directly to wood base.

Technique of Najeonchilgi during the Joseon Dynasty has developed in a way to emphasize the natural color of the shell itself investing less time and labor instead of the sophisticated combination of patterns. The wrinkling technique, which cuts mother-of-pearl shell into a large pieces and makes a single pattern with those pieces, can make the color more brilliant, scratching the lacquer on the surface of the shell pieces. Tachal technique, hitting the curved surface of the shell with a hammer to break and making natural crack patterns, goes well with wrinkling technique. Cutting technique has also developed. It is the technique to cut ground shells in thin and long shaped pieces like noodle and to paste them on the patterns cutting in short in order to make patterns. Fueled by these techniques, the unit cost of Najeon production cut down and, consequently, increasing demands for Najeonchilgi could be satisfied.

3) Change and succession of Najeon crafts in modern times

Till the end of Joseon, artisans all over the country manufactured wooden objects and furniture. There used to be several production centers such as Tongyeong where workshops clustered densely. Lacquer crafts continued still in the 20th century, and the concept of art crafts was formed. Accordingly design and production were separated and craftsmen were transformed into artists. The royal handicrafts workshop, which began as Hansung Artwork Production launched in 1908 and then changed into the Yiwangjik Artwork Production in 1911, was the first workshop to modernize tradition based on the artisan's designs and patterns. Artisans such as Jeon Seong-gyu (?-1940), Kim Jin-gap (1900-1966), and Kim Bong-ryong (1902-1994) concentrated on lacquer, in particular, Najeonchilgi. The early of the 20th century was the era when modern tools and process were introduced and corporations were established. In 1921, Jeon Seong-gyu introduced a scroll saw for metalwork from Japan, which enabled him to cut mother-of-pearl shell in curve line freely. In 1953, the Korean government sent a Najeon table produced by Kim Jin-gap to celebrate the coronation of Queen Elizabeth II of U.K. It shows well that Najeonchilgi was recognized as representative crafts or commercial products of Korea at that time. However, since then, cashew resin paint was introduced in the 1960's, lacquer lost its price competitiveness in the market and was in danger as an industry.

4. The Lacquer Techniques and Its Current Transmission in Korea

1) The techniques of lacquer tapping and its refining in Korea

In Korea, lacquer sap is collected from Chamot(lacquer) trees grown for 8~10 years. Lacquer trees prefer sandy soil with good drainage and moisture at the same time. The northern limit of this tree is south of Cheongcheon River located in North Korea. From Joseon Dynasty to Japanese colonial times, Chamot tree forest was fostered country wide including Taecheon in Pyeonganbuk-do Province, Okcheon in Chungcheongbuk-do Province, Gurye, Jangseong, Naju, and Gokseong in Jeollanam-do Province but now, lacquer tapping is carried out mostly in Wonju in Gangwond-do Province and the rest is only in some parts including Okcheon and Namwon etc. It is highly possible that the method of lacquer tapping today is likely to be different from the method before Joseon. There are rarely literature on lacquer tapping handed down so there are not much to be known about that in Joseon, but it is assumed that the current method of lacquer tapping and refining was introduced from Japan in Japanese colonial times. It was evidenced by the similar processes of tapping and refining and tools to those of Japan's modern times. At present, tools for lacquer tapping are basically a sickle for peeling barks, a sickle for scratching, a spatula knife and a lacquer container. The sickles for peeling barks and scratching are used for cutting grooves on the stem horizontally and a spatula knife is used for collecting the lacquer liquid from the grooves and putting it into the container. The lacquer is tapped every four days from June to October, as much as 0.5~1ml once and the total amount of lacquer sap that can be tapped from a single tree is about 200ml a year. After tapping of about 200ml, cutting down the trees is the common method, which is called Salsobeob. Since lacquer sap transudes from a liquid layer between a bark and a cambium, it requires special skills to carve grooves in a proper depth and location in between. The lacquer workers have to decide the scope of works for the year in advance. The artisan An Young Bae, who works in Wonju, set a work section for each month and marks on a lacquer tree at intervals of every 20cm around 25th in May. After that, every four days, lacquer sap seeping from the horizontal grooves was tapped and then the grooves were made upwards one by one. 25 grooves can be made yearly. Lacquer liquid from 1~3 grooves is used for medicine. Lacquer from 4~8 grooves in June is called chochil, lacquer from 9~19 grooves in July and August is called seongchil, lacquer from 20~25 grooves tapped in September is called malchil. Lacquer collected from the additional grooves in the end of September and October is called Duitchil. After completely harvesting the sap, lacquer liquid collected from the cut-down branches is called jichil. Lacquer liquid can be also collected from burnt branches after soaked in water, which is called Hwachil. Hwachil is the collecting method to be only in Korea. It can not be used for varnishing because laccase enzyme is inactive at high temperature. Therefore, it is mainly used for medicine or mixture of others in priming coat. Seongchil

is the highest in the content of urushiol so it is appropriated for finishing lacquer. More moist chochil and less moist malchil are mainly used for priming coat. Low-quality duitchil and jichil are also completely consumed for mixture of others in priming coat or applied to mass used woodenware. Like this, fully utilizing lacquer collected in various methods was because that lacquer was precious material difficult to obtain.

Purification of lacquer is carried out through several steps to get rid of impurities from crude lacquer sap, to reduce moisture contents for slow-down of hardening and to raise the transparency. The processes to obtain unrefined lacquer is, first, to filter lacquer sap with hemp cloth, then to put cotton wool in it and stir it, lastly to filter it with hemp cloth again. The processes to obtain refined lacquer is to pour unrefined lacquer into a container and stir it with a rake for 2 or 3 hours. In this process, moisture evaporates and the particles of urushiol, moisture, rubber and nitrogenous substances as main ingredients of lacquer liquid become even, then eventually lacquer is refined so to be suitable for application. Nowadays, machines such as a mixer and a centrifuge are used to precisely adjust the desired amount of moisture and make particles much more even.

2) Lacquer technique-Jeobchil and opaque lacquer

Currently, lacquer techniques handed down in Korea are largely divided into two types: Jeobchil(摺漆, transparent lacquer application) and Bultumyeongchil(opaque lacquer applications, including color painting in black and red lacquer). These two techniques are not classified only by transparency but depend on whether to reveal the grain cut of wood base or whether to inspire the aesthetic feelings. In many cases, it is difficult to differentiate clearly between two types in real artifacts.

In Jeobchil technique, after smoothing baekgol(白骨, plain wood base) with a sandpaper, mixture of refined lacquer and 30~40% of terebene oil is evenly applied to it and wipe it out right away. After drying it, mixture of unrefined lacquer and 25% of terebene oil is applied to and then dry it again. This process is usually repeated 3~5 times but sometimes according to its degree of coloration, jeobchil is carried out repeatedly up to 12 times. Jeobchil features revealing profound texture of wood grain by applying unrefined lacquer thinly several times, and the number of application depends completely on artisan's sense and experiences. Jeobchil appealed to the aesthetics of scholars in Joseon who set a primeum on natural beauty and simplicity, so the technique was widely used in wooden objects and furniture for man's room.

The opaque lacquer begins with filling Goksu that fills the tiny holes and cracks on the surface of baekgol. Depending on artisans, there are some differences in filling ways such as applying unrefined lacquer enough or mixture of soil and ash, etc but it has been

regarded as an important step to stabilize the plain wood base. On this, hemp cloth is layered with Hochil, an adhesive mixture of glutinous rice paste and unrefined lacquer, in the proportion 3:1, which plays an important role in preventing baekgol from being twisted and stabilizing lacquer layer. On the hemp cloth, the mixture of soil and ash is added twice times and the surface is ground, then refined lacquer with pigment is applied to. After drying, 1/3 of dry lacquer layer is ground with wet sandpaper. Scratches are filled with a mixture of soil and unrefined lacquer in proportion 1:1 and then dry. After drying, it is ground with a rubstone to make surface even and flattened. Baekgol is reinforced through this priming coat process and can be a base for next lacquer applications afterwards. Priming coat is followed by Jungchil which is a process to applying lacquer 2~3 times on priming coat. In this process, it should be careful to avoid dust and not to leave brush strokes. Finishing lacquer is carried out extremely carefully in a clean room just right next to a drying room, and through these processes, eventually transparent and polished lacquer layer is completed.

3) The transmission and preservation of lacquer crafts technology in Korea

When Korea government established the Cultural Heritage Protection Act in 1962, traditional crafts techniques were included in 'intangible heritage' to protect. Lots of efforts to protect lacquer techniques began early by inscribing national intangible heritage. In 1966, 'Najeonchilgijang(Artisan of mother-of-pearl lacquerware)' was the first to be designated as national important intangible cultural heritage No. 10 and Kim Bong-ryong was recognized as its bearer. In 1975, 'Cutting technique' was separately designated as important national intangible cultural heritage No. 54 and Sim Bugil(1905-1996) was recognized as its bearer but afterwards, these two elements were integrated into 'Najeonjang(Artisan of mother-of-pearl crafts)'. Even though 'Somokjang(cabinetmakers)' was also designated as an important national intangible cultural heritage No. 55 in 1975, Najeon was designated earlier among lacquer-related techniques because it emphasized the comprehensive technology of making the complete Najeon lacquerware. It is not until 1992 that the academic researches on the lacquer technology itself began. It was in 2001 that 'Chiljang(Artisan of lacquer)' was designated as an important national intangible cultural heritage No. 113 and Jeong Su-hwa(1954 -) was recognized as its bearer. His transmission history of lacquer crafts can be traced back to Kim Bong-ryong. Son Dae-hyun, who was recognized as a bearer of Najeonchilgi technique(later, it is changed into 'Chiljang') of Seoul Metropolitan intangible heritage, was taught the lacquer techniques by Min Jong-tae, a disciple of Kim Bong-ryong. This transmission history shows that traditional lacquer crafts transmitted in Korea are connected to the techniques of modern artisans working in Yiwangjik Art workshop etc. On this wise, lacquer and Najeon techniques keep alive by laws and policies for intangible cultural heritage protection. Lacquer tapping and refining, mother-of-pearl craftsmanship, material development as well as its succession are tasks for maintaining

this crafts for the future to be left with us.

5. Conclusion

Korea has shared long history of lacquer crafts from Neolithic Age on with Asian countries. As it is the same in any crafts sector, but lacquer crafts is very intricate and difficult, especially in materials collection and production process. Today's lacquer crafts was built on the basis of human's accumulated wisdom and patience. The process of lacquer crafts is difficult but its outcome is so outstanding in aesthetic and functionality that it is hard to find comparable materials among other varnishes. The National Museum of Korea has spaces for various lacquerwares from all over Asia. You can see the wide and deep flows of lacquer culture in the Chinese room, India and Southeast Asian room and Japanese room in World culture hall as well as the Kaneko room of the Donor's hall, and the Mokchil Craft Room of the Sculpture and Crafts hall. The sense of beauty of the products appears different but delicate sheen and soft, smooth texture gives a sense of homogeneity as common Asian lacquer culture.

At this time when the environmental crisis comes to reality in front of us, thinking better of natural materials has been voiced in crafts industry. Traditional lacquer crafts can be maintained only if it is based on forestry. A deep understanding of nature is essential in all steps of the process from collecting materials to producing objects. Inventorying of traditional crafts techniques is similar to establishing a seed bank under the permafrost. Collecting and recording wisdom of lacquer from all parts of Asia and transmitting it to future generations has meaning to deliver the seeds for human survival beyond the craftsmanship.

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