Lacquerware in Asia, today and yesterday

Edited by
MONIKA KOPPLIN

UNESCO PUBLISHING
MEMORY OF PEOPLES

Lacquerware in Asia, today and yesterday

Edited by MONIKA KOPPLIN

Memory of Peoples | The Intangible Heritage UNESCO Publishing

The authors are responsible for the choice and the presentation of the facts contained in this book and for the opinions expressed therein, which are not necessarily those of UNESCO and do not commit the Organization.

The designations employed and the presentation of material throughout this book do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Published in 2002 by the
United Nations Educational,
Scientific and Cultural Organization
7, place de Fontenoy, F-75352 Paris 07 SP

Typeset by: Susanne Almeida-Klein
Printed by imprimerie Jouve, 41100 Mayenne,

ISBN 92-3-103808-7
© UNESCO 2002
Printed in France

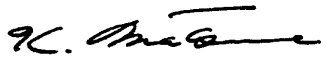
Foreword

Dating back several thousand years in Chinese history, the art of lacquer can claim to be one of the most ancient and venerable expressions of Asian culture. The traditional techniques of lacquer that had initially been discovered for protecting wooden or woven bamboo utensils from humidity and insects were naturally conveyed along the many trade routes that linked China with its neighbours and rapidly spread to other countries in Asia. These techniques developed throughout the ages, became more complex, and resulted in an enduring art form combining vast know-how and astonishing practicality. Lacquer became a thriving industry of worldwide renown.

However, there is growing apprehension that this traditional knowledge, so firmly rooted in people's daily lives as part of their cultural expression, is under threat as never before. Over the past decades, the number of people employed in lacquerware workshops, and particularly the younger generation, has fallen dramatically all over Asia. Although many art books have been published in recent years recognizing the beauty and refinement of lacquer, they are mainly of a descriptive and aesthetic nature. While they serve to remind the reader of the beauty and refinement of this time-honoured craft, they do not contribute directly to the protection and transmission of lacquer techniques.

Lacquerware in Asia, today and yesterday, published in the Intangible Heritage series, breaks new ground in this field. It offers a comprehensive picture of a *savoir-faire* that partakes of both creative arts and craftsmanship. It also allows the reader to compare the different methods and materials used in Cambodia, China, India, Korea, Japan, Myanmar, Thailand and Viet Nam, to name but a few. There is indeed remarkable similarity of approach to the craft of lacquerware in regions that could hardly be farther apart. This resemblance became very clear during the workshop on traditional lacquerware techniques organized by UNESCO in Myanmar, in 1997, and attended by a large number of lacquer specialists and art historians from different countries. Not the least of the merits of this meeting was that it underscored the artisans' crucial role as guardians of traditional lacquer

techniques; they are the only ones who can hand down to the younger generation what they themselves inherited from their peers. The intangible heritage is one of the basic tenets for safeguarding the diversity of cultures that make up the history of humankind.



Koïchiro Matsuura

DIRECTOR-GENERAL OF UNESCO

Contents

Foreword 5

List of figures 9

List of contributors 17

Preface: Lacquerware in Asia: past and present *Monika Kopplin* 19

Part One THE ART OF LACQUER, PAST AND PRESENT

Lacquerware in Asia: China, Korea, Japan and the Ryukyu Islands *Monika Kopplin* 25

Asian lacquerware: maintaining the tradition *Kazushige Kaneko* 79

Part Two LACQUER AS A LIVING TRADITION

The historical inheritance and development of China's traditional lacquerware *Chen Zhengyu* 87

The Yi people of China: their culture and lacquerware *Zhang Jianshi* 97

Lacquerware in Korea *Paik Syeung-gil* 109

The history and characteristics of *Wajima-nuri* lacquerware *Keiichi Shimaguchi* 117

Kiso lacquerware of Japan *Arihiko Natsume* 123

Ryukyu lacquerware *Maeda Kouin* 129

The art and industry of lacquerware in Thailand *Sone Simatrang* 133

Lai Rod Nam: Thai gold-leaf lacquerware technique *Sompong Saengaramroungroj* 143

Traditional lacquerware manufacture in Viet Nam *Tran Huy Quang* 149

Vietnamese *son mai*, an art both traditional and modern *Phan Dang Nhat* 159

Cambodian lacquer art and Khmer lacquerware *An Sitha* 165

Myanmar lacquerware: historical background and cultural perspectives *Khin Mg Nyunt* 173

Myanmar traditional lacquerware techniques *Than Htaik* 183

The lacquerware industry in Kyaukka today *Myo Myint* 187

Lacquerwork in India *Haku Shah* 191

Glossary 204

Selected bibliography 222

Index 232

List of figures

1. Harvesting lacquer resin. **26**
2. Filtering lacquer resin by squeezing. **26**
3. Drying and stirring raw lacquer to ripen it. **26**
4. Preparing cores or bodies: filling cracks in the wood with strips of paper or gauze. **26**
5. Polishing wooden cores with stones prior to lacquering. **27**
6. Painted wicker basket from the Tomb of the Painted Basket in Lo-lang, northern Korea (replica). 22 × 39 × 18 cm. China (Sichuan), second century (Eastern Han dynasty). Stockholm, Museum of Far Eastern Antiquities. **30**
7. Dish with lobed edge in the shape of a mallow blossom, red lacquer. 2.8 × 18.5 cm diameter. China, Song dynasty (960–1279). Tokyo, Lee Collection. **31**
8. Audience scene, with river landscape in the background. Rectangular box, black lacquer with polychrome painting surrounded by a gilt border and with basketry panels. 12 × 47.5 × 34.3 cm. China, c. 1600 (Ming dynasty). San Francisco, Asian Art Museum. **32**
9. Tray, carved brown and red lacquer with *guri* pattern. China, Yuan dynasty (1271–1368). Beijing, National Palace Museum. **33**
10. Landscape with pavilion and reception scene. Standing table screen (section), red carved lacquer. Height, 58.5 cm. China, beginning of fifteenth century (Ming dynasty). Stuttgart, Linden-Museum. **34**
11. Peony, lotus and chrysanthemum sprays. Vase, carved red lacquer. Height, 15.5 cm. China, beginning of fifteenth century (Ming dynasty). Münster, Museum für Lackkunst. **36**
12. Camellia sprays. Dish (section), carved red lacquer. China, beginning of fifteenth century (Ming dynasty). Beijing, National Palace Museum. **36**
13. Winged dragon against background of green waves, framed by six-petalled prunus border.

Octagonal container, carved red lacquer. 13.7 × 22.5 cm diameter. China, mid-sixteenth century (Ming dynasty). Tokyo, Lee Collection. **38**

14. Scene in Imperial Palace with numerous figures. Coromandel screen (section). China, dated 1659 (Qing dynasty). Washington, D.C., Freer Gallery of Art. **40**
15. Dragon and phoenix in ogival panel. Cabinet, filled and incised lacquer. 49 × 56.8 × 42 cm. China, first half of fifteenth century (Ming dynasty). London, Victoria and Albert Museum. **41**
16. The palace of Hsi Wang-mu and the Eight Immortals. Octagonal container, black lacquer with mother-of-pearl inlays. 23.4 × 36 cm diameter. China, Yuan dynasty (1279–1368). Tokyo, Lee Collection. **43**
17. Flowering plum tree with crescent moon in night sky. Tray, black lacquer with mother-of-pearl inlays. 3.3 × 34.4 × 33.6 cm. China, fourteenth to fifteenth century (Yuan/early Ming dynasty). Münster, Museum für Lackkunst. **43**
18. Terrace with the Eight Immortals. Screen from throne ensemble (detail of centre panel), black lacquer with mother-of-pearl inlays and gold. 286 × 330 cm. China, c. 1670 (Qing dynasty). Berlin, Museum für Ostasiatische Kunst. **44**
19. Rows of chrysanthemum leaves. Sutra box. Black lacquer with mother-of-pearl and silver-wire inlays. 25.4 × 47.6 × 25 cm. Korea, twelfth/thirteenth century (Koryo dynasty). London, British Museum. **52**
20. Lotus scrolls. Box. Black lacquer with mother-of-pearl inlays. 4.4 × 26.4 × 18.4 cm. Korea, sixteenth/seventeenth century (Yi dynasty). Tokyo, National Museum. **53**
21. Lotus shoots. Document box. Red lacquer with mother-of-pearl inlays. 7 × 37 × 25.5 cm. Korea, fifteenth/sixteenth century (Yi dynasty). Hamburg, Museum für Kunst und Gewerbe. **53**
22. Landscape with crescent moon. Serving table (board). Red and black lacquer with mother-of-pearl inlays. 8 × 32 × 32 cm. Japan, early seventeenth century (Edo period). Kamakura, Meigetsu-in. **54**
23. Lotus shoots. Box. Brown-black lacquer with crackled mother-of-pearl, tortoiseshell and twisted copper-wire inlays. 42 × 44.8 × 23.5 cm. Korea, eighteenth century (Yi dynasty). London, Victoria and Albert Museum. **54**
24. Vines. Clothes box (detail). Black lacquer with mother-of-pearl inlays. 19 × 48 × 76.5 cm. Korea, nineteenth century (Yi dynasty). Tokyo, National Museum. **55**
25. Phoenixes and lotus shoots. Cabinet (detail.) Brownish lacquer with sprinkled-in gold flakes together with sharkskin, tortoiseshell, mother-of-pearl and brass wire inlays. 16 × 86 × 38.3 cm. Korea, nineteenth century (Yi dynasty). Münster, Museum für Lackkunst. **55**
26. Clothes box. Black lacquer with crackled mother-of-pearl, tortoiseshell and twisted silver inlays. 16.7 × 58.3 × 38.7 cm. Korea, nineteenth century (Yi dynasty). Roger Weston Collection. **56**
27. Chûson-ji, Hiraizumi. Interior view of the Konjiki-dô temple hall. Gold-sprinkled design with mother-of-pearl inlays. **59**
28. Wheels turning in water (*katawaguruma*). Toiletry box (*tebako*), black lacquer with gold- and *aokin*-sprinkled design with mother-of-pearl inlays. 13 × 30.5 × 22.5 cm. Japan, twelfth century (Heian period). Tokyo, Bunkazai Hogo Iin-kai. **59**
29. Sparrows in the field. Toiletry box (*tebako*), black lacquer with gold- and silver-sprinkled design. 18.5 × 42 × 28.5 cm. Japan, twelfth century (Heian period). Osaka, Kongô-ji. **60**
30. Plum trees and wild geese. Toiletry box (*tebako*), black lacquer with gold-sprinkled design and silver inlays. 19.7 × 34.5 × 25.8 cm. Japan, fourteenth century (Kamakura period). Mishima-taisha, Shizuoka province. **61**
31. Round pattern (*fusenryô*). Toiletry box (*tebako*), black lacquer with gold-sprinkled design and mother-of-pearl inlays. 26.6 × 36 × 21.5 cm. Japan, mid-thirteenth century (Kamakura period). Tokyo, Suntory Museum of Art. **61**
32. Peony blossom. Incense box (*kôgô*), carved wood with black and red lacquer coating (*Kamakura-bori*). 3.5 × 7.5 cm diameter. Japan, fifteenth century (Muromachi period). Münster, Museum für Lackkunst. **62**

33. Tray (*bon*), wood with black and red lacquer coating (*Negoro-nuri*). 43.1 cm diameter. Japan, 1298 (Kamakura period). Tokyo, Gotoh Museum. **63**
34. Blossoming plum tree and moon. Desk (*bundai*), black lacquer with gold-sprinkled design. 10 × 60 × 35 cm. Japan, fifteenth century (Muromachi period). Tokyo, National Museum. **64**
35. Autumn grasses and bamboo. Box for writing utensils (*bunko*), black lacquer with gold-sprinkled design. 26.7 × 50.3 × 31 cm. Japan, later half of sixteenth century (Momoyama period). Kyoto, Kôdai-ji. **66**
36. Bridge over iris swamp (*yatsuhashi*). Writing box (*suzuribako*), black lacquer with gold-sprinkled design and mother-of-pearl, silver and lead inlays. 14.4 × 19.9 × 27.3 cm. Japan, seventeenth century (Edo period). Tokyo, National Museum. **68**
37. Peacocks in peony scrolls. Cylindrical container, black lacquer with inscribed design filled with gold (the open-work bronze lid and handle on the side are a Japanese addition). 24.6 × 18.8 cm diameter. Ryukyu, sixteenth/seventeenth century. London, British Museum. **72**
38. Birds in branches. Bowl, red lacquer with applied gold foil design. 8 × 12.6 cm diameter. Ryukyu, probably early sixteenth century. Vienna, Kunsthistorisches Museum, Art Collections at Schloss Ambras. **73**
39. Phoenix on blossoming peony branch. Paper box, red lacquer with mother-of-pearl inlays. 9.5 × 28.5 × 39.5 cm. Ryukyu, early seventeenth century. Cologne, Museum für Ostasiatische Kunst. **74**
40. Chrysanthemum scrolls. Round container, red lacquer with coloured lacquer applications. 10 × 21.2 cm diameter. Ryukyu, nineteenth century. Münster, Museum für Lackkunst. **76**
41. Wooden bowl, red lacquer. China, Hemudu period, *c.* 4000 B.C. One of the earliest examples of lacquerware discovered in China. Zhejiang Museum. **87**
42. Gold-plated wooden ladle. China, West Zhou dynasty, 1066–771 B.C. Institute of Archaeology, Chinese Academy of Social Sciences. **88**
43. Carved wooden container with stand. China, Warring States period, 403–221 B.C. Hubei Museum. **89**
44. Carved wooden bowl or cup with stand and mandarin duck motif. China, Warring States period, 403–221 B.C. Jingzhou Museum. **89**
45. Carved table decoration. China, Warring States period, 403–221 B.C. Hubei Museum. **89**
46. Wooden basin with phoenix and fish, and brown, red and black lacquer finish. China, Qin dynasty, 221–206 B.C. Yunmeng District Museum. **90**
47. Wooden ladle, red and black lacquer, 33 cm. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum. **90**
48. Wooden bowl with handles; fish motif, red and black lacquer. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum. **91**
49. Wooden tortoise-shaped armour with sea-horse motif, red and black lacquer. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum. **92**
50. Yi wine pot, *c.* 1920–30: height, 28.5 cm; diameter of body, 17 cm. Wooden core with black lacquer background: *a* stylized petals in yellow and red lacquer decorate the front; *b* the back is painted in geometric diaper pattern. **98**
51. Cross-section of a Yi wine pot. **98**
52. Wide-stemmed wine cup, *c.* 1940–59: height, 7.5 cm; diameter of mouth, 9.5 cm. Wooden core, interior decorated with yellow lacquer. Patterns of red and yellow circles are painted on an exterior background of black lacquer. **99**
53. Wine cup with an eagle-claw base, *c.* 1940s–50s: height, 18.5 cm; diameter of mouth, 10.3 cm. Leather core with both interior and exterior painted black. The eagle claw symbolizes the power to drive away evil. **99**

54. Wine cup made from sheep horn, *c.* 1940: length, 26.5 cm. Horn core; the black lacquered exterior is decorated with leaf patterns in red and yellow. **100**
55. Arrow case, *c.* 1900–50: length, 48.5 cm. Bamboo core with round pieces of fishbone inlaid on black lacquer background. **100**
56. Leather bowl, *c.* 1940–59: height, 8 cm; diameter of mouth, 16 cm. Leather core with red interior. Black exterior with dotted and geometric patterns. **100**
57. Gunpowder horn, *c.* 1900–50: height, 26 cm. Core made from both wood and leather. On the surface, patterns of petals and curves in red and yellow painted over a black background. **100**
58. Leather armour, *c.* 1900–50: length, 67 cm. Leather core with black lacquered exterior, decorated with petals, dots and geometric designs in red and yellow lacquer. **101**
59. Saddle, *c.* 1900–50: length, 42.5 cm; width, 28 cm; height, 26 cm. Wood core with black lacquer background and decorative patterns of geometric shapes and curves painted over entire surface. **102**
60. Decorations commonly used on Yi lacquerware. **103**
61. Felling a tree. **104**
62. Cutting a log into a preliminary shape. **104**

63–64. Working the panel while it is turning. **104–105**

65. Polishing the wooden core. **105**
66. Applying the background lacquer. **105**
67. Painting decorative patterns. **105**
68. Lacquer spoon. 6.0 cm wide × 22.3 cm long. Pyongyang, Lolang, Tomb of the Painted Basket, first to third century B.C. The tip of the handle and the bowl of the spoon are coated with vermilion lacquer; brown lacquer exterior. **109**
69. Round lacquer ritual dish. 9.8 (upper diameter) × 6.3 (lower diameter) × 7.5 cm high. Taho-ri site, first century B.C. This lacquered object was excavated from a pit tomb in the Taho-ri site in 1988. The wooden dish was made from a single piece of wood. Lacquer is not applied on the base. The dish contained a type of fruit that has not been identified. **110**
70. Lacquer ritual dish. 13.7 × 10.3 cm (upper diameter), 7.9 × 12.5 cm (lower diameter). Taho-ri site, first century B.C. National Museum of Korea, Seoul. Burial object discovered outside the wooden casket in a pit tomb. The dish surface is rectangular and the side is an inverted trapezoid. The dish and stand were made separately. **110**
71. Square mother-of-pearl inlaid box. 31.3 cm long × 31.3 cm wide × 9.8 cm high. Mid-Choson period (seventeenth century). The wooden lid is firmly attached by tin hinges. The top part of the cover is decorated with mother-of-pearl inlaid chrysanthemum, peony and lotus flower patterns linked by arabesque scrolls, and the sides are decorated with mother-of-pearl inlaid plum, orchid, chrysanthemum and bamboo patterns, in that order. The layer of black lacquer is so thick that it forms a plane with the fish skin glued to the surface of the box. **112**
72. Hahoe wooden mask. 21.9 cm × 16.2 cm. Hahoe village in North Kyongsang province (Korea), late Koryo period, thirteenth to fourteenth century. Alder wood mask, covered with paper and coated with lacquer. Most of the lacquer has peeled off, except on the head and below the eyes, where black lacquer can be seen. **114**
73. Wajima City, Japan. **117**
74. Red-lacquered door in the Jûzô shrine. **118**
75. Red-lacquered covered bowls and tray from the Edo period. **118**
76. Red-lacquered sake containers dating from 1784. **119**
77. Sectional diagram of Wajima-*nuri* coatings. **120**
78. Applying a strip of cloth to the edges of a wooden bowl with *urushi*. **121**

79. Lacquering the inside of clay bowls. **121**
80. *Chinkin* process: engraving a design on the lacquered surface. **121**
81. *Chinkin* lacquerware. **121**
82–84. *Maki-e* lacquerware. **122**
85. *Takra mak* (betel-nut container) in traditional Bangkok style modified to appeal to northern consumers. **134**
86. *Talum* (container for main dish and fruit). Thailand, Ayuthya-Bangkok period. The most popular version is painted with black *Rak* sap solution inlaid with pearl. **134**
87. Northern-style clothes container in bamboo before application of *yang rak* solution and painting. **134**
88. Same clothes container after application of *yang rak* solution and painting. **135**
89. *Parn Wan Fah*, in which a king may place ceremonial accessories or a Buddhist monk his robe. **136**
90–92. *Tiab* (food container with lid for senior Buddhist monk or king) painted with black or red *Rak* solution with inlaid pearl. Thailand, Ayuthya-Bangkok style. **136**
93. Detail of mural painting (*lai rod nam* technique) of the life of Buddha now on view to the public at Prince Chumpot Boripat's palace (Wang Suan Pak Kad) in Bangkok. **137**
94–95. Traditional northern Thai tobacco box with *yang rak* solution applied and painting completed. **138**
96. *Phra-Raj-Bal-Lang* and *Phra Swetashatra* (Royal Throne and Nine-Level Umbrella indicating supreme status). Thailand, Ayuthya-Bangkok style, 1823–32. Teak wood with lacquer. **140**
97. A craftswoman of Baan Don Jhun village, Thailand, making food containers. **141**
98. *Rak* (lacquerware) crafts for both ceremonial and everyday use. Picture taken at the *Whai Khru* (Paying Respect to Teachers) ceremony of Chiangmai University, Thailand, in 1985. **141**
99. Outline is drawn, ready for the next step. **144**
100. Cartoon is made with tracing paper; a needle is used to punch holes. **144**
101. Wood panel is glazed, then thoroughly washed with *Din Sor Pong* (kaolin) solution. **144**
102. Tracing paper is placed on wood panel, and the *pra kob phoune* (bag of powder) is applied to make the outline. **144**
103. A linear pattern is made using the powder device. **146**
104. Painting with carefully prepared *Horadan* solution: the artist must draw or paint exactly over the pre-existing outline. **146**
105. Painting with *Horadan* solution completed. **146**
106. The lacquer solution is wiped on using a clean cloth. The panel is glazed and excess lacquer solution is removed. **147**
107. Gold leaf is applied over the wiped-dry surface. **148**
108. Paper with gold leaf is soaked with water. It is left for one minute, then washed off. **148**
109. The final stage, gold inlaid pattern (here, decorative) is completed. **148**
110. Producing red lacquer. **150**
111. Felling lacquer trees and planting new ones. **150**
112. Collecting sap from the lacquer tree. **150**
113. Preparing 'ripe lacquer'. **153**
114. Making black lacquer. **153**
115. Polishing for smoothness. **155**
116. Sprinkling silver or gold dust. **157**
117. Attaching shell with lacquer. **157**
118–119. Coffin and grave effigies. **160**
120. Lacquered mummy of a bonze. **161**

121. *Son mai* painting. **162**

122–123. Materials used in the art of *son mai*. **162**

124–126. The processes of *son mai*. **163**

127–128. *Son mai* artist at work. **164**

129. Boiling raw lacquer with other substances. **167**

130. Liquid lacquer being poured into the mould. **168**

131. Removing the dried lacquer from the mould. **168**

132–133. Applying the lacquer to the mask. **169–170**

134–135. Khmer masks. **171–172**

136. A 50 kyat banknote showing the manufacture of traditional lacquerware. **174**

137. Detail of a sculptured, red-lacquered temple door at Pagan, Myanmar. **177**

138. The core of various containers made from woven bamboo strips, coiled bamboo and horsehair. **177**

139–140. Pagan lacquer bowls with a core of woven horsehair and rich engraved ornamentation. **177**

141. A fine iron stylus (*kauk*) is used for engraving *yun* lacquerware. **178**

142. Engraving ornaments in a lacquer workshop, Pagan, Myanmar. **178**

143. Dyeing and polishing in a Pagan lacquer workshop. **178**

144 *a* and *b*. Two views of a lacquered and gilt dry-lacquer image of Buddha, Myanmar. **179**

145. Black- and red-lacquered image of Buddha in a Pagan temple. **180**

146. Examples of *tavlo* lacquered bowls; lower right, a lacquer *patti*. **195**

147–149. Demonstration of *tavlo* technique, using an old pot to make a bowl. Here, men and women working together in their field. **196**

150. Fixing the edge of a bowl with the hands. **197**

151. Bowls drying in the sun before being fired in the kiln. **197**

152. The open kiln. **197**

153. Removing the fired bowls with wooden sticks in order to apply lacquer. **197**

154–157. Applying lacquer. **197–198**

158. Final touches are added using pieces of broken pot. **198**

159. Demonstration of *Lakh Cho Kaam* technique: Vadha Vitkyo, in the Kutch district of western India, working on his *sanghado*, or lacquer-turning lathe, about to make a lacquered spoon. The *sanghado* is easy to install: in a short time he is going about his work. **199**

160. Exhibiting the art of lacquering at a craft fair. Mr Vitkyo applying red lacquer. **199**

161. Smoothing and spreading the lacquer in an even layer using a small, home-made bamboo tool. **200**

162. Rubbing the lacquer with a rag. **200**

163. To create a design, yellow lines are drawn on the red lacquer with a bamboo stick. **200**

164. Applying various colours. **201**

165. Rubbing the yellow lines is an art in itself. **201**

166. Marks are made on the yellow lines. **201**

167. Creating wavy designs with a bamboo stick. **201**

168. Second rubbing. Rags and pieces of bamboo are the simple tools of lacquerware. **201**

169. Applying green colour. **201**

170. Attaching red stripes over the green. **201**

171. Mr Vitkyo works on the lower portion of the spoon. **202**

172. A special technique of creating designs with a chisel by 'pealing' the upper colour. **202**

173. Materials used in lacquering. **203**

174. The finished spoon. **203**

175. Lacquered articles in Kutch district, western India. **203**

List of contributors

Than Htaik Director-General of Cottage Industries Department, Ministry of Co-operatives, Myanmar

Zhang Jianshi Director of the Museum of Southwest Institute of Minorities, Chengdu, China

Kazushige Kaneko Institute of Asian Ethno-Forms and Culture, Tokyo, Japan

Khin Mg Nyunt Myanmar Historical Commission

Monika Kopplin Director, Museum für Lackkunst, Münster, Germany

Maeda Kouin Prefectural Recognized Bearer of Important Cultural Properties – Ryukyu lacquerware, Japan

Myo Myint Lecturer in history, Mandalay University, Myanmar

Arihiko Natsume Institute of Ethno-Forms and Culture, Tokyo, Japan

Phan Dang Nhat Director, Center for Supporting Traditional Culture and Technology, Hanoi, Viet Nam

Sompong Saengaramroungroj Silpakakon University, Bangkok, Thailand

Haku Shah Indian lacquerware artist

Keiichi Shimaguchi Technical Officer, Wajima City Institute of Lacquer Ware, Ishikawa prefecture, Japan

Sone Simatrang Silpakakon University, Bangkok, Thailand

An Sitha Professor, Faculty of Plastic Arts, Royal University of Fine Arts, Phnom Penh, Cambodia

Paik Syeung-gil Korean National Committee for the International Council of Museums

Tran Huy Quang Industrial Art College, Hanoi, Viet Nam

Chen Zhengyu Professor, Institute of Archeology of Hubei, Wuhan, China

Preface
Lacquerware in Asia: past and present

MONIKA KOPPLIN

Lacquer is a unique material. It is produced in East and South-East Asia from the sap of the many species of lacquer tree that grow in the temperate to subtropical zones of the region. *Rhus verniciflua*, for example, is harvested in Japan to produce a lacquer of superior quality called *urushi* in Japanese, urushiol in English. The resin secreted from cuts in the bark of the lacquer tree is collected to produce raw lacquer, a natural product with extraordinary properties. After filtering, it is ready to be used for lacquer pastes or glue and as a primer and impregnator. Dehydration and homogenization further modify the chemical properties of the lacquer, resulting in a refined substance that is both viscous and transparent.

While the harvesting of lacquer sap and the initial stages of processing are very similar throughout East and South-East Asia, the use of additives (such as tung oil) and colouring methods vary according to local traditions. In its processed form, lacquer can be used in a variety of applications: as adhesive, impregnator, durable preservative and protective water-resistant coating. Besides these features, which are particularly important when working with wood, lacquer also offers the decisive benefit of being glossy and enhancing the iridescence of colours. It is thus ideally suited to artisanal crafts, particularly the applied arts, because not only does the polished lacquer surface possess an aesthetic value, but its lovely soft smoothness is also highly pleasing to the sense of touch, and this imparts a tactile quality to lacquerwork.

Lacquer as a decorative and civilizing art was developed in China, where the properties of the *Rhus* tree were first discovered and put to use. The famous bowl dating from around 4000–5000 B.C. discovered in Chê-chiang province is regarded as the oldest extant piece of lacquerware. The vermilion used to colour the bowl demonstrates that the technology had already evolved beyond the initial stages of the art. The existence of this bowl is a tantalizing suggestion that other such artefacts may still lie undiscovered. Lacquer processing – one of the oldest art forms in China – developed long before the Christian or Common Era, and reached a first peak

during the Han dynasty during which lacquer painting, usually in the classic interrelationship of red on black, was invented. This same period also saw the invention of inscribing and inlaying techniques. And it was the Chinese who discovered the inimitable interplay between glossy black lacquer and shimmering mother-of-pearl. They developed these techniques to produce variegated effects, and subsequently combined lacquer with other precious materials: mother-of-pearl, tortoise-shell, stones and precious metals, to name but a few. However, the greatest achievement of Chinese lacquer art is carved lacquer: here, the lacquered piece is finished to exquisite perfection by applying multiple layers of lacquer coating, which are then sculpted with inscribing knives to produce a modelled quality. The Chinese also developed a type of dry lacquer that was especially suitable for modelled art – a technique that remained unknown to European artists due to the unavailability of the special materials required.

In time, the technologies of lacquerwork were transmitted from China to neighbouring countries by means of the trade routes. Korea and Japan were the first to work with lacquer, initially by adapting Chinese models and then through their own independent lacquer designs. The technique of lacquer inlays flourished in Korea. Here, the masters perfected this particular form almost entirely to the exclusion of other lacquer styles. They were not only extremely inventive in developing new techniques that were copied in other countries, but they also evolved their own styles independently of the Chinese models. Following the movement of Korean lacquerwork around the globe reveals the impressive and surprisingly dense network of trade routes and global cultural exchanges that already existed in the sixteenth and seventeenth centuries.

Along with the Korean mastery of mother-of-pearl inlays and the antique samples of Chinese lacquer art, the Japanese masters of lacquerwork approached perfection with the development of sprinkled pictures, where lacquer and gold fuse with an intensity that has produced unsurpassed effects. It is difficult even for specialists to keep track of the variety and names of all the different techniques that were used by the Japanese to produce their effects, which are at times highly showy, and at other times subtly restrained. Perfect craftsmanship and a refined aesthetic sense were carried to the limits in Japanese lacquer art.

The work created in other countries in East and South-East Asia is less familiar and therefore less well known. The Ryukyu Islands, due to their location on trade routes, were exposed to a broad variety of influences that resulted in the development of an individual style of work. The lacquer produced in this formerly independent kingdom reveals how techniques and elements of style and materials were continuously exchanged between countries. The mother-of-pearl from the molluscs indigenous to the region's temperate coastal waters, for example, was a highly popular raw material for lacquerwork in neighbouring countries.

Using gold foil on black lacquer to decorate their pieces, Thai lacquer masters perfected a technique that was highly suited to filigree artwork. In order to create an independent style the Myanmar masters, on the other hand, used earth tones and a great density of ornamentation on inscribed and filled lacquers that were almost certainly based on Chinese originals. In contrast, the lacquer art produced in Viet Nam is notable for the excellence of the polishing techniques used to expose undercoats and inlays of widely differing materials – it is as if they had been raised from the bottomless depths of the lacquer base.

The ancient heritage of Asian lacquerwork, constantly enriched through contact with other cultures, found itself confronted by increasing industrialization at the end of the nineteenth century in Japan, and during the twentieth century in other countries. It was, very simply, the collision of two separate and dissimilar worlds.

Industrialization aims to replace labour with machines and to shorten and simplify working procedures, but lacquer is the product of time-consuming procedures that begin with the laborious harvesting of the lacquer sap itself and end with the final hand-polishing of the perfect piece of lacquerware. The process requires a high degree of specialized knowledge, precise craftsmanship and, most importantly of all – given the long drying periods and hours of polishing so essential to lacquer art – patience. Rushed work is unknown in this branch of art.

Thus it is only natural that lacquerware and the art of lacquer are declining in Asia. Even in Japan, where the state very early recognized the importance of this national treasure, lacquer is disappearing from everyday life. Lacquered trays, food containers and bowls remained the standard in Japanese dining and table culture until just after the Second World War, but they have been widely replaced today by porcelain and plastic dishes. The desire for modernity, and the supposedly more progressive utensils from the West, resulted in the discarding of traditional materials and designs.

The decline was also facilitated by a growing demand for a higher standard of living that could not be satisfied on a large scale by the time-consuming and laborious production of lacquerwork. Even in areas that are traditionally linked to and even economically dependent on lacquerwork, the number of people employed in the field, particularly younger people, continues to fall. This decline has been accompanied by a general shortage of traditional materials, even of lacquer itself. There are fewer and fewer lacquer trees growing in a natural state today, and there are even fewer people left who know where to find them and how to harvest the sap.

Aware that this ancient tradition is slowly nearing extinction, UNESCO organized a conference in Yangon (formerly Rangoon), Myanmar, in 1996, where lacquer specialists from the countries involved were able to meet for the first time. The conference aimed to record the current situation in each country and to find ways of helping the art of lacquerwork survive the challenges it faces today. The participants agreed that it was essential at least to document existing work and the procedures practised in the past as well as the present, so that knowledge of raw materials and techniques would not be lost. This book therefore aims to juxtapose past masterpieces with the work of today and to disclose the sobering facts and figures that recount the slow demise of an art form. The decisive factor in helping this declining art to survive may very well be to create public awareness and a wider appreciation for what lacquerware represents. It is to this end that this book has been written.

PART ONE

The art of lacquer, past and present

Lacquerware in Asia: China, Korea, Japan and the Ryukyu Islands

MONIKA KOPPLIN

CHINA

Along with porcelain and silk, lacquer represents one of China's greatest cultural achievements. Recent research has shown that the manufacture and application of the natural raw material extends as far back as Neolithic times (approximately 8000–2000 B.C.). Archaeological findings in the south Chinese province of Chê-chiang in 1978, for example, uncovered a red lacquer wooden bowl, which, along with the site, was dated to around 4000 B.C.[1]

The excellent preservation and aesthetic properties of the sap from the lacquer tree, which grows in the warm, temperate climate of East and South-East Asia (*Rhus verniciflua* or, to give it its systematic botanical name, *Toxicodendron verniciflua*), were discovered by the inhabitants of prehistoric China. Today, the tree is cultivated mainly in the south and central Chinese provinces of An-hui, Chê-chiang, Fu-chien, Hu-pei, Szu-ch'uan and Kuang-hsi. The *ch'i-shu*, as this deciduous tree similar to the ash is called in Chinese, secretes a resin-like, greyish-white, milky sap. This rapidly changes colour on exposure to the air, turning dark brown, and then begins to harden slowly (Fig. 1). Trees that are between fourteen and fifteen years old produce the best quality resin, which can vary – sometimes greatly – depending on the tree species, soil and climate, as well as on the time of harvest and the care taken during processing.

Before it can be applied, raw lacquer is carefully filtered through ramie or hemp fabric (Fig. 2). Excessive moisture is evaporated by gentle heating and continuous stirring, which also homogenizes the final product (Fig. 3). The viscous brownish lacquer, which is now almost 90 per cent pure urushiol,[2] can then be applied with spatulas and brushes in very thin coats to produce a transparent varnish. Or it can be used with different pigments to create a variety of colours.

Until recent times the range of possible colours was very limited. Only five colours were permanent – red, black, red-brown, green and yellow. Red was created by adding vermilion (Chinese red, HgS) to the lacquer, and black

1

2

3

4

1. Harvesting lacquer resin.

2. Filtering lacquer resin by squeezing.

3. Drying and stirring raw lacquer to ripen it.

4. Preparing cores or bodies: filling cracks in the wood with strips of paper or gauze.

5. Polishing wooden cores with stones prior to lacquering.

Figs. 1–5, from *Arts, métiers et cultures de la Chine . . . Art du vernis, par le P. d'Incarville*, Paris, 1814. Münster, Museum für Lackkunst.

by adding pine or lamp soot and, later on, iron sulphate filings. Green was produced with a mixture of indigo and powdered malachite (copper carbonate, $CuCO_3$), yellow with auripigment (arsenic trisulphide, As_2S_3) and red-brown with iron oxide (iron rust or vitriol red). Old text sources such as the *Nan-ts'un cho-kêng lu* (Notes while Resting from Ploughing) published in 1366, refer to quite differentiated grades and qualities of colour. The author, T'ao Tsung-i, said the following about red lacquer: 'The colour in red lacquer depends on the season and weather. In winter, natural lacquer must dominate in the mixture of raw lacquer, boiled lacquer, vermilion and colour extracted from the leaves of the red T'ung tree to produce a dark red. Spring and autumn are good for medium red. The best – a gleaming vermilion – is produced in the fourth, fifth and seventh months.'[3] Besides red, black was a main colour, and was used from the outset. The Chinese and Koreans did, however, regard black as inferior to the magnificent reds. It was only in the late nineteenth century that the Japanese, in particular Tahara Sakae in Hiroshima, discovered how to produce blue, white and purple lacquers.

Lacquer was applied to a wide variety of materials. Besides wood, these included fabric, stone, ceramic, wickerwork (bamboo, for example), metal (brass and tin), tortoiseshell and ivory along with paper, papier mâché and leather. Chinese lacquer, however, was most often applied to soft pinewood. The knots and joints in the wood for lacquer furniture, boxes and containers were smoothed with a mixture of raw lacquer and glue (*shao-tang*). The wood was subsequently coated with raw lacquer. Hemp or, later on (at the very latest, after the Yuan period) ramie fabric, was then applied to the wood with adhesive to prevent tension and cracking as well as to stabilize the structure (Fig. 4). The base was then primed with several increasingly refined coats of lacquer paste mixed with glue, clay fragments, brick dust, ash, grinding-stone powder or other ingredients such as hog's blood or rice-flour paste for cheaper products. These were applied to even out small irregularities

in the base material. As each of the first covering coats of lesser-quality lacquer dried, they were carefully polished with a sanding leather before another coat was applied. Thus the lacquerwork proper could begin only after months of preparation.

As with priming, lacquering progressed from the bottom up, with very thin applications of lacquer of increasing quality brushed on to the object, one layer after another. The layers were thin so that they would dry more quickly in the warm but humid climate (up to 70 per cent humidity) within a few days. The air in the drying room – thought to have originally been a leaf-covered pit, the so-called shadow house (*yin-shih*) – had to be kept as dust-free as possible. Each layer of lacquer was allowed to dry completely, then polished. The final layer was carefully polished and smoothed with fine linen cloth, rape oil and antler powder until a smooth, silky lustre, characteristic of Chinese lacquerwork, was produced (Fig. 5).

Monochrome lacquer and lacquer painting

Monochrome lacquer (red or black) and lacquer painting (*miao-ch'i*) are the simplest and oldest lacquer techniques in China, and fragments of red or black lacquer-coated vessels and containers been found in graves dating from the mid- to late Shang period (*c.* fourteenth to eleventh century B.C.). Two very well-preserved red lacquer vessels were also discovered in the north Chinese province of Liao-ning; carbon-dating situates them at around 3500 B.C.[4] They are thus the oldest evidence we have of a Bronze Age culture that was highly developed from the very beginning in China.

The succeeding Chou dynasty (end of eleventh century B.C. to 256 B.C.) gives the first documented evidence of extensive lacquer production. The *Chou-li*, a book describing the rites at the end of the Chou period, for example, records that lacquer was applied to chariots, royal carriages, armour, and bows and arrows. The many chariots discovered in the large graves at Hui-hsien, in Hu-nan province, are evidence that lacquer was increasingly used for preserving and decoration in the manufacture of carriages and military equipment. The wood used to build the carriages has long since rotted away, but the lacquer has survived in the form of scales, or flakes, in the earth.

The picture becomes clearer, however, only afterwards, in the Warring States period (480–221 B.C.), the Ch'in (221–206 B.C.) and particularly the Western Han (206 B.C.–A.D. 9) periods. Many excavations undertaken in recent decades have uncovered thousands of lacquer items, particularly in the Hu-nan, Hu-pei and Ho-nan provinces.[5] They demonstrate that lacquerworking developed alongside metallurgy to become a leading craft. A wide variety of different utensils and sophisticated ornamental designs reflects the demand of the court and the ruling classes for lacquered tableware and other objects. Such work was frequently produced in sets: mirrors and cosmetic containers (*lien*), dining plates (*p'an*), wine cups (*tsun* or *chih*) and two-handled cups or bowls, the so-called 'cups with ears' (*êrh-pei*), three-legged food containers (*ting*) and spoons (*pi*), but also trunks and other furniture, sarcophagi, idols, sacrificial basins (*chien*) and musical instruments. All these items were generally coated with black lacquer over a core of wood and adorned with vermilion patterns that have frequently retained their lustre even after thousands of years.

A magnificent two-handled drinking cup, found in the Han graves of the Chinese Lo-lang colony in northern Korea – like many other items from the Ch'in period – possesses a dated inscription on the bottom providing information about the highly organized working processes in the state workshops with their highly specialized workers:

Fourth year of Yuan Shih (A.D. 4). Shu Commandery. West

factory. Imperial cup of wood, lacquered, engraved and painted, with gilded handles. Capacity one *sheng*, 16 *yüeh*. Initial work, I. Application of lacquer, *Li*. Top work, *Tang*. Gilding of bronze handles, *Ku*. Painting, *Ting*. Engraving, *Feng*. Finishing, *Ping*. Production, *Tsung Tsao*. Official in charge of the soldiers of the factory guard, *Chang*. Manager, *Liang*. Deputy, *Feng*. Assistant, *Lung*. Head clerk, *Pao Chu*.[6]

The numbers 1450:4000 and 2173:3000 on two *p'an* bowls excavated in Pyongyang (Democratic People's Republic of Korea) convey an impression of the huge quantities of lacquered utensils produced for daily use, funeral rites and export (as far as northern Mongolia and the north-west of Kan-su province) by imperial and princely manufactures as well as private workshops. Mass production, complete with bureaucratic-type management, was highly developed.[7] At the same time, cultivation of the lacquer tree began during the Ch'in dynasty at the latest. It is thus no accident that *ch'i yüan* (lacquer-tree garden) is one of the most common place-names in China.

Lacquer was applied until the late Chan-kuo period over a heavy, solid inner core of wood. However, the core was gradually lightened and made thinner and was occasionally replaced by rough fabric. Lacquer work over a base made from hemp became more widespread during the middle Western Han period. This dry lacquer technique, which in Chinese is called *t'o t'ai* (without body) or *chia-chu* (filled with hemp), required first that a model be made from wood or clay and covered with several layers of hemp or ramie fabric. It was then soaked several times in lacquer paste and allowed to dry, and the basic form thus produced was lifted off the model and sent to lacquerworkers and painters for further treatment. An increasing number of items were produced by this method during the Eastern Han period (A.D. 25–220), particularly wine cups and drinking bowls, cosmetic containers and boxes. This complex type of production required a high degree of skill, which along with the cost of the materials was reflected in the prices of the finished objects. According to one contemporary source, the *Yen-t'ieh lun* (Salt and Iron Explained), a lacquer *êrh-pei* brought ten times the price of the same two-handled cup in bronze. Gold-plated, solid gold and silver mountings, such as those produced in the famous Shu workshop, enhanced the luxurious character of lacquerwork from the late Han period onwards. The high value of these items may explain why the owner's name was frequently inscribed on them.

In the beginning, painted decorations imitated the geometric, X-shaped and lozenge motifs in contemporary inlaid-bronze and textile work. But by the fifth to fourth centuries B.C., the styles started to drift apart, and bronze work later came to be influenced by the new lacquer styles of the Chan-kuo period, characterized by stylized dragons, birds, clouds and whirls, which it imitated in turn. The main colours were vermilion on a black lacquer base or vice versa; sometimes rhythmically alternating red and black colours were applied over a brown base. Usually a black overcoat on the outer sections complemented luminous red on the interior sections – rarely the other way around – to create a lively two-tone effect. The viscous lacquer was applied using thin and wide brushes alternately, so that the frieze-like design of parallel borders with zoomorphic decorations developed a surprising elegance and vitality of line. The trend towards the ornamental dissolution of motifs that began in the Ch'in period terminated during the Eastern Han period in a calligraphic style. Here, linear abstracted decorative elements intertwined in sweeping flows made the stylized animals appear 'to rush through space' (Sherman Lee).

At the same time, a realistic and very lively figurative style of painting with lacquer developed, with a wider range of colours. The apogee of this style is the well-known woven basket from the Tomb of the Painted Basket in Lo-lang, northern Korea (Fig. 6).[8] The basic reds, blacks and browns were supplemented with green, blue, yellow, light and dark flesh colours, as well as by

6. Painted wicker basket from the Tomb of the Painted Basket in Lo-lang, northern Korea (replica). 22 × 39 × 18 cm. China (Sichuan), second century (Eastern Han dynasty). Stockholm, Museum of Far Eastern Antiquities.

gold and silver from the second century onwards. Pure lacquer colours were mixed with oil paints produced with tung oil from the seeds of the *t'ung-ye* tree (*Aleurites fordii*) of the paulownia species; they were also pigmented with gold and brass powder.[9]

The lacquer industry that flourished during the late Han period, with its peculiar and highly cultivated lacquer painting, appears to have come to a sudden end with the decline of the Han Empire. Painted lacquer decorations seem to have been neglected for more than a millennium, after which innovation focused on new techniques: lacquer with rich gold, silver and mother-of-pearl inlays, much admired by the extravagant T'ang dynasty, and carved lacquer in the twelfth and thirteenth centuries.

The monochrome lacquers of the Sung (960–1279) and Yuan (1271–1368) periods, found in the graves along the lower reaches of the Yang-tzu River in the triangle composed by the south Chinese provinces of Chiang-su, An-hui and Chê-chiang, are a remarkable high point of this period. Most can be dated back to the eleventh and twelfth centuries, and many bear inscriptions, but few offer any information about the place of origin or artistic period. The shapes and colours of Sung lacquers show that they were probably influenced by – and also influenced – the ceramic styles of the time, particularly the ivory-coloured and brown Ting stoneware from Ho-pei and the legendary imperial *Ju*-ware. Bowls, bowl stands, plates and trays predominate in the findings, indicating that the items produced were mainly table utensils. Life-enhancing properties were attributed to lacquer in Sung Taoist literature, and this probably explains the proliferation of tableware: it was thought that people would absorb healthful properties by dining from lacquer plates.

The shapes of these monochromatic or occasionally two-tone plates are simple and well proportioned. Carefully proportioned, overlapping and intrinsic modelling in the shape of blossoms, with gently curving outlines, gener-

ate an air of aristocratic elegance and restrained sophistication. The 'uncompromising monochrome' (Regina Krahl) and the silky gloss finish so pleasant to touch express the ideal aesthetic of the Sung, who cultivated the calm beauty of lacquer in its essence (Fig. 7). A reverence for the absolute combined with perfect understatement corresponds to what has come down to us through the *Ch'ing pi-ts'ang* (Collection of Artistic Rarities), in which it is related that certain lacquer items for the Sung palace were produced with a gold or silver core. The core was invisible, but knowing that it was there ennobled the piece.

The art of carved lacquer, developed to perfection in the subsequent Yuan (1271–1368) and Ming (1368–1644) periods, entirely replaced monochrome lacquer. Its captivating, unpretentious charm was rediscovered only in the eighteenth century under Emperors Yung-cheng (1723–1735) and Ch'ien-lung (1736–1796) and was imitated in what was almost a Sung revival with the production of nostalgic lacquer containers[10] and even coral-red porcelain.[11]

It is thought that polychrome lacquer painting (the latest archaeological discoveries date from the Wei dynasty, 220–265) flourished again only towards the end of the Ming period. Surviving examples are usually narrow, either tall or wide, rectangular boxes whose sides were often made up of fine bamboo or cane wickerwork, or trays with upward curving bowl-like edges.[12] Almost without exception, they date from the Wan-li period (1573–1620) and bear many inscriptions with cyclic dates, but painted lacquerwork was produced throughout the seventeenth century, including during the transitional period (1644–1682).

Tray surface designs were mainly created on luminous red lacquer bases using polychrome painted lacquer and oil paints. Pure gold lacquer on black was also used. Rims with carved scroll designs or ornamental engravings rubbed with gold were executed with the images of

7. Dish with lobed edge in the shape of a mallow blossom, red lacquer. 2.8 × 18.5 cm diameter. China, Song dynasty (960–1279). Tokyo, Lee Collection.

fabulous animals and complete landscapes. Box lids generally showed reception ceremonies, courtly scenes and historic episodes with many figures, often framed in sweeping reservations and embedded in gold lacquer bases with patterns composed of tiny segments (Fig. 8). The works are traditionally assigned to south China – 'south of the Yang-tzu' – whence they influenced and helped to create the style of lacquerwork produced on the Ryukyu Islands.[13] The production centre was probably Canton, which appears to be confirmed by the inscription on a tray dating from 1595 now in the possession of the Münster Museum für Lackkunst. Canton came to specialize in the export of painted lacquer articles to Europe from the K'ang-hsi period onwards (1662–1722). The export of this so-called *Kanton-Lack* (Canton lacquer), particularly to England, reached a peak during the first half of the nineteenth century. The furniture, boxes and fans were adapted to European taste and for export, hence they were excessively decorated with gold and silver and were mass-produced as well. But the painted lacquer produced during the long reign

8. Audience scene, with river landscape in the background. Rectangular box, black lacquer with polychrome painting surrounded by a gilt border and with basketry panels. 12 × 47.5 × 34.3 cm. China, c. 1600 (Ming dynasty). San Francisco, Asian Art Museum.

of Emperor K'ang-hsi, even for export, was of remarkably high quality. The most outstanding example of K'ang-hsi lacquer painting is the screen with rich polychrome design on the back of the Berlin throne ensemble, which was probably produced in the early 1670s.[14]

Carved lacquer

By far the most important lacquer technique invented in China is carved lacquer. Its probable origins can be traced back to wooden items produced from the middle to late Shang period. The flat parts of the carved reliefs were painted red and the raised areas were black. Alternating red and black lacquer in rhythmic designs is also characteristic of the oldest examples of genuine carved lacquer in China. A suit of leather armour coated with carved lacquer, dating from the eighth or ninth century and excavated in Fort Miran in East Turkestan in 1906, has always been regarded as the oldest piece of carved lacquer, but an exceptionally well-preserved box dating from the fifth century in the Lee Collection in Tokyo is today regarded as the earliest known piece.[15] The fact that the technical and ornamental features of the so-called *guri* lacquer were already fully developed may suggest that even older pieces exist.

The Japanese term *guri*, which is now universally used to describe this type of carved lacquer, means 'arch and circle', referring to geometric decorations consisting of circles, spirals and three-lobed, sweeping cloud-like shapes reminiscent of a pince-nez called *ju-i* (after the *ju-i* congratulatory sceptre). From the start, the *hsiang-ts'ao* vine scroll consisting of weaving volutes was also used, mostly for edge patterns. Always symmetrical or concentric, these motifs expand to densely cover plates and boxes as well as long, narrow 'stretched' trays.

Another outstanding feature of *guri* work was the two-tone or multi-coloured layering of lacquer coating. The layers of colour were applied so that each individual colour comprised many different numbers of individual coats, usually in a recurrent pattern of red and black, sometimes red and green or ochre. The top layer generally set the tone and determined whether the intermediate layers would be less or more dominant, and whether black or red *guri* lacquer was to be the final product. The carving knife was held at an angle to carve the individual motifs in V-shaped cuts, producing a lively contrast of colours in alternating layers.

The development of the style is particularly apparent in early examples, although the method of creating layers of colour, the carving techniques and even the classic *guri* patterns remained almost unchanged until well into the nineteenth century. The *guri* lacquers of the Sung period are remarkably light; their sides are thin and the lacquer coating is made up of comparatively few layers. The extremely flat cut of the decoration creates fine, sharp burrs, giving the pieces a graphic, almost brittle, character. In the Sung period, the geometric spiralling patterns were complemented with floral motifs heightened with pairs of birds resulting in a figurative style of *guri* lacquer. During the Yuan and Ming periods, the lacquer carvers produced spiral and especially *ju-i* motifs, which they carved into a heavy, almost 'muscular', relief of thick coats of lacquer dominated by black (Fig. 9). Polished round and silky contours intensify this impression and invite the viewer to feel the tactile attraction of the soft surface. Chinese *guri* work declined after the Ming period, but the technique continued to thrive and develop after its introduction into Japan (traditionally assumed to have occurred in the fourteenth century) down to the present day; the style has achieved an extraordinary technical precision and aesthetic perfection.[16]

Besides floral seasonal designs enlivened with pairs of birds, the second and largest group of carved lacquer used mythological dragons and phoenixes as imperial

9. Tray, carved brown and red lacquer with *guri* pattern. China, Yuan dynasty (1271–1368). Beijing, National Palace Museum.

symbols, along with figurative motifs embedded in landscapes as scenic and anecdotal elements with architectural counterpoints. Like the *guri* lacquers, these pieces were produced with a fabric-covered wooden core, to which increasingly finer and harder undercoats were applied, and which were then finished with less-refined lacquer and finally with very thin outer layers of the finest lacquer a mere 0.03 mm to 0.04 mm thick. As each coat of lacquer required three to four days to dry, and carvings were usually cut into lacquer with an average thickness of approximately 4 mm built up from a hundred or more individual layers, it is apparent that the process was complicated, and that many months could pass before the lacquer master began work with the carving knife.[17]

In contrast to the alternating layers of colour used in *guri* lacquer, only one colour was used on carved lacquers, usually with representational motifs. Particularly during the Ming period, the 'Bright Dynasty', the luminous

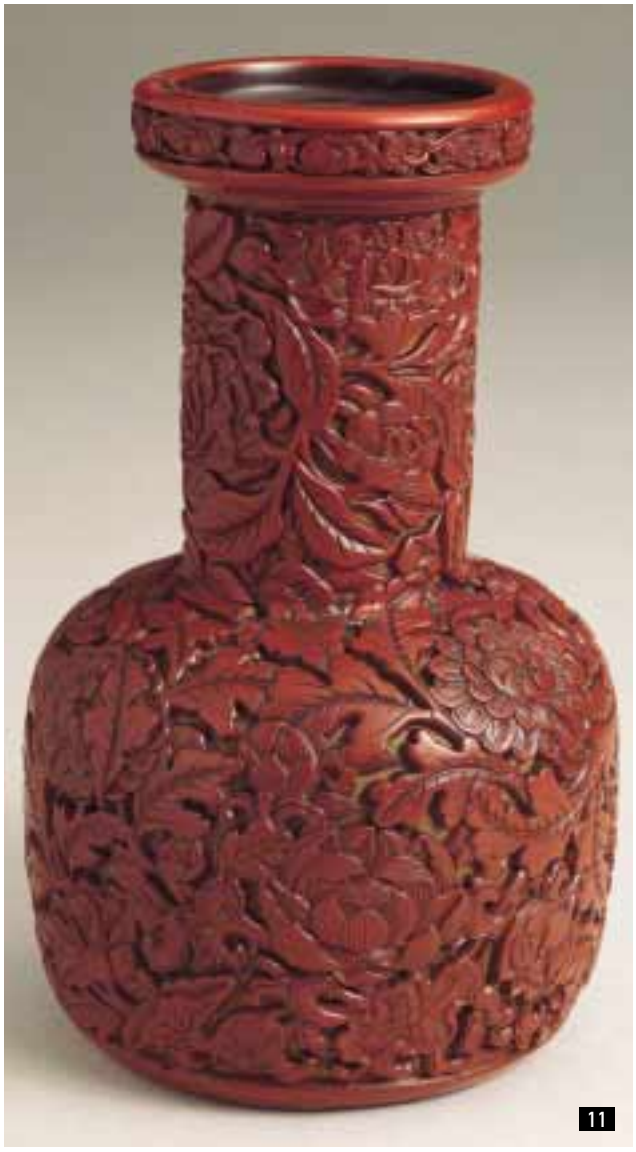
10

monochrome vermilion of the classical red carved lacquer (*t'i-hung*, cut red) prevailed over black lacquer (*t'i-hei*, cut black), which can usually be dated to an earlier time, that of the Yuan period. In the Yuan and early Ming periods (up to around 1500) both colours were built up on an ochre base, which is revealed in the narrow gaps in the carved decoration to create a soft brocade-like contrast. Frequently, just 1 mm above the ochre base, there is a thin layer of black lacquer in the red (and vice versa), which warned the carver that his blade had penetrated too close to the yellow base. It appears as flat background almost exclusively in conjunction with dragons and phoenixes or with plant motifs, which range over rim borders in dense patterns or as the main design of the surfaces and vessel walls. In contrast to these ornamental compositions filling the entire space, probably imitated from silk embroidery, scenic depictions with their greater 'emptiness' required a different style of background decoration so that the desired figurative illusions could be achieved. The earth was thus represented by squares with double lines, or by rhomboids filled with stars. Water was represented by stylized waves made up of counteracting curves. Air was symbolized by a rather complex pattern of horizontally layered groups of lines running as offset serpentines (Fig. 10). Backgrounds with the three combined patterns formed a style that was abandoned only towards the end of the fifteenth and the beginning of the sixteenth centuries in favour of two patterns or finally just one. Those who produced non-court-commissioned objects in the late Ming period eventually no longer knew the meaning of the symbols, and they were frequently confused. At the same time, the style of carved lacquer with floral decorations changed. Ornamental density was replaced towards the end of the fifteenth century by wider spaces. This development finally led even to the ochre base falling into disuse and being replaced in the sixteenth century with geometric patterns.[18]

10. Landscape with pavilion and reception scene. Standing table screen (section), red carved lacquer. Height, 58.5 cm. China, beginning of fifteenth century (Ming dynasty). Stuttgart, Linden-Museum.

Chinese carved lacquer reached its peak in the late fourteenth and early fifteenth centuries during the reigns of Emperors Yung-lo (1403–1424) and Hsüan-tê (1426–1435). These light- to dark-red lacquers on ochre-yellow bases are characterized by a style of carving with rounded edges and silky polished surfaces whose soft appearance is unique. The three-dimensional effect of the dense relief on all sides contributes to the quality of these pieces. The complicated and overlapping, artistically scrolling leaves, and the lively but carefully engraved interior composition of the design, generate a high degree of plasticity and spatial depth. The fine attention to detail is also apparent from the care with which the various plants – mainly peonies, chrysanthemums, gardenias, lotus and plum blossoms – were reproduced. The representation is botanically correct: each stamen has a different pattern, and the veining on the tops and bottoms of leaves differs exactly as it would in nature (Figs. 11 and 12).

The immediate predecessors of these masterpieces were the red and black carved lacquers of the late Yuan period. It was probably not by chance that two of the most famous Chinese lacquer masters – Chang Ch'eng and Yang Mao – worked during this time, the period of the rising Ming dynasty. The *Kê-ku yao lun* (Outline of Antiquities) published by Ts'ao Chao in 1388, the classic reference work of all the Chinese art manuals, has the following to say about these two masters: 'At the end of the Yuan dynasty, Chang Ch'eng and Yang Mao, both pupils of Yang Hui of Hsi-t'ang, were famous for their carved redware. . . . Carved red lacquer is greatly favoured by [the] peoples of Japan and the Liu Chiu Islands.'[19] It therefore comes as no surprise that a series of early Chinese carved lacquer from the Sung, Yuan and early Ming periods has been preserved in old Japanese temples, including the famous plate with peacock decoration with a possibly authentic Chang Ch'eng signature



11

12

in the Daitoku-ji in Kyoto.[20] The fame of the two artists survived for centuries. Many copies of their work were made, and the facsimiles of their signatures here mean that the pieces were produced in the style of Chang Ch'eng and Yang Mao or that they were modelled on original works by the two artists. Many fraudulent imitations by Chinese and particularly Japanese lacquer carvers also exist, where the signatures intend solely to convey the impression of an original work.

The best-known region for lacquer carving was centred along the lower reaches of the Yang-tzu River and extended as far south as Chê-chiang province where Chang Ch'eng, Yang Mao and their students worked in Hsi-t'ang. This region had already risen to fame during the Sung period for its lacquer workshops where, under the supervision of the authorities, items had been produced for the imperial court. The astonishingly good condition of the pieces surviving from the early fifteenth century demonstrates the careful craftsmanship and the high technical skills prevalent in these manufactures. Much of the lacquerwork produced under Emperors Yung-lo and Hsüan-tê bears markings made by needles and knives into which gold was rubbed. It is a subject of intense debate by lacquer art historians whether the marks were applied at the time of manufacture or whether they were applied at a later date.[21]

The carved lacquers produced during the late fifteenth and early sixteenth centuries have not been studied in depth. There is a gap of almost one hundred years between production under Emperor Hsüan-tê (died 1435) and under Emperor Chia-ching (whose reign commenced in 1522). Only two marked or inscribed and dated pieces are known to have survived from the

11. Peony, lotus and chrysanthemum sprays. Vase, carved red lacquer. Height, 15.5 cm. China, beginning of fifteenth century (Ming dynasty). Münster, Museum für Lackkunst.

12. Camellia sprays. Dish (section), carved red lacquer. China, beginning of fifteenth century (Ming dynasty). Beijing, National Palace Museum.

time of Emperor Hung-chih (1488–1505). But, during this period of transition, the floral lacquer decorations unmistakably moved away from formally dense ornamental compositions towards insular, often freer and more naturalistic representations on carpet-like areas of background patterns. The scenic motifs appear to push *staffage* and landscapes into the background in favour of a rich *veduta*-like palace architecture. The contemplative calm and intimate tranquillity of the late Yuan and early Ming scenes were replaced by larger detailed panoramas.

Subsequently, a new style emerged under Emperor Chia-ching (1522–1566); many marked pieces have survived from this era. These include vessels and containers with surfaces divided into small sections by ornamental bands and cut-out medallions. These narrow spaces were filled with a wealth of compositions consisting of different patterns, floral and scenic motifs, Taoist good-luck emblems and magic written characters. The trend towards decorations overloaded with motifs and arrangements was accompanied by the development of irregular eccentric shapes, for example, in the form of bar-, ring-, pumpkin- and leaf-shaped, irregularly pointed containers. There also arose a preference for expressive, flowing and expansive dragon postures, which – frequently in conjunction with phoenixes – became a leitmotif for Chia-ching lacquer (Fig. 13). The agitated, mannerist-like style was enhanced by multi-coloured lacquer decors.

During the long reign of Emperor Wan-li (1573–1619), the two-colour and multicoloured layering of carved lacquer (*t'i-ts'ai*, cut colours) was continued particularly in combinations of yellow, green and red. A decided preference for a lively polychrome effect can be seen in the enthusiasm of the period for five-colour porcelain. The framing of individual decorative depictions with medallions or curving panels represented a continuation of the Chia-ching style. In a clear contrast to the extravagant contours of Chia-ching lacquerwork, the artists of the Wan-li era returned to studied calm and simple shapes which they covered with evenly dense and symmetric carved designs. Rectangular boxes with recessed but also increasingly projecting edges are particularly characteristic of the Wan-li period.[22]

Although the penultimate Ming emperor, T'ien-ch'i (1621–1627), worked as a lacquer carver himself, the art declined inexorably with the fall of the dynasty. It was only in 1680 under the consolidating reign of the most important Ch'ing ruler, K'ang-hsi, that a court manufacture was once again set up in the Forbidden City. But again, a lack of pieces that can be safely dated to this period makes it difficult to define the K'ang-hsi style.[23]

The last great moment in Chinese carved lacquer commenced with the Ch'ien-lung lacquers created in 1746. These bear the earliest dated inscriptions and were influenced by the emperor, who in his spare time was a poet, painter, artist and antique collector. He enjoyed everything that evoked bygone eras, so that a taste was created for a nostalgic 'imitation of olden times'. Carved lacquer that copied models from the Yung-lo/Hsüan-tê and the Chia-ching/Wan-li periods has survived alongside particularly amazing examples in the style of monochrome Sung lacquerwork. Their vermilion, however, displays the light tone and hardness so characteristic of Ch'ien-lung lacquer, while the relief work lacks the soft surface lustre so characteristic of the pieces from the fifteenth century. Some other stylistic irregularities also reveal their late production date. A tendency towards technical virtuosity, expressed as complicated winding and sharp-edged precision carvings, is unmistakable. The popular prime example – one that also impressively documents the emperor's preference for red carved lacquer – is Ch'ien-lung's throne, now housed at the Victoria and Albert Museum in London.[24]

Coromandel lacquer

Coromandel lacquer represents a special, late type of carved lacquer. This term, widely used by art historians

13. Winged dragon against background of green waves, framed by six-petalled prunus border. Octagonal container, carved red lacquer. 13.7 × 22.5 cm diameter. China, mid-sixteenth century (Ming dynasty). Tokyo, Lee Collection.

only since the beginning of the twentieth century, originated in the French *vernis de Coromandel*, and was first documented in 1748.[25] In turn, the French expression may be traced back to the Coromandel Coast in south-east India, where the French maintained trading posts in Pondichéry and Madras for shipping goods from the Far East until the British took over in 1761. The English literature of the seventeenth and eighteenth centuries called Coromandel lacquer 'Bantam work' after the base operated by the Dutch East India

Company in the port of Bantam on Java (Indonesia), where exported lacquerwork passed on its way to Europe.

The Chinese used the terms *k'ê-hui* (engraved ash) and *k'uan-ts'ai* (engraved polychrome) for this type of lacquerwork. The latter appears for the first time at the end of the sixteenth century in *Hsiu-shi lu* (Records of Lacquer Ornaments), a major treatise on lacquer composed at that time by Huang Ch'eng and later commented by Yang Ming in 1625. The work proves that this procedure had already developed by the late Ming period. It states: 'Lacquer paints are used in conjunction with oils for the "engraved polychrome" technique. . . . The use of silver and gold has a magnificent effect on the colour and enhances the pleasing appearance of the work's beauty even further. . .'. Yang Ming adds, 'The design is incised in the same way [as for] a wood printing plate. . . . The colours are then filled in. This is how the technique gets its name.'[26]

Yang Ming's comparison with wood printing plates is very clear. The core plates used in the Coromandel technique – usually pinewood – were repeatedly coated with a primer. To this day the precise composition of the primer is not known. It probably consisted of a mixture of hog's blood and raw lacquer to which ashes had been added. After careful polishing, this primer was coated with several layers of brown or black lacquer. Once the lacquer had hardened, a scenic or floral decoration was cut in relief into the lacquer down to the lacquer/ash base. The incisions were then painted in colourful fillings or with gold powder mixed with glue. The lively, lustrous variety of colours and the embedded inner drawing, set off in very fine lacquer relief, evokes Chinese woodcuts and their wealth of motifs. A fabulous variety of imaginary palatial scenes and crowded gatherings of Taoist gods, complete with landscapes, hunting scenes and the classical blossom-and-bird motifs range across the main fields, bordered by wide fringes of floral, Taoist or Buddhist adornments.

Coromandel lacquer was an innovation of the late Ming period, but these items are more characteristic of the K'ang-hsi era, from which many high-quality examples have survived.[27] These are usually magnificent, twelve-section screens, dated and inscribed with long dedications, that were given to deserving functionaries on their birthdays or other anniversaries. In the late seventeenth century, and increasingly in the eighteenth century, Coromandel lacquer objects – mainly screens, cabinets and boxes – were also exported to Europe, some of it even made to order. The centre of production was probably in the south Chinese provinces. The Coromandel screen at the Cologne Museum for East-Asian Art, for example, names an unknown master, Ts'ai Ch'ih-ch'u from Chang in Fu-chien province.[28] The oldest safely dated example is the screen made in 1659, now in the Freer Gallery of Art in Washington, D.C. (Fig. 14). But many Coromandel screens were also produced during the nineteenth century and exported to Europe. According to Michel Beurdeley, these late pieces possess a greyish primer composed of glue and ground slate.[29]

Engraved, inlaid and filled lacquer

In addition to polychrome lacquer painting, the Han period developed the technique of engraving designs into the covering coats of lacquer with needle-like gouges. This technique was called *chui-hua* (needle painting). However, these thin-lined incised drawings in the calligraphic and abstract style so characteristic of the late Han period were not produced to the exclusion of other lacquer styles, and patterns carved out over wider areas and filled with thin gold or silver plate were also common. And it was particularly in the T'ang period (618–906) that this expensive technique, known as *p'ing-t'o* (shallow scooping), influenced by Persian styles, achieved a high degree of arabesque filigree delicacy. According to reports of the time, it reached the height of its popularity under Emperor Hsüan-tsung (713–755). The lacquer containers stored in the Shôsô-in treasury in Nara (Japan) and a long-necked jug with

14. Scene in Imperial Palace with numerous figures.
Coromandel screen (section). China, dated 1659 (Qing dynasty).
Washington, D.C., Freer Gallery of Art.

lid owned by the Japanese Emperor Shômu (724–749), a contemporary of Hsüan-tsung, and a lid fragment at the Linden Museum in Stuttgart are some of the few surviving examples that convey a glimmer of the sophistication of *p'ing-t'o* lacquer from the T'ang period.[30] Its effect is comparable to that of the eighteenth and nineteenth century piqué work in Europe, with gold and silver inlays in tortoiseshell.

Dated excavations have shown that engraved lacquer was already familiar to the Chinese by the Sung period, at the very latest. The designs were etched into black, red or, less frequently, green lacquer. They were then filled with gold leaf. Although directly stimulated by the highly developed gold and silver engravings of the T'ang and Sung periods, engraved lacquer probably developed from the lacquer of the late Han period. The *Nan-ts'un cho-kêng lu* published in 1366 by T'ao Tsung-i calls this technique *ch'iang-chin-yin* (decorating with gold and silver). As explained in the document, this technique involves 'the inlaying of gold and silver foil into engravings on black lacquer. The incised representations –

landscapes, figurative and historic scenes, flowers, buildings – are filled with Korean (Silla) lacquer, which for gold plating was mixed with sublimed sulphur and for silver plating with *shao* powder. The cut-out gold foil which sticks to the lacquer is wiped firm with cotton wool.'[31]

The *ch'iang-chin* (decorated with gold) technique reached a high level during the Yuan period, which is demonstrated by a series of nine Sutra boxes that have been in the possession of Japanese collections and temples for centuries. Four of these have inscriptions dating them to 1315.[32] The black-gold *ch'iang-chin* lacquerware with parallel hatching resembling brocade embroidery was not only exported to Japan during the fourteenth and early fifteenth centuries, but also to the Ryukyu Islands, where the technique fell on particularly fertile soil and greatly influenced the development of an individual local style. While *ch'iang-chin* decorations developed and continued to the present day in Japan and the Ryukyu Islands as *chinkin-bori* (engravings with inlaid gold), the style using engraved and gold-plated lines exclusively on black lacquer had fallen into disregard in China by the early fifteenth century. From this time on, the style was combined with the technique of *t'ien-ch'i* (filled-in lacquer) work, and later with lacquer painting.

In the classic *t'ien-ch'i* technique, flat depressions were scooped out in usually red or red-brown lacquer that was not quite hardened.[33] These depressions were then filled in with different-coloured lacquers. Subsequent polishing frequently caused the colours to blend and produced soft, sfumato-like contours. The outer and inner contours of the sketch-like pictures were then carefully engraved and powdered gold was rubbed into the markings.

The combination of gold-filled lacquer engravings with colourful lacquer inlays, like that seen on the small cabinet box dating from the early fifteenth century in the possession of the Victoria and Albert Museum in

15. Dragon and phoenix in ogival panel. Cabinet, filled and incised lacquer. 49 × 56.8 × 42 cm. China, first half of fifteenth century (Ming dynasty). London, Victoria and Albert Museum.

London (Fig. 15), reached its peak only during the sixteenth century under Emperors Chia-ching and Wan-li. The high esteem for these lacquers, which were known as *tiao-t'ien* (incising and filling) by the court, appears to have surpassed even the taste for red carved lacquer of the late sixteenth century. Examples of inlaid or painted, small area-filling background patterns with embedded decorative curving medallions are documented only for the Wan-li period and thus represent a reliable dating aid. The complicated, time-consuming and very expensive procedure resulted from the laborious decorative depressions and lacquer fillings, which were sometimes replaced by painted lacquer. This change appears to have already occurred during the Wan-li period. The usually visible wear caused by continuous use makes it possible to differentiate between real *t'ien-ch'i* pieces and simpler copies.

The promotion of lacquer art under Emperor Ch'ien-lung resulted in a revival of the filled engraving technique in the eighteenth century. Besides an entire series of high-quality, marked pieces from the emperor's

manufacture, a surprisingly large group of almost identical sixteen-lobed containers have now been dated to the Ch'ien-lung period. The technique of using expensive lacquer fillings was replaced by the use of thinly applied lacquer painting that magnificently complemented the web-like, densely woven, gold engravings.

Mother-of-pearl lacquer

A technique that has been associated with lacquer art for thousands of years is the use of mother-of-pearl inlays. Fragments found in An-yang in the north of Ho-nan province in the royal graves of the Shang dynasty, dating from the twelfth and eleventh centuries B.C., possess mother-of-pearl and other materials inlaid in a red lacquer coating. But this technique known in Chinese as *lo-tien* (polished conch inlay) reached an initial peak only under the T'ang rulers.

The effect of *lo-tien* is based on the elemental contrast between the bright shimmering mother-of-pearl and the black lacquer background. The design was 'lifted out' of the base of many coats, and the thickly cut pieces of mother-of-pearl were glued into the depressions. Subsequent layers of transparent lacquer were then carefully polished away to create a smooth surface. Frequently, a thin layer of transparent lacquer was left to protect the incrusted container walls.[34] As this technique did not guarantee that the mother-of-pearl inlay would be flush with the lacquer bed, the minute decorative parts were also applied directly to the base, and the gaps between the patterns were afterwards filled with layers of lacquer.

This method developed at the same time as the absolutely perfected technique of applying silver and gold inlays. Both styles were probably influenced by Sassanidian and Indian art. Probably the most beautiful surviving object from the T'ang period, the belt container owned by the Japanese Emperor Shômu – now at the Shôsô-in at Nara – is decorated in the shape of a filigree rosette made from inlays of mother-of-pearl, gold and colourfully underpainted rock crystal on black lacquer.[35] The combination of different materials, such as honey-coloured translucent tortoiseshell or jade, with the milky-white and finely engraved mother-of-pearl from the trochus marine snail (*Turbo cornutus*) is typical of the T'ang period and is also encountered in the form of incrustations on fragrant sandalwood. The craftsmanship and the refined, luxurious taste expressed in such items were much admired, especially in Japan and Korea, where they usually arrived as imperial gifts – and consequently stimulated the production of mother-of-pearl lacquer in these countries.

Chinese writers also mention mother-of-pearl lacquer during the Sung period. The *Kê-ku yao-lun*, published in 1388, explains: 'Those made in the past or for the Sung Imperial Court were in solid lacquer. Some of them have copper thread inlays. They are very good.'[36] Examples that have survived from the Sung period to the present day are extremely rare.[37]

Larger quantities of mother-of-pearl lacquer have come down to us only from the fourteenth century, which is the late Yuan period. These pieces demonstrate the exceptional skills of the lacquerworkers. The style was already fully developed, and its influence extended from the 300-year Ming period into the Ch'ing era. The thick pieces of mother-of-pearl, the so-called 'solid mother-of-pearl' used in the ornamental decorations during the T'ang period, were replaced by fine to paper-thin pieces from the luminous iridescent mother-of-pearl produced by the marmorized trochus or more frequently by the sea-ear (*Haliotis tuberculata*). The French name for this snail, *burgau*, gave its name to this technique known as *laque burgauté*. In this technique, frequently called 'soft mother-of-pearl', tiny particles were inlaid and then coated with black lacquer, and finally polished after the drying period. In the larger section of the design, mother-of-pearl inlays were usually combined into figurative representations, which were bordered on the

16

17

16. The palace of Hsi Wang-mu and the Eight Immortals. Octagonal container, black lacquer with mother-of-pearl inlays. 23.4 × 36 cm diameter. China, Yuan dynasty (1279–1368). Tokyo, Lee Collection.

17. Flowering plum tree with crescent moon in night sky. Tray, black lacquer with mother-of-pearl inlays. 3.3 × 34.4 × 33.6 cm. China, fourteenth to fifteenth century (Yuan/early Ming dynasty). Münster, Museum für Lackkunst.

blossom-shaped curving or polygonal edges or sides of the containers by means of alternating geometric patterns, circulating vine borders or scenic motifs grouped into medallion-shaped areas (Fig. 16). Related surface patterns appeared as additional ornamental filling in the overall composition, while the faces and clothing of the figures were carefully engraved in minute detail. The larger objects used thousands upon thousands of tiny, individually cut mother-of-pearl pieces that were applied to the lacquer base. Such refinement in design, particularly that of Yuan lacquer, was not to be achieved again at this level until the K'ang-hsi period.[38]

The mother-of-pearl lacquer of the Ming period continued the style developed under the Mongol emperors. Decorative motifs focused on fabulous subjects taken from woodcuts. The use of the different mother-of-pearl colours from the sixteenth century onwards produced an increasingly illusory picturesque effect here. The lacquer master Huang-ch'eng, author of the above-cited treatise on lacquer adornment, *Hsiu-shi lu* (1625), remarks, 'The greater the care that is taken with the details of [the mother-of-pearl] inlays in creating a similarity to painting, the better. The fact that different shells have different colours should be put to use for the individual sections of the designs.'[39] At the same time, however, the dating of mother-of-pearl lacquerwork from the Ming dynasty style raises unanswerable questions, because there are no reliable datings or cyclic inscriptions that allow specific styles to be attributed to this or that exact period.[40] The stylistic proximity of the styles to mother-of-pearl work in Korea and to lacquerware from the Ryukyu Islands also sometimes makes it difficult to determine precisely the date, or even the geographic origin, of the pieces. Dreamy, romantic pictures with blossoming plum branches under half moons or with pairs of birds, inherited from the Yuan tradition, which in turn copied them from the ink drawings of the Sung period, appear to have been continued only until the fifteenth century (Fig. 17).

18. Terrace with the Eight Immortals. Screen from throne ensemble (detail of centre panel), black lacquer with mother-of-pearl inlays and gold. 286 × 330 cm. China, c. 1670 (Qing dynasty). Berlin, Museum für Ostasiatische Kunst.

The mother-of-pearl lacquers of the Ming period usually bear no official marks (there are a few exceptions) and they were less popular at the court than carved lacquers (fifteenth century) and lacquer with filled engravings (sixteenth century). The technique of mother-of-pearl, however, enjoyed renewed enthusiasm and official approval during the K'ang-hsi era. The major work of art from this period is the ensemble at the Museum für Ostasiatische Kunst in Berlin, comprising a throne and screen, and it dates from the early 1770s and – along with other items of furniture with mother-of-pearl inlays produced for the imperial court – is proof of the existence of imperial workshops. The masterly style of this piece indicates the continuation of a trend that began in the late sixteenth century towards a picturesque view of the world and facial features for the figures. The use of iridescent pink, green and violet mother-of-pearl, sprinkled mother-of-pearl dust and complementary inlays of very thin gold and silver foil made the rich scenes appear even more complex and realistic (Fig. 18).

The excellent quality of these mother-of-pearl pieces is evident not only in magnificent imperial furniture, but also in smaller, lacquered utensils and charming orna-

mental objects produced from the seventeenth century onwards and manufactured in greater quantities during the eighteenth century. Many of these artistic miniatures bear stamps in gold foil or mother-of-pearl with the artist's name, particularly Chiang Ch'ien-li, an almost legendary master of *laque burgauté* working as the Ming dynasty was succeeded by the Ch'ing. Very little is known about a certain 'cup and bowl Chiang-Ch'ien-li', but his style and skill were regarded as exemplary, and many imitators even copied his signature mark to express that the pieces were 'produced in the style of Chiang Ch'ien-li'.

Beginning perhaps in the early seventeenth century and continuing until later, the mother-of-pearl inlays appear to have been painted, or else foil was applied on the underside to intensify the colours. Recent research attributes many of these colourful objects to the Ryukyu Islands, partly because the use of added wire inlays, and the lining of bowls and cups with tinfoil, is thought to have been imported from Kyushu. In the seventeenth and eighteenth centuries, the Ryukyu Islands were the centre of an export-oriented manufacture of Chinese-style mother-of-pearl lacquers for Japanese customers.

Chinese lacquer art in Europe: reception and research

The earliest information about Chinese lacquer in the possession of European aristocrats appears around the late sixteenth century. The 'exotic rarities', as they were called, were exhibited with other 'Indian' rarities in royal art and wonder chambers.[41] Europe really discovered Chinese lacquer art, however, only during the K'ang-hsi period, that is, towards the end of the seventeenth century, when the Dutch and British trading companies set up a regular lacquer import and export business.[42] The growing number of imports of Coromandel screens and cabinets and richly decorated gold-lacquered furniture from the trading centres in southern China stimulated demand as well as the desire to reproduce this material, so highly regarded for resistance, hardness, sheen and exotic decoration.

The search for production secrets had already resulted in highly speculative ideas and even 'scientific' analyses by the sixteenth century. But it was only in the *Novus Atlas Sinensis* published in Amsterdam in 1655 by the Jesuit priest, Martinius Martini, that the first correct hypothesis about the 'glue' that 'sweats out of trees' appeared. Soon, more detailed explanations about production and processing of the special resin followed, such as the *Nouveaux mémoires sur l'état présent de la Chine* published in 1696 by Louis le Comte, and the famous *Trattato sopra la vernice detta communemente cinese*, by Filippo Bonanni, published in 1709 in Latin and in 1720 in Italian. Bonanni clearly knew that East Asian lacquer could not be produced in Europe, so he revealed all the lacquer recipes in his possession to imitate 'Chinese veneer'. This book of recipes and the variations subsequently published, along with richly illustrated travel reports and Chinese and Japanese exports, induced a wave of 'lacquer chinoiserie' – a serious yet playful imitation of East Asian lacquerwork in the late seventeenth century. The Chinese and Japanese lacquer art that entered aristocratic and also some bourgeois homes, especially in the Netherlands, provided the stimulus and basis for the development of European lacquer art. It also enriched the Baroque and Rococo styles with an infinite world of fantastic and bizarre motifs found on the lacquer pieces.

Japanese lacquerware, due to the fad for everything Japanese in the late nineteenth century, drew the attention of public and private collectors. In contrast, the significance and variety of Chinese lacquer art was recognized only at the beginning of the twentieth century by a few collectors such as A. Breuer, Fritz Löw-Beer, Soame Jenyns, Mrs Walter Sedgwick and Sir Harry and Lady Garner. Today's state of research into the art is due to the knowledge they acquired over years of collecting, and to their subsequent publications.

After their initial approaches dealing with the history of Chinese lacquer as an art at the beginning of the twentieth century, the standard works (which to this day remain essential, such as Fritz Löw-Beer's essays, 'Chinese carved lacquer of the early fifteenth century' and 'Chinese lacquer of the middle and late Ming period') were published only in the early 1950s. Other important works were published later, such as Werner Speiser's *Lackkunst in Ostasien* in 1965; Lee Yu-Kuan's *Oriental Lacquer Art* in 1972; and Harry Garner's *Chinese Lacquer*, which is as recent as 1979.[43] The most important works to be recently published in the West are the catalogue by George Kuwayama for the 'Far Eastern Lacquer' exhibition of 1982 at the Los Angeles County Museum; Klaus Brandt's *Chinesische Lackarbeiten* collection catalogue issued in Stuttgart in 1988; James Watt's and Barbara Brennan Ford's catalogue of the Florence and Herbert Irving Collection published in 1991; *Chinese Carved Lacquer*, published by Derek Clifford in 1992; and the catalogue of the '2000 Years of Chinese Lacquer' exhibition presented in 1993 by the Art Gallery of the Chinese University of Hong Kong.

But the magic of Chinese lacquerwork had already been perceived in the Japanophile second half of the nineteenth century; this is demonstrated not only by an article entitled 'Les Laques' by Albert Jacquemart published in the *Gazette des Beaux-Arts* as early as 1859/1860,[44] but also by the Chinese connotations in the gentle Far-Eastern references in *Poissons d'or*, the third piano piece in Claude Debussy's *Images* of 1907 – inspired by the picture of a goldfish on a piece of Chinese lacquerware.

Notes

1. 'Chê-chiang Ho-mu-tu i-chih ti-êrh-ch'i fa-chüeh tê chu-yao shou-huo' [Main finds from the second excavation at Hemudu, Zhejiang], *Wen Wu* (Beijing), 5, 1980, Pl. III, Fig. 3.

2. Urushiol, from the Japanese term for lacquer, *urushi*, is the main ingredient in lacquer resin. It is a polyphenol consisting of 60 per cent to 80 per cent water, 3 per cent to 6 per cent rubber and 1 per cent to 3 per cent of nitrogenous substances. During the complex process of enzymatic polymerization, thin coats dry in around four to five days at an air temperature of 25°C to 30°C and a humidity of between 70 per cent and 80 per cent. More information about the chemical composition and properties of lacquer resin may be found in Ju Kumanotani, 'The chemistry of oriental lacquer (*Rhus vernicifluа*)', in N. S. Brommelle and Perry Smith (eds.), *Urushi: Proceedings of the Urushi Study Group, June 10–27, 1985, Tokyo*, pp. 243–51, Marina del Rey, Getty Conservation Institute, 1988.

3. In Otto Mänchen-Helfen, 'Materialien zur Geschichte des chinesischen Lacks', *Ostasiatische Zeitschrift*, Neue Folge 13, 1937, p. 216.

4. Zhongshu Wang, *Han Civilization*, p. 80, Connecticut/London, New Haven, 1982.

5. These findings were published in Chinese literature. See, among others, Ch'eng-tsu Shang, *Ch'ang-sha ch'u-t'u Ch'u ch'i-ch'i t'u-lu* [Picture catalogue of the lacquer utensils from Ch'u excavated at Ch'ang-sha], Shanghai, 1955; Zhenyu Chen, *Chung-kuo Hu-pei ch'u-t'u wen-wu. Tseng hou I pien-chung kuo-chi wen-hu chiao-liu* [Lacquerwares of Warring States period, Qin and Han dynasties, unearthed in Hubei province. Tomb of Marquis Yi of Zeng in Suixian county. Bronze chime bells of Marquis of Zeng], item No. 11, 1988, pp. 26–8; *Hu-pêh ch'u-t'u Chan-kuo Ch'in-Han ch'i-ch'i* [Lacquerware from the Warring States to the Han periods excavated in Hubei province], Hubei Provincial Museum, Chinese University of Hong Kong, 1994 (catalogue). Because of its delicateness, early lacquerwork was hardly acknowledged in the major Western exhibitions of archaeological finds in China or was represented only as copies: *Trésors d'art chinois: découvertes archéologiques en République Populaire de Chine* [Treasures of Chinese art: Archaeological finds in the People's Republic of China], Brussels, Palais des Beaux-Arts, 1975 (catalogue), Nos. 21–23, 37–47a, 79–82; *Das alte China. Menschen und Götter im Reich der Mitte 5000 v. Chr.–220 n. Chr.* [The old China. People and gods in the Middle Kingdom, 5000 B.C.–A.D. 220], Essen, Kulturstiftung Ruhr, 1995 (catalogue), Nos. 90–93.

6. In R. Soame Jenyns and William Watson, *Chinese Art: The minor arts – gold, silver, bronze, cloisonné, Cantonese*

enamel, lacquer, furniture, wood, p. 275, New York, 1963.

7. Carol Michaelson, 'Mass production and the development of the lacquer industry during the Han dynasty', *Orientations*, Vol. 23, No. 11, 1992, pp. 60–5.

8. National Folklore Museum (ed.), *Hangkuk ch'ilgi yich'on nyon* [2000 years of Korean lacquerware], pp. 20–5, Seoul, National Folklore Museum, 1989 (catalogue), item No. 10, illus.

9. On Chinese lacquer art of the Han period: Fritz Löw-Beer, 'Zum Dekor der Han-Lacke' [On the decoration of Han lacquer], *Wiener Beiträge zur Kunst- und Kulturgeschichte Asiens,* Vol. 11, 1937, pp. 65–73; Otto Mänchen-Helfen, 'Zur Geschichte der Lackkunst in China' [On the history of lacquer art in China], *Weiner Beiträge sur Kunst- und Kulturgeshichte Asiens* (Vienna), pp. 32–64; Sueji Umehara, *Shina Kan-dai kinen mei shikki zusetsu* [Illustrated study of Chinese lacquerwork in the Han dynasty with dated inscriptions], Kyoto, 1943; William Watson, 'Chinese lacquered wine-cups', *The British Museum Quarterly*, Vol. 21, 1957–59, pp. 21–6, pl. VI–VII; Rosemary Scott, 'The earliest Chinese lacquer', in William Watson (ed.), *Lacquerwork in Asia and Beyond: A colloquy held 22–24 June 1981*, pp. 1–17, London, 1982 (Percival David Foundation of Chinese Art, *Colloquies on Art and Archaeology in Asia*, No. 11); 'Lacquer ware industry in the Han dynasty', in Wang, 1982, op. cit., pp. 84–91; Pan Jixing, 'Lacquer and lacquer technique', in *Ancient China's Technology and Science,* pp. 202–12, compiled by the Institute of the History of Natural Sciences, Chinese Academy of Sciences, Beijing, 1983; Margarete Gros, 'Lackdekor der Chan-kuo und Han-Zeit, dargestellt an vier Beispielen aus der Sammlung Löw-Beer, Linden-Museum Stuttgart' [Decoration of lacquerware from the Chan-kuo and Han periods as seen on four objects from the Löw-Beer collection in the Linden-Museum Stuttgart], *Tribus, Veröffentlichungen des Linden-Museums* (Stuttgart), No. 36, 1987, pp. 61–87; Margarete Prüch, *Die Lacke der Westlichen Han-Zeit (206 v. Chr.–6 n. Chr.): Bestand und Analyse* [Lacquerware from the western Han dynasty (206 B.C.–A.D. 6): Comprehensive catalogue and analysis], Frankfurt am Main/Berlin/Berne/New York/Paris/Vienna, 1997 (Europäische Hochschulschriften, Vol. 299).

10. Characteristic examples are illustrated in Klaus Joachim Brandt, *Chinesische Lackarbeiten* [Chinese lacquerware (collection catalogue)] No. 100; Stuttgart, Linden-Museum, 1988; Sir Harry Garner, *Chinese Lacquer*, Figs. 97–99, London/Boston, 1979; *Hai-wai yi-chen* [Chinese art in overseas collections: Lacquerware], Taipei, Nos. 151–152, 1987. On monochrome Sung lacquers, see Hin-cheung Lovell, 'Sung and Yuan monochrome lacquers in the Freer Gallery', *Ars Orientalis: The Arts of Islam and the East* (Washington, D.C.), Vol. 9, 1973, pp. 121–30; Regina Krahl, 'Song lacquer: Model for imperial porcelain', in *Chinese Lacquer from the Jean-Pierre Dubosc Collection and Others* (exhibition catalogue), pp. 9–14, London, Eskenazi, 1992.

11. For a characteristic example among others in the Baur Collection in Geneva, see Michel Beurdeley and Guy Raindre, *La porcelaine des Qing: 'Famille verte' et 'famille rose', 1644–1912* [Porcelain of the Ch'ing: 'Green family' and 'pink family', 1644–1912], p. 161, Fig. 225, Fribourg, 1986.

12. On this group, see Sir Harry Garner, 'A group of Chinese lacquers with basketry panels', *Archives of Asian Art* (New York), Vol. 20, 1966–67, pp. 6–24; James C. Y. Watt, *The Sumptuous Basket: chinese lacquer with basketry panels* (exhibition catalogue), New York, China House Gallery, 1985.

13. The stylistic proximity to the Chinese models frequently made it difficult in older literature to establish a clear distinction. Only recent exhibitions and publications about the lacquer art on the Ryukyu Islands have made possible more certain attributions of painted lacquer to Okinawa.

14. Beatrix von Ragué, *Die Pfirsiche de Unsterblichkei: Ein chinesischer Kaiserthron* [Peaches of immortality: A Chinese imperial throne], pp. 43–4, Berlin, 1982 (Bilderheft der Staatlichen Museen Preußischer Kulturbesitz, 40/41).

15. King Tsi Lee and Hu Shi Chang, *Drache und Phönix: Lackarbeiten aus China. Sammlung der Familie Lee, Tokyo* [Dragon and phoenix: Chinese lacquerware. Lee Family Collection, Tokyo (exhibition catalogue No. 1)], Cologne, Museum für Ostasiatische Kunst der Stadt Köln, 1990.

16. About *guri* lacquer in general, and in particular that of the Ming dynasty, see Sir Harry Garner, '*Guri* lacquer of the Ming dynasty', *Transactions of the Oriental Ceramic Society* (London), Vol. 31, 1957–59, pp. 61–73.

17. On the much-discussed topic of the number of coats of

lacquer, see A. Burmester and K. J. Brandt, 'Beitrag zur Archäometrie organischer Materialien, ostasiatischer Lack' [Essay on the archaeometry of organic materials, East Asian lacquer], *Berliner Beiträge zur Archäometrie* (Berlin), No. 7, 1982, pp. 237–9.

18. For an authoritative discussion, see Sir Harry Garner, 'Diaper backgrounds on Chinese carved lacquer', *Ars Orientalis: The Arts of Islam and the East* (Washington, D.C.), Vol. 6, 1966, pp. 165–89.

19. Quoted from Sir Percival David, *Chinese Connoisseurship: The Ko Ku Yao Lun, The essential criteria of antiquities*, p. 146, London, 1971.

20. On lacquer with Chang Ch'eng and Yang Mao signatures, and the export of early Chinese lacquer to Japan, see Jean-Pierre Dubosc, 'Pre-Ming lacquer, a Yuan date suggested for a related group of Chinese lacquer', *The Connoisseur* (London), No. 8, 1967, pp. 225–9; John Figgess, 'Ming and pre-Ming lacquer in the Japanese tea ceremony', *Transactions of the Oriental Ceramic Society* (London), Vol. 37, 1967–69, pp. 37–51; Harry M. Garner, 'The export of Chinese lacquer to Japan in the Yuan and early Ming dynasties', *Archives of Asian Art* (New York), Vol. 25, 1971–72, pp. 6–28.

21. On carved lacquer of the early Ming period, see Fritz Löw-Beer, 'Chinese carved lacquer of the early fifteenth century', *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 22, 1950, pp. 145–67, pl. 1–30; Jan Wirgin, 'An early fifteenth century lacquer box', *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 38, 1966, pp. 193–201, pl. 1–8.

22. On carved lacquer of the middle to late Ming period, see Fritz Löw-Beer, 'Chinese lacquer of the middle and late Ming period', *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 24, 1952, pp. 27–49, pl. 1–56; Jean-Pierre Dubosc, 'A rare example of late fifteenth-century carved lacquer in an English private collection', *The Connoisseur* (London), No. 6, 1966, pp. 78–81.

23. Derek Clifford, *Chinese Carved Lacquer*, pp. 115–18, London, 1992.

24. Craig Clunas, 'Whose throne is it anyway? The Qianlong throne in the T. T. Tsui Gallery', *Orientations* (Hong Kong), No. 7, 1991, pp. 44–50.

25. Louis Courajod (ed.), *Livre-Journal de Lazare Duvaux, marchand-bijoutier ordinaire du roy, 1748–1758* [Account book of Lazare Duvaux, merchant-jeweller to the king, 1748–1758], Paris, Vol. 2, Nos. 33–324, 1873.

26. Quoted from Martina Mayer, *Koromandellacke (kuan-caiqi): Überblick über den bisherigen Stand der Forschung und Untersuchungen zu ausgewählten figürlichen Motiven* [Coromandel lacquer: Overview of previous research and studies of selected figurative motifs], Vol. 1, pp. 1–58, Master's thesis, Heidelberg, 1990/91.

27. Chou Kung-hsin (ed.), *Ch'ing K'ang-hsi ch'ien-ch'i k'uan-ts'ai 'Han-kung ch'un-hsiao' ch'i p'ing-fêng yü Chung-Kuo ch'i-kung-i chih hsi-ch'uan* [An early Coromandel lacquer screen with the motif 'Han-Kung ch'un-hsiao' (Spring Dawn at the Han Palace) from the K'ang-hsi era, Ch'ing dynasty, and the spreading of chinese lacquer crafts to the west], Taipei, 1995.

28. Edith Dittrich, *Ein chinesischer Geburtstagsparavent aus dem 17. Jahrhundert im Museum für Ostasiatische Kunst in Köln* [A Chinese birthday screen from the seventeenth century in the Cologne Museum of East Asian Art], in Peter Bloch and Gisela Zick (eds.), *Festschrift für Heinz Ladendorf,* pp. 1–8, pl. 1–7, Cologne/Vienna, 1970.

29. Cécile and Michel Beurdeley, *Le mobilier chinois: Le guide du connaisseur* [Chinese furniture: a guide for the connoisseur], pp. 97–143, Fribourg, 1979.

30. Brandt, 1988, op. cit., No. 16.

31. Mänchen-Helfen, 1937, op. cit., p. 216.

32. John Figgess, 'A group of decorated lacquer caskets of the Yuan dynasty', *Transactions of the Oriental Ceramic Society* (London), Vol. 36, 1965–66, pp. 39–42.

33. To European eyes the red-brown lacquer base looked like a leather patina, which is why the technique is also called *laque cuir* (leather lacquer).

34. Thus described in Bo Gyllensvärd, '*Lo-tien* and *laque burgauté*: Two kinds of Chinese lacquer inlaid with mother-of-pearl in Swedish collections', *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 44, 1972, pp. 115–31, pl. 1–30.

35. Rose Hempel, 'Ostasiatische Perlmutterlacke: Frühe Beispiele aus China, Korea, Japan und den Ryûkyû-Inseln' [East Asian mother-of-pearl lacquer: Early examples from China,

Korea, Japan and the Ryukyu Islands], *Kunst und Antiquitäten* (Munich), No. 3, 1988, p. 44, illus. 1.

36. David, 1971, op. cit., p. 148.

37. Peter Y. K. Lam (ed.), *2000 Years of Chinese Lacquer* (exhibition catalogue), No. 89, Oriental Ceramic Society of Hong Kong and the Art Gallery, Chinese University of Hong Kong, 1993.

38. Beatrix von Ragué, 'Zu chinesischen Perlmuttlacken des 14. Jahrhunderts', [On fourteenth century Chinese mother-of-pearl lacquers], *Artibus Asiae* (Ascona), Vol. 38, 1976, pp. 128–38. Signed mother-of-pearl lacquers from the Yuan period are depicted in Lee, op. cit., Nos. 86, 87, 88; and in Yasuhiro Nishioka, *Chūgoku no raden* [Chinese mother-of-pearl lacquer], Tokyo, Tokyo National Museum, Nos. 8, 9, 15–18, 30.

39. Ragué, 1982, op. cit., p. 45.

40. Beatrix von Ragué, 'Über Daten, Orts- und Künstlernamen auf Perlmuttlacken der Ming-Zeit' [Dates, place names and artists' names on Ming period mother-of-pearl lacquers], in Roger Goepper, Dieter Kuhn and Ulrich Wiesner (eds.), *Zur Kunstgeschichte Asiens, 50 Jahre Lehre und Forschung an der Universität Köln*, pp. 177–87, Wiesbaden, 1977.

41. Friederike Wappenschmidt, *Die Sensibilisierung des europäischen Geschmacks: Ostasiatische Lacke in den Kunst- und Wunderkammern des 16. bis 18. Jahrhunderts* [Sensitizing the European taste: East Asian lacquerware in the art and wonder-chambers of the sixteenth to eighteenth centuries], *Weltkunst* (Munich), Vol. 59, No. 15, 1989, pp. 2158–61.

42. Margaret Jourdain and R. Soame Jenyns, 'Chinese export lacquer of the 17th–18th century', *Oriental Art* (London), Vol. 1, No. 3, 1948, pp. 143–8.

43. Reviewed in detail by Beatrix von Ragué, 'Chinesische Lackkunst: On Sir Harry Garner's book, *Chinese Lacquer*, London/Boston, 1979', *Artibus Asiae* (Ascona), Vol. 42, 1980, pp. 100–12.

44. Albert Jacquemart, 'Les laques' [Lacquer], *Gazette des Beaux-Arts* (Paris), Vol. 4, 1859, pp. 210–23; Vol. 6, 1860, pp. 17–34.

KOREA

Lacquer work fragments and simple black lacquer vessels found during excavation work at the ancient cultural sites of Ch'ongong-ri and Taho-ri, as well as other locations on the Korean peninsula, indicate that lacquerwork was already being produced during the prehistoric Bronze Age. The much-imitated Chinese style of the Han Empire (206 B.C.–A.D. 220) influenced Korean culture through the thriving colony of Lo-lang in northern Korea, where burial-site finds such as the famous 'Painted Basket' depicting paragons of filial piety[1] indicate that highly developed painted Chinese lacquerwork was already known to Korean society. Chinese lacquerwork also left its mark on the development of art created during the period of the Three Kingdoms of Silla, Koryo and Paekche (57 B.C.–A.D. 668).

Fragments that have survived in royal or aristocratic burial sites are also evidence of an increasingly refined, expanding branch of lacquer art. Coats of black and red lacquer were embellished with stripes and flowers cut from gold foil; these were then attached with nails and decorated with painted black, white and red designs. The presence of white reveals the desire for a wider range of colours and demonstrates that oil-bound pigments were used, to which lead oxide was already being added as a siccative (drying agent), as the lacquerwork found at the Silla burial sites shows. Most items, however, are decorated in alternate colouring, i.e. red on the outside and black on the inside or vice versa, along with geometric designs, birds and other pictures of animals, occasionally with stylized landscape elements, coated in red or ochre lacquer paintings, whose light, elegant, easily recognizable brush strokes reflect the calligraphic Han style. Besides domestic objects such as bowls, beakers, bottles, ladles and combs, the variety of lacquered items also widened to include riding saddles, masks and scholarly equipment as well as sarcophagi and burial gifts. The importance of lacquer craftsmanship and production is shown by the *Samguk-sagi*

(History of the residential city of Kyongju). In 1975 and 1976, archaeologists digging in the mud of the artificial Anapchi pond, part of expansive palace grounds used by the Silla kings until the early tenth century, found over a hundred lacquer items and many other artefacts.[2] These objects, which had lain at the bottom of the lake for more than a thousand years and which are exemplary of the technique and style of Silla lacquerwork, also included lacquer vessels with ornamental metal inlays. Besides various containers and utensils, luxurious lacquer-coated bronze mirrors were also found into which gold and silver arabesque-like filigree patterns and figurative designs had been inlaid, a procedure known as *p'ing-t'o* (Chinese) or *heidatsu* (Japanese). This technique had been developed in China during the T'ang period (618–906) where it was subsequently forbidden as a luxury by Emperor Su-tsung (756–762). The few pieces surviving from this period have been dated to the eighth and ninth centuries; they closely follow their T'ang Chinese models, which themselves were influenced by the Sassanian Empire. Encrustations of shards of turquoise, tortoiseshell and milky-white mother-of-pearl appeared during the same period to complement each other in the creation of colourful decorative effects. The oldest known example, a bronze mirror with precious inlays excavated in Kaya,[3] can be compared with a second piece, similar in decorative style and production technique, that has been kept at the famous imperial treasury of Shôsô-in at Nara, Japan, since the eighth century and which has traditionally been assumed to be T'ang Chinese.[4] The courtly, refined and secular T'ang culture with its lavish production of magnificent crafted art transmitted a decisive influence on Korean art. One of the most fruitful techniques was mother-of-pearl inlay in lacquerwork, which probably appeared for the first time during the early days of the Unified Silla.

In the centuries that followed, mother-of-pearl inlays (*najon ch'ilgi*) became a dominant form of art in Korea and have remained so to this day. The inlays are not actual inlaid (intarsia, or mosaic) created by incising contrasting-colour decorations into solid surfaces. With the *najon ch'ilgi* technique, the base material (usually pine wood) was carefully smoothed and impregnated with lacquer. All the cracks and branch holes were sealed with a mixture of sawdust, boiled rice and raw lacquer. Subsequently, a stabilizing fabric coating was applied with an adhesive made from raw lacquer and boiled rice, which was then coated with a final primer. Then, the small decorative mother-of-pearl components were glued on in the specified arrangement using fish glue. These were then compacted with a hot iron. Only when this stage had been completed could the lacquer filling be applied in layers alternating with glue until the decoration was entirely concealed. The top layers were then polished down with whetstones and generous applications of water, and then ginkgo charcoal, until the pattern, now flush with the lacquer base surface, reappeared to create the impression of a mosaic. Several coatings of a fine, transparent lacquer alternating with charcoal polish and a final finish with powdered tooth and soy bean oil gave the surface tenacity and the desired sheen.[5] The lacquer-inlay technique still practised in Korea largely adheres to these traditional methods. The high regard that this type of art elicits even today in the south of Korea is demonstrated by its recognition as 'Important Intangible Cultural Property' (IICP) and in the generous patronage awarded to lacquer artists by the state.

The high esteem for the excellent *najon* work from the Koryo era (918–1392) existing to this day even beyond the borders of Korea is moreover reflected in the degree of interest shown by art historians in Korean mother-of-pearl lacquerwork. Jan Fontein, stimulated by the publications of Tomio Yoshino and Jô Okada,[6] has begun to distinguish the characteristics of Korean mother-of-pearl lacquer from those of Chinese and Japanese origins.[7] B. Gray, J. Figgess, G. Gompertz, S. Hayashi and M. Shono have all published detailed studies of the mother-of-pearl boxes from the Koryo period.[8] An opulent Japanese monograph published in 1986 provides

Western readers with excellent picture material of Korean mother-of-pearl lacquer produced during the Koryo and Yi dynasties. It thus also offers an overview of a tradition that is over a thousand years old.[9] In spite of intensive efforts to define the stylistic traits of Korean lacquerwork to distinguish it unmistakably from Japanese and particularly Chinese work, while also outlining developments in the style, there are still many questions in regard to both the Koryo and the early and middle Yi lacquers due to the lack of surviving works and reliable datings.

Korean lacquerwork blossomed and indeed reached its artistic peak during the Koryo dynasty (935–1392). And although few items have survived, historic sources are now also beginning to reveal information about production methods and the reputation of the works. The report by the Chinese scholar and calligrapher Hsü Ching is particularly important in this regard. He was a member of the imperial legation sent from Sung China in 1123 to the court of the newly crowned king, Injong (1123–46).[10] An attentive and careful observer, trained in the fine arts, Hsü Ching recorded his impressions in a report published in 1124: 'They are not very good at lacquerwork, but their mother-of-pearl inlay is minutely executed and worthy of esteem.'[11] Commenting on the cavalry and chariot horses, Hsü Ching mentions lacquered and artistically adorned saddles with mother-of-pearl inlays used by the royal cavalry. A description of the extensive cultivation of lacquer trees during Injong's reign, including economic aspects, accompanied Hsü Ching's impressions.

Historians have found information about the importance of lacquer crafts in the official *Koryo-sa* (History of the Koryo Dynasty). For example, the *Chung-shang-sh*, the official palace workshop, had possibly already been established by King Songjong (982–997) and was commissioned to produce palace equipment. Painters, carpenters, polishers and other craftsmen were employed along with lacquer painters and mother-of-pearl inlay workers. Specialization was frequently restricted to one stage of work within a well-organized production process that ranged from design to final polishing.

The *Koryo-sa* also mentions the *chonham togam*, another official workshop founded temporarily in 1272 exclusively to produce a set of mother-of-pearl boxes for 'an Empress' (*hwanghu*). The recipient of this special work seems to have been the wife of the Mongolian ruler Kublai Khan, who not only took over the (north) Chinese throne in 1260, but also ruled Korea as a vassal state, since it had been subjugated in 1232 by Ögödei. These lacquer boxes were used to store the sacred Buddhist scrolls that the empress collected as a result of her enthusiasm for Chinese religion. This unusual commission demonstrates the high esteem in which Korean mother-of-pearl lacquer was held, even at the Chinese court. Thus a report in the *Tongguk Munhon Pigo* encyclopaedia states that such lacquerwork was already being presented as official tributes to Emperor Liao during the rule of King Munjong (1047–1083). Funerary frescoes on the grave of Chang Shih-ch'ing, a civil servant to the Liao court who died in 1116, show the reproduction of a Sutra box that apparently originated in a Koryo workshop. This is just one illustration of how widespread this work was, and how highly it was regarded in the early twelfth century.[12]

There are fewer than twenty surviving pieces of Koryo lacquerware, including those cited by various authors. Most of them can be recognized by their rectangular shape of slightly varying sizes and sloping, roof-like lids (Fig. 19). Some of these boxes contained Buddhist Sutras, as confirmed by the inlaid mother-of-pearl inscriptions, whereas the round, crescent-shaped or lobed containers were used in luxurious toilet sets or to hold incense utensils and rosaries. The decorations on the Sutra boxes are almost identical: regular patterns of plant shoots with small, stylized, star-shaped blossoms over the surfaces on all sides. The elegant proportions of the undulating leaf shoots and the rows of blossoms can

19

19. Rows of chrysanthemum leaves. Sutra box. Black lacquer with mother-of-pearl and silver-wire inlays. 25.4 × 47.6 × 25 cm. Korea, twelfth/thirteenth century (Koryo dynasty). London, British Museum.

be assumed to be based on models taken from textile design. The thin, comma-shaped, curving leaves, which accompany the spiralling stem in dense rows, caused Beatrix von Ragué to coin the apt and vivid term of 'centipede scroll' (*Tausendfüßlerranke*) to describe the design.[13] The stems and the frames bordering the ornamental fields and the reinforced corners have been inlaid with smooth or twisted copper or silver wire, while the leaves and blossoms, created with blue-green-pink iridescent, sometimes finely engraved *awabi* mother-of-pearl (the Japanese word for sea-ear or abalone, *Haliotis tuberculata*), stand out from the brown-black lacquer bases. Tortoiseshell painted in yellow or red on the reverse side after Chinese models (*fu-hung*, covered red, or *fu-ts'ai*, covered colour) were also being used at this time to intensify luminosity, and they supplemented the use of mother-of-pearl – a technique still used by master craftsmen in the nineteenth century. Besides the use of metal wire inlays (this technique appeared in China only towards the end of the Yuan period, 1279–1368), the peculiar pattern of the leaf decoration can also be regarded as an unmistakable Korean feature. It marks the beginning and the early peak of the development of an individual Korean style that prevailed between the tenth and early twelfth centuries.

This method was important, even for the production of ceramics, as is demonstrated by the well-known celadon porcelains of the Koryo period, whose decoration was probably based on the lacquer and metal inlays so popular in Korea: encrusted floral or figurative *sanggam* decorations,[14] which can be traced back to burial-site finds dating from 1159. In addition, the evident proximity of the Korean 'centipede scroll' style to Chinese lacquer-

20

21

20. Lotus scrolls. Box. Black lacquer with mother-of-pearl inlays. 4.4 × 26.4 × 18.4 cm. Korea, sixteenth/seventeenth century (Yi dynasty). Tokyo, National Museum.

21. Lotus shoots. Document box. Red lacquer with mother-of-pearl inlays. 7 × 37 × 25.5 cm. Korea, fifteenth/sixteenth century (Yi dynasty). Hamburg, Museum für Kunst und Gewerbe.

work produced during the Yuan period demonstrates remarkable Korean influences on Chinese production, which was probably due to the close relations maintained by the Koryo dynasty and the Mongolian court.[15]

The technical perfection achieved in Korean lacquerware in the twelfth century and the remarkable flourishing of this art in the thirteenth appear to have been followed by a less productive phase during the fourteenth century when a transitional style emerged that has still scarcely been researched in any great detail. The change of dynasties in 1392 provided fresh artistic impetus during the course of the fifteenth century, recognizable as a fundamental stylistic change in the technique of mother-of-pearl inlays. However, the scarcity of written or authentically documented datings makes reliable assignment to certain periods difficult, particularly of work from the early Yi period (1392–1910). The vase dating from the fifteenth century, one of the earliest pieces of Yi lacquerwork, which is housed at the Fitzwilliam Museum in Cambridge, shows this new style.[16] The dense, highly-charged centipede scroll mosaic made up of hundreds and hundreds of tiny pieces of shimmering mother-of-pearl was replaced by a decoration in which leaves unfold in a generous, free rhythm. The individual decorative elements become larger, and blossoms and leaves appear more substantial. The leaf stems were no longer created with wire inlays, but with rows of thin mother-of-pearl rods. In the sixteenth century, this style – which in comparison to the minute finesse of the Koryo style appears coarser at first, but also bolder – developed a charming elegance of line. The leaf work freely meanders in widely curving volutes over the lacquerwork, and during the course of this 'movement' the order of the elements becomes increasingly symmetrical (Fig. 20). Mother-of-pearl discs, a fundamental motif in the rows of mother-of-pearl rods already used in the Koryo period, as well as small butterflies, frequently enliven the spaces between the leaves, and individual strands and branches often terminate in alternating buds and blossoms. The forks of the splayed stems are highlighted with a three-pointed node that imparts an apparent in-and-out movement to the leaves.

The predominantly red-coloured writing box with reinforced corners so typical of Korean lacquerwork, now located at the Museum for Applied Arts in Hamburg, was probably produced for the royal court (Fig. 21); a

few years after his accession to the throne in 1419, King Sejong forbade the use of red lacquer for the people, and this prohibition was apparently maintained until the final decades of the Yi dynasty when the ban was no longer scrupulously respected. A further unique feature of Korean lacquer (still apparent on work produced even in the nineteenth century) was the mother-of-pearl inlay crackling known by the Japanese term *warigai* (cracked shell), which functioned not only as a lovely inner design, but also made it possible to affix larger pieces of mother-of-pearl to curved surfaces. The artificial *warigai* cracks were produced by first gluing water-soluble paper to the thin mother-of-pearl pieces cut to the desired shape. The mother-of-pearl was then broken on a wooden base, beneath its protective covering of paper. Once the mother-of-pearl decoration had been applied to the base material and dried, the paper cover was removed.[17]

After the two invasions by the Japanese and the destruction of Korea by Toyotomi Hideyoshi in 1592–93 and 1597–98, the development of Yi lacquer art ended abruptly at the end of the sixteenth century. The Korean lacquer pieces carried off by the Japanese invaders to Japan, however, became highly admired objects – particularly by Japanese tea masters. The ornamental Yi style and Korean mother-of-pearl techniques came to have a lasting influence on the Japanese *raden* used to decorate the utensils of the tea masters (Fig. 22).

In spite of a steady decline in Korean art, artists during the eighteenth and nineteenth centuries continued to produce lacquer of excellent craftsmanship. The decorative box at the Victoria and Albert Museum in London is a good example of the virtuoso mastery of the inlay technique and also shows a change in the style (Fig. 23). Here, the lively style of the *warigai* crackling technique was continued, but the mother-of-pearl was recombined with smooth or twisted copper wire inlays and occasionally with painted tortoiseshell. The flickering leaves of the sixteenth century were replaced by stiffer, more comma-shaped, curved, flaky leaves, while the metal leaf stems and shoots subsided into a strictly symmetrical order. Whereas the sixteenth-century scroll decoration freely ranged in a melodious flow of line across the lacquered surfaces, limited at most by gentle edging made

22

23

22. Landscape with crescent moon. Serving table (board). Red and black lacquer with mother-of-pearl inlays. 8 × 32 × 32 cm. Japan, early seventeenth century (Edo period). Kamakura, Meigetsu-in.

23. Lotus shoots. Box. Brown-black lacquer with crackled mother-of-pearl, tortoiseshell and twisted copper-wire inlays. 42 × 44.8 × 23.5 cm. Korea, eighteenth century (Yi dynasty). London, Victoria and Albert Museum.

24. Vines. Clothes box (detail). Black lacquer with mother-of-pearl inlays. 19 × 48 × 76.5 cm. Korea, nineteenth century (Yi dynasty). Tokyo, National Museum.

25. Phoenixes and lotus shoots. Cabinet (detail.) Brownish lacquer with sprinkled-in gold flakes together with sharkskin, tortoiseshell, mother-of-pearl and brass wire inlays. 16 × 86 × 38.3 cm. Korea, nineteenth century (Yi dynasty). Münster, Museum für Lackkunst.

from thin mother-of-pearl rods, the central ornamental fields were now bordered by wide ornamental strips with powerful patterns created with mother-of-pearl rods, lozenge bands, Taoist emblems and other adornments. The lotus and peony scrollwork that had dominated since the sixteenth century was now supplemented by new motifs: semi-asymmetric vines with luscious leaves and heavy fruit umbels, created in magnificent *warigai* mother-of-pearl and frequently populated by squirrels and little people engaged in risky climbing manoeuvres (Fig. 24), but also by classical themes such as the singing nightingale in a plum tree or the 'four noble elements': plum blossoms, orchids, chrysanthemums and bamboo.

Production in the nineteenth century covered a wide range of applications and styles. Boxes and lacquer furniture were produced with the traditional technique of inlaid mother-of-pearl, tortoiseshell and the skins of dogfish and rays[18] which developed a polychrome effect (Fig. 25) through colourful painting or dyeing on the bottom as well as with flakes of gold sprinkled into the lacquer base after Japanese models. Another style also evolved that may be regarded as folk art. The scenes portrayed, mainly of landscapes populated by various large and small animals, apparently clumsily pieced together, express a naive originality which gives these folk works an individual although rather moody charm. These works were created simultaneously with another style, in which the pale sheen of the mother-of-pearl became increasingly aesthetically independent. This tendency developed to such an extent that mother-of-pearl displaced the lacquer in cut-out reservations and narrow zones along the edges, and in some pieces even replaced it entirely. When discussing these items, one is tempted to speak rather of lacquer inlays in mother-of-pearl bases. Moreover, the intended contrast between the restless *warigai* structure split into thousands of branches with the clear shapes of the boxes and the black elegant proportions of the lacquer coatings appears surprisingly modern (Fig. 26).

26. Clothes box. Black lacquer with crackled mother-of-pearl, tortoiseshell and twisted silver inlays. 16.7 × 58.3 × 38.7 cm. Korea, nineteenth century (Yi dynasty). Roger Weston Collection.

Notes

1. National Folklore Museum (ed.), *Hangkuk ch'ilgi yich'on nyon* [2000 years of Korean lacquerware], pp. 20–5, No. 10, Seoul, National Folklore Museum, 1989 (exhibition catalogue).

2. Jongseok Lee, 'Lacquer ware in the Unified Silla period, with special reference to the finds at Anap-chi', in N. S. Brommelle and Perry Smith (eds.), *Urushi, Proceedings of the Urushi Study Group, June 10–27, 1985, Tokyo,* pp. 51–6, Marina del Rey, Getty Conservation Institute, 1988.

3. Seoul, National Folklore Museum, op. cit., No. 36.

4. Ryoichi Hayashi, *The Silk Road and the Shoso-in*, p. 22, illus. 11, New York/Tokyo, 1975 (*Heibonsha Survey of Japanese Art*, 6.)

5. So described in Chewon Kim and Won-Yong Kim, *Treasures of Korean Art: 2000 years of ceramics, sculpture, and jeweled arts*, p. 205, New York, 1966.

6. Tomio Yoshino. 'Kôrai no radenki' [Korean nacre inlay works of the Koryo dynasty], *Bijutsu Kenkyû* (Tokyo), No. 175, 1954, pp. 1–13; Jô Okada, 'Bunken-jô yori mita Kôrai-raden' [Literary sources of study on Koryo nacre inlays], *Bijutsu Kenkyû* (Tokyo), No. 175, 1954, pp. 42–4 (this article is available in German: Beatrix von Ragué, 'Zur Quellenkunde koranischer Lacke mit Perlmutt-Einlagen', *Oriens Extremus, Zeitschrift für Sprache, Kunst und Kultur der Länder des Fernen Ostens* (Hamburg), No. 8, 1961, pp. 247–51).

7. Jan Fontein, 'Notes on Korean lacquer', *Bulletin Vereeniging van vrienden der aziatische kunst* (Amsterdam), Series 3, No. 6, 1956, pp. 88–93. See also, by same author, 'Koreanische Lackkunst der Yi-Zeit', in August Riekel (ed.), *Koreanica. Festschrift Professor Dr Andre Eckardt zum 75. Geburtstag*, pp. 77–84, Baden-Baden, 1960; 'Masterpieces of lacquer and metalwork', *Apollo, The International Magazine of the Arts* (London), Vol. 88, No. 78, 1968, pp. 114–19.

8. Basil Gray, 'Korean inlaid lacquer of the thirteenth century', *The British Museum Quarterly*, Vol. 32, 1967–68, pp. 132–7 (a. pl. LI a, b); John Figgess, 'Mother of pearl inlaid lacquer of the Koryo dynasty', *Oriental Art* (London), New Series, Vol. 23, Nos. 1–4, 1977, pp. 87–95; G. St. G. M. Gompertz, 'Korean inlaid lacquer of the Koryo period', *Transactions of the Oriental Ceramic Society* (London), Vol. 43, 1978/79, pp. 1–31; Susumu Hayashi, 'Kôrai kyôbako ni tsuite no ni san no mondai – tokuni Kôrai sôshokukyô to no kankei ni tsuite' [A few problems concerning the Sutra box from Koryo, especially on the relation with the decorative Sutra of Koryo], *Bukkyô Geijitsu* (Tokyo), No. 138, 1981, pp. 41–52; Masako Shono, 'The Koryo Sutra box with scroll ornament inlaid in mother of pearl', in William Watson (ed.), *Lacquerwork in Asia and Beyond: A colloquy held 22–24 June 1981*, pp. 174–93, London, 1982 (Percival David Foundation of Chinese Art, *Colloquies on Art and Archaeology in Asia*, No. 11).

9. Sadamu Kawada and Takahiro Takahashi, *Kôrai Ri-chô no raden* [Mother-of-pearl lacquer from the Koryo and Yi dynasties], Tokyo, 1986.

10. G. St. G. M. Gompertz, 'Hsü Ching's visit to Korea in 1123', *Transactions of the Oriental Ceramic Society* (London), Vol. 33, 1960/61, 1961/62, pp. 1–21.

11. Gompertz, 1961–62, op. cit., p. 8.

12. Shono, 1982, op. cit., p. 178, 182 a. illus. 3a.

13. Beatrix von Ragué, 'Zu chinesischen Perlmuttlacken des 14. Jahrhunderts' [On fourteenth century Chinese mother-of-pearl lacquers], *Artibus Asiae* (Ascona), Vol. 38, 1976, p. 130.

14. The technique of inlaying called *sanggam* (mosaic pic-

ture) proceeds by cutting a pattern into the soft shards, which is then filled in with white and red-brown slip, which after glazing contrasts in colour with the grey-green celadon glaze. For information about the similarities between the decorations on Koryo lacquer and celadon porcelain see Sensaku Nakagawa, 'Kôrai raden to seiji zôgan no monyô ni tsuite' [Korean designs found on Koryo nacre inlays and clay-inlaid celadons], *Bijutsu kenkyû* (Tokyo), No. 175, 1954, pp. 14–21.

15. Ragué, 1976, op. cit., p. 128–38.

16. Sir Harry Garner, *Chinese Lacquer,* London/Boston, 1979, p. 229, illus. 175.

17. For information about *warigai* and other mother-of-pearl techniques in lacquer, see Taguchi Yoshikuni, 'Essay on shells that became cherry blossoms', in Brommelle and Smith, 1988, op. cit., pp. 139–46.

18. For information about the technique of using ray skin in Japan, see Henri L. Joly and Hogitaro Inada, *Arai Hakuseki* [The sword book in Honchô gunkikô and the book of *samé Kô hi sei gi* of Inaba Tsûriô], 1913 [reprint London, 1962]. In the seventeenth and eighteenth centuries as well as in the art deco period, Europeans knew how to create decorative effects with dyed and polished dogfish and ray skin (shagreen) on luxurious furniture and accessories; see Mathieu Willemsen, 'Shagreen in Western Europe, its use and manufacture in the seventeenth and eighteenth centuries', *Apollo. The International Magazine of the Arts* (London), Vol. 145, No. 419, 1997, pp. 35–8.

JAPAN

As is the case in China and Korea, the production and use of lacquer in Japan can be traced back to prehistoric times. For example, neolithic artefacts were discovered for the first time in the 1930s in the north of the largest Japanese island, Honshu. As recently as 1975, a spectacular collection of flat wooden bowls with red and black lacquer coating, some bows, ceramics and a red lacquer comb dating back to the fourth millennium B.C. was found in the Torihama barrow in Fukui prefecture in western Japan. Such early evidence casts doubt on the widely held belief that the lacquer tree (*urushi no ki*) was originally imported from China. However, conclusive archaeological evidence that it has always been indigenous to Japan and that the properties of its resin (*urushi*) were discovered independently of developments on the Asian mainland remain to be established.

Lacquer work (bows, spoons, bowls and other wooden vessels) created by the Jômon culture during the middle Japanese Stone Age (*c.* 4500–250 B.C.) has been discovered only in the eastern regions of Japan. On the other hand, many finds from the late Jômon period in east and west Japan indicate not only the spread of lacquerwork, but also the increasing variety and refinement of lacquer objects. Besides such adornments as combs, bracelets and earrings, ceramic and woven bamboo vessels (*rantai shikki*) were coated with lacquer and then painted, usually red on black. The use of two-coloured lacquers (already seen in the Torihama pieces), multiple layering and sometimes even decoratively superimposed colours along with the appearance of clay and granite sand primers, show that Japanese lacquer techniques had become surprisingly sophisticated by the late Jômon and Yayoi periods (*c.* 300 B.C.–A.D. 300).[1] These highly developed skills support the traditional claim made in later sources that lacquerworkers (*urushibe*) were already organized within a hierarchical guild at the court of the Yamato clan, which ruled central Japan beginning in the third century A.D.

But it was the introduction of Buddhism, so important to the development of Japanese civilization from the mid-sixth century, that caused lacquerwork to develop into a major art. Chinese and Korean monks, artists and artisans, who established the Buddhist culture in Japan, became models and teachers and helped create the Sino-Japanese style. Their influence is apparent in the oldest surviving work of lacquer art in Japan, the famous Tamamushi shrine built around the middle of the seventh century at the Hôryû-ji temple in Nara. While the

style of the lacquer paintings on the shrine walls, applied to a core of *hinoki* wood with a black lacquer base, does nothing to conceal its Chinese origins, the open-work metal mountings, originally adorned with the shimmering wings of the *tamamushi* beetle (*Chrysochroa elegans*), indicate that the work might be that of a Korean living in Japan or that of a Japanese artisan working under the supervision of a Korean master.[2]

The temples and monasteries that were built as Buddhism rapidly spread created an enormous demand for sacred utensils and sculptures adorned with lacquer, as well as for objects made with the dry lacquer (*kanshitsu*) technique. This type of lacquerwork, which originally came from China, uses a model of objects and figures made from fabric stiffened with lacquer. The technique enables the artist to achieve a smoothness of transition, as well as a sensitivity of form, far surpassing anything that can be achieved with wood. A series of impressive Buddhist sculptures made from dry lacquer has survived from the eighth century; their fine relief was fashioned from a paste made from sawdust mixed with raw lacquer and adhesive, which was then coated with lacquer. The fact that a lacquer authority attached to the finance ministry was created in 701, and that it employed twenty lacquerworkers with the sole task of making sure that each item was marked with the full name of the producer, demonstrates that the demand for lacquerwork for secular purposes increased just as quickly as the demand for religious lacquer art.

The lacquer art of the Nara period (710–784), to which only a few items of Japanese lacquerwork can be authentically attributed, was probably closely based on Chinese models from the Tang dynasty (618–906). The personal estate of Emperor Shômu, donated by his widow Kômyô to the Tôdai-ji temple in 756, and which has since been stored in the Shôsô-in treasury in Nara, included around 150 lacquer items. The perfect craftsmanship and the lavish magnificence of these predominantly Chinese works of art must have left a mark on Japanese lacquer masters. However, only one item in the Shôsô-in collection foreshadows future developments in Japanese lacquerwork techniques. According to the inventory of the foundation, a sword scabbard is decorated with *makkinru* (sprinkled gold particles).[3] Apparently, the horses galloping full speed through the filigree flower motifs were decorated with gold filings sprinkled into the still wet lacquer drawing; the picture was then coated after drying and subsequently uncovered through polishing. Thus evidence of the sprinkled picture technique, known in its early versions as *togidashi-maki-e* (polished sprinkled picture), can be seen from the mid-eighth century, without it being clear, however, whether this work is Chinese, a Japanese copy of a Chinese model or an independent Japanese development using the Chinese decorative style. That the technique of sprinkling was widespread in Japan by the end of the ninth century at the latest is documented by the first mention of *maki-e* in the *Taketori monogatari*, the oldest novel-like narrative in Japanese literature, written in the late ninth century.

Heian period: the development of *togidashi* sprinkling

The term *maki-e* (*maku*, sowing, sprinkling; *e*, picture) used in the first two centuries of the Heian period (794–1185) always refers to *togidashi-maki-e*, the 'polished sprinkled picture'. This is technically the most sophisticated and most durable type of *maki-e*, and is applied usually to a black lacquer base, which may also be enlivened with a sparse sprinkling of gold dust (*heijin*, flat dust), in which the design is a flat lacquer drawing sprinkled with gold or silver powder. Once the lacquer has dried, the entire surface is lacquered in the undercoat colour and subsequently polished with soft charcoal until the picture has completely re-emerged. It is now entirely flush with the lacquer base. Further coats of transparent lacquer are then applied and carefully polished not only for protection, but to intensify the picturesque effect and create a surface that is extremely

27. Chûson-ji, Hiraizumi. Interior view of the Konjiki-dô temple hall. Gold-sprinkled design with mother-of-pearl inlays.

28. Wheels turning in water (*katawaguruma*). Toiletry box (*tebako*), black lacquer with gold- and *aokin*-sprinkled design with mother-of-pearl inlays. 13 × 30.5 × 22.5 cm. Japan, twelfth century (Heian period). Tokyo, Bunkazai Hogo Iin-kai.

pleasing to the touch. In contrast to painting with gold or silver powder bound in lacquer or adhesive (*kingin-e* or *kingindei-ga*) with the resulting even coating, the sprinkling technique derives structure and even a life of its own, so to speak, from the innumerable metal flakes sprinkled into the lacquer.[4]

The early Heian period saw the establishment of this new technique, and the designs and decorative styles also started to distance themselves from their Chinese models. This initial 'Japanization' in the applied as well as in the fine arts, architecture and literature, coincided with a political withdrawal from China; in 894, the Japanese legations to the Tang emperor's court were suspended.

During the late Heian period of the eleventh and twelfth centuries, a unique flourishing of culture was promoted by the court aristocrats in the capital city of Heian-kyô (Kyoto), and this was reflected in lacquer artwork. The general process of Japanization was concluded during this period. Lacquer decorations as architectural adornments have survived in the Konjiki-dô temple hall of Chûson-ji (Hiraizumi), built from 1124 to 1126, where a brilliant treasure of encrusted mother-of-pearl may be seen (Fig. 27).[5] Sacred utensils, saddles, scabbards, furniture and particularly boxes for various uses were also decorated with lacquer during this period. The famous *tebako* (toiletry box) with the motif of wheels turning in water (*katawaguruma*) exemplifies the style and technique of late Heian lacquerwork (Fig. 28). The flat shape, divided horizontally by the protruding edge of the lid, gains elegance and softness of line from the smoothly rounded edges (*sumimaru*), the slightly curved lid offset from the dust ledge and the softly outward-curving sides, which seem to invite the hand to touch them. The diagonally composed rhythmic design was created on a gently sprinkled *heijin* base with slightly varying shades of gold and *aokin-togidashi*,[6] contrasting with inlays of engraved milky-white mother-of-pearl.

29. Sparrows in the field. Toiletry box (*tebako*), black lacquer with gold- and silver-sprinkled design. 18.5 × 42 × 28.5 cm. Japan, twelfth century (Heian period). Osaka, Kongô-ji.

The harmony between the calm, balanced proportions and the soft shimmer of the *togidashi* appears to conform to the markedly feminine character of the period.

Another important work produced towards the close of the Heian period is the toiletry box with sparrow motif kept at the Kongo-ji in Osaka (Fig. 29). It is said to have been made for Princess Hachijô-in (born 1137). The flat, delicate rounded shape, with low overlapping lid, follows the proportions developed during the Heian period. The realistic design of the gold and silver decoration sprinkled in varying cloud-like densities (*maki-bokashi*), which in its precious but careful observation of nature shows the lively activity of a flock of sparrows, already points to the Kamakura period (1185–1333).

The Kamakura period and the development of flat and raised sprinkled pictures

As soon as the political power had been taken over by the warrior caste that replaced the courtly and refined Heian aristocracy with its dedication to an aesthetic way of life, Japanese art, particularly sculpture, took on a strong masculine character that also came to influence lacquerwork. The small flat proportions of the Heian boxes were replaced by steep perpendicular designs with tall lower sections and shallow lids sitting vertically on the edges, while lid curvature became more distinct. In general, shapes appear tighter and more intense, which is demonstrated, for example, by the box with the plum

tree and wild goose motif, which is also the first time the raised lacquer technique was used (Fig. 30).

The increasing refinement and differentiation in sprinkling techniques, facilitated by the development of more regular and finer-grained qualities of gold dust, provided the artists with an entire range of modified tools of expression. The soft flow of the smoothly polished *togidashi* and the flat and raised sprinkled pictures were combined to create lively contrasts. The *hiramaki-e* method, the 'flat sprinkled picture', uses the technique of sprinkling metal powder into a lacquer drawing, thinly applied to a lacquer base, and is just barely perceptible to the touch. *Takamaki-e*, the 'raised sprinkled picture', clearly rises from the lacquer base in varying degrees. Usually, a modelling mixture made from raw lacquer and coal, silver, tin or clay dust was used.

Takamaki-e did not develop during the Kamakura period by chance. A desire for realistic artistic depictions, which also applied to lacquer art, arose during a period in which Japanese sculpture attained a power of expression, dynamism and succinct realism that has never been equalled since. Although the surface of the lacquerwork was frequently clearly structured, the style preferred decorations of pure gold to create lustrous metallic effects as opposed to the use of coloured shading. Inlays made from mother-of-pearl (*raden*) or ornamental square-cut metal foils that accentuated the design (*kirigane*), as well as an entire selection of differently styled gold-sprinkled backgrounds, completed the rich technical repertoire. Besides the gently sprinkled *heijin* (flat dust), which continued to be used, *ikakeji* (densely sprinkled gold background), a concentrated sprinkling of gold powder with a foil-like effect, and *nashiji* (pear-skin background) became increasingly important. The flaky structure of *nashiji*, which resembles the skin of the Japanese pear (*nashi*), is coated with a reddish-yellow transparent lacquer to impart a radiant warm sheen to the lacquer backgrounds. *Nashiji* was used not only for the background, but also – and for the first time during the Kamakura period – as part of the decoration, as *e-nashiji* (picture-*nashiji*). A conscious use of different techniques to produce such varied effects was the result of a carefully thought-out design concept whose precision sometimes even appears to follow mathematical laws (Fig. 31).

30

31

30. Plum trees and wild geese. Toiletry box (*tebako*), black lacquer with gold-sprinkled design and silver inlays. 19.7 × 34.5 × 25.8 cm. Japan, fourteenth century (Kamakura period). Mishima-taisha, Shizuoka province.

31. Round pattern (*fusenryô*). Toiletry box (*tebako*), black lacquer with gold-sprinkled design and mother-of-pearl inlays. 26.6 × 36 × 21.5 cm. Japan, mid-thirteenth century (Kamakura period). Tokyo, Suntory Museum of Art.

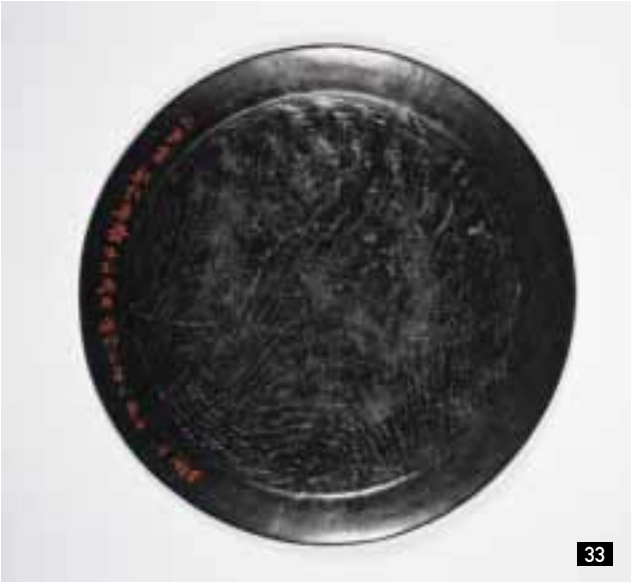
Muromachi period: *Kamakura-bori, Negoro-nuri* and *Higashiyama* lacquers

After several hundred years of 'self-contemplation' and the creation of Japanese national literature and art, Chinese influences, already on the increase during the Kamakura period, again came to play a major role with the rise of the Ashikaga shoguns in 1338. Ashikaga Yoshimitsu (1358–1408), himself an adherent of Chinese Zen Buddhism, promoted trade with the mainland, and in 1404 resumed ambassadorial contact with the court of the Ming dynasty, which had been in power since 1368. The gifts sent to him from the Emperor Yung-lo in 1403, 1406 and 1407 included many items of Chinese carved lacquerwork.

Because the production techniques of carved lacquer were hitherto unknown in Japan and particularly because of their Chinese origin, these lacquer works of art came to be known as *karamono* (Chinese things). They were highly admired, much-treasured items that increasingly came into the possession of Japanese art collections and the many Zen temples founded after the thirteenth century. They were cherished as precious objects and were used – if at all – during Zen tea ceremonies.[7] Along with valuable bronzes and ceramics, Chinese carved lacquer was also displayed in the shelved alcoves created in display rooms as a sign of the owners' wealth and education.[8] The first evidence of copies of the red and black carved lacquer described by the Japanese as *tsuishu* (heaped red) and *tsuikoku* (heaped black), dates from the second half of the fifteenth century when a Master Monnyû in Kyoto, about whose life nothing else is known, became famous for his carved lacquer. For centuries, the technique and decorations of the Chinese models were copied so faithfully that even today reliable distinctions between Japanese and Chinese work are not always possible. The style started to become definitively Japanese only during the nineteenth century.

32. Peony blossom. Incense box (*kôgô*), carved wood with black and red lacquer coating (*Kamakura-bori*). 3.5 × 7.5 cm diameter. Japan, fifteenth century (Muromachi period). Münster, Museum für Lackkunst.

Enthusiasm for this technique resulted not only in the production of carved lacquer in Japan, but also in the development of a new procedure, initially thought of only as a simplification. Instead of using the time-consuming and expensive procedure of building up multi-layered coats of lacquer, the so-called *Kamakura-bori* (Kamakura carving) method used decorations carved directly into the wood and then coated with lacquer, usually red on black.[9] The oldest surviving *Kamakura-bori* work, dating from the fourteenth century – two boxes for incense paraphernalia at Nanzen-ji and Senyû-ji in Kyoto – are obviously imitations of Chinese carved lacquerwork with floral motifs and *guri* patterns.[10] The technique then began to develop as an independent style during the fifteenth century. The examples at the Freer Gallery of Art in Washington, D.C.,[11] the Nezu Institute of Fine Arts in Tokyo[12] and the Museum für Lackkunst (the small container on display) in Münster show how an increasingly more lively and fluid style of carving came to characterize this work (Fig. 32). The black lacquer base that is partially exposed through wear, or sometimes through intentionally blotchy polishing,



33. Tray (*bon*), wood with black and red lacquer coating (*Negoro-nuri*). 43.1 cm diameter. Japan, 1298 (Kamakura period). Tokyo, Gotoh Museum.

situates 'mature' *Kamakura-bori* close to the *Negoro-nuri* style.

Although Negoro lacquer existed during the Heian period, the beginnings of *Negoro-nuri* are traditionally given as the thirteenth century, during the late Kamakura period. In 1288, Bishop Raiyu departed with his students from the Kôya-san, the centre of the Buddhist Shingon sect, for the Negoro-dera temple close by. The lacquerwork produced there by the monks for their daily use possesses its own distinct style and has borne the name of the famous temple since the Edo period (1603–1867). Besides cult objects and equipment for tea ceremonies, *Negoro-nuri* is the name used to describe the many types of eating and drinking utensils made from a black lacquered wooden core primed with *sabi-urushi* (mixture of raw lacquer with ground stone dust), which is then thickly coated with red lacquer. The coats of red lacquer, particularly exposed in some areas to daily use, were worn down over time, revealing the black underground in irregular spots or stripes. The ageing and blemishing – caused in some cases by centuries of use – do not reduce the aesthetic value of the piece; they are regarded, on the contrary, as signs of the lacquerwork's soul, of life imparted to it by changes wrought over time. The epitome of old Negoro lacquerwork imbued with the beauty and venerability of *sabi* ('old and rusty', a key term in Japanese aesthetics) are the *hinomaru-bon* (sun-round trays) at the Tôdai-ji in Nara with inscriptions dating from 1298 (Fig. 33). They are exemplary in the way they demonstrate how the black colour revealed through the red lacquer increases the luminosity of the red colour, and simultaneously demonstrates how deep and unfathomable is the black in contrast to the red.

From the time of the Edo period, at the latest, decorative colour dualism was not exclusively a matter of chance. Spots and stripes were purposely polished on to the pieces. The *Negoro-nuri* technique, the strict simplicity of which conformed to the spirit of Zen and which was much admired by Japanese masters of the tea ceremony, flourished during the Muromachi period (1338–1573). During this period, the popularity of 'Chinese things' (*karamono*) was also expressed in the Chinese-influenced design of the Negoro pieces. For example, the lacquer bowls often use the flowery outlines of their prototypes from the Sung and Yuan periods, while the hot-water kettles used in ceremonies frequently divulged their Chinese heritage through strange curving contours and long elegant spouts.[13]

Besides *Kamakura-bori* and *Negoro-nuri*, 'red lacquer techniques' of Chinese influence, the golden *maki-e* work continued to develop during the Muromachi period. But even this purely Japanese lacquer technique fell under the spell of the general popularity of Chinese art. Following the models of Sung and Yuan ink drawings, the compositional value and mood-enhancing features of empty backgrounds were discovered. In front of black or *heijin* lacquer backgrounds, lightly sprinkled with gold, picturesque and often asymmetric images composed in a single corner stand out, usually blossoming

34. Blossoming plum tree and moon. Desk (*bundai*), black lacquer with gold-sprinkled design. 10 × 60 × 35 cm. Japan, fifteenth century (Muromachi period). Tokyo, National Museum.

branches or other lyrical representations of nature. The finest piece of work from this era, dedicated to the spirit of Zen and the tradition of Chinese ink drawings from the Yuan and Ming periods, is the desk with plum blossoms and moon at the Tokyo National Museum (Fig. 34). This desk is considered to be the perfect example of *yûgen* (mysterious depth), exemplifying the Zen values of quiet and solitude to be attained as an aesthetic ideal. It also demonstrates how the choice of individual motifs, such as the bizarre ornamental reproduction of the branches, was modified according to a Chinese sense of style – although a comparison with Chinese originals demonstrates the fundamental difference in character, with Japanese art striving for decorative stylization and simplifying abstraction.

During the fifteenth century, a category of no less important lacquerwork was developed, namely the Higashiyama lacquers, named after the residence of Shogun Ashikaga Yoshimitsu at the foot of Mount Higashiyama in Kyoto. This work comprises mainly writing boxes (*suzuribako*), where flat, polished *togidashi* and raised *takamaki-e* contrast with and complement each other on the flat lids. The effects are created with a rich and highly developed sprinkling technique, called *shishiai maki-e* (fleshy sprinkled picture). The lively surface relief gains additional structure through thick inlays of gold and silver (*kanagai*). Written characters artistically woven into the composition were frequently used in this technique, and identify the lacquerwork as *uta-e* (poem pictures). It was to the educated that these highly artificial works revealed their message as well as a melancholy mood, whose lyricism reflected the transitory nature of life. Literary and aesthetic associations were triggered as well, along with the pleasure directly deriving from the viewer's feelings.[14] Closely

linked to Japanese literature and landscape poetry, the Higashiyama lacquers are unique to Japanese lacquer art.

Momoyama period: *namban* and Kôdai-ji lacquerwork

The refined Higashiyama culture subsequently declined during decades of devastating civil wars, called the Warring States period (*c.* 1480–1570). Afterwards, Toyotomi Hideyoshi (1536–1598) was able to lay the foundations for peace and a new order in Japan. With the arrival of Portuguese merchants in 1543 during this period of reorientation, the Europeans, members of a culture until then unknown in the Far East, first trod on Japanese soil. Because the Portuguese arrived from the south, they were called *namban-jin* (barbarians from the south). This important event affected Japanese lacquerwork through the creation of a specific style, the so-called *namban* lacquer.

Namban lacquer is the term used for all the work created on commission for the Portuguese, and later, Spanish, merchants, destined for export to Europe, as well as for lacquerwork with European (i.e. Christian) motifs, used by the Jesuit missionaries, for example, and particularly by the Japanese converts to Christianity on the south Japanese island of Kyûshû.[15] The production centre was apparently Kyoto, where a series of carefully organized workshops specialized in these lucrative export articles. The homogeneous quality of an inferior nature, the unvarying decorations and the surprisingly great number of surviving *namban* items confirm, in spite of the magnificence of their mother-of-pearl and gold ornamentation, the impression of hurriedly manufactured, sales-oriented mass productions. Their manufacture was restricted to the century between the arrival of the Portuguese in 1543 and the isolation of Japan from the outside world (*sakoku*), which commenced when Europeans were refused entry into the country in 1639.

The purpose, shapes and decoration of this lacquerwork differed considerably from the traditional objects created for Japanese domestic use. Large numbers of cabinets, chests and caskets were produced along with retables for house altars, boxes for communion hosts and lecterns for worship. The caskets were frequently made in sets of standard sizes, usually with steep, curving lids, a shape that the Japanese had until then not known and which they jestingly compared with their own fish sausages (*kamaboko*). Decorations on the *namban* lacquer pieces are highly peculiar and are to this day still regarded by the Japanese as exotic. Besides the Japanese elements – the gold sprinkling techniques and the autumn grass motifs – they also combine Chinese, Korean, European and even Indo-Portuguese elements of style. Chinese motifs are reflected in the intertwining scrolls (*namban karakusa*), and the Korean influence, found in traditional Japanese lacquerwork after Hideoyoshi's campaigns in Korea (1592–93 and 1597–98), is revealed in certain precise mother-of-pearl techniques and decorations. This is demonstrated particularly by the inlays, sometimes condensed into surface patterns, of irregularly cut mother-of-pearl from the *awabi* shell (*Haliotis tuberculata*), as well as the rows of mother-of-pearl arranged in saw-tooth patterns, or the rows of pearls used as ornamental borders around decorative fields. European models influenced the shape and architectural structure of the cabinets, and the rich frames and faithful copies of imported prints.

Even after the persecution of Christians began in 1638 with the resulting end of the 'Christian century' in Japan, trade relations with Europe were maintained through the small Dutch factory post on Deshima island in Nagasaki harbour. The lacquerwork of the late seventeenth century, exported exclusively through Deshima, shows a picturesque style that none the less differs from the *namban* mother-of-pearl variety. Here, gold-sprinkling (*hira-* and *takamaki-e*) and gold-lacquer painting techniques were used to depict asymmetrically composed landscapes, flowers and birds. Besides ornamental objects, exhibited in royal art chambers and display

rooms, this export merchandise also included large quantities of everyday utensils such as dishes, small boxes and containers, as well as cabinets which were often converted into collection cases or used as show pieces and usually set in pairs on richly carved bases.[16] A preference based on fashionable *chinoiserie*, but with an increasing awareness of high-quality Japanese lacquerwork, persisted in Europe until the end of the eighteenth century, particularly in France.[17]

With the restoration and rebuilding of temples and palaces after their destruction during the civil wars, Japanese art overcame the traditions of the Middle Ages during the short span of the Momoyama period (1568–98), which was marked by profound social changes, and discovered a colourful, magnificent and generously expressive type of decoration. This new style influenced Momoyama lacquerwork, which was produced for the ruling class and even Hideyoshi himself. The name Momoyama comes from the small Kôdai-ji in Kyoto built by Hideyoshi's widow as a burial temple for herself and her husband in 1606. Ruins of elements from the destroyed Fushimi castle, which Hideyoshi had built to the south of Kyoto from 1594 to 1597, were incorporated into the temple's Mitayama (mausoleum hall) and represent a characteristic (and even signed) ensemble in the Kôdai-ji style dated 1596. The artist Chôan (1569–1610), the seventh master of the Kôami family that had worked for the Ashikaga shoguns, is named in the inscription on the radiant *maki-e* decoration loosely sprinkled over the black lacquer underground. The top section shows undulating autumn grasses, vines and blossoms spreading out over the surface and alternating with static, decorative stylized paulownia and chrysanthemum coats of arms, which were the preferred motifs of Kôdai-ji lacquerwork. The purely ornamental, sprinkled gold *hiramaki-e* and *e-nashiji* decoration ranges beyond the vessel and box sections in a generously liberated pattern of curving lines, where an intentional and unusual matt effect is created by leaving the metal particles unpolished. Fine inner lines, like leaf skeletons,

35. Autumn grasses and bamboo. Box for writing utensils (*bunko*), black lacquer with gold-sprinkled design. 26.7 × 50.3 × 31 cm. Japan, later half of sixteenth century (Momoyama period). Kyoto, Kôdai-ji.

were incised into the finished lacquer drawing (*haribori* or *harigaki*, to incise or inscribe with needles). Frequently, a sharp diagonal line cuts through the carpet-like spread of patterns and divides them into two contrasting, unequal black-gold halves interwoven with each other (*katami-gawari*, one half different). This bold, striking compositional pattern also became a dominant design in textile art during the Momoyama period (Fig. 35). The surprisingly modern, unconventional effect of this work foreshadows the markedly decorative character of lacquer art in the Edo period.[18]

Edo period: courtly lacquer utensils, *inro* and Rimpa design

In the 250 years of the Edo period (1603–1867), Japanese lacquer art developed in several different, but not opposing, directions. The feudal order that subordinated the numerous territorial lords (daimyos) to the single central power of the shogun in Edo (Tokyo), encouraged the development of competing court cultures. A decree issued in 1635 by Tokugawa Iemitsu (1603–1651), the third shogun of the Tokugawa dynasty,

required the daimyos to reside regularly in Edo, which forced them to maintain expensive second households. Moreover, this impelled them to keep up with the splendour of the Tokugawa shogunate.

The desire for magnificent appearances favoured a rich, conventional style that may be seen in the pompous gold lacquer utensils of the time. Official lacquer masters with court titles in the service of the ruling aristocrats produced whole sets of lacquerwork for public display as well as for domestic use. Dowries with luxurious writing sets, incense paraphernalia, tea utensils, furniture and other items reflecting the status of the lords were standard fare for the feudal workshops.[19] Meticulous craftsmanship, concepts of shape and design that took into consideration even the finest details and particularly the radiant wealth of gold-sprinkled lacquerwork, cleverly enlivened with inlays of coral and engraved precious metals, characterize these showpieces, frequently used only for ceremonial purposes. Artists were drawn not only to Edo as the seat of the shogun, but also to the smaller courtly residences. Individual clans such as the Kôami, Koma, Kajikawa and Yôsei worked for generations until the nineteenth century for the Tokugawas and other influential clients.[20] For example, over many years, Koma Yasutada (working from the end of the eighteenth century until the beginning of the nineteenth century) produced a celebrated ensemble of one hundred *inro* in the finest *iro-e-togidashi* (coloured *togidashi*), a technical innovation of the eighteenth century, for the Daimyo of Gifu.[21]

An *inro* (receptacle for a seal) is a small container shaped like a flat case with a design similar to that of stacking boxes. These containers became a standard component of traditional Japanese dress from the early seventeenth century. Kimonos have no buttons or pockets, so the wide belt (*obi*) was the only way to carry essential items. Originally intended for ink and stamps, the *inro* was worn hanging from the belt by means of braided silken cord at the other end of which a *netsuke* (toggle attachment) was fastened as a counterweight. By the early seventeenth century they were already subdivided into several compartments held together by the cord, and were used almost exclusively to carry various medicinal powders. The *inro*, *netsuke* and a usually spherical cord tightener, the *ojime*, constituted an ensemble usually decorated with lacquerwork of matching formal designs and content. Besides their practical benefits, the aesthetic attraction of these handy miniature works of lacquer art soon came to be recognized. The collection of *inro*, their storage in specially designed cabinets (*inro dansu*) and the wearing and display of favourite pieces became a social pastime of the wealthy from which many lacquer artists and workshops earned their living until the nineteenth century.[22]

The merchant elite (*machishû*), who had become prosperous during the decades of peace in the major cities, represented a young and increasingly important class of customers and clients for exquisite lacquerwork. The merchants' wealth and independence during this period allowed them to patronize such work with prestigious commissions, which at the peak of the period during the seventeenth century, constituted the economic base for such extraordinary, talented and versatile artists as Hon'ami Kôetsu (1558–1637) and Ogata Kôrin (1658–1716). Both excelled in the design of lacquerwork that was regarded as the masterpiece of an individually formulated style based on decorative Kôdai-ji lacquerwork. The style is characterized by powerfully intense yet boldly simple designs. The technical innovation of combining a precious gold background with the dull grey of lead inlays, introduced to lacquer art by Kôetsu, appears unusual. The style he created in conjunction with Tawaraya Sôtatsu (?–1643?), the Rimpa style, was directly continued by Kôrin. His most famous work of lacquer art, the Yatsuhashi writing box, majestically combines silver, lead and mother-of-pearl with gold *maki-e* and a matt black lacquer background, where the extensive decorative stylization of natural forms becomes an elegant design incorporating all the visible

36. Bridge over iris swamp (*yatsuhashi*). Writing box (*suzuribako*), black lacquer with gold-sprinkled design and mother-of-pearl, silver and lead inlays. 14.4 × 19.9 × 27.3 cm. Japan, seventeenth century (Edo period). Tokyo, National Museum.

areas of the box (Fig. 36). The motif of the bridge with eight bends (*yatsuhashi*) across the iris swamp taken from the *Ise monogatari* reflects the national return to the classical Japanese culture of the Heian period. The main focus of the Heian renaissance, which found expression not only in the reading and commentary of the classics at court, but also in the desire of the middle class for an aristocratically refined lifestyle, was personified in the unique character of Prince Genji. Many lacquer items from this period thus used episodes of his life as their theme, or were inspired by the poems in the Genji narrative.

The importance of individually excellent artists like Ritsuô (1663–1747) and Shibata Zeshin (1807–1891) for styles and the creation of schools remains a characteristic trait of Edo lacquer art in the eighteenth and nineteenth centuries. Regardless of the increasing importance of local lacquer centres after the seventeenth century (Nagasaki with Chinese-influence mother-of-pearl lacquerwork, Obama and Tsugaru with colourful speckled and marbled lacquers[23] and Wajima with the revival of the *chinkin-bori* engravings filled with gold dust), a continuous current of innovative forces constituted the foundation for the survival of highly sophisticated Japanese lacquer art extending beyond the production of plain folk work that has continued to the present day.[24] Japanese lacquer art has developed such a variety of techniques and has undergone such a wide-ranging development of historical styles, that this brief introduction can hope to outline only the major characteristics. A wealth of specialized literature, mainly Japanese, deals particularly with the individual aspects and techniques. The comprehensive history of Japanese lacquerware by Beatrix von Ragué, published in 1967, on which this overview is based, remains an essential reference work.[25]

Anyone who takes an interest in Japanese lacquerwork is immediately confronted with a confusing wealth of specialized Japanese terms, some of which have also changed meaning over the centuries. The meticulous naming of every material and each technical peculiarity reflects the high regard in which the Japanese hold this branch of master craftsmanship. They have clearly recognized the invaluable importance of the traditions handed down over the centuries, and have been able to implement steps to protect them from dying out in an increasingly industrialized world. One such step was the establishment in 1951 of the *Bunkazai Hogo Iin-kai* (Commission for the Protection of Cultural Goods). But also the fact that the West had already started to take an interest in Japanese arts and crafts in the second half of the nineteenth century facilitated the return to national values. Louis Gonse (1846–1921), the pioneer of Japanese art history in Europe, recognized the extraordinary importance of Japanese lacquerwork when he declared:

> It has been said and rightly so, that lacquer is the most perfect object ever created by human hands; at the very least, it is the finest. Japan's fame is based on this art, and it has been for centuries.[26]

Notes

1. Yoshiyuki Kuraku, 'Origins of the use of *urushi* in Japan and its development', in N. S. Brommelle and Perry Smith (eds.), *Urushi: Proceedings of the Urushi Study Group, June 10–27, 1985, Tokyo*, pp. 45–50, Marina del Rey, Getty Conservation Institute, 1988.

2. On the architecture and iconography of the Tamamushi shrine, see Seiichi Mizuno, *Asuka Buddhist Art: Horyu-ji*, pp. 40–52, New York/Tokyo, 1974 (*Heibonsha Survey of Japanese Art*, 4).

3. Ryoichi Hayashi, *The Silk Road and the Shoso-in*, p. 114, illus. 123, New York/Tokyo, 1975 (*Heibonsha Survey of Japanese Art*, 6).

4. On the technique and development of *maki-e*, see Beatrix von Ragué, 'The *maki-e* tradition', in William Watson (ed.), *Lacquerwork in Asia and Beyond: A colloquy held 22–24 June 1981*, pp. 85–104, London, 1982 (Percival David Foundation of Chinese Art, *Colloquies on Art and Archaeology in Asia*, No. 11).

5. Toshikatsu Nakasato, *Chûson-ji Konjiki-dô to Heian-jidai shikkei gihô no kenkyû* [Studies on the lacquerworks at Konjikido, Chûsonji and lacquer art techniques of the Heian period], Tokyo, 1990.

6. *Aokin*, or 'green gold', was made by mixing gold and silver dust; sprinkled alternately with pure gold dust, it refined the shades of colours.

7. John Figgess, 'Ming and pre-Ming lacquer in the Japanese tea ceremony', *Transactions of the Oriental Ceramic Society*, Vol. 37, 1967–69, pp. 37–51.

8. *Karamono shikki: hûgoku, Chôsen, Ryûkyû. Karamono* [Imported lacquerwork: Chinese, Korean and Ryukyuan (Okinawa)], Nagoya, 1997 (*Tokugawa meihin-shû*, No. 2.)

9. On *Kamakura-bori*, see Tadaomi Gôke, 'Kamakura-bori', *Nihon no Bijutsu*, No. 70 (3), 1972; Akio Haino, *Kamakura-bori*, Kyoto, 1977; Hirokazu Arakawa, Kamakura-bori to chôshitsu no gihô ni taisuru ichi kôsatsu [Consideration on the techniques of Kamakura-bori and lacquer carving], *Museum* (Tokyo), No. 358 (1), 1981, pp. 14–26.

10. Christine Shimizu, *Urushi: Les laques du Japon* [Urushi: Japanese lacquer], p. 131, Paris, 1988 (in French).

11. Ann Yonemura, *Japanese Lacquer*, No. 5, Pl. 1, Washington, D.C., Freer Gallery of Art, 1979 (collection catalogue).

12. Nezu Institute of Fine Arts (ed.), *Catalogue of Selected Masterpieces*, Vol. 2, Nos. 620, 621, Tokyo, 1984.

13. Sadamu Kawada, *Negoro*, p. 69, Fig. 86, Kyoto, 1985. For information on Negoro lacquer see also Saburô Mizoguchi, *Negoro-nuri meihin ten* [Exhibition of *Negoro-nuri* masterpieces], Tokyo, Isetan Depâto, 1960.

14. Taishû Komatsu, Shitsugei-hin ni okeru bungaku ishô [Designs of literary subjects in lacquer art (Parts 1 and 2)], *Museum* (Tokyo), No. 360 (3), 1981, pp. 4–21; No. 366 (9), 1981, pp. 26–38.

15. On *namban* lacquers, see Hirokazu Arakawa, *Namban shitsugei* [*Namban* lacquer art], Tokyo, 1971; *Namban, ou de l'européisme japonais XVI^e–XVII^e siècles* [*Namban*, or Japanese Europeanism in the sixteenth and seventeenth centuries], Nos. 24–43, Paris, Musée Cernuschi, 1980; Toshio Watanabe, '*Namban* lacquer shrines: some new discoveries', in William Watson, 1982, op. cit., pp. 194–210; Maria Helena Mendes Pinto, *Namban Lacquer Ware in Portugal: The Portuguese presence in Japan (1543–1639)*, Lisbon, 1990.

16. On Japanese export lacquerwork of the seventeenth century, see Walter Holzhausen, 'Die Lackschränke des kurfürstlich bayerischen Münzkabinetts in München' [The lacquer cabinets in the electoral numismatic collection of Bavaria in Munich], *Münchner Jahrbuch der bildenden Kunst*, Dritte Folge, Vol. 5, 1954, pp. 205–16; Martha Boyer, *Japanese Export Lacquers from the Seventeenth Century in the National Museum of Denmark*, Copenhagen, 1959; Oliver Impey, 'Japanese export lacquer of the 17th century', in William Watson, 1982, op. cit., pp. 124–58; Gunter Rudolf Diesinger, *Ostasiatische Lackarbeiten sowie Arbeiten aus Europa, Thailand und Indien*, *Katalog der Sammlung* [East Asian lacquer, lacquerwork from Europe, Thailand and India. Catalogue of the collection], Braunschweig, Herzog Anton Ulrich Museum, 1990; Julia Hutt, 'A Japanese lacquer chest in the Victoria and Albert: A seventeenth-century wedding casket for the Dutch market', *Apollo, The International Magazine of the Arts*, Vol. 147, No. 1, 1998, pp. 3–9.

17. Francis J. B. Watson, 'Beckford, Mme de Pompadour, the Duc de Bouillon and the taste for Japanese lacquer in

eighteenth-century France', *Gazette des Beaux-Arts*, 6e Période, Vol. 61, 1963, pp. 101–27; Marguerite Jallut, 'Les collections de Marie-Antoinette' [The collections of Marie-Antoinette], *Arts Asiatiques*, Vol. 20, 1969, pp. 209–20; John Whitehead and Oliver Impey, 'Les laques du Japon dans les arts décoratifs français aux 17e et 18e siècles' [Japanese lacquer and French decorative arts in the seventeenth and eighteenth centuries], *Connaissance des Arts*, No. 432, 1988, pp. 86–96; Oliver R. Impey and Daniëlle O. Kisluk-Grosheide, 'The Japanese connection, French eighteenth-century furniture and export lacquer', *Apollo: The International Magazine of the Arts*, Vol. 139, No. 1, 1994, pp. 48–61; M. Paoletti, 'Du mythe à la réalité: Le laque japonais et le goût extrême-oriental dans le mobilier français du XVIIIe siècle', *Bulletin Association Franco-Japonaise*, 58, 1997, pp. 7–16.

18. On Kôdai-ji lacquer, see Motoo Yoshimura, *Kôdai-ji maki-e*, Kyoto, 1971; Andrew Pekarik, 'Japanese lacquer: Some aesthethic considerations', *Apollo: The International Magazine of the Arts*, Vol. 121, No. 1, 1985, pp. 123–7; Motoo Yoshimura, 'Innovations in *Kodaiji makie*', in Brommelle and Smith 1988, op. cit., pp. 7–12; *Kôdai-ji no meihô*; *Hideyoshi to Nene no tera* [Collection of Kodai-ji Zen Temple (exhibition catalogue)], Kyoto, Shûhôzan Kôdai-ji, 1995.

19. Hirokazu Arakawa, Taishû Komatsu and Akio Haino, 'Kinsei daimyô konrei chôdo ni tsuite; Kinsei urushi-kôgei kiso shiryô no kenkyû' [Wedding paraphernalia of the feudal lords in the pre-modern period; Research on the basic materials of pre-modern lacquer crafts (Parts 1 and 2)], *Museum* (Tokyo), No. 419 (2), 1986, pp. 19–28; No. 420 (3), 1986, pp. 17–27; *Konrei: Trousseau Heirlooms of Daimyô Ladies*, Nagoya, 1991 (Tokugawa Bijutsukan 7, Treasures from the Tokugawa Art Museum, No. 7, collection catalogue).

20. Julia Hutt, 'Edo lacquer ware and metalwork: Form, function and patronage', *Apollo: The International Magazine of the Arts*, Vol. 115, No. 1, 1982, pp. 19–25.

21. Julia Hutt, 'The Gifu *inro*: A set of one hundred *inro* by Koma Yasutada', *Transactions of the Oriental Ceramic Society* (London), 1988–89, pp. 65–86.

22. On *inro*, see Theodor Helmert-Corvey (ed.), *Inro: Das Ding am Gürtel, Japanische Medizindöschen aus der Sammlung Heinz und Else Kress* (exhibition catalogue), Münster Bielefeld, Museum für Lackkunst, 1997 (in German); Julia Hutt, *Japanese Inro*, London, Victoria and Albert Museum, 1997 (Far Eastern Series).

23. Anthony Rausch, Takeji Sato and Yutaka Hidano, *Japanese Lacquer Ware, Tsugaru nuri*, Aomori, 1993.

24. The National Museum of Modern Art, Tokyo (ed.), *Japanese Lacquer Art: Modern masterpieces*, New York/Tokyo/Kyoto, 1982.

25. Beatrix von Ragué, *Geschichte der japanischen Lackkunst*, Berlin, 1967 [English edition: *A History of Japanese Lacquerwork*, Toronto/Buffalo, 1976].

26. Louis Gonse, *L'Art japonais* [Japanese art], Vol. 2, p. 181, Paris, 1883: 'On a dit avec raison que les laques étaient les objets les plus parfaits qui fussent sortis de la main des hommes; ils sont tout au moins les plus délicats. Leur fabrication est, depuis de longs siècles et aujourd'hui encore, la gloire des Japonais.'

THE RYUKYU ISLANDS

The lacquer art of the Ryukyu Islands, which stretch in a wide arc from the southernmost point of Kyushu to Taiwan, has only recently attracted the attention of art historians. In 1972, for example, Sir Harry Garner was the first to describe the historic and cultural backgrounds of Ryukyuan lacquerware, using selected examples to outline the most important techniques.[1] The comparative study of sources and a comprehensive compilation of lacquered items from public, private and temple collections, along with objects from European museums, make Hirokazu Arakawa and Yoshinobu Tokugawa's 1977 monograph an indispensable manual on the development and characteristics of Ryukyu lacquerwork.[2] A series of special exhibitions of lacquer art work from the Ryukyu Islands organized in Japan,[3] and the descriptive summaries by Craig Clunas[4] and James Watt[5] build on the results of these two Japanese historians. And the 'Ryukyuan Art Treasures' exhibition at the Urasoe Art Museum in 1992 to celebrate the twentieth

anniversary of the return of Okinawa to Japan was the first to bring together a major collection of lacquerwork in the possession of European and North American museums.[6]

Research into Ryukyu lacquerwork, which had remained both neglected and unrecognized for so many years, was nearly impossible as most of Okinawa's cultural heritage was destroyed during the American invasion of the Second World War. Not only did most of the art treasures in local collections suffer or disappear entirely, but the royal archives in Naha, a potential source of important facts, were destroyed as well. This makes Chinese and Japanese sources all the more important. Of particular significance is the *Ryûkyû shikki kô* (Survey of Lacquerware from the Ryukyu Islands), published in 1889 by Hyôgo Ishizawa, who had been commissioned by the government of the newly formed Japanese prefecture in 1879 to draw up a report about lacquer art as a major branch of artisanal crafts on the archipelago.[7] Although Ishizawa's document has turned out be unreliable and incomplete, particularly in regard to the developments of the seventeenth century, it remains an important secondary source as an early, in-depth study with numerous woodcuts.

The fact that the islands are situated at the edge of the East China Sea along a main shipping route that had already been established in the fourteenth century to link the south-east Asian kingdoms with Japan, Korea and North China facilitated trade and generated wealth for the archipelago, which had few raw materials of its own. The intensive exchange of merchandise simultaneously opened up the population on the islands to cultural influences from abroad. A legation dispatched to the mainland in 1368 by the Chûzan kingdom, which would later (after 1429) spread across the whole of the main island of Okinawa, established the first formal contacts with Ming China and established an official framework for what were already very ancient relations between the two. These links determined the predominantly Chinese character of the culture and particularly the lacquer art of the Ryukyu Islands until the beginning of the nineteenth century. Official gifts from the Chinese emperor probably included carved and engraved lacquerwork. The imperial decree in 1392 that established shipbuilders and other craftsmen from the south Chinese province of Fu-chien in the village of Kume, close to Shuri, the capital at that time and also a royal residence, was the source for Chinese techniques and models for local artists working at the end of the fourteenth and beginning of the fifteenth centuries. The Chinese colony of craftsmen in Kume, whose influence extended far beyond the development of shipbuilding, existed until the nineteenth century.

The highly perfected Chinese technique of carved lacquer, if it was ever produced in its pure form on the Ryukyu Islands, never achieved the same level of mastery.[8] However, the technique of inscribed lines filled with gold leaf (Chinese *ch'iang-chin*; Japanese *chinkinbori*) had already started to develop during the first half of the fifteenth century. According to a Japanese source, Shogun Ashikaga Yoshimasa (1435–1490) is said to have received a lacquer tray decorated with this technique as a gift from the Chûzan ruler in 1458. Korean ambassadors reported lacquerwork adorned with gold from the Ryukyu Islands in 1478.

Even the oldest surviving items – according to Garner these may be dated from the fifteenth century – are characterized by short, solid engraved lines that contrast with the Chinese models. They create the effect of plastic metal embroidery, as if gold threads had been placed very closely together. The gold decorations, usually birds and clouds, peony vines or blossoming camellia branches, have sharp edges that are almost three-dimensional as they stand out from the dark green, red or black lacquer bases, the surfaces of which are frequently covered by a close network of squares with dots in their centres or coin-shaped inner divisions (Chinese *ch'iu-wên*) (Fig. 37). The inscribing technique was replaced in

37. Peacocks in peony scrolls. Cylindrical container, black lacquer with inscribed design filled with gold (the open-work bronze lid and handle on the side are a Japanese addition). 24.6 × 18.8 cm diameter. Ryukyu, sixteenth/seventeenth century. London, British Museum.

China by the more complicated and sophisticated methods of filled and engraved lacquer (Chinese *t'ien-ch'i*) in the fifteenth century, and became highly popular at the court during the sixteenth century, and particularly during the Chia-ching (1522–66) and Wan-li (1573–1619) periods. Further development of *chinkin-bori* was neglected in Japan until the late seventeenth century, whereas the *ch'iang-chin* lacquer tradition continued on Ryukyu. Magnificent pieces decorated with the spiralling *tomoe* coat-of-arms (Japanese *mon*) of the royal family of Shô dating from the seventeenth and eighteenth centuries have survived. The most recent example depicted by Ishizawa dates from 1860, but the technique remains in use today and appears to have followed a tradition that has remained unbroken on Okinawa for 500 years. Thus the items decorated with *ch'iang-chin* in the lacquer art of the Ryukyu Islands represent probably the most important group with regard to continuity, artistic status and the development of stylistic independence. They were also highly valued, as can be seen by the frequency with which these items were produced for the royal household.

At the same time, not only does the precision of craftsmanship appear to have declined since the sixteenth century, but an increasing thinning and standardization of patterns also seems to have occurred. Moreover, oil paints (Japanese *mitsuda-e*) with lacquer as well as lead monoxide were used alongside the technique of inscribed gold decoration. Added to the pigments in powdered form as a siccative, lead monoxide allowed work to be speeded up, while the use of oil as a binding agent provided a wider range of colours than that offered by pure lacquer materials. The combination of filigree gold patterns running around the sides of vessels and containers, usually on cinnabar bases with embedded representations, frequently floral, in green, red, white and blue created lively and quite decorative results. According to a historic report, a stacking box sent by the King of Chûzan in 1585 to the Japanese aristocratic family of Shimazu is one of the oldest datable examples of this type of mixed technique, characteristic of the Ryukyu Islands.

During the seventeenth century, the inscribed background pattern was replaced by the Japanese *jimaki* technique (sprinkled background), which often used a loose sprinkling of gold flakes, giving the luminous Ryukyu red a valuable metallic sheen. Examples of this kind demonstrate the fusion of Chinese and Japanese characteristics into a new style typical of Ryukyu lacquerwork. Their deep luminous colours and wealth of decoration also reflect the lavishness of the sub-tropical vegetation and the exotic magnificence of the birds and butterflies indigenous to the archipelago.

The original source of lacquer painting on the Ryukyu Islands can be traced to south China, where this technique developed in the late sixteenth and seventeenth centuries. The close adherence in style and motif to Chinese models makes it difficult to differentiate works, but the grey tinge in the green lacquer caused by ageing and decorations spanning the various sections on individual items are considered to be typical of Ryukyu

work. From the seventeenth century onwards, skilled craftsmen began transposing the Chinese character of the technique to such specifically Japanese items as *inro* and writing boxes. Besides pure lacquer, they also used oil-based pigments mixed with lead monoxide and gold lacquer, which probably represented a less costly substitute for the more complicated inscribed *ch'iang-chin* decoration. These techniques were frequently used together, following the examples from south China, and in combination with artistically woven bamboo.

Some items may also be identified by the use of red-based lacquer with applications of thin gold leaf to predefined designs into which the inner lines were subsequently inscribed. This procedure, whose deep lustre brings to mind the *kinrande* (gold-brocade) porcelains of the Chia-ching period (1522–66) that were popular with the Japanese, was perhaps inspired by South-East Asian techniques. Examples of this method, called *hakue* (foil painting) in Japanese, are comparatively rare. It is therefore particularly fortunate that the famous collection at Schloss Ambras near Innsbruck, assembled by Archduke Ferdinand von Tyrol (1529–1595) around the mid-sixteenth century, also contains a red lacquer bowl with plant motifs in gold leaf that originated on the Ryukyu Islands (Fig. 38). The beaker is probably identical to the vessel described in the Ambras inventory of 1596 as *rot angestrichen* (painted red) and *von allerlei thüeren und von laubwerch geziert* (adorned by all kinds of animals and leaf-work).[9]

In addition to inscribed gold decorations, mother-of-pearl inlays were also documented in fifteenth-century trade reports. Detailed export manifests that have come down to us list mainly beakers, bowls and scabbards whose red lacquer base appears to exclude a Japanese origin. Also, the chronicles of the royal legations dispatched by the ruling Shô dynasty in 1666, 1668 and 1669 and again in 1725, 1740 and 1788 to China describe how the tributes taken by the ambassadors included lacquerwork with inlays of indigenous mother-

38. Birds in branches. Bowl, red lacquer with applied gold foil design. 8 × 12.6 cm diameter. Ryukyu, probably early sixteenth century. Vienna, Kunsthistorisches Museum, Art Collections at Schloss Ambras.

of-pearl. The abundance and variety of molluscs in the coral reefs and coastal waters of the Ryukyu Islands made it possible to export large quantities of mother-of-pearl, a much sought-after raw material. Even gifts to the Chinese emperor himself, presented when official relations commenced in 1372, included considerable quantities of mussel and snail shells.

Given the availability of the natural resources, it is not surprising that the mother-of-pearl technique (Chinese *lo-tien*; Japanese *raden*) was highly developed on the Ryukyu Islands and that frequently up to five different kinds of mother-of-pearl were used on a single object. In line with the importance of this skill, the royal government created the office of *kaizuri bugyôshoku* (Government Authority for Shell Polishing) first mentioned in an official document in 1612.

The island craftsmen's mother-of-pearl work closely imitated the Chinese models, even more so than their painted lacquerwork. This makes reliable identification

39

almost impossible, and occasionally this has resulted in a Ryukyu provenance being too hastily assumed. A revision of opinions thus appears to be inevitable. Multiform geometric patterns made up of tiny cut particles, the lyrical mood of the natural images and romantic figurative depictions following the pattern of very fine mother-of-pearl lacquerware from the Ming (1368–1644) and early Ch'ing periods (1644–1911) were still frequently encountered on the Ryukyu Islands even in the eighteenth century. After the annexation in 1609 of the Chûzan kingdom by the Daimyo of Satsuma, Shimazu Tadatsune (1576–1638), Chinese influences were gradually replaced by Japanese preferences, except perhaps in the domain of the lacquer art of the Ryukyu Islands. After the seventeenth century, more *laque burgauté* was produced to satisfy Japanese demands. Mother-of-pearl with foil or colourful undercoats applied to the base were frequently employed, particularly on *inro*, writing boxes, food containers and beakers lined with tinfoil. The decoration of these items also catered to the Japanese aristocracy's preference for 'Chinese things' (Japanese *karamono*). The manufacture of commercial export ware continued alongside the uninterrupted production of high-quality single items, which were usually official gifts – for example, those presented by the Shô dynasty at the accession of each Tokugawa shogun. In particular, red lacquer bases dominated until the Shimazu invasion; they were temporarily displaced after 1609 by the black lacquer preferred in Japan. The additional inclusion of braided metal wires following Korean models and the pieces of mother-of-pearl cut to size to precisely match the blue-green colouring of the material may be regarded as characteristic of Ryukyu mother-of-pearl lacquerwork (Fig. 39).

39. Phoenix on blossoming peony branch. Paper box, red lacquer with mother-of-pearl inlays. 9.5 × 28.5 × 39.5 cm. Ryukyu, early seventeenth century. Cologne, Museum für Ostasiatische Kunst.

Another lacquer technique, also of Chinese origin and already datable to the Ming period,[10] became a trademark of Ryukyu Islands artistry in the eighteenth and nineteenth centuries: *tsuikin* relief decoration. This procedure, poetically described by the Japanese as 'heaped brocade' (Chinese *tui-ts'ai*), consisted in stamping out individual floral or scenic motifs from a rolled paste of powdered grindstone and lacquer, usually green, ochre, brown or red in colour, which was then applied to a red or more rarely a black lacquer base with the interior design engraved afterwards.[11] The lacquer-paste relief may also have been applied directly to the item with a piping bag. The effect is similar to carved lacquer, which *tsuikin* imitates as a simple and less expensive substitute. It is therefore also called 'false carved lacquer'. Landscapes and figures imitating Chinese models occur alongside leaf and flower patterns that cover the sides of the items. Although most of the surviving examples appear to date from the nineteenth century, it has been demonstrated that this technique was already in use on the Ryukyu Islands in the early seventeenth century and was apparently considerably refined at the beginning of the eighteenth century by the lacquer master, Bô Kô-toku, working in Shuri, who was patronized by the king. The increasing popularity of *tsuikin-nuri* is also demonstrated by the fact that the list of lacquer items sent as tribute to the court of the Tokugawa shogun in 1718 mentions an object adorned with the *tsuikin* technique. Later delegations always bore *tsuikin* lacquerwork as royal gifts along with the traditional lacquerware with inscribed designs and mother-of-pearl inlays (Fig. 40).

The lacquer techniques currently in use on Okinawa mainly use *tsuikin* techniques, although today's version has been commercialized and is less time-consuming. The lacquer paste is no longer produced in different colours and then applied; the uniformly coloured relief design is coated with thin polychromatic layers of lacquer only after application. The extreme humidity of the climate on the island also helps the mass production of

40. Chrysanthemum scrolls. Round container, red lacquer with coloured lacquer applications. 10 × 21.2 cm diameter. Ryukyu, nineteenth century. Münster, Museum für Lackkunst.

tsuikin products for the tourist market because it facilitates the drying of the thick lacquer pastes.

The difficulty of distinguishing between Ryukyu lacquerwork and the Chinese models which were copied in technique and style for centuries, means that continued intensive comparative studies are needed. Any criteria that definitively identify specific lacquer objects as originating on Ryukyu are thus invaluable. Besides the luminous red lacquer bases, these criteria also sometimes include seal marks in the shape of the obsolete character *ten* (heaven) or a Chinese fan carved into the bottom. According to Yoshinobu Tokugawa, these marks officially identify pieces produced for royal use.[12] The black lacquer bowl-stand with mother-of-pearl inlays, which has been in the possession of the Ryôkô-in of the Daitoku-ji temple in Kyoto since 1604, represents the most venerable object within the group identified by using these marks.[13] The lining of *laque burgauté* bowls and beakers with tinfoil is also said to be indicative of Okinawan origins because for about fifty years after the Satsuma invasion of 1609, tin imported from Kyushu was used on the island. Apart from these indications, the spiral of the Shô dynasty's royal coat of arms used on items as a decorative component within the pattern identifies such pieces as Ryukyu lacquerwork of outstanding quality.

Older literature indicates that the use of pig's blood as an admixture to the primer is also evidence of Ryukyu lacquer (Japanese: *tonketsu shitaji*). Yoshinobu Tokugawa has expressed doubts about this tradition because he could find pig's blood only on those items that he examined from the late nineteenth and early twentieth centuries. All examples that could be definitely or probably dated to before the mid-nineteenth century used primers of lacquer paste, sometimes over stretched fabric. However, here it appears worth mentioning that a hitherto unpublished manuscript written in 1708 by Isaac Pyke, Governor of St Helena, 'The way of Makeing and Laying on of the True China and Jappan varnish, by them Called Chillong as it was practised at Chusan', does contain the instructions for making a paste of pig's blood and rice flour said to have been customary in Chûzan lacquer bases:

> Take hoggs blood and keep it kneading with fresh Straw till it is cold then mingle it well with riceflower or quick lime powdered and force all through a fine Cloth Seive and thus you will have a very fine past called Sinchea. Lay this thin mixture on the Wood you Intend to varnish and when it is throughly drye Smooth it with your pollishing Stones. . .[14]

In the modern commercial lacquer industry, which has flourished especially since the return of the Ryukyu Islands to Japan in 1972, one manufacturer uses pig's blood as a primer. Today, there are five independent lacquer masters on the island of Okinawa.

Notes

1. Harry M. Garner, *Ryûkyû Lacquer*, London, 1972 (Percival David Foundation of Chinese Art, Monograph Series, No. 1). Garner also deals extensively with the importance and characteristics of Ryukyu lacquer in his monograph on Chinese lacquer art: Sir Harry Garner, *Chinese Lacquer*, pp. 164–76 and 243–50, London/Boston, 1979.

2. Hirokazu Arakawa and Yoshinobu Tokugawa, *Ryûkyû urushi kôgei* [Lacquer of the Ryukyus], Tokyo, 1977.

3. Hirokazu Arakawa, Akio Haino and Takayoshi Maeda, *Ryûkyû shikki no bitten; Kaetekita Ryûkyû shikki no seika* [The exhibition of Ryukyu lacquerware], Urasoe, Urasoe Art Museum, 1983 (exhibition catalogue); Hirokazu Arakawa, *Ryûkyû shikki ten: Mikkôkai korekushon* [Exhibition of Ryukyu lacquerware from unpublished collections], Itabashi Kuritsu Bijutsukan, Tokyo, 1983 (exhibition catalogue); Hirokazu Arakawa and Hiroshi Katô, *Ryûkyû ôchô no tasaina shikki bunka; Oka korekushon meihin ten* [Variety of lacquerware in the kingdom of Ryukyu; Exhibition of masterpieces from the Oka collection], Urasoe, Urasoe Art Museum, 1992 (exhibition catalogue).

4. Craig Clunas, 'The Ryukyu Islands', in Jonathan Bourne (ed.), *Lacquer: An International History and Collector's Guide*, pp. 136–41, London, 1989.

5. James C. Y. Watt and Barbara Brennan Ford, *East Asian Lacquer: The Florence and Herbert Irving Collection*, pp. 329–71, New York, Metropolitan Museum of Art, 1991 (exhibition catalogue).

6. *Sekai ni hokoru Ryûkyû ôchô bunka ihô ten; Yôroppa Amerika hizô* [Ryukyuan art treasures from European and American collections], Urasoe, Urasoe Art Museum, 1992 (exhibition catalogue).

7. Hyôgo Ishizawa, *Ryûkyû shikki kô* [Survey of lacquerware from the Ryukyu Islands], 1889.

8. These facts, deduced from the number and quality of the pieces that have survived (some of them mentioned only in literature), contradict the praise expressed in the commentary of the *Hsiu-shih lu* treatise by Yang Ming in 1625, of the 'good red carved lacquer' recently being produced on the Liu Ch'iu Islands. It remains unclear whether real carved lacquer was ever produced here. On most of the Ryukyu 'carved' lacquerwork, the background patterns appear to have been inscribed or embossed with stamps and the relief-type designs to have been pre-formed and then applied. In the catalogue for the 1992 exhibition on Okinawa [see Note 3], Arakawa wrote in this regard: '*Tsuishu* (cinnabar carving), *tsuikoku* (black carving) and *tsuisai* (colour carving) are simplified techniques originating in Chinese lacquer carving. They have much in common with the characteristic Ryukyuan technique of *tsuikin*. . .', p. 155. A definitive explanation of Ryukyu carved lacquer based on precise comparisons of style is still needed.

9. *China und Europa: Chinaverständnis und Chinamode im 17. und 18. Jahrhundert*, Schloss Charlottenburg, Berlin, 1973 (exhibition catalogue), No. I 4; Sir Harry Garner, *Chinese Export Art in Schloss Ambras*, pp. 12–13, Pl. 14a, London, 1975.

10. Masako hôno-Sládek, *Der Glanz des Urushi: Die Sammlung der Lackkunst des Museums für Ostasiatische Kunst der Stadt Köln: Bestandskatalog mit kulturhistorischen Betrachtungen*, No. 14, Cologne, 1994 (collection catalogue). The major lacquer treatise, *Hsiu-shih lu*, commented in 1625 by Yang Ming, describes a technique comparable to that of *tsuikin*, called *tui-ts'ai*.

11. Masako Miyasato, Aki Okamoto and Taro Gabe, 'Tsuikin seisaku kôtei' [Process of *tsuikin* manufacturing], *Shikkôshi* (Atami), Vol. 18, 1995, pp. 54–8; vi–vii.

12. Yoshinobu Tokugawa, 'Tenji-gata, dansen-gata, bundô-gata no in to meibun, Ryûkyû shikki tono dantei shishô' [The seal marks of fan and weight with inscriptions, as the evidence of Ryukyu lacquer], *Shikkôshi* (Atami), Vol. 9, 1986, pp. 25–8; iii–v.

13. *Daitoku-ji no meihô* [Art treasures of Daitoku-ji temple: In commemoration of the 650th anniversary of the temple's founding], Kyoto National Museum, 1985 (exhibition catalogue), No. 93; Rose Hempel, 'Ostasiatische Perlmutterlacke: Frühe Beispiele aus China, Korea, Japan und den Ryûkyû-Inseln' [East Asian mother-of-pearl lacquer: Early examples from China, Korea, Japan and the Ryukyu Islands], *Kunst und Antiquitäten* (Munich), No. 3, 1988, p. 49, Fig. 9.

14. Unpublished manuscript, University of London Library, MS. 56, p. 83 ff. The recipe and work instructions are widely

comparable to a text in the 1366 Chinese treatise, *Nan-ts'un cho-kêng lu* by T'ao Tsung-i. The preparatory priming is described as follows: 'Jede Schicht wird, sobald sie trocken ist, mit Sandleder (gleich unserem Glaspapier) abgeschliffen. Für billige Ware nimmt man ein Gemisch von Schweineblut und Reiskleister . . .' ['As soon as it has dried, each layer is sanded down with sand leather (similar to our sandpaper). A mixture of pig's blood and rice paste is used for cheaper merchandise . . .']. See Otto Mänchen-Helfen, 'Materialien zur Geschichte des chinesischen Lacks' [Materials for the history of Chinese lacquer], *Ostasiatische Zeitschrift* (Berlin), New Series 13, 1937, p. 215.

Asian lacquerware: maintaining the tradition

KAZUSHIGE KANEKO

MODERNIZATION VERSUS TRADITION

The regional workshop on East Asian lacquerware, held in Yangon and Pagan (Myanmar), from 14–21 February 1997, brought together both academic experts and traditional lacquer craftworkers for the first time to compare techniques and design of products, and to discuss strategies for the future development of the lacquer industry. This was an event of major significance. A common feature of daily life throughout Asia, the lacquerware produced by outstanding artisans in each country or minority group reflects the materials found locally, as well as distinctive artistic techniques that belong to each culture. Lacquerware is one of Asia's representative traditional art forms, a cultural symbol for each culture and a human treasure in the truest sense.

Many traditional cultures have been forced into decline or even extinction by the rapid changes in contemporary society. These cultures are threatened, in particular, by the effects of environmental destruction and resource depletion resulting from the ravages of war, ethnic disputes, ideologically oriented communist regimes, religious conflicts, and the headlong rush into urban and industrial development projects aimed to accelerate 'modernization'. We have clearly reached a critical point.

The rapid changes in contemporary society have deprived traditional handicrafts of their original functions, and the situation has reached a point at which they could well disappear from our daily lives altogether. People find the warmth and elegant lustre of lacquerware works attractive, but the sharp drop in demand for these products has meant that they are now produced in small quantities only, with the paradoxical result that everyday objects have now become luxury goods. This has put them out of the financial reach of most people. But attempts to revive this tradition by copying the styles of other countries could conversely result in a loss of their indigenous qualities. For example, trying to break into the Japanese market by copying Japanese techniques would result in a loss of traditional aesthetic appeal. The same would hold true of Japanese lacquerware artisans who decide to turn to cheap export

products to fill the gap left by the lack of buyers in the high-priced Japanese market. This will result in a loss of individual creativity and initiative.

Traditional objects such as furniture, cooking utensils, personal ornaments and religious and artistic implements are being supplanted by a flood of more cheaply manufactured goods made from plastic or nylon. The unique aspects of each culture are being lost amidst the headlong rush towards international cultural homogeneity. The systematization of our lifestyles and the development of new products in keeping with the times is an inevitable process, but discarding elements that reflect regional or ethnic identities can only be termed regrettable.

Even those who proclaim themselves the champions of modernization and economic development in Asia have expressed concern over the disappearance of traditional handcrafted works and have taken steps to address this problem. Korea, in a desire to compile a compendium of traditional lacquering techniques, has located important lacquered works that have been taken abroad. Japan has initiated a campaign to perpetuate these important techniques and train future craftsmen by having them make replicas of lacquerware ornamented with mother-of-pearl, tortoiseshell or sharkskin. Museums throughout the world are also actively gathering information on this subject. The high priority placed on funding social infrastructure projects, however, has meant that there are fewer resources left for the preservation and promotion of traditional culture. This is not the challenge of just one single country: it is an issue confronting the whole of Asia. We are now beginning to see efforts to analyse the current state of affairs and to encourage the development of market outlets and younger artisans to carry on these traditions.

All ethnic groups create certain tools and implements that play an essential part in their daily lives. These implements might take the form of earthen pots used to cook rice among groups where rice is the staple; earthen vessels to decoct medicines or tea; clothing that reflects climatic conditions, gender differences, etiquette, or the respective social rankings or classes of individuals; or weaving, dyeing, embroidery or patchwork techniques used in garment manufacture. By the same token, the bamboo and straw widely employed in articles of daily use found in tropical climates and the wool rugs and other types of woven mats, such as *kilm* or *jijim*, used in arid desert environments, are an integral part of people's life and they reflect natural and climatic conditions. Originally, handcrafted items were important tools in day-to-day activities. Because mechanized production has now become a norm, demand for traditional handicrafts is falling drastically, with the result that many craftsmen are being forced to abandon their trade. They are faced with finding other types of work or losing their livelihood altogether. This problem must be addressed, and remedies must be found. It is natural for people to seek a life with greater convenience and more modern amenities. But an obsession with convenience and comfort will lead to cultural monolithism and the loss of regional or ethnic identity, and this must not be allowed to happen.

Today, economic development, modernization, and the real-time transmission of information have reached even the remotest towns and villages of the planet. These enticements serve to lure young people away from work in traditional handicrafts to high-paying work in industrial plants. There are also growing signs that the preoccupation with foreign, even 'globalized', culture has bred a distaste for traditional local culture. Meanwhile, the desire for hard currency has led tourist industries to haphazardly relegate utensils and items closely associated with daily life to the category of cheap tourist trinkets. And a widespread opinion that 'cheap goods equal inferior goods' may have tarnished the credibility of handcrafted products, along with them lacquerware, for good.

Lacquer is not only far more practical than chemical

varnishes, it also possesses superlative inherent adhesive and antiseptic properties. Today, polyurethane and other easy-to-use chemical varnish imitations and chemically varnished utensils are becoming increasingly popular. In fact, these imitation varnishes could well threaten the very existence of natural lacquer if the trend continues at this rate. Some people may question the significance of lacquerware made with natural lacquer. But it must be understood that plastic and polyurethane simply cannot substitute for natural lacquer, just as urea resin cannot substitute for porcelain. The view that items made from natural and imitation lacquer are no different since they are similar in shape and colour is simply preposterous. To be satisfied with imitations is to fool oneself. If this facile notion becomes widely entrenched, however, it will no doubt spell the end of authentic handcrafted works. It would be useful at this point to recall the differences between products made with natural lacquer and those covered with chemical varnishes.

THE ORIGINS OF LACQUERED UTENSILS

The various shapes, colours, lines and decorations of lacquered utensils should be considered as the reflection of the artistic sensitivity of a particular ethnic group. Lacquerware dating back to the neolithic age has been unearthed along with wooden and stone utensils in China, the southern part of Korea and Japan. These discoveries have made it clear that highly sophisticated lacquered techniques were already well-developed at this early date. Experts also anticipate that even more ancient lacquered pieces will be uncovered in archaeological sites in South-East and South Asia in the future. In China, the earliest lacquered products are thought to date back to pieces found among the Hemudu artefacts in Zhejiang province, along the lower reaches of the Yangtze River. These red-lacquered wooden bowls, some 7,000 years old, are the oldest examples of lacquerware in China. Chinese legend has it that lacquer sap was used as early as the Shang and Chou dynasties. Lacquer trees grew in abundance in the wild in the Henan, Shanxi, Gansu, Hebei, Shandong and Shaanxi provinces, and were later cultivated there in plantations.

Utensils demonstrating highly sophisticated lacquering techniques have been discovered in the Ma Wang Dui tomb located in Hunan province. They include a lacquered casket, bows and arrows, sword cases, shields and many eating utensils. A lacquered shield made from split and woven bamboo is particularly interesting. These items were probably made in a studio in Sichuan province, where lacquer (or varnish, as it is sometimes still called) trees grow in abundance. By this time, yellow and green lacquer was being used to draw pictures on vermilion and black lacquer backgrounds. As the Han dynasty assumed greater power, their dominion naturally expanded. They set up a colony on the Korean peninsula of Rakurogun. Chinese lacquered woven bamboo vessels (inscribed in coloured lacquer with the legendary feats of Lao-tzu) and wooden utensils covered with linen cloth and layers of lacquer have been discovered at the Chehyep Chou tumulus near Pyongyang (Democratic People's Republic of Korea). These pieces date from the same period as the Ma Wang Dui lacquerware, and were produced in a government-managed studio in Chendu, Sichuan province. Whether or not the Korean people at that time made their own lacquerware, or whether they were imitating Chinese styles, is difficult to ascertain.

In Japan, red-lacquered wooden combs and other lacquered wooden utensils have been discovered among artefacts dating back to the Neolithic period. Recently, lacquered combs and goblets have been discovered in north-eastern Japan. These finds prove that highly sophisticated lacquering techniques existed at this early date. However, the question whether they are Chinese in origin or purely Japanese must remain the subject of future research.

Thus we can see that lacquerware production dates back several millennia in Asia. Examination of these ancient pieces provides clear evidence that the technique of lacquering wood, bamboo, cloth or other materials in a three-stage process and then applying decorations has been passed down uninterrupted from ancient times to the present. While there have been some technical innovations added to the basic process, they have not gone much further than polishing the surface or adding lustre, at the most. In other words, the basis for highly sophisticated lacquering techniques already existed in ancient Asia. Compared with China, Korea and Japan, relatively little written information on lacquerware has been found in south-eastern, southern or western Asia. Given the wide cultural exchange that occurred over a long period in this region, however, there is a strong likelihood that these regions also came under Chinese influence and eventually developed their own lacquering techniques.

MAKING LACQUERWARE

Modernization and urban and industrial development have almost eliminated the supplies of natural resources used in lacquerware. The main types of lacquer (*urushi*) and production districts in Asia are as follows: *urushiol*: found in China, the Democratic People's Republic of Korea, Japan, the Republic of Korea and the Ryukyu Islands; *laccol*: found in Cambodia, the Lao People's Democratic Republic, Viet Nam and other parts of Indochina; and *thitsiol*: found in Myanmar and Thailand.

Indigenous lacquer trees in Japan take fifteen years to begin producing sap for harvesting. Although lacquer trees were previously found in abundance throughout Japan, over-development has now reduced growing areas to the Iwate and Ibaraki prefectures, which account for 98 per cent and 2 per cent, respectively, of domestic stocks. As a consequence, Japan must rely largely on lacquer imported from China and elsewhere.

It will be important to determine the state of lacquer resources in other countries as well. Some pertinent questions that arise here include whether local or central government authorities have promoted campaigns to replant lacquer trees or have taken steps to guarantee those who cultivate the trees a stable pool of buyers; whether it is acceptable for anyone to harvest sap from trees growing in the wild; whether public organizations should be more involved in research into lacquer; and the present status and future outlook for lacquer materials. We hope to set out steps based on information covering these topics.

Major questions concern how to ensure that traditional handcrafting techniques will be passed on, and how to maintain a continuous supply of raw materials. The prevalence of polyurethane and other synthetic resins has led to the trend of substituting products lacquered with a synthetic/natural varnish blend for genuine lacquerware. Left unchecked, this alarming situation could spell the end of traditional lacquerware. Experiments have shown that synthetic varnishes are much more brittle than natural lacquer and will often peel, crack and discolour within a span of seven years or so. The chemical composition of synthetic varnish is not as complex as that of the natural counterpart, and working with it does not require the rigorous training that those working with natural lacquer must undergo to gain a working knowledge of their materials. Synthetic varnishes, however, can easily be applied with a sprayer, making them much less labour-intensive than natural lacquer.

AWARENESS

It is our responsibility to ensure that the techniques handed down from our ancestors are transmitted to future generations. Yet the emphasis on profitability and the trends toward cultural monolithism and globalization have served to relegate valuable handcrafted works

into outdated artefacts from the past. Meanwhile, the pursuit of higher profit margins has been spurred further by automated labour-saving systems boasting high productivity. Yet it must be borne in mind that traditional ethnic art forms ('ethno-forms') are a fountainhead of ingenuity and innovation in the process of creating new implements adapted to changing social needs. The younger generation in Asia needs to be made aware that rigorous training is required to truly understand the complexities of lacquerware, and that those difficulties must be overcome to produce truly valuable works.

It is important to raise public awareness concerning the important role that handcrafted works play in each community. Educational institutions should teach children the history of local traditional industries and get them to realize that the handicrafts developed by their ancestors represent an important symbol for their own local culture, in which they can take pride. It must be impressed on people that the significance of traditional handicrafts is of the utmost importance to modern industries, and they therefore deserve to be preserved and perpetuated while newer industries are developed. Efforts should be made to ensure that highly skilled craftsmen be given due credit and receive proper protection from national or local authorities. In addition, university courses should be set up to train young people in traditional industries. Another important step involves adequate transmission of information, following the initiatives that other countries are taking to preserve, pass on and foster their tangible and intangible cultural heritage.

A NETWORK TO ENCOURAGE THE ART OF LACQUER

A first step towards fostering this endangered art form would be to create a network of lacquerware experts to address vital issues for ensuring the continuation of the tradition. The network would aim to promote exchange of information on Asian lacquerware, such as allocating production areas, obtaining raw materials, training craftworkers, developing tools, quality control and managing marketing and consumer needs. In addition, positive efforts should be made to gather information on lacquerware and to train researchers and museum curators in this field. Information related to these activities and research could be stored in a database to be established. It may also be possible to set up a training centre to oversee the training of successors to carry on these traditions, so that a technique accumulated over millennia of human existence and experience will not simply flicker out in a few brief decades.

PART TWO

Lacquerware as a living tradition

The historical inheritance and development of China's traditional lacquerware

CHEN ZHENGYU

The long development of China's lacquerware techniques is a brilliant page in the history of civilization. Lacquerware handicrafts first originated in China, where archaeological finds have demonstrated that the techniques of this art form have existed for approximately seven millennia. Lacquerware production has been a continuous and uninterrupted process, developing steadily through an accumulation of inherited traditions from the past, carried forward and improved until the present day.

41. Wooden bowl, red lacquer. China, Hemudu period, *c.* 4000 B.C. One of the earliest examples of lacquerware discovered in China. Zhejiang Museum.

LACQUERWARE TECHNIQUES FROM ANCIENT TIMES TO THE QING DYNASTY

The earliest Chinese lacquerware objects are probably 7,000 years old. These items include bowls and cylinder-shaped vessels unearthed at the Hemudu site in Zhejiang province. They have a wooden body and were shaped either by cutting or chipping a block of wood with primitive tools, perhaps a type of chisel and hammer. After the general form of the body had been sculpted, it was hollowed out and then painted with natural red lacquer pigment (Fig. 41). Some 5,000 years ago, lacquerware was also produced in the Yellow River valley. Clay bodies began to be used at this time but the methods of

lacquering the body and the painting techniques remained unchanged. A new technique also appeared for multicolour decorations and inlaying fragments of jade on vessels.

During the Xia (twenty-first to sixteenth centuries B.C.) and Shang (sixteenth to late eleventh century B.C.) dynasties, the types and quantities of lacquerware increased. In addition to wooden and clay bodies, copper bodies were introduced. An entirely new technique was added, that of lacquer carving. The decorative designs continued to be painted on with various colours, but inlay techniques were also developed to include various types of beautiful designs with inlaid turquoise, mussel shells, animal teeth, tortoiseshell and flakes of precious or semi-precious stones.

During the Western Zhou dynasty (end of eleventh century to 711 B.C.) and the Spring and Autumn period, lacquerware techniques multiplied (Fig. 42). Five kinds of bodies were now used: wood, bamboo, clay, copper and stone. The wooden-body lacquer-making technique remained virtually the same as during the Xia and Shang dynasties, but became more sophisticated. Wooden-body lacquerware still showed the painting techniques inherited from the past, with a wider variety of colours, and inlaying techniques with pieces of tortoiseshell and turquoise were introduced. A new technique that involved applying gold foil with glue also developed, but it fell into disuse during the Spring and Autumn period when a new inlaying technique with painting in gold became popular.

Lacquerware techniques developed rapidly during the Warring States period (480–221 B.C.) with a sharp increase in the types of ware (there were now some eighty different varieties), as well as a rise in the quantities produced: 5,000 to 6,000 lacquerware pieces dating from this era have been unearthed in archaeological digs (see Figs. 43–45). Lacquerware was used for every aspect of daily life, and its production became an important independent cottage industry. The wooden-body lacquer-making techniques of the Shang and Zhou dynasties were still used, with the addition of a new 'rolling', or turning, technique late in the period. In addition, new techniques combined lacquer-making with metal-working. Bamboo-body lacquer-making techniques used hammering, sawing and weaving methods. The decorative designs were painted in a variety of colours. The technique of inlaying mussel shell and turquoise became less widespread. In the design of these pieces of lacquerware, close attention was paid to rules for combining

42. Gold-plated wooden ladle. China, West Zhou dynasty, 1066–771 B.C. Institute of Archaeology, Chinese Academy of Social Sciences.

43. Carved wooden container with stand. China, Warring States period, 403–221 B.C. Hubei Museum.

44. Carved wooden bowl or cup with stand and mandarin duck motif. China, Warring States period, 403–221 B.C. Jingzhou Museum.

45. Carved table decoration. China, Warring States period, 403–221 B.C. Hubei Museum.

practical use with beauty so that decorative designs evolved organically. The result was that a piece of lacquerware became a beautiful, functional, handmade piece of art work.

The Qin (221–206 B.C.) and Western Han dynasties (206 B.C.–A.D. 9) were periods of development and prosperity in the history of China's lacquerware. Pieces have been unearthed in archaeological sites scattered all over the country, bearing witness to the production of large quantities and many varieties. Lacquerware bodies included wood (with a substantial increase in the number of thin wood bodies), bamboo, multi-layer bodies, clay and copper. The wooden-body lacquer-making method during the Qin dynasty was largely the same as that used during the Warring States period, but turning techniques were more extensively used. During the Western Han dynasty a new, faster, spinning technique developed, which not only increased productivity, but also made the products thinner and more elegant. The vessel model and decorative design during the Qin and Western Han dynasties were virtually the same as during the Warring States period, but the new techniques of needle-painting (a scratching technique), gold-plating, layers of paint, glueing silver foil and inlaying (with gold and silver pieces, agate, hawksbill turtle shells, mica and jade pieces) were adopted during the Western Han dynasty, with the result that designs and patterns on the ware from this period are much brighter and more aesthetically pleasing (Figs. 46–49).

Lacquerware craftsmanship and production declined sharply during the Eastern Han (A.D. 25–220), Wei and Jin dynasties as a result of social chaos and the rise of porcelain as an art. Very few of the brick tombs from this period have survived, with a concomitant reduction in the number of funerary artefacts found in archaeological sites. Only a few lacquerware varieties and pieces remain, although those that have survived show that a new technique to produce 'marbled' lacquer had been developed (this is the so-called 'rhinoceros-skin' lacquerware). Other pieces include figures of Buddha, made with a multi-layer method, along with ware decorated with lead monoxide and monochrome lacquer.

46. Wooden basin with phoenix and fish, and brown, red and black lacquer finish. China, Qin dynasty, 221–206 B.C. Yunmeng District Museum.

47. Wooden ladle, red and black lacquer, 33 cm. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum.

48. Wooden bowl with handles; fish motif, red and black lacquer. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum.

49. Wooden tortoise-shaped armour with sea-horse motif, red and black lacquer. China, Western Han period, 206 B.C.–23 A.D. Jingzhou Museum.

With regard to the lacquerware technique during the Tang (618–906), Song (960–1279) and Yuan (1271–1368) dynasties, as the tombs of lacquerware owners (pieces were often buried with them) did not survive, little data in the form of objects have come down to us. According to historical records, during the Tang dynasty certain artistic techniques reached a peak of development, among them lacquerware techniques. Monochrome lacquerware from the Tang and Five dynasties has been recovered. The technique for producing this ware evolved during the Song dynasty, when Buddha figures made with a multi-layer lacquerware body became popular. The embossed lacquerware technique that originated during the Han dynasty developed very rapidly. The gold and silver 'flake' technique was popular during the Tang dynasty, but gradually began to disappear during the Song dynasty, when it was combined with lacquerware made with the design traced out in gold. Gold-plated lacquerware was very popular during the Yuan dynasty, when the technique evolved somewhat. During that period, the lacquerware technique also utilized embossed *tiexi* lacquer. Here, two colours of lacquer are applied in separate coats, layer by layer, until a certain thickness is attained. Then a knife is used to carve different kinds of pattern, with the result that different coloured layers can be seen within a section. Other techniques of the period included painted lacquer; *tianxi* lacquer, in which a sunken design is first made using a die-cutter on the surface of a monochrome lacquer surface before filling with coloured lacquer; and filled lacquerware. Carved lacquer was the most popular technique at this time.

Lacquerware techniques during the Ming (1368–1644) and Qing (1644–1911) dynasties became highly developed. Generally speaking, on the same lacquerware piece, various kinds of painting/coating techniques would be applied in order to render the item more varied, bright and beautiful, and this is the major characteristic of the lacquerware of the period. In fact, the lacquer techniques during this era may be divided into over ten different categories, including monochrome lacquerware; *zhaoqi* lacquer (a thin layer of transparent paint is applied to the surface of a vessel); coloured lacquer; *miaojin* lacquer (a design is first painted on, and when dry, gold foils are painted on to the designs); lacquer with designs traced in gold; embossed lacquer; *tianxi* (carved and filled) lacquer; carved lacquerware; lacquer inlaid with mother-of-pearl; and lacquer inlaid with precious stones. Each category combined various different lacquer-making methods. For example, the embossed lacquer included red, yellow and golden threads, and designs traced in gold. These lacquer-making techniques continued those inherited from the preceding dynasties and developed them further. For example, the inlaying of a variety of precious stones began to evolve during the Western Han dynasty but it did not become popular until the Ming dynasty, when lacquer-making methods also became more elaborate. Lacquerware produced during this era was beautiful beyond description.

As we consider the technical developments in China's long history of lacquerware, we clearly see that social and economic transformations during various dynasties wrought changes in consumers' needs for lacquerware and in the way they appreciated the beauty and originality of the various lacquer-making methods. Lacquerware techniques evolved in a continuing process, leaving a vast historical and cultural legacy. Ancient Chinese lacquerware spread to East Asia, South-East Asia, Western Europe, North America and other parts of the world, exerting much influence on the lacquerware techniques in other countries.

PRESENT-DAY LACQUERWARE PRODUCTION IN CHINA

Chinese lacquerware techniques constitute one continuous process from the late Qing dynasty until 1940. But in the 1940s the lacquerware industry was on the verge of collapse, even extinction. Since the beginning of the 1950s, with government support and assistance, many factories have resumed production. Since the 1980s, the government has enforced a series of measures to expand China's lacquerware production. The country currently has seventy-five large- and medium-sized lacquerware manufacturers, as well as many smaller ones.

The larger lacquerware manufacturers are scattered throughout the country and concentrated in nineteen provinces, municipalities and autonomous regions including Beijing, Hubei, Shanghai and Tianjin. Most of the lacquerware producers are concentrated in Fujian, Jiangsu, Zhejiang, Shanxi, Shaanxi and Guangdong. The manufacturers are mainly state-owned enterprises with large-scale production and modern management methods. They are quite different from the small lacquerware workshops, which follow more traditional production and management methods, artisanal practices where master craftworkers train apprentices. Production in the larger lacquerware factories is usually arranged in different workshops according to the product or production process. Every factory has a section to study lacquerware production technology and assess product quality. Most factories have set up laboratories; some have special lacquerware research institutes; and many use modern science and technology and new production methods.

Large and medium-sized factories produce according to the demand from domestic and foreign markets. Incomplete statistics showed that China exported nearly US$50 million worth of lacquerware during the period from 1981 to 1985, and almost US$60 million during the period from 1986 to 1990. Most lacquerware for sale

on the domestic market is designed to meet the daily needs of consumers for items such as furniture and dishware. Lacquer is also used for interior decoration in houses and hotels. Some lacquerware is sold as souvenirs to tourists, and still other pieces are offered as gifts. Of course, since specific conditions vary from one manufacturer to another, their products and markets differ accordingly.

Accurate statistics about China's small lacquerware manufacturers are unavailable. They can be divided roughly into two categories. One category covers small manufacturers in various parts of the country; these are limited in scale and employ few craftworkers. Most of them follow a traditional method, with the master teaching the apprentices. Taking into consideration the availability of raw materials, equipment and skilled workers, the small workshops produce lacquer products to meet primarily local needs, such as everyday household articles and tourist souvenirs. The other category includes museums in possession of lacquerware unearthed at various archaeological sites, which have built factories to produce lacquerware in the ancient styles. Because very old lacquerware is difficult to conserve, the factories attached to museums make reproductions of important and elaborate pieces. The reproductions are used during exhibitions and as auxiliary gifts to Chinese and foreign scholars. The factories also sell very beautiful reproductions as tourist souvenirs.

INHERITANCE AND DEVELOPMENT OF THE TRADITIONAL LACQUER TECHNIQUE

With such a venerable tradition in lacquerware, the Chinese have created many rare and beautiful objects. In China today, where the trend is towards launching a modernization drive, traditional lacquerware techniques are still being transmitted. Since the founding of the People's Republic of China, and particularly since the 1980s, the Chinese Government has attached great significance to the ancient traditional lacquer techniques, and has organized conferences on improving product quality. In addition, efforts have been made to upgrade such production processes as wood drying, woodworking, paint manufacturing, design processes and colouring among thirteen key manufacturers. Technicians have been sent to Japan for research and study. Researchers from academic institutes, along with university professors, have been invited to hold training courses in the basic techniques used in several of the lacquer factories. Organizations have been created to carry out activities for improving product quality, and various ad hoc meetings have been held to find out how to enlarge the international market as well as transmit and develop traditional lacquer techniques.

The seventy-five major lacquerware manufacturers in China are producing objects with distinct local characteristics, and they are making serious efforts to transmit and develop traditional techniques. The lacquerware factories in Chengdu, Yangzhou and Fuzhou in south-west and eastern China are good examples.

From the Spring and Autumn period and the Warring States period to the Han dynasty, Chengdu, the capital of south-west China's Sichuan province, served as a major lacquerware production centre and unique decorative styles were created there. The Chengdu Lacquer Ware Factory has focused on traditional artisanal techniques. Here we find dozens of production processes that combine traditional with modern decorative techniques. Simple tracing and carving have been developed into sophisticated decorative processes, featuring tracing, spreading, pasting, inlaying, piling-up of lacquer, and carving techniques. The factory has also produced lacquerware using a variety of new techniques, such as inlay and colour; piled painting; lacquerware made with gold, silver and tin threads; needle-carving; and hand-tracing techniques, including thread-tracing, flat-spreading and colouring and tracing in gold, lacquer-

ware with hidden flower patterns and lacquerware inlaid primarily with snail and egg shells and with precious stones as a supplement.

In the *dianluo* technique, the surface of an item is painted black as the base colour and it is then decorated with shell and with gold and silver pieces. This process was introduced during the Yuan dynasty and became popular during the Ming. The lacquerware made with this technique is a major type, known as Yangzhou. But the technique was lost during the Qing dynasty. After years of study and research, in 1972 technicians with the Yangzhoti Lacquer Factory were able to revive it, producing works entitled 'New Meiyuan Village' and 'Ever-Lasting Spring for Beautiful Land'. In 1986 they revived another technique, several thousand years old, of using wood, bamboo, copper, porcelain, gold or silver to make the inner bodies, and began applying sophisticated technology to create pliable *dianluo* lacquerware. This produced outstanding items, such as 'A Lovely Spring Scene in March: Watching Geese', which was highly appreciated by both Chinese and foreign customers. These objects have been awarded prizes by the Chinese Government.

The history of Fuzhou lacquer goes back some two hundred years. During the reign of Emperor Qianlong of the Qing dynasty, Shen Shaoai, a well-known lacquerware artist, modified the ancient technique of using coarse linen to make the multi-layered body of the ware, substituting very thin grass-linen and silk, which resulted in the production of so-called 'bodiless' lacquerware. Shen's greatest contribution was to use gold- or silver-foil powder to mix his paint, producing light yellow or white, which was then mixed with other colours to form a series of bright, shiny paints of different densities. Over the past two centuries, building on the traditional lacquerware techniques they have inherited, technicians have made a number of innovations such as colouring, dyeing and gold-plating, and have created lacquer decorations with distinct local characteristics.

Traditional lacquering techniques were important in China's ancient culture. Since the country is now pursuing a policy of reform with respect to its cultural heritage of traditional techniques, the craftworkers are using modern science and technology and new materials to make new creations, and in this way lacquerware techniques will continue to advance in the years to come.

The Yi people of China: their culture and lacquerware

ZHANG JIANSHI

In China, at latitudes between 19º N. and 42º N. and longitudes between 97º E. and 126º E., the lacquer tree (*Rhus verniciflua*), known as *bo* in the Yi language, grows in the wild almost everywhere, especially in the southern part of the country. Including the Yi people, there are fifty-five ethnic minority groups in addition to the Han nationality in China. Many of these peoples, particularly those living in the south, have a tradition of varnishing their utensils and furniture, musical instruments and houses. The Yi have developed outstanding and exquisite lacquer techniques, and are one of the few peoples whose lacquer art not only reveals their indigenous character but also plays an important part in the national economy as a traditional craft.

The Yi, with a total population of 6,570,000 (1990 figures), live mainly in the south-west of China, the Liangshan autonomous prefecture of Sichuan province being the most heavily populated area. Lacquered objects are produced mainly in Dafang county of Guizhou province and in Liangshan. The lacquerware produced in Dafang has begun to resemble Han lacquerware, while that produced in Liangshan still shows characteristics typical of the Yi nationality.

The Yi have a long history of lacquerware production, which according to legend goes back about 1,400 years. There is evidence to indicate that lacquerware has been produced for some 400 years in Liangshan alone. The humid, mountainous area provides a rich habitat for the forests producing the natural sap that is the principal raw material for lacquered objects. The best time to harvest lacquer sap is in June or July. Usually those who cultivate the lacquer trees carry out the task of harvesting the sap, while the craftworkers, although skilled at collecting sap, do so only if someone in their family owns land with lacquer trees. After filtering through palm bark to remove the impurities, the sap is stored in sealed containers made from wood or bamboo in order to be sold later in local markets or used by lacquerworkers. Yi craftworkers have traditionally used raw, unrefined lacquer in making their lacquerware.

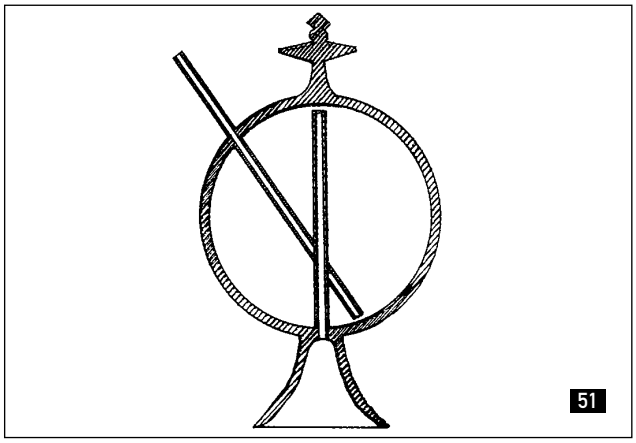
YI LACQUERWARE

A large proportion of traditional Yi lacquerware production includes cooking utensils, wine vessels, weapons and riding equipment. These objects were always considered to be for everyday use rather than handcrafted articles for aesthetic enjoyment. We here briefly describe nine selected objects that were initially displayed in the Liangshan prefecture collection during the 1950s but have since been moved to the Ethnic Museum of Southwest Nationalities College.

The Yi people in Liangshan have created an ingenious type of wine vessel, or pot (Figs. 50*a* and *b*). The pot is first turned upside down and the wine is poured in from the bottom through the trumpet-shaped stem. A bamboo pipe runs from the hole at the bottom to the top of the pot. When the pot is righted, the wine flows down into the pot, and the bamboo pipe lets in air. Another bamboo pipe is inserted slantwise from top to bottom, like a straw, so that the drinker may sip the wine. This construction ensures that the filled pot will not leak and that the contents will not evaporate and can be consumed to the last drop (Fig. 51).

50. Yi wine pot, *c.* 1920–30: height, 28.5 cm; diameter of body, 17 cm. Wooden core with black lacquer background: *a* stylized petals in yellow and red lacquer decorate the front; *b* the back is painted in geometric diaper pattern.

51. Cross-section of a Yi wine pot.



The Yi enjoy drinking wine and have created various shapes for pots and wine cups. Some cups display short, wide stems (Fig. 52), while others have an eagle-claw base (Fig. 53), thought to possess the power of driving away evil. Cups made from cow or sheep horn are also used (Fig. 54). Dining utensils include objects for daily domestic use such as bowls (Fig. 55), coffers, trays and spoons. Tableware is generally made with tall stems or long handles (spoons, for example), as the Yi like to sit on the floor around low tables for their meals.

Certain types of lacquered objects, such as armour (Fig. 56), arrow cases (Fig. 57), gunpowder containers (Fig. 58) and sheaths and bugles are no longer produced. This is also the case with riding equipment (Fig. 59), except in a few remote places in the mountains, as car and train travel has of course replaced horseback. Few saddles and stirrups are manufactured today.

LACQUERWARE TECHNIQUES

Painting is the most common method of decorating lacquerware. The less popular technique of inlaying is carried out as follows: a primer mixture of slaked lime and tung oil is first applied to the object, and a layer of lacquer is applied to the core with a brush. When this layer is almost dry, fragments of fishbone are inlaid on to the primer. Then lacquer is applied in one or several layers, depending on the thickness of the inlaid fragments: the thinner the pieces, the fewer the layers. Finally, the lacquer covering the bone decoration is wiped away, or left to dry and polished down to reveal the decoration.

By mixing diverse pigments (such as soot scraped from cooking pans) with the lacquer, three strikingly bright colours are produced: red, gold and black. For the Yi, red stands for bravery and warmth, gold signifies beauty and fortune, and black symbolizes dignity and respect.

52

53

52. Wide-stemmed wine cup, *c.* 1940–59: height, 7.5 cm; diameter of mouth, 9.5 cm. Wooden core, interior decorated with yellow lacquer. Patterns of red and yellow circles are painted on an exterior background of black lacquer.

53. Wine cup with an eagle-claw base, *c.* 1940s–50s: height, 18.5 cm; diameter of mouth, 10.3 cm. Leather core with both interior and exterior painted black. The eagle claw symbolizes the power to drive away evil.

54. Wine cup made from sheep horn, *c.* 1940: length, 26.5 cm. Horn core; the black lacquered exterior is decorated with leaf patterns in red and yellow.

55. Arrow case, *c.* 1900–50: length, 48.5 cm. Bamboo core with round pieces of fishbone inlaid on black lacquer background.

56. Leather bowl, *c.* 1940–59: height, 8 cm; diameter of mouth, 16 cm. Leather core with red interior. Black exterior with dotted and geometric patterns.

57. Gunpowder horn, *c.* 1900–50: height, 26 cm. Core made from both wood and leather. On the surface, patterns of petals and curves in red and yellow painted over a black background.

58. Leather armour, *c.* 1900–50: length, 67 cm. Leather core with black lacquered exterior, decorated with petals, dots and geometric designs in red and yellow lacquer.

58

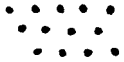
59. Saddle, c. 1900–50: length, 42.5 cm; width, 28 cm; height, 26 cm. Wood core with black lacquer background and decorative patterns of geometric shapes and curves painted over entire surface.

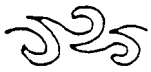
The coloured decorations have rich national and local connotations that convey individual feelings as well as symbolic meanings. Some designs are abstract, while others symbolize typical features found in nature: moon, sun, stars, rivers, mountains, flora and fauna. In spite of overall similarities, differences in pattern design and interpretation do exist throughout Liangshan, and sometimes the same pattern is even interpreted in several different ways. Some of the more common decorations and their meanings are as follows (see Fig. 60):

1. (a) the sun, sunshine; (b) patterns with twelve angles may stand for twelve months, the twelve two-hour periods in one day or the twelve animals symbolizing the year in which one is born; (c) patterns with eight angles indicate positions; (d) patterns with four angles symbolize the four directions; 2. sun and moon; 3. (a) stars; (b) vegetable seeds; (c) a certain plant; 4. clouds; 5. water, waves; 6. worms; 7. intestines; 8. snakes; 9. chicken eyes; 10. fish eyes; 11. cattle eyes; 12. cockscombs; 13. buffalo horns; 14. horse teeth; 15. pumpkin seeds; 16. leaves; 17. garlic clove; 18. eggplant; 19. flower bud; 20. flower; 21. steel flints; 22. gold chain; 23. fishnet; 24. nails; 25. decorative balls on smoking pipes; 26. the centre.

Lacquerware decoration may use a single pattern or several patterns elegantly combined. As artisans tend to choose the patterns to which they are accustomed, certain recognizable patterns prevail in the various parts of Liangshan. Usually a precise outline is drawn on the object using a brush pen. Thinner lines are then drawn and dots are added with the finest brushes. Finally, empty areas are filled in with colours, lines and dots to highlight the decorative design. After many years of practice, the workers become so skilled in the traditional drawings that sketches are no longer necessary.

The sun and the moon


A Stars B Vegetable seeds
C A certain plant

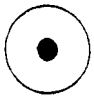

Cloud

Water waves

Worms

Intestines

Snakes


Chicken eyes

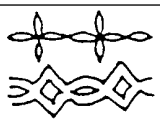
Fish eyes

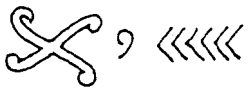
Eyes of cattle

Cockscombs

Horns of baffalo

Horse teeth


Pumpkin seeds


Brake leaves

Garlic clove

Eggplant

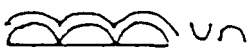
Flower buds

Flowers

Flint steel

Gold chain

Fishnet


Nails

Decorative balls on smoking pipes

Centre

60

60. Decorations commonly used on Yi lacquerware.

Wood, leather, horn and woven bamboo are used as core materials. Figs. 61–67 explain how a wooden core is produced. Different kinds of wood are used for the cores. Small items such as cups are generally made from azalea wood, while pear and walnut are appropriate for medium-sized objects such as bowls, wine pots and so on. Birch is preferred for larger pieces, while white poplar is ideal for saddles. November and December are the best months to fell the trees; the wood must be dried naturally so that the lacquerware will not split or warp later. In earlier times the drying process lasted for one to two years, and logs were usually placed in holes in the ground or on manure heaps to dry out, but modern methods include steaming, boiling and heating.

61

In the past, during the initial shaping of the wooden panel with axe and knife, simple pedal machines were used to turn the wood to shape round cores; today, lathes are used instead. The work of making cores in other shapes is predominantly manual, leaving them rather coarse. The rough panels are therefore sanded to smooth the surface. Abrasive cloth is used today, but before this became available sand from the river bank was used. Next three coats of a mixture of raw lacquer and mud (now replaced by granite and marble powder) are applied to the cores, each coating being rubbed down before the next is applied.

62

Pig's blood or soybean milk (which has been left for a week to sour) is mixed with ash scrapings to produce a coating material used as the background colour for the lacquerware. The background lacquer is then applied – the more numerous the layers, the better the quality. In most cases, the procedure is repeated three times, and the cores are rubbed and polished after each layer. When these two steps are being carried out, the weather conditions must be taken into consideration. In the hot, humid summer, both lacquer and pigments dry quickly, and so three layers a day may be applied, whereas in spring and autumn only one or two layers can be applied. Background lacquer is applied once every two

63

64

66

65

67

61. Felling a tree.

62. Cutting a log into a preliminary shape.

63–64. Working the panel while it is turning.

65. Polishing the wooden core.

66. Applying the background lacquer.

67. Painting decorative patterns.

or three days, which is the time one layer takes to dry. The primed objects are stored in cellars so that they will dry slowly in dark conditions. At this point the cores are ready to be decorated.

In the production of leather cores, the correct piece of hide must first be chosen for each specific object. Water-buffalo hides are used for armour, shields, bowls and suitcases, the finest section being from the animal's back. Smaller articles such as cups can be made using cowhide (yak), while the thinner sections of oxhides or sheepskins are used for saddles and suitcases. After selection, the hides must be treated. All traces of blood and any remaining muscle must be removed, and the hides are then soaked in water to remove hairs or wool. The soaking time varies according to the season and the type of hide. For example, in winter, buffalo hides must be soaked for forty or fifty days, while in summer twenty days will suffice. Wood ash should be added to the water (to increase the alkalinity), which must be non-saline.

While still wet and pliable, a hide is cut into pieces of various shapes and sizes and then fitted on to the model. For example, to make a bowl core a piece of leather is wrapped tightly around a wooden model and tied. The craftsman, taking care to work in the shade, then smoothes the hide carefully over the core using a hammer to pound and stretch it. When completely dry the brim is trimmed, and the finished leather core is now ready for further work. A coat of background colour and a coat of background lacquer are applied, and the bowl is ready for decoration.

The horns of cows and oxen, yak, buffalo and sheep may also be used as cores. First they are soaked in water and boiled to remove the blood and any remaining flesh. Sometimes wine is added to the water to reduce the unpleasant odour of this process. Then the horns are scraped and rubbed, and background colour and lacquer are applied.

ECONOMICS AND MARKETING

Lacquerware manufacturing in Liangshan has not always been an independent industry as it is today. Lacquer craftsmen were also farmers, who planted their crops and tended their farms during the growing season, making lacquered articles to sell in addition to their other activities. The Yi transmitted their traditional lacquer techniques from one generation to the next within their own clans. The Ji Wu clan, the only manufacturers of lacquerware in Xide county, has been engaged in lacquerware production for sixteen generations, ever since members of the clan first arrived in 1616. In order to protect the secrets of their trade, the clan kept and transmitted the knowledge only among the male members of Ji Wu families (only the men were involved in production). They stored their products at home, where customers came to buy them.

Some changes have however taken place since the beginning of the 1980s: three lacquerware workshops have been established in Liangshan prefecture. They employ professional artists and this has ended the former, very restricted tradition of keeping specific techniques within families. In government-supported workshops, traditional eating utensils and wine vessels are the main products, while riding equipment has become rare and weapons and lacquered leather objects are no longer produced. On the other hand, new types of non-conventional articles, such as tea caddies, pen holders, beer glasses and coffee cups are being made to satisfy market demand. Naturally the traditional lacquering procedures are observed, so that these products present the same colours and decorative patterns as those found on other Yi lacquerware.

Although in recent years there has been a gradual increase in the volume of lacquered articles sold as souvenirs for tourists, the market is still limited to the Liangshan area, with only a very small amount sold elsewhere. Moreover, cheap enamelware and mass-produced ceramic items have further diminished the market in the

area, resulting in lower prices for lacquerware and thus decreased profits and sometimes losses for the manufacturers. Lower prices, in turn, discourage the production of what are now considered to be expensive time- and labour-consuming articles, whose production costs are too high. However, it is precisely these exquisite pieces of lacquerware, often with a leather core, that are worth three or four times as much as those with a wooden core. Moreover, to reduce cost, even synthetic resin varnishes are utilized to polish some objects. The decrease in the number of authentic, unique articles, if this trend continues, is likely to affect the quality of the art itself, and even put an end to a certain sophistication and refinement. But, on the other hand, with such a small number of potential consumers it is impossible to justify the production of high-cost items. Thus it is essential to develop the lacquerware market in order to maintain and enhance the quality of the local lacquering craft.

At the same time, other problems have arisen which the craftworkers are unable to solve by themselves, to which both national and international attention and support should be given. A guarantee of financial support is the most urgent, and thus favourable policies must be drawn up by the Chinese Government. Only in this way can certain problems be addressed: depletion of raw materials, insufficiency of funds, or lack of patronage for the few outstanding artists.

China plays an important role in lacquerware manufacturing, but only Han groups can afford to operate dozens of workshops at a time. In comparison with the production of the Han people, Yi output is regional, less diverse, and produced on a smaller scale using simpler skills. The lacquered works produced by the Yi people, a vehicle for their own particular cultural style and ethnic identity, are quite different from those of other East Asian countries. It is vital to preserve, promote and develop their lacquering art which, as a treasure of humanity, is endowed with unique cultural significance.

Lacquerware in Korea

PAIK SYEUNG-GIL

A BRIEF HISTORY

From prehistoric times, in the North-East Asian countries of China, Korea and Japan, what is now known as 'lacquerware' referred to objects produced by coating a core material with urushiol (from the Japanese term *urushi*, lacquer) in order to protect or decorate the core. However, the traditional method of obtaining urushiol is so cumbersome today and its price is so high that it has been replaced by less expensive modern alternatives such as polyurethane.

Lacquerware, often inlaid with mother-of-pearl or decorated with ox horn, holds a unique position in the history of Korean woodcrafts. Many elaborate pieces of lacquerware attributed to Han China have been unearthed at Lolang, an area of Han Chinese influence in northern Korea, near Pyongyang (Fig. 68). Lacquerware production in ancient Korea seems to have been originated by Han China, as North-East Asian countries, particularly Korea and Japan, used Chinese lacquer techniques. Thin 'flakes' of urushiol believed to date from the third century B.C. have been found on the Korean Peninsula, in South Ch'ungch'ong' Sohung in Hwanghae province and in North Hamgyong province. In 1988 an excavation

68. Lacquer spoon. 6.0 cm wide × 22.3 cm long. Pyongyang, Lolang, Tomb of the Painted Basket, first to third century B.C. © National Museum of Korea, Seoul. The tip of the handle and the bowl of the spoon are coated with vermilion lacquer; brown lacquer exterior.

team from the National Museum of Korea in Seoul unearthed eleven ancient tombs in the course of three excavations at Taho-ri, Tong-myon, Uich'ang-gun, all in South Kyongsang province (Figs. 69 and 70). Vast quantities of iron, lacquerware and pottery works were discovered including urushiol-coated objects: a complete wooden ritual vessel, a wooden fan handle and iron swords. The Han Chinese coins discovered in these tombs indicate that this burial site probably dates from the second half of the first century B.C. to the first half of the first century A.D. The lacquerware objects are believed to have been made locally in Korea because they show no sign of Chinese influence, either in motif or style.

In the 1920s, lacquered cups and paintings were unearthed in Kyongju from tombs of the Silla kingdom (57 B.C.–A.D. 668); these were the oldest known lacquerware in Korea until the finds of 1988. In 1946, a lacquered mask with glass eyes was found in a Silla tomb in Kyongju, and in 1971 a lacquered casket and other wares were found in the tomb of the Paekche King Muryong, also in Kongju. These are believed to have been produced during the fifth and six centuries A.D., and in style they show the influence of the Han and Six dynasties of China. Many lacquerware fragments from the 'Unified Silla' period (668–935) have been discovered in recent years in ancient tombs, notably during the excavation of a man-made pond at the site of Silla Palace. These fragments are coated with black lacquer and painted with vermilion-coloured animals and figures. According to the *History of the Three Kingdoms*, a Silla government workshop manufactured lacquerware. During this same period, Tang China was already manufacturing lacquerware inlaid with mother-of-pearl designs, and judging from the fact that the Silla kingdom maintained close relations with Tang China, mother-of-pearl inlaid lacquerware must also have been manufactured in Silla. A bronze mirror decorated with mother-of-pearl that was allegedly discovered in a Silla tomb is perhaps the oldest artefact of its kind in Korea.

69. Round lacquer ritual dish. 9.8 (upper diameter) × 6.3 (lower diameter) × 7.5 cm high. Taho-ri site, first century B.C. © National Museum of Korea, Seoul. This lacquered object was excavated from a pit tomb in the Taho-ri site in 1988. The wooden dish was made from a single piece of wood. Lacquer is not applied on the base. The dish contained a type of fruit that has not been identified.

70. Lacquer ritual dish. 13.7 × 10.3 cm (upper diameter), 7.9 × 12.5 cm (lower diameter). Taho-ri site, first century B.C. © National Museum of Korea, Seoul. Burial object discovered outside the wooden casket in a pit tomb. The dish surface is rectangular and the side is an inverted trapezoid. The dish and stand were made separately.

Historical records mention the production during the Koryo period (918–1392) of numerous pieces of lacquerware inlaid with mother-of-pearl as well as ordinary lacquerware. Lacquerware inlaid with mother-of-pearl was sent to Liao as a gift from King Munjong of Koryo (1046–83), and a Chinese envoy, Hsu Ko, praised this ware for its fine craftsmanship, describing the lacquered and inlaid saddles of Koryo in his book, *Kaoli Tuching*. According to the *History of Koryo*, a government workshop called Chungsang-so manufactured lacquerware inlaid with mother-of-pearl, employing painters, carpenters, lacquering artists, inlaying artisans and polishers.

In 1272, during the reign of King Wonjong, the Koryo Government established a special workshop to mass-produce lacquered boxes inlaid with mother-of-pearl. These boxes were made by order of the king for the safekeeping of Buddhist scriptures in preparation for publishing the *Tripitaka Koreana*, a complete collection of Buddhist Sutras with commentaries and explanatory notes. The style of Koryo mother-of-pearl inlaid lacquerware was developed from that of Silla, which was in turn influenced by the Tang Chinese. This technique is absolutely unique and so refined that it excels the Sung Chinese style of the same period. There are records stating that the Yuan Chinese requested that the Koryo court send yellow lacquer as a tribute item, and that the Chinese literati loved to own Koryo-made writing-brush stands decorated with inlaid mother-of-pearl.

Most pieces of Koryo lacquerware extant today are decorated with arabesque and chrysanthemum designs, which are also found in the porcelain with a celadon glaze made in the twelfth and thirteenth centuries. Major pieces of antique Koryo lacquerware inlaid with mother-of-pearl include a perfume box decorated with willows and poultry and a tray and jar, both bearing arabesque designs, in the collection of the National Museum of Korea; a Buddhist scripture box with arabesque designs at the Tokugawa Art Museum in Tokyo, Japan; a Buddhist rosary case with tortoise design at Tomaji Temple, Keishun-in, Japan; a Buddhist scripture box at the British Museum; a box at the Oriental Museum in Cologne, Germany; and other items in the United States and the Netherlands. For the Buddhist rosary case, tin and bronze wires were used for the stems and borders of the flower design, and mother-of-pearl for the flowers and leaves; the tortoise design being red and yellow. The tortoise design was done in a technique similar to inlaying, with painted, transparent plates of ox horn placed on the surface of the wood.

Koryo lacquerware inlaid with mother-of-pearl reached its apex in the eleventh and twelfth centuries, having influenced the development of the inlaying technique for the manufacture of celadon ware. This is evident from the fact that both the lacquer and celadon ware of Koryo are decorated with similar designs. But the mother-of-pearl inlaying technique began to decline in the latter half of the thirteenth century, in both types of ware. Towards the end of the fourteenth century, the designs became less well defined and the technique lost much of its refinement.

The designs of the early Choson dynasty (1392–1910) for lacquerware inlaid with mother-of-pearl show the development and evolution of the Koryo designs, with less use of tin and bronze wire and tortoise designs. Choson lacquerware is marked by the use of ground cattle bone or shell in black lacquer. The symmetrical designs of Koryo lacquerware gave way to plain, simple designs of flowers, birds and the four 'gracious' plants – orchid, bamboo, chrysanthemum and plum, thus reflecting changes in taste and Confucian austerity.

The designs of Choson lacquerware may be divided into three categories:

- those of the fifteenth and sixteenth centuries with boldly drawn lotus arabesque designs and imaginary Buddhist flowers; a loose, larger form of the Koryo designs;
- those of the seventeenth and eighteenth centuries,

where designs of two phoenixes, two dragons and grapes are replaced by the four gracious plants, flowers and birds, motifs which are also frequently found in white porcelain from this period (Fig. 71);

- those of the nineteenth century, where designs depicting nature in a realistic manner became popular and usually show the ten symbols of longevity – sun, mountains, water, rocks, clouds, pine trees, the 'eternal youth' herb, tortoises, crane and deer – to bring good luck, along with natural scenes expressed humorously.

The technique of inlaying painted, transparent plates of ox horn on wooden surfaces is a craft unique to Korea. In general, Korean crafts are characterized by soft muted colours and pure, simple forms, but works decorated with ox horn use brighter, more vibrant shades of colour in a variety of ways. Although the Korean people love plain colours, especially white, they like to use bold colours for things made for women and children. The history of works decorated with ox horn may be traced back to before the Koryo period, judging by the decorations on a needle ruler kept at the Shoso-in at Nara (Japan), the treasure store of the Japanese imperial family for about a millennium. However, the technique of inlaying painted, transparent ox horn is believed to have developed under the influence of the Chinese technique of drawing on the reverse side of transparent material so that the pictures could be seen through the material when inlaid on lacquerware. To prepare the material, the horns of young oxen are dipped into boiling water to remove the cartilage and they are then sliced into thin, transparent plates. Pictures are drawn on the underside of the plates with paints mixed with glue in order to bond with the surface of the wood. Horn-decorated woodwork flourished during the Choson dynasty. The designs used in horn decoration of this period were the ten symbols of longevity, usually expressed in a humorous manner, as were other works of the dynasty, painted in black, white, red, yellow, green and blue. Horn decoration is found on spools, needle rulers, combs, headrests (or pillows), writing brushes, fans, knives and stationery cases, as well as on chests of drawers, thread boxes, dressing tables and jewellery boxes.

71

71. Square mother-of-pearl inlaid box. 31.3 cm long × 31.3 cm wide × 9.8 cm high. Mid-Choson period (seventeenth century). © National Museum of Korea, Seoul. The wooden lid is firmly attached by tin hinges. The top part of the cover is decorated with mother-of-pearl inlaid chrysanthemum, peony and lotus flower patterns linked by arabesque scrolls, and the sides are decorated with mother-of-pearl inlaid plum, orchid, chrysanthemum and bamboo patterns, in that order. The layer of black lacquer is so thick that it forms a plane with the fish skin glued to the surface of the box.

HARVESTING LACQUER-TREE SAP

The lacquer tree, called *otnamu* in Korean (*ot*, lacquer; *namu*, tree) is native to Korea. There are two major species, *otnamu* or *Rhus vernicifera* (*verniciflua Stokes*) and *kae-otnamu* or *Rhus trichocarpa*, distributed throughout the country in areas with abundant sunshine and moderate temperatures (not so extreme as to freeze the bark of the tree in winter). There are four major growing areas in southern Korea: Ch'ilgok in South Kyongsang, Namwon in South Cholla, Okch'on in South Ch'ung-

ch'ong, and Wonju in Kangwon provinces. T'aech'on in northern Korea was a well-known lacquer cultivation area before 1945.

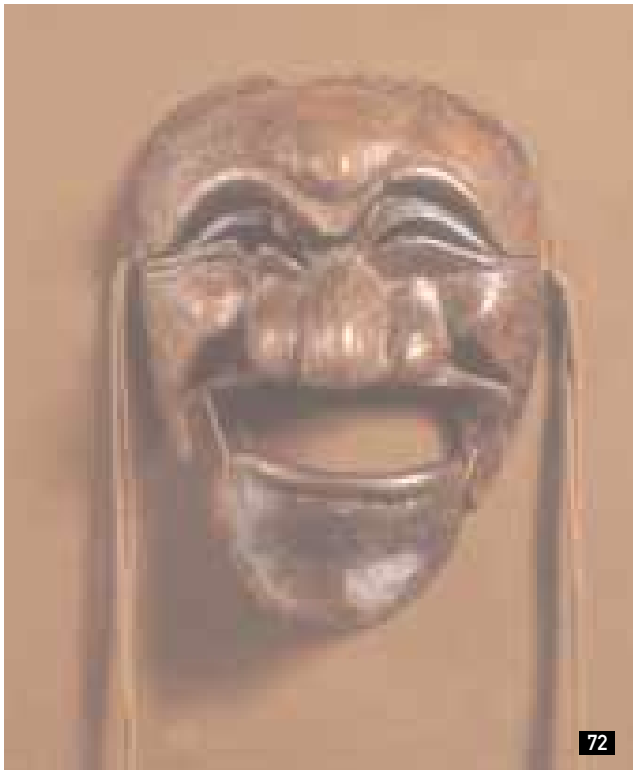
The specific characteristics of Korean lacquer have not yet been analysed, and no comparative studies have been made to distinguish one type from another, but the fact that the Japanese and Chinese preferred Korean lacquer to their own native products in the past may be an indication that Korean lacquer was superior to, or at least quite different from, that of other regions. A certain quantity of refined lacquer is imported from Japan, and other alternative varnishes (such as polyurethane) from South-East Asian countries. The domestic demand for lacquer has been increasing steadily: from 2.5 tons in 1988 to 5 tons in 1989, 7 tons in 1990, 10 tons in 1991, and was expected to increase to over 80 tons after 2000.

The method of harvesting the sap is relatively simple and differs from that practised in China and Viet Nam. There are two genders of lacquer tree, one that contains both male and female zygotes and one that is either male or female; the former being self-fertilizing. The tools used in harvesting are relatively simple in shape and few in number: sickles to peel and scrape the bark, knives for cutting and scooping, two-pronged hooks, spatulas and collecting buckets.

The harvester makes approximately twenty horizontal grooves in the tree bark at intervals of 3–4 mm. The length of the groove is about 2.5 cm at the bottom of the tree and about 6 cm at the top. Collection proceeds in three stages: the sap collected during the first five sap runs is called *ch'och'il* (primary lacquer); sap collected from the sixth to the eighteenth runs is called *songch'il* (mature lacquer); and sap collected after the eighteenth run is called *mal'chil* (last lacquer). The harvest season lasts for about four months, from June to September. Usually the farmers or owners of a grove of trees collect the sap in their free time, because there are no professional lacquer-harvesting groups in Korea. The drying period depends mainly on the consistency of the lacquer; usually it takes ten to eighteen hours for a layer to dry. The best-quality lacquerwork is coated with at least nine layers. It is estimated that refining will reduce 4 kg of raw lacquer by some 30 per cent to 2.8 kg. Refined Korean lacquer is classified, or graded, into ten categories:

1. highly transparent lacquer which is refined with a mixture of yellow colour to intensify the degree of transparency, used as a polishing substance;
2. transparent lead-coloured lacquer, used in a mixture with other pigments in order to highlight the wood grain or colours;
3. transparent glossy lacquer which is refined with the addition of other substances, as necessary, used as a finishing coat without polishing;
4. lacquer of medium transparency, used mainly as the middle coating layer;
5. transparent, unglazed lacquer, used in coating transparent and unglazed surfaces;
6. black lead-coloured lacquer, used as a top coating layer, to be polished;
7. black glossy lacquer, also used as a top coating layer, to be polished;
8. black lacquer, used as a middle coating layer;
9. black unglazed lacquer, used as a top coating layer;
10. non-drying lacquer, mixed with drying agents to obtain a coating film.

The lacquerware produced today includes Korean-style tables ranging in size from a coffee table to a full-size dining table; sets of religious vessels, which are usually made in twenty-four to forty-eight pieces including candlesticks, wine cups and variously sized bowls and dishes to contain a variety of sacrificial offerings; wardrobes; boxes and bowls decorated with mother-of-pearl inlaid designs; and tourist products, which are usually imitations of classical works, including wall hangings. Rice bowls and chopsticks are also made in large quantities, as lacquer is well known for its natural preservative and antiseptic qualities. The dishware is shaped on machines and polished by hand.



72. Hahoe wooden mask. 21.9 cm × 16.2 cm. Hahoe village in North Kyongsang province (Korea), late Koryo period, thirteenth to fourteenth century. © National Treasure No. 121. Alder wood mask, covered with paper and coated with lacquer. Most of the lacquer has peeled off, except on the head and below the eyes, where black lacquer can be seen.

Wood is used as the core material for lacquer; in order of preference the types of tree used are pine, ginkgo, Chinese juniper, willow and birch. Alder wood, of the birch family, was used for the late Koryo mask in the National Treasure collection (Fig. 72). Gourds are also used to make decorative items. In the past other core materials were used, such as metal, clay, ceramic, bamboo, tortoiseshell, paper or cloth.

Two basic techniques are employed in the decoration of lacquerware. One consists of painting a design on the surface of the core material, which is then coated with lacquer. The other method relies on inlaying techniques and uses mother-of-pearl designs. The most frequently encountered patterns are the ten symbols of longevity mentioned above, and more recently certain designs that fit the shape of the item. However, sacrificial vessels and rice bowls for everyday use were traditionally not decorated at all.

TRANSMISSION OF TRADITIONAL TECHNIQUES

With the demise of the Choson dynasty in 1910, Korean craftsmen began to adopt the various Japanese techniques that they learned either in Japanese colleges or during the Japanese presence in Korea. There are still those who disapprove of Japanese-style Korean lacquerware. Be that as it may, after 1945, the elder craftsmen began to establish schools in the traditional lacquerware centres, for example in T'ongyong, now Ch'ungmu city. As early as the sixteenth century, this seaport boasted thirteen government-supported artisanal workshops producing artwork in peacetime, but which were turned into arms-production centres in time of war. During the Korean War (1950–53), these workshops ceased lacquerware production altogether.

In 1964 the government began to designate skilled craftworkers in the field of intangible cultural heritage, which has been recognized in the same way as the tangible heritage. At the present time, two persons have been designated as 'Human Cultural Property' in the field of lacquerware, and have been given teachers and teaching assistants, along with degree candidates, to assist them in educating and training students. These designated persons and their assistants earn monthly government stipends ranging from 200,000 won to 650,000 won (equivalent to US$300 to US$850). This is the primary system of transmitting the traditional techniques, and it has attracted quite a number of followers. There are many craft departments in universities and colleges, but few offer courses in traditional crafts. During the 1980s, the renewed awareness of the importance of traditional crafts led many universities and col-

leges to begin teaching some of them. At present, twelve Korean universities offer courses on lacquerware in departments of art, industrial art, applied art or crafts, with an average of twenty students per class. But none of them teaches traditional crafts per se; most of them teach creative modern arts.

The Korea Foundation for the Protection of Cultural Property also plays a very important role in preserving and transmitting traditional techniques as well as in raising public awareness and knowledge in the field of traditional culture and art. The foundation has established the Museum of Traditional Korean Crafts to collect and preserve lacquerware, carry out research and organize exhibitions on traditional Korean crafts, and it also manages the operation of various craft workshops and the excavation of folk crafts from historical sites. Besides a permanent exhibition of traditional crafts, the museum holds two nationwide annual exhibitions, one to show the works of those who are designated as Human Cultural Property and the other (a public subscription exhibition) to find young, unknown artists. The museum also offers year-long courses to the public on traditional crafts and architecture, parallel to the school run by the Foundation for the Transmission of Traditional Crafts. Many Human Cultural Property title-holders teach at this school.

The Ministry of Commerce and Industry also has programmes to promote traditional crafts by holding annual exhibitions of industrial art and by awarding fellowships to selected established artists. For example in 2000, under the auspices of the ministry, the Korean Corporation for the Management of Industrial Workers selected eight traditional artists and craftworkers with careers of over twenty years and awarded them a monthly stipend equivalent to US$1,000. In addition to the crafts-related nationwide exhibitions mentioned above, there are the *Dong-A* Crafts Exhibition, organized by the *Dong-A* newspaper, and the Modern Crafts Exhibition organized by the Korea Association of Crafts Artists. The prizewinners from these exhibitions can thus make their formal debut as artists.

PROMOTION OF PRODUCTION

In recent years, the Ministry of Culture and Sport, as part of its effort to promote cultural industries, has created a Bureau of Cultural Industries. There is also a co-operative association of lacquerware makers, but its activity is very low-key because many of the businesses are very small-scale and poorly financed, lacking skilled workers.

The commercial manufacturers of lacquerware, most of whom work at the cottage-industry level, can be divided into four categories of product: chests of drawers, ritual vessels, religious equipment and dining tables. Except for the ritual vessels, which are used for sacrificial rites in ancestor worship, and the Korean-style dining tables, most lacquerware is made for the tourist trade and is usually heavily ornamented with inlaid mother-of-pearl designs. Other lacquer objects are the creative projects of graduate students in the art schools. On the other hand, the artistic lacquerware made by the Human Cultural Property title-holders and other masters have a very high market value, corresponding to the artists' reputations, hence the fierce competition among lacquer artists to be designated by the government.

A group of leading lacquerware artists, with the support of the government, has initiated a project to create an industrial estate exclusively for lacquerware makers, located south of Seoul. Perhaps, when this project is completed, it will be possible to discuss seriously the promotion of lacquerware production in Korea.

BIBLIOGRAPHY

Archaeological reports

Anapchi Pond. Office of Cultural Property, 1978.

Ch'ongma-ch'ong Tumulus. Office of Cultural Property, 1974.

Hamp'yong Ch'op'o-ri Site. Kwangju, Kwangju National Museum, 1988.

Houch'ong and Unnyongch'ong Tumuli. Seoul, National Museum of Korea, 1946.

Miruksa Temple. Office of Cultural Property, 1989.

Muryong Wangnung Tomb. Office of Cultural Property, 1973.

Songnam-ni Stone-lined Tomb. Seoul, National Museum of Korea, 1977.

Monographs

Ch'oe Sun-u; Chong Yang-mo. *Mokch'il kongye* [Wooden lacquer craft]. Vol. 13, *Han'guk Misul chonjip* [Compendium of Korean art]. 1974.

Ch'oe Sun-u; Pak Yong-gyu. *Han'guk-ui Mokch'il Kagu* [Korean lacquer furniture]. 1981.

Kim Chong-t'ae. *Otch'il kongye lul wihan otnamu chaebae mit chongje* [Cultivation of lacquer tree and refining of lacquer for the development of lacquer crafts]. 1991.

Kim Won-yong. *Han'guk misulsa* [History of Korean art]. 1968.

Kwak Tae-ung. *Koryo najon ch'ilgi yon'gu* [A study of the lacquerware of Koryo]. 1984.

Maeng In-jae. *Han'guk-ui minsok kongye* [The folk crafts of Korea]. 1979.

Ye Yong-hae. *In'gan munhwajae* [Human cultural property]. 1963.

Yi Chong-sok. *Han'guk kodae ch'ilgi yon'gu* [A study of the ancient lacquerware of Korea]. Korea University Press, 1982.

Yi Chong-sok. *Han'guk-ui mokkongye* [Wooden crafts of Korea]. Vol. 24, *Han'guk-ui Mi* [The beauty of Korea]. 1985.

Essays

Ch'oe Kong-ho. Han'guk hyondae najon ch'ilgi yon'gu [A study of modern Korean wooden lacquerware]. *Kogo Misul* [Archaeology and Art], No. 177, 1988.

Ch'oe Sung-ch'on. Han'guk mokch'il kongye sogo [A study of the wooden lacquerware of Korea]. *Hong'ik misul* [Hong'ik Art], No. 4, 1976.

Chin Hong-sop. Ko Shilla-sidae ch'ilgi ch'aehwa-e natanan Koguryo-ui yonghyang [The Koguryo influence on lacquer painting of Old Silla]. *Kogo misul* [Archaeology and Art], Nos. 123–4, 1974.

Chong Yang-mo et al. Choson ch'il-ui han t'ukching-e kwanhayo [On the characteristics of Korean lacquer]. *Kogo Misul* [Archaeology and Art], Nos. 143–4, 1979.

Im Yong-jin. Lacquer ware unearthed from a Paekche tomb in Sokch'on-ni. *Kogo Misul* [Archaeology and Art], No. 179, 1988.

Im Yong-ju. Han'guk kongye misul: wonsi kongye [Korean craft arts: the primitive crafts]. *Tijain p'ojang* [Design and Packaging], No. 34, 1977.

Kim Ch'i-jol. T'ongyong-ui najon ch'ilgi [Mother-of-pearl inlaid lacquerware of T'ongyong]. *Shindonga Magazine*, March 1964.

Kim Song-su. Mother-of-pearl inlaid lacquerware: The chic of Korea. *Hyondae Yesul* [Modern Art], No. 2, 1977.

Pak Hyong-ch'ol. Han'guk hyondae mokch'il kongye-ron [Modern Korean wooden lacquerware]. *Konggan* [Space], No. 110, 1976.

Ye Yong-hae. Najon Ch'ilgi [Mother-of-pearl inlaid lacquerware]. *Munhwajae* [Cultural Heritage], No. 2, 1969.

Yi Kon-mu. Taho-ri yujok palgul chosa kaebo [Summary of the report on the excavation of Taho-ri sites]. *Pangmulgwan shinmun* [Museum Newspaper], No. 202, 1988.

Catalogues

2,000 Years of Korean Lacquer Ware. National Folklore Museum, 1989.

Grand Exhibition of Early Choson National Treasures. Ho Am Art Museum, 1996.

Grand Exhibition of Koryo National Treasures. Ho Am Art Museum, 1995.

Lacquer Ware and Ox Horn Decorated Wood Works. Ehwa Women's University Museum, 1989, 1996.

The Splendor of Urushi: The lacquer art collection of the Museum of Asian Art. Cologne, Museum of Asian Art, 1994.

The history and characteristics of *Wajima-nuri* lacquerware

KEIICHI SHIMAGUCHI

INTRODUCTION

Wajima City, the home of *Wajima-nuri* lacquerware, is located approximately 400 km to the north-west of Kyoto in the northern part of Japan's Noto Peninsula. This small city has a population of only 30,000, but is famous the world over for its beautiful coastline and morning market in which excellent fresh seafood may be purchased (see Fig. 73). At present, the annual output of *Wajima-nuri* wooden lacquerware represents almost 10 billion yen, and 3,000 people are engaged in this industry.

73. Wajima City, Japan.

Over a hundred lacquer artists work here, including the two holders of the title of *ningen kokuhô* (Living National Treasure). They are dedicated to creating lacquer objects and have received prizes at a number of exhibitions. Wajima City is the most important Japanese lacquerware production centre, from both an industrial and a cultural point of view.

HISTORY OF WAJIMA-NURI

The origin of *Wajima-nuri* is not certain, but the oldest item of Wajima lacquerware, a red-lacquered door (Fig. 74), is kept in Jûzô-no-miya Palace (Wajima City

74. Red-lacquered door in the Jûzô shrine.

75. Red-lacquered covered bowls and tray from the Edo period.

Designated Treasure). It was produced in the year Taiei 4 (1524) and dates back to the Muromachi period (1338–1573). As some older lacquer-masters' names are recorded in the document relating to this shrine, it may be supposed that Wajima's lacquerware production began in the last half of the fifteenth century. From late medieval to modern times, various materials such as wood, primer (*jinoko*) and lacquer were utilized, and were produced in abundance in the city suburbs. Thanks to the convenient harbour, a key point in the Japanese sea route, the production of lacquerware grew with the city, contributing to its overall prosperity.

By the beginning of the Edo period (early seventeenth century) lacquering techniques had already been developed very similar to those used today to produce *Wajima-nuri* ware. In the middle of the Edo period (eighteenth century) *Wajima-nuri* found new markets all over Japan, and Wajima became a centre for the production of large quantities of excellent and practical trays and bowls (see, for example, Fig. 75). In the nineteenth century the quality and fame of *Wajima-nuri* were widely acknowledged. Increasing demand nationwide, caused by development of the industry, made it possible to establish a sales system termed *wankô*, based on annual instalments, and production further expanded.

In Wajima the *chinkin-bori* (Japanese for 'gold-inlay carving') technique began to be used in the middle of the Edo period (eighteenth century). In *chinkin*, descended from the Chinese *ch'iang-chin* technique and later developed as a very appropriate decoration for *Wajima-nuri*, vivid engravings are cut deep into the solid basecoats of *urushi* (the sap that oozes from the cut bark of the *urushi*, or lacquer, tree). Another technique using gold or silver powder (*maki-e* or 'sprinkled picture') was introduced in the late Edo period. The *maki-e* artists who had lost their positions in the houses of the daimyo (feudal lords) by the time of the Meiji restoration came from Aizu, Owari and Kanazawa, and they transmitted the standard *maki-e* techniques to Wajima.

Between the late Meiji and Taisho periods (early twentieth century) great masters appeared in large numbers among the *maki-e* and *chinkin-bori* workers, who became aware of their value as craftsmen. From the early Shôwa period (1926–1988) lacquer artists such as Mae Taihô (1890–1977), the 'Holder of Important Intangible Cultural Treasure' (in the *chinkin* technique) played an active role in industrial development. In addition to conventional solid lacquering, *Wajima-nuri* evolved as an art object with splendid *maki-e* and *chinkin-bori* decorations, and this has continued until the present day. In Shôwa 52 (1977), Wajima was designated as an Important Intangible Cultural Treasure and singled out among the many lacquerware production centres. *Wajima-nuri* occupies a significant position in the history of Japanese crafts, thanks to its recognizable local characteristics and its high artistic value.

MANUFACTURING PROCESS

The manufacturing process of *Wajima-nuri* can be broken down into roughly three phases: body production, lacquering and decoration. Each process can be further subdivided into several steps, at which point specialized craftworkers take charge. The four varieties of body are produced by specific working groups: bowls (using a lathe); boxes made from combining boards; trays with thin flexible boards; or complicated carved items such as table feet. The lacquering *per se* follows five steps: priming, polishing, coating with middle layers, coating with surface layer, and a final coating of *roiro* (black lacquer of the finest quality). Decoration is carried out using the *chinkin-bori* or the *maki*-e techniques. *Wajima-nuri* requires nearly two years to complete, from the bare wooden material to the finished product, and six to eight workers contribute to a single object.

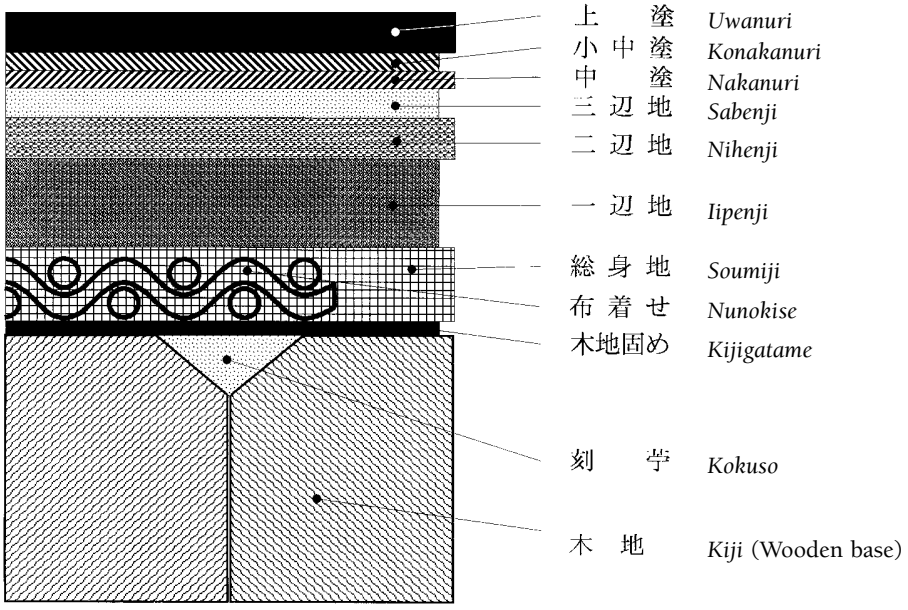
TECHNICAL CHARACTERISTICS

The principal characteristic of *Wajima-nuri* lacquerware is its durability. A large quantity of Wajima lacquerware has been collected in the Wajima Lacquer Art Museum. The earliest datable piece in the collection is a pair of red-lacquered sake containers (*chôshi*) which bear an inscription from the year Tenmei 4 (1784). After over two hundred years these pieces show no surface wear and are remarkably intact. They are still fit to hold sake (Fig. 76).

76. Red-lacquered sake containers dating from 1784.

What makes *Wajima-nuri* so solid and durable? The answer is quite simple: high-quality *urushi* used unsparingly in large quantities. More than 90 per cent of *urushi* used in Japan is now imported from China, but the Japanese product is indispensable in order to obtain the feeling of solidity and stability of *Wajima-nuri*.

The standard *Wajima-nuri* method, known as *nunogise honkataji* and using around ten layers of lacquer, produces very durable ware (see diagram, Fig 77). *Nunogise* refers to the stabilizing process in which a strip of cloth is attached with *urushi* around the rim of a bowl, or the



77. Sectional diagram of *Wajima-nuri* coatings.

joined edges of a box, where the wooden body is most fragile (Fig. 78). *Honkataji* is a type of undercoat. Special Wajima *jinoko* clay is made by mixing diatomaceous earth (*keisô-do*), raw *urushi* and rice starch. First, a mixture containing rough particles is applied, then one containing fine particles, and after three or four coats the undercoat becomes very solid. On to this primer the refined *urushi* is applied in several layers, with a final surface coat of *roiro* (Fig. 79).

On examining a finished *Wajima-nuri* product the many processes that have contributed to the surface lustre are not visible and are scarcely even imaginable, but they are necessary to give the solid, heavy impression so typical of *Wajima-nuri* ware.

For the *chinkin-bori* and *maki-e* decoration, the craftworkers use several types of special chisels (Fig. 80). They engrave the design on the lacquered surface, and afterwards the entire surface along with the engraving is coated with *urushi*. After wiping off the surplus with paper, lacquer remains only in the engraving, into which gold foil or powder is later applied (Fig. 81). The *chinkin* technique of Wajima uses the solid *urushi* coat as a base, and the specially designed chisels make deep, precise engravings.

Maki-e originated in the ninth century and developed to a high stage of advancement. It is, in fact, the most important technique in Japanese lacquer art. Nevertheless, as noted above, it was introduced to Wajima at a relatively late date. The technique involves sketching a design with *urushi* and sprinkling gold or silver powder on to the wet surface. There are numerous variations (Figs. 82–84). The gold powder exists in over a hundred varieties according to size, form and colour, and to obtain the desired effect *maki-e* artists use a specific powder for each object or design. At present there are around 300 *maki-e* artists in Wajima creating various objects using several techniques. For example, in *togidashi maki-e*, a mixture of rough gold or silver powder and *urushi* is applied after dry-polishing the lacquer. This is a simpler variation of the classical method. In *taka maki-e*, *urushi* is mixed with a filler material to create a relief design and the *maki-e* technique is then followed. In *raden*, mother-of-pearl is cut into patterns and fixed on the lacquer

78. Applying a strip of cloth to the edges of a wooden bowl with *urushi*.

79. Lacquering the inside of clay bowls.

80. *Chinkin* process: engraving a design on the lacquered surface.

81. *Chinkin* lacquerware.

82–84. ***Maki-e*** **lacquerware.**

surface. In other techniques, *kirigane* and *hyômon*, thin plates of gold or silver are fixed on the lacquer surface.

Wajima-nuri also has specific marketing arrangements. The workers have traditionally sold their pieces themselves, all over the country. They received the orders directly from their clients and delivered the pieces when they were ready. They also relacquered objects where necessary and carried out repairs, and in this way they built up a practice based on trust. Even today, this kind of person-to-person contact is retained as a basic marketing tool for W*ajima-nuri* lacquerware.

Kiso lacquerware of Japan

ARIHIKO NATSUME

Kiso-hirasawa is renowned in Japan as the centre of Kiso lacquerware production. Located roughly in the middle of Honshu, the main island of Japan, this area is highly accessible to the major metropolises of Tokyo, Nagoya and Osaka. It is surrounded by heavily forested mountains with peaks that rise to over 3,000 m, and is thus close to ample supplies of wood and other raw materials. The mountainous terrain has hindered agricultural development and fostered the development of the forestry, woodworking and lacquerware industries instead. As a result, this area has evolved into one of Japan's three major lacquerware centres, along with Kajima and Kyoto.

Legend has it that a defeated general and his family and followers settled here around 1200 after fleeing from their foes. The warriors are said to have initially used lacquer to repair their armour. However, it was not until the late 1500s that any written records appear of lacquerware production in this region. Typical traditional Kiso lacquerware includes tiered lunch boxes, trays and other joinery work. After the Second World War, however, lacquer production expanded to include low tables, display shelves and other types of furniture, and the region has now become one of the major centres of lacquered furniture production.

Statistics provided by the Kiso Lacquerware Cooperative Association, first established in 1949, showed membership at 219; some 1,050 individuals were engaged in lacquerware work in the Kiso-hirasawa region as of 1994. This figure is equivalent to approximately a quarter of the total population of 4,147 individuals. Another thirty or so non-member firms or individuals are also thought to be engaged in lacquerware production. In the fiscal year 1995, lacquerware output by the Kiso region was valued at about 8 billion yen.

About a quarter (24.9 per cent) of the Lacquerware Cooperative Association members are corporations; the remaining 75.1 per cent are individuals. In business terms, 40.7 per cent are engaged in production alone, 13 per cent handle both production and marketing and 46.8 per cent deal exclusively in marketing. Of those

engaged in the actual production process, 13.6 per cent specialize in the wood-processing aspects, 41 per cent handle the undercoating phase, 44.8 per cent the upper coating phase, 20 per cent engage in spray painting, and 13 per cent do the final decorative work. Sales can be broken down as follows: 5.4 per cent of the members specialize in wholesaling, 26.8 per cent in retail sales, and 69.9 per cent cover both markets. In terms of consumer breakdown, 55.7 per cent concentrate on sales to the general public, while the remaining 44.3 per cent accommodate corporate customers. A product-by-product breakdown of sales shows that wooden lacquerware accounts for 59.6 per cent of total sales; synthetic lacquerware 13.5 per cent; woodwork 12.3 per cent; spray-painted lacquer pieces 9.5 per cent; and other miscellaneous products account for the remaining 5.1 per cent of sales.

As for raw materials, most of the wood used is imported, accounting for 30.5 per cent of the total. The next most popular material is boxwood (*tsuge*) at 23.8 per cent, Japanese cypress (*hinoki*) at 11.2 per cent followed by zelkova (*keyaki*) at 8.8 per cent, Japanese Judas tree at 7.3 per cent, horse chestnut (*tochi-no-ki*) at 6 per cent, and cypress (*sugi*) at 4.7 per cent. Other types of wood account for 7.7 per cent.

The age groups of the men engaged in lacquerware production here may be broken down as follows: 3 are teenagers, 42 in their twenties, 86 in their thirties, 116 in their forties, 152 in their fifties, 90 in their sixties, and 29 in their seventies. The women workers may be grouped as follows: 2 teenagers, 16 in their twenties, 60 in their thirties, 85 in their forties, 125 in their fifties, 64 in their sixties, and 15 in their seventies.

THE PROBLEM WITH SYNTHETIC LACQUER

It can be surmised that the lacquerware industry in Kisohirasawa is in a fairly healthy state, based on the information above. There are problems, however, associated with the use of synthetic resins and lacquer spray paints. Synthetic lacquerware refers to pieces that are varnished with ABS resins and are made from plastic or wood chips bonded with synthetic resin. The problems associated with spray painting arise from the technical impossibility of spraying pure lacquer alone; it must be diluted with urethane or polyester resin varnish. This has led to an accelerating trend to boost the proportion of synthetic resins that are mixed with natural lacquer. The ratio of synthetic resins has reached levels that make it difficult to define these lacquer mixtures as natural varnish.

And the figures are eloquent: very few young people are engaged in lacquerware production, a fact that raises concerns about whether this traditional craft will be transmitted in its entirety to future generations.

The varieties of varnish tree (Anacardiaceae family) that grow in Japan are identical to those that can be found ranging throughout eastern Asia from the Korean Peninsula to mainland China. In Japan, it can be found from Okinawa to southern Hokkaido. A deciduous tree, it reaches heights of over 10 m and is known for its brightly coloured autumn leaves. Varnish sap is harvested between early June and the end of November by making cuts in the tree trunks every morning and collecting the sap that oozes out.

Researchers have discovered that the main chemical component of Japanese varnish is a type of phenol known as urushiol ($C_{21}H_{32}O_2$). Urushiol contains nitrogen, rubber and water, and apparently an enzyme (laccase) responsible for the drying and hardening properties of lacquer. Biochemists have not yet been able to synthesize this enzyme. Consequently, even if synthetic varnishes with chemical compositions identical to natural varnish could be produced, they would not be able to duplicate the processes of natural varnish.

BRIEF HISTORICAL OVERVIEW

Recent archaeological finds have shed some light on the origins of lacquerware, but much still remains shrouded in mystery. Several lacquered wooden and clay vessels have been unearthed at the Torihama Kaizuka dig in Fukui prefecture. These vessels are thought to date back to the early Jomon period (450–250 B.C.). Highly elaborate lacquered clay vessels and lacquered bamboo utensils dating from the late Jomon period have been discovered at the Krekawa and Kamegoaka ruins in Aomori prefecture. There have also been a few discoveries of lacquerware dating from the subsequent Yoyaoi and Kofun period (300 B.C.–A.D. 300).

However, Japanese schools cite the Tamamushi miniature shrine, which dates from the Asuka period and is found at the Horyutji Temple in Nara, as the earliest example of lacquer art in Japan. This miniature shrine contains *urushi-e* and *mida-e* pictures that were heavily influenced by Chinese lacquerware styles. *Mida-e* lacquering techniques are still transmitted today to a limited extent in China, Tibet and in parts of Central Asia such as Persia. In *mida-e* the design is made from pigment to which heated lead monoxide and perilla oil have been added. In this sense, it can be considered a type of oil painting.

In the Nara period (710–84), Buddhist statues employing various types of dry-lacquer technique became extremely popular. Here, *ranshtsu* or hemp cloth that had been soaked in liquid lacquer was moulded into the shapes of intricate statues, or lacquer was applied on a wooden body that was covered with hemp and decorated with gold leaf. At the same time, inlaid mother-of-pearl (*raden*) and *headiest* techniques were also widely practised. The latter involves rolling gold or silver into thin sheets, cutting them into designs, placing them on the item and embedding the whole in a thick layer of lacquer that is sanded away to reveal the metalwork.

The revolutionary *maki-e* technique for which Japan is best known emerged in the early Heian period (794–1185). This technique involves grinding gold or silver into powder with a file, then sprinkling the metal powder over a lacquer design and polishing it. This period saw a shift away from decidedly Chinese (Tang style) tastes to indigenous Japanese sensibilities.

In the Kamakura era (1185–1333), monks at Mount Koya initiated the *Negoro-nuri* technique. The designs and durable techniques found in these simple black and vermilion lacquered bowls and trays are highly prized even today.

The foundation of present-day *maki-e* styles emerged during the Muromachi period (1338–1573). Koami Michinaga, the founder of the Koami School, created many embossed gilt lacquer works (*taka maki-e*) and scraped-gold lacquer pieces (*togidahsi maki-e*) during this time. Igarashi Shinsai is said to have made many *maki-e* pieces as tributes to the shogun Ashikaga Yoshimasa. His descendants served the Kaga domain and established the Kaga *maki-e* style.

The Momoyama era (1568–1598), when Japan came under the predominant influence of Portugal and Spain, saw a rise in designs inspired by Christian motifs. This period corresponded to the golden age of the tea ceremony and, as a consequence, techniques for lacquered tea utensils and other lacquered crafts made remarkable advances. Honami Koetsu, one of Japan's leading lacquerware artists, was active during this time.

DESIGN PROCESS

The first step in creating a piece of lacquerware is to choose materials depending on the design of the object to be made. The types of wood most suited to lathe work are horse chestnut, pine, birch, boxwood, chestnut and

zelkova. For curved objects, various types of Japanese cypress are the most suitable. Finally, the types of wood most suited to joinery work are the Japanese Judas tree, gingko, pine, zelkova, paulownia and Japanese cypress. The main consideration in choosing the type of wood is how to cut a tree into the desired sizes and shapes in the most rational way, as envisioned at the lumber processing plant.

Lathe pieces. The wooden block is roughly shaped on the lathe, after which the cut ends are covered with paper to prevent cracking. The block is then placed in an airtight drying room for at least three to five months, then refined on the lathe in its final shape. The piece should be dried for an additional six to eight weeks if very fine lathe work is done. The final step is to carve the design.

Joinery pieces. Wooden blocks that are be cut into planks are first placed in a steam drying room and dried for three to four days. After that, they should be dried outdoors for a month. The thickness of the planks is then determined and the blocks shaved down to roughly the appropriate size. They are then carved following a pattern, assembled and bonded together, and sanded as the final step.

WORKING WITH STYROFOAM MODELS

The skeletal body for dry lacquerware is made in the following way. Using a pattern, styrofoam blocks are cut with a hot wire into the required shapes. The styrofoam skeleton should be covered with a total of four layers of raw lacquer, after which the piece is sanded smooth. *Sabi-urushi* (a putty made from finely powered earth, water and raw lacquer) is applied with a pallet, and hemp cloth is applied with bonding varnish. A putty made from base powder, starch and raw lacquer is applied next. This layer of putty is polished with a whetstone once it has dried. A layer of raw lacquer is then applied, followed by another layer of hemp cloth, and a layer of a putty made from powdered hardwood, starch and raw lacquer. After this layer is polished, lacquer is applied once more. The process beginning with the application of the hemp cloth should be repeated twice more for a total of four layers of hemp cloth. After that, *sabi-urushi* is applied with a pallet and polished, followed by a layer of lacquer. This process should be repeated once. A hole is drilled into the finished mould and paint thinner poured in to dissolve the styrofoam.

There are three main varieties of base powder: *wajima, kiso* and *kyo*. *Wajima* base power is fine diatomaceous earth roasted and filtered through a mesh sieve, *kiso* is fine diatomaceous earth heated to a temperature of 600°C, and *kyo* is made from unglazed tiles pulverized into powder.

LACQUER UNDERCOATING

Lathe pieces. Any blemishes should be removed from the wood grain with a blade. These blemishes are filled in with a putty made from raw lacquer and bits of fibre. The pieces are then polished. The application of this putty and the polishing process should be repeated, after which raw lacquer is brushed over the entire piece to form a hard undercoat. Raw lacquer is then applied, after which activated charcoal powder is sprinkled over it. Once this has dried, another layer of raw lacquer should be applied to harden the charcoal powder. This layer is then polished with a whetstone. The process of applying lacquer, sprinkling it with charcoal powder and topping it with another layer of varnish and polishing, should be repeated at least once more, and if necessary, twice.

Joinery pieces. The parts to be joined are held together with bonding varnish applied to hemp cloth or Japanese *washki* paper. Any exposed bits of cloth are removed with a whetstone, after which a layer of putty made from

powdered hardwood, starch and raw lacquer is applied. The surface is then polished and a layer of raw lacquer applied to form a hard undercoat. The remaining processes are identical to those used for lathe work.

Intermediate coatings. Black lacquer is filtered through *yoshino washi* paper. Then a lacquer for intermediate coatings is made by diluting oil-free black lacquer by about 10 per cent with raw lacquer. The intermediate coatings are applied with a brush, then polished; this process is repeated five or six times.

TOP COATING

Lacquers in various pigments can be made as required for the decorative design. Inorganic pigment is added when making oil-free red varnish. Pigments may be created as follows, although today virtually all of them can be obtained at chemical supply shops in Japan.

White lacquers (note that it is impossible to make an oil-free lacquer that is pure white). Bismuth oxychloride is made by dissolving a bismuth substrate in hydrochloric acid and precipitating it out in water; titanium oxide is titanic iron added to sulphite acid and hyposulphite soda and hydrolyzed.

Red lacquers: vermilion used to be made from cinnabar (mercury sulphide), but this pigment can now be produced synthetically by thoroughly mixing sulphur and inorganic mercury in an iron cauldron, then heating the mercury sulphate that precipitates out. Ferrous oxide, or iron(II) oxide, is made by heating iron powder and oxidizing it.

Dark-green lacquers: for Prussian blue, yellow Prussian of potash sulphate is added to ferrous sulphate and rinsed in water, then potassium dichromate and sulphur are added to the mixture and heated. For chrome green, chromium oxide is mixed and heated with dichromatic acid and boric acid. For copper phthalocyanine, sulphate is heated to boiling point and hydrolyzed.

Yellow lacquers: for orpiment, sulphur is added artificially to arsenic and the mixture is heated. This mixture exists in nature as arsenic tri-sulphide. For chrome yellow, potassium chromate is added to lead trioxide.

Oil-free lacquer is applied with a brush, then left to dry for several days before polishing with charcoal made from hardwood. Raw lacquer is then rubbed in, after which the piece is polished with oil and powered deerhorn.

Negoro lacquer is a special technique in which a brush made from horsehair is used to polish vermilion lacquer.

Ryukyu lacquerware

MAEDA KOUIN

HISTORY OF THE RYUKYU ISLANDS

The famous temple bell that was cast in 1458 and placed in the main hall of Shuri Castle, a residential palace for the kings of the Ryukyu Kingdom, bears an inscription that may be summarized as follows: 'Our nation is located in an excellent place in the southern sea and has maintained friendly relations with Korea, China and Japan. Using trading ships, people of the Ryukyus have been the bridges connecting trade alliances throughout the world. Our nation has thus been filled with rare articles from all over the world.'

The Ryukyu Islands are located between South-East and North-East Asia, at the intersection of the so-called 'Sea Roads'. They played an important role in trading in this region. The Ryukyu Kingdom participated in the overseas trading boom from the fourteenth until the mid-sixteenth century, known as the 'Era of Major Overseas Trading'. Through the trade channels that were established, the Ryukyu people obtained large quantities of goods from China and sold them to Japan, Korea and other South-East Asian countries, where they purchased articles to be exported to China. This process introduced various techniques to the islands from China, Korea, Japan and elsewhere.

The new blended with the indigenous to produce techniques unique to the Ryukyus. The most significant characteristic of Ryukyu lacquerware resulted from the geographic position of the islands at the northern limit of the Black Sea Current, as the turban shell (*Turbo cornutus*) lives only in parts of the ocean with this current. The turban shells found here possess qualities of beautiful brightness and solid hardness that caused them to be regarded as an excellent craft material from ancient times onwards, and they were exported to China, Korea and Japan. In fact, the turban shell found in the ocean around the Ryukyu Islands has always been considered to be the most beautiful of the species. The administrative agency established and managed workshops (*kaizuri-bugyo-sho*) where high-quality mother-of-pearl inlaid lacquerware (*raden*) was produced in large quantities.

The climate of the Ryukyu Islands is suitable for the production of lacquerware. The average annual temperature is around 22°C and the humidity is around 80 per cent, well-suited for drying the lacquer or varnish obtained from the resin of the sumac tree (*Rhus vernicifera*). Various techniques to produce lacquerware of high quality were developed, including *raden, chinkin, hakue, mitsudar* and *tsuikin*. Lacquerware was indeed the representative artistic product of the Ryukyus.

METHODS AND TECHNIQUES OF RYUKYU LACQUER

The production of lacquerware had already begun during the prosperous era of overseas trade. Lacquerware was regarded as an important handcrafted art and as a national treasure in the fifteenth century. Pieces were made to be given as offerings, tributes or export goods.

Early Ryukyu lacquerware of the fifteenth and sixteenth centuries was red *raden*, made with turban shell inlaid on a cinnabar-red background. The period was characterized by vivid designs of flowers and birds. The technique of *chinkin*, in fact the earliest to mature, involves the use of a special knife to engrave the design into the polished lacquer surface, after which more lacquer and then gold leaf is applied to the incisions. The combination of bright red and gold brings to mind the glittering Okinawa sunset. In other areas gold dust is predominantly used, but the gold leaf commonly used in Okinawa provides a better balance with the vivid cinnabar red.

During the seventeenth and eighteenth centuries, following the invasion of Okinawa by Satsuma in 1609, Chinese-style black lacquerware was produced as a matter of policy. This is what makes it so difficult to distinguish Ryukyu lacquerware from Chinese work. Designs portrayed idyllic landscapes or religious themes, which at first sight could easily be mistaken for Chinese lacquerware. Work in this style suited the tastes of Toyotomi Hideyoshi, the Tokugawa family and other daimyo (Japanese feudal lords, vassals of the shogun). Another characteristic of this period is the further development of different techniques such as *hakue, mitsudae* and *urushi* and their combination in a single piece.

Raden in particular underwent a remarkable development. New techniques were introduced, such as the use of the so-called wafer-thin shell. This was prepared by boiling the turban shell in water for about a week, peeling off the inner film-like layers, and then applying pulverized shell (*mijingai-nuri*) and simultaneously grinding the applied shell and the base lacquer to make an even surface (*roiro-togidashi*). Many pieces of Ryukyu lacquerware from this period are preserved in museums around the world as representative works of the highest levels of art archived in the Ryukyu Kingdom.

The technique of *hakue* entails painting a design in lacquer with a *make* brush, and then applying gold leaf while the lacquer is sticky. *Hakue* peony or landscapes with figures were used with a particularly dramatic effect on *tundabun* (Ryukyu-style food coffers) and large pieces such as clothes chests. *Mitsudae* is similar to oil paint. As bright or pastel colours such as white or pink could not be obtained using lacquer, high-quality perilla oil (*riryu*) was mixed with pigment, and lethargy (*mitsu-daso*) added as a drying agent, from which the name of the technique originated. Designs in clear colours of flowers and birds native to Okinawa appeared on various festive vessels such as *uguhan* (a stand and set of covered bowls for sacred offerings), round trays and food stands. This technique is rarely found in other areas.

Tsuikin is the technique used in more than 80 per cent of present-day production, but as it actually dates only from the early eighteenth century it is one of the more recently developed techniques. Large quantities of

Table 1. Synopsis and comparison of Ryukuan and Japanese lacquer, 1400 to present

	1400	1500		1600	1700	1800	1900	2000
Japan	Muromachi period	Warring States period	Azuchi Momo-yama	Edo period			Modern	Present day
Okinawa	Ryukyu Kingdom (Old Ryukyu)			Ryukyu Kingdom (Modern Ryukyu)			Okinawa prefecture	American military administration
	Introduction of lacquer	Development of cinnabar-red lacquer and fine *chinkin*		Flourishing of *raden* on black lacquer		Mass production of *hakue*		Mass production of *tsuikin*
Transition of main techniques	Unification of Ryukyu Kingdom (1406)	*Chinkin* on green lacquer				Establishment of Okinawa prefecture (1879)		Battle of Okinawa (1945)
								American military administration
								Reversion to Japan (1971)
		Satsuma domination of Ryukyus (1609)						
Main patterns		• Surface covered with decoration • Unique sun, cloud and phoenix • Flower and birds		• Less decoration • Chinese mountain and stream • Cloud and twin dragon			• Increased proportion of plain lacquer • Formalized mountain and stream	• Plain lacquer • Okinawan subjects

Table 2. Present condition of Ryukyu lacquerware, changes in numbers of lacquer factories, workers and production

Year	Lacquer factories	Workers	Lacquer production in million yen
1975	27	567	1,035
1985	12	197	590
1994	9	109	563

pigment are mixed with refined raw lacquer to form a putty, which is then rolled into a thin sheet from which patterns are cut using a knife. These are stuck to the lacquer surface, moulded in three dimensions, painted and finally finished. This technique is specific to Okinawa, because of the island's high temperature and humidity. It is no exaggeration to say that lacquerware is a traditional craft ideally suited to the Okinawa climate (see Table 1 for a synopsis and comparison of Ryukyuan and Japanese lacquerware).

EDUCATION OF APPRENTICES AND PROMOTION OF THE CRAFT

A number of measures are being undertaken in Okinawa today to encourage the viability of this traditional art. They include loans of Y20,000 per month awarded to support prospective apprentices in lacquer crafts for a six-month period by the Education Fund for Lacquer Ware Successors; a maximum amount of Y300,000 awarded to a qualified individual as a traditional technical arts acquirement promotion programme; recognition of Ryukyu lacquerware as traditional arts and crafts by the Japanese Government, with five craftworkers selected each year to master advanced techniques; and training for four or five people each year at the Okinawa Prefectural Art Workshop in Haebaru City.

One of the measures taken to protect and expand the significant cultural heritage of Ryukyu lacquerware has been to designate fine works for special preservation. Of the many lacquer pieces inventoried in museums in Okinawa, forty-three have been designated as 'Okinawa Prefectural Intangible Cultural Properties' for this purpose. As the skills and techniques of producing Ryukyu lacquerware are also recognized as an important heritage, three lacquer craftworkers have been named 'Prefectural Recognized Bearers of Important Cultural Properties'.

The production of lacquerware is not very large (see Table 2). However, many people today are attracted to the high quality of the techniques and to the historical aspect of this cultural asset which was world famous during the time of the Ryukyu Kingdom.

Shuri Castle, destroyed during the Second World War, was restored in 1992. The walls both inside and outside the main castle hall have been finished with lacquer. This was indeed a major event for the lacquer industry! The ceremonial chair in this main hall, decorated using the *chinkin raden* and *hakue* techniques and representative of skills from the eighteenth century, is a national treasure. This gives a splendid impression, and bears witness to the fact that the Ryukyu Kingdom is a nation with an advanced culture producing high-quality lacquerwork.

The art and industry of lacquerware in Thailand

SONE SIMATRANG

Art historians and archaeologists agree that the art of lacquerware was invented in China. A technique for applying decorations to the surface of utensils made from wood or other materials developed some 3,000 years ago, or perhaps even longer, but the origins of lacquerware in China are indeed legendary. The Chinese introduced lacquerware techniques to craftsmen in other Asian nations, each of which developed its own regional designs. Further techniques developed locally, producing the unique characteristics of lacquerware found today in the different countries of Asia, each reflecting the culture and national identity of the land where the artwork is created.

During this long period in Asian history, craftsmen throughout the entire region knew about the qualities of the tree sap known in Thai as *Rak*. This is an excellent natural preservative that is capable of resisting acidic and alkaline chemicals alike, as well as heat and moisture. No other oil-based paint can equal *Rak*. The tree grows in a wide area and requires little attention. This is one of the reasons why Asian craftsmen like to use its sap. Decoration using lacquer techniques is not only applied to utensils such as bowls and cups, but is also used on religious icons and in the exterior and interior decoration of buildings, including doors.

HISTORY OF THAI LACQUER

Lacquerware techniques in Thailand have been passed down from generation to generation. Since the nation was first established in the twelfth century, the accumulation of intellectual thinking and experience has made a significant contribution to the development of aesthetics and taste in Thai society. Although the learning process occurred long ago, the younger generations have inherited the acquired artistic traditions.

We believe that the Thai learned the decorative technique of using *Rak* sap from the Chinese. At first, the technique was a useful way of coating the surface of utensils to make them more durable. For eight centuries

85

86

87

the Thai have developed the design and advanced techniques of this art to the point it has reached today. Lacquerware is now produced throughout Thailand. Many different techniques are utilized in designing furniture and decorating everyday utensils. Some examples of everyday lacquered objects are *khan dok mai* (containers for fresh flowers) and *oah* water bowls, lacquered in the traditional manner. Other useful objects include *chian mak* betel-nut containers, which are boxes designed with many small compartments so that different types of herb or other product can be conveniently stored ready for use. These boxes were more common in the past, when people chewed betel nuts (see Fig. 85). *Ta lum* are food and fruit containers that used to be designed in a square shape, or occasionally in octagonal or other shapes chosen by the designer; they may have a pyramid-shaped cover (Fig. 86). These containers are made from bamboo, or from another native Thai tree called *Thong lang* (*Enythrina fusca*).

Besides these examples, clothes storage boxes (Figs. 87–88), bookcases (*too phra tamma*), tables and bedsteads may also be lacquered. The different styles and applications of *Rak* depended on the social status and rank of the owner, distinctions which used to be more obvious and important than they are today. The lower and middle classes used plain, smoothly coated utensils, while the upper classes, which included the governor and members of the royal family, used more sophisticated utensils decorated with very ornamental patterns (Fig. 89). The degree of sophistication of the design was directly related to the social or religious rank

85. *Takra mak* (betel-nut container) in traditional Bangkok style modified to appeal to northern consumers.

86. *Talum* (container for main dish and fruit). Thailand, Ayuthya-Bangkok period. The most popular version is painted with black *Rak* sap solution inlaid with pearl.

87. Northern-style clothes container in bamboo before application of *yang rak* solution and painting.

88. Same clothes container after application of *yang rak* solution and painting.

of the person using the object. For example, a bowl for a high-ranking Buddhist monk would have to be well designed, with more sophisticated and ornamental patterns than the bowls used by monks of lower rank (see Figs. 90–92; cf. Fig. 93).

Thai lacquerware can be classified into two groups according to ethnic origin: the lacquerware made by the Ayuthaya and Bangkok cultural group, where the distinguishing characteristics are the colour composition of gold on a black background and mother-of-pearl inlay on a black background (see Fig. 86); and that of the Lanna (northern Thai) cultural group, with a unique colour scheme of red painted on a black *Rak*-coated surface. The finished product is red and gold. Technically speaking, the red area functions as a background under the black ornaments incised with the red lacquer; the incised lines appearing as lighter outlines (Figs. 94–95; see also Figs. 87–88).

'GOLDEN AGE' OF THAI LACQUERWARE

Historical evidence for the oldest Thai lacquerware can be traced as far back as the sixteenth century A.D., and the art has been continuously practised ever since. Art historians believe that Thai lacquerware reached its peak of popularity between the sixteenth and eighteenth centuries. Two eighteenth-century examples of this art are

89

91

90

92

89. *Parn Wan Fah,* in which a king may place ceremonial accessories or a Buddhist monk his robe.

90–92. *Tiab* (food container with lid for senior Buddhist monk or king) painted with black or red *Rak* solution with inlaid pearl. Thailand, Ayuthya-Bangkok style.

93. Detail of mural painting (*lai rod nam* technique) of the life of Buddha now on view to the public at Prince Chumpot Boripat's palace (Wang Suan Pak Kad) in Bangkok.

the door of the ordination hall of Wat Borom Buddharam in Ayuthaya province, created during the reign of King Roromakobs (1733–1759), and the door of the assembly hall of Phra Buddha Chinarat (the famous Buddha image) of Wat Phra Sri Maha-That in Pitsanulok province, which was created in 1757. In both cases, records of the names and dates of the donor of funds for the monastery were inscribed on the doors in lacquer. After the eighteenth century, the tradition declined somewhat as Western arts, notably painting and sculpture, began to replace Thai traditions (Fig. 96).

DECLINE OF THAI LACQUERWARE

After the Second World War, traditional Thai professional artists faced a crisis. Many of them could not earn enough money to make a living. The rapid transformation of the Thai economy from agricultural to industrial resulted in economic and demographic shifts with negative consequences on rural populations. Most farmers, many of whom had also worked part-time as craftsmen, were faced with a severe drop in income. During the past four decades, many utensils that had formerly been hand-lacquered have been produced industrially. Mass production of course means lower costs, and only a small number of customers can now afford to buy handmade lacquer products. There is no longer a large

94–95. Traditional northern Thai tobacco box with *yang rak* solution applied and painting completed.

market for expensive everyday utensils, and although the craftsmen producing high-quality lacquerware still possess their skills and knowledge, their customers no longer have the same purchasing power.

At present, lacquerware is not as popular as it used to be for utensils, but functions rather as precious works of art for home decoration. However, for special ceremonies, lacquerware is still used both for the architectural decoration of religious and royal institutions and for the various ceremonial objects. The best customers for Thai lacquerware are in fact the Buddhist monasteries, which regularly order new lacquered objects as well as having their antique lacquerware repaired (see Figs. 97–98).

Table 1.

Thai name	Scientific name	Type of sap	Used for lacquer	Provokes allergies
Rak luang	*Melanorrhoea usitata*, family Anacardiaceae	Top grade: dries quickly (4 hours); resists acid, alkali, heat and moisture	Yes	Low toxicity
Rak mhoo or *rak nam*	*Buchaniania lagifolia*	Second grade; low yield; rather dry	No	Highly toxic (skin rashes)
Rak khi mhoo	*Semecarpus cochinchinensis*	Low grade	No	Highly toxic
Rak pah curtisii	*Semecarpus curtisii*	Very low quality	No	—

THAI LACQUER TREES

In 1957, Hiroshi Ikuma, a Japanese lacquerware expert, came to Thailand to train Thai craftsmen and to study the *Rak* sap tree; he found that there were four different species of sap-producing plant in the country. Table 1 summarizes their characteristics. *Rak luang*, the only one of any interest to the lacquer industry, grows at altitudes above 1,200 m. It is widely found in the Chiang Dao and Fang Districts of the city of Chiang Mai, and the Khun Yuam and Pai Districts of the city of Mae Hong Son.

TECHNICAL ASPECTS OF THAI LACQUERWARE

Special terms are used for the different types of Thai lacquer technique. *Lai Rod Nam* is a decorative style in which gold leaf is used against a black background (see Fig. 87). In the *Pan Lai Rak Smook* technique, *Rak* lacquer is rubbed and polished with a banana leaf and the object to be decorated is carved in relief. Gold leaf is applied to the relief surfaces. Mother-of-pearl inlay technique, *Pradab Smook*, uses pieces of shell cut and set into still-wet lacquer according to a design traced from paper. The object to be ornamented with mother-of-pearl is coated with black lacquer, and after the second drying, a coat of wood-charcoal and high-quality lacquer (*Rak Smook*) is applied. When this coating has dried but is still sufficiently sticky, the mother-of-pearl ornaments are fixed into the surface. After drying, the paper is removed and the whole surface is rubbed and polished.

PROBLEMS: LACK OF RAW MATERIALS

At present, Thailand must import *Rak* sap. According to the Foreign Trade Statistics of Thailand at the Department of Customs in Bangkok, in 1994 Thailand imported 36,000 kg of *Rak* sap from Myanmar, 20,000 kg from China, and 5,000 kg from Hong Kong, at a total cost of about 6,000,000 baht (US$ 225,000). This amount does not include border trade. An estimated 50,000 kg of *Rak* sap passes customs clearance; how much enters the country undeclared is, of course, unknown. Finally, a concern with high profitability causes another problem. Many distributors seeking to maximize their profits add impurities to increase the weight of the lacquer sap.

This is a serious problem, the solution of which will be difficult because raw materials are disappearing with the destruction of the forest habitat. Bamboo and other types of wood have become scarce. There is no proper forestry project in Thailand. The lack of a conservation plan has caused many problems, and a new generation of the essential species of tree to be used as raw material is not being grown on an organized basis. The government has, however, enforced a strict policy of forest closures.

When forests are severely damaged, the *Rak* species is devastated. As this is a slow-growing tree, restoring *Rak* forests will take a long time. Moreover, the trees do not reproduce easily, and some varieties are highly toxic. Because of these factors, people are not always willing to grow these trees. The author has proposed that the Thai Government should encourage or support private organizations to grow the essential species of *Rak* sap-producing trees in the national forest region.

The lack of current scientific research in either chemistry or biology is another serious problem for Thai lacquerware production. Some forty years ago (from 1957–63), the Department of Industrial Promotion of the Ministry of Industry authorized a research project. At that time, the Japanese Government provided the funding and sent many Japanese experts to study Thai lacquerware and train craftsmen in Chiang Mai. The experts taught them how to reduce drying time and

96. *Phra-Raj-Bal-Lang* and *Phra Swetashatra* (Royal Throne and Nine-Level Umbrella indicating supreme status). Thailand, Ayuthya-Bangkok style, 1823–32. Teak wood with lacquer.

develop their production techniques. From 1987 until 1989, the Asian Productivity Organization sent more researchers to study the problem of production techniques. They spent a great deal of time in Chiang Mai for their intensive study. However, it must be noted that this research work, carried out over four decades, was conducted by Japanese experts, not by Thai researchers. The present situation is critical for Thai lacquerware, but still researchers and scientists fail to treat the problem seriously.

TRANSMISSION OF LACQUER ARTS

Poh-Chang College, the first modern educational institute for craftsmen, artists and designers, was founded in Bangkok in 1922. In 1943 Silapakorn University, the first university for fine and applied arts, was founded. Both of these institutes taught Thai traditional lacquerware and trained young designers for forty years. But the student projects did not help Thai art because they were not concerned with the traditional arts, young designers preferring to study Western or modern art.

Thai craftsmen in ancient to early modern Thailand were educated in one of three ways. In family education, artistic traditions were passed from older to younger members of a craftsman's family. In monastic education, a young man spent a certain period living with a monk in a monastery, and from early childhood learned to read and write. He also received an artistic training from an experienced Buddhist monk. Finally, in the system of urban social education, the governor of each city established an office known as *Krom Chang Sib Mhoo*. Here, the ten cardinal disciplines of craftsmanship were taught. The office provided a training programme for young men, and when they became experienced in their crafts they would be hired full-time to carry out the artworks assigned by the governor, prince, high-ranking Buddhist monk, or king.

Chang Sib Mhoo (ten cardinal disciplines) consisted of *Chang Khian* (painting); *Chang Pan* (sculpture); *Chang Kleung* (wood-carving); *Chang Mai* (carpentry); *Chang Poon* (masonry); *Chang Rak* (lacquerware); *Chang Loha* (metal-working); *Chang Kradas* (paper-working); *Chang Krajok* (glass-making); and *Chang Kae Salak* (fine carving).

The institutions of *Chang Sip Mhoo* were established in the Thai Kingdom during the Ayuthaya period (1350–1767), and they continued during the Bangkok period. In the early Bangkok period the *Chang Sip Mhoo* was held to be a lofty institution of Thai craftsmanship,

97

98

97. A craftswoman of Baan Don Jhun village, Thailand, making food containers.

98. *Rak* (lacquerware) crafts for both ceremonial and everyday use. Picture taken at the *Whai Khru* (Paying Respect to Teachers) ceremony of Chiangmai University, Thailand, in 1985.

as it had been during the preceding Ayuthaya period. When King Chulalongkorn (Rama V) succeeded to his father's throne in 1868, many ideas from the West were adopted, and modernization of the country began. Non-ecclesiastic and ecclesiastic education were separated. By the end of this reign a plan to establish the first modern school for artists and craftsmen was proposed but not carried out. Poh-Chang College was finally founded in 1922 in the reign of King Vajiravudh (Rama VI, 1910–24), who had restructured the ancient *Krom Chang Sip Mhoo* to form the *Krom Silpakorn* (Department of Fine Arts) in 1917. Lacquerware and mother-of-pearl inlay techniques were established within this department. In 1933, the Department of Fine Arts established the Praneet Silpa School (Fine Art School), which taught both Thai traditional arts and Western arts. This was the second modern art school in Thailand. Ten years later, in 1943, the government realized that an institute to educate artists would have a tremendous significance on the artistic and cultural progress of the country, and so the status of the Art Education School was changed. Under a new name, Silpakorn University (University of the Fine Arts), courses on both Eastern and Western art traditions began in 1943 and have continued until the present.

Another significant step took place in 1981. The Thai Government assembled craftworkers from all over the country with skills, knowledge and experience in all the fields of the ancient traditions of the *Chang Sip Mhoo*, from both government and private sectors. These workers collaborated in a grand national project to renovate the decorative artworks and architectural structures of the Temple of the Emerald Buddha (*Wat Pra Sri Ratana Sadaram*) and the Grand Palace for a historic event, the bicentennial of Bangkok.

When this project was completed, her Royal Highness, Crown Princess Sirindhorn Mahajakri, the president of the project, proposed the founding of a new educational institute to teach traditional Thai arts. The royal proposal to establish a school of the ten cardinal disciplines of traditional Thai art was carried out and the Vitayalai Chai Nai Wang (Palace College for Craftsmen) is now located in the Royal Grand Palace in Bangkok. In this way, another national educational institute has grown up, giving hope that the traditional art of the past, thus revived, can carry on into the future.

Lai Rod Nam: Thai gold-leaf lacquerware technique

SOMPONG SAENGRAMROUNGROJ

The *Lai Rod Nam* lacquerware technique is one of the ten major disciplines in the traditional Thai arts, which have been passed from one generation of craftsmen to the next for many centuries. The entire corpus of Thai traditional art is known as *Chang Sip Mhoo*. In the art of lacquering, a picture or ornamental pattern is drawn on the gilded surface of an object made from wood or woven bamboo. After a washing procedure, the pattern remains and the background area is washed out. This traditional method is used to decorate utensils, chairs, cabinets, and the doors and windows of houses.

MATERIALS REQUIRED IN THAI LACQUERWORK

Rak, the Thai term for lacquer, is a variety of wood sap collected from a species of native Thai tree known as *Rak luang* (*Relanor-rhovea usitata*). The black and sticky sap can be applied to any smooth surface. Wooden surfaces, bowls or other types of container coated with the sap last longer, the lacquer acting as a preservative. It is also used as a primer coating to which decorative work may be applied. There are three principal types of *Rak*. *Rak Nam Kliang* (smooth liquid *Rak*) is sap with the impurities filtered out. It is appropriate for painting on smooth surfaces. *Rak Smook* is a mixture of *Rak* sap with different types of powder such as *Din Sor Pong* (moistened kaolin powder) or banana-leaf ash. In all cases the *Rak* sap must be thoroughly blended with the powder. This mixture is useful as a thick coating solution for preparing a surface before a design is drawn on it. *Rak Shed* (scrubbing *Rak*) is obtained by heating *Rak Nam Kliang* over a low fire. The heat causes a certain amount of water to evaporate and viscosity is increased. A piece of cloth dipped into the heated solution may then be used to wash or scrub a thin coat of mixture on to the surface to be treated. This thinly 'scrubbed' surface is now ready for the application of gold leaf.

Horadan is a mineral with alkaline pH. There are two types, *Hin Horadan*, a rock; and *Horadan Kleab Thong*, or gold leaf. Farmers use these for decorative lacquerwork;

while gold leaf is also used in conventional Thai medicine in solution form.

Pak Som Poi is a species of Thai herb. It has a flat pad, while the chemical content is acid. The herb is dried, boiled and then filtered through fine white cloth, after which it is used to reduce the alkalinity of the *Horadan*.

Kao Krathin (*Krathin* plant glue): a yellow transparent crystalline substance obtained from a group of indigenous plant species, *Krathin Yak*. The crystals are soaked in water overnight to obtain the glue, which serves as a binder. When mixed with *Horadan*, the resulting pigment is used for lacquerwork.

Gold leaf is pure gold, treated until a very thin flat surface is obtained. The gold leaf is then cut into 4 × 4 cm squares. A special type of gold, called *Thong Kud*, is used as it has a smooth surface that shows no joints in the smooth finished surface of the piece.

Din Sor Pong (moistened kaolin powder) is essential for cleaning the surface of an item before *Horadan* paint is applied (Fig. 99). *Din Sor Pong* powder is also used to trace lines and to copy sketches and patterns on to the item to be painted, on both flat and round surfaces.

Sandpaper is required to obtain a smooth surface for the application of lacquer. If none is available, charcoal powder or deer antler ground into powder can be used. The steps followed in traditional Thai lacquerwork are described below.

99. Outline is drawn, ready for the next step.

100. Wood panel is glazed, then thoroughly washed with *Din Sor Pong* (kaolin) solution.

101. Cartoon is made with tracing paper; a needle is used to punch holes.

102. Tracing paper is placed on wood panel, and the *pra kob phoune* (bag of powder) is applied to make the outline.

PREPARING THE SURFACE TO BE LACQUERED

Before lacquer can be applied to a flat wooden panel, it must first be sanded, then coated with *Rak Nam Kliang*. A thin, even coat is applied to the whole area and the panel placed in an incubator, a closed rectangular-shaped container with shelves. Several layers of moistened rice paper are then placed over it. In climates with high humidity, the painted panel will dry very rapidly.

After the first treatment, the wood surface is glazed with *Rak Smook*. A special triangular paddle is used as a glazing tool to apply the *Rak Smook* solution to the correct thickness. After glazing, the wooden panel is again placed inside the incubator.

After the *Rak Smook* solution has dried, a pumice stone is rubbed over the treated surface to prepare it for painting. If pumice is not available, sandpaper is used. The object is washed in water and wiped dry, repainted with *Rak Nam Kliang*, rubbed smooth again and re-incubated.

The upper surface is peeled using stag-horn pumice (a special stone used for sharpening razor blades). If this stone is not available, fine-grain sandpaper can be used as a substitute. The object is painted with *Rak Nam Kliang* once again and incubated until the surface is absolutely dry.

Final sanding is done with deer-antler powder. The craftworker dips a finger into the powder and spreads it with a circular movement. When the powder is spread over the entire surface, the panel is washed in water. It is rubbed clean and left to dry in the open air. This procedure is repeated until a smooth, shiny lustre is obtained. Only then is it ready to be painted with *Horadan* pigment bound with *Krathin* glue.

PREPARING THE *HORADAN*

The mineral is ground up with pumice, to which a small amount of water is added. When the solution precipitates, the water and impurities are discarded. This procedure is repeated once or twice.

To reduce the alkalinity of the *Horadan*, *Pak Som Poi* solution is added. The proportions are one cup of herb to two cups of water; this is boiled and left to cool, then the solution is filtered through fine white cloth. The solution may be heated, but the prepared solution must be left longer. The *Pak Som Poi* solution is added until it covers the mineral, which is left to soak for a week. The solution is then changed, and the whole procedure repeated several times. Vinegar may be added to accelerate the chemical reaction. Finally the liquid is discarded and the precipitate left until dry, then stored.

To test the prepared *Horadan*, it is placed in a mortar and a certain amount of *Pak Som Poi* solution is added. An experienced craftworker should be able to estimate the quantity needed to obtain the proper concentration of the solution. If the solution is too dilute, more *Krathin* glue is added. To test the consistency, a paintbrush is dipped into the sample and brushed over the surface to be painted. This is left to dry. The painted area is rubbed with a finger. If the paint comes off, this means that the concentration is insufficient, and more glue must be added. Paint of the correct consistency will not rub off unless water is added.

DRAWING THE PATTERN

Before painting with *Horadan* pigment, a precise outline has to be drawn (Fig. 100). The technique is similar to the one used by Western artists to produce a cartoon for a fresco. Here the drawing is made on tracing paper and transferred to the panel or wall. The surface must first be

103. A linear pattern is made using the powder device.

104. Painting with carefully prepared *Horadan* solution:
the artist must draw or paint exactly over the pre-existing outline.

105. Painting with *Horadan* solution completed.

106. The lacquer solution is wiped on using a clean cloth.
The panel is glazed and excess lacquer solution is removed.

cleaned with water, rubbed and left to dry. A needle is used to pierce the tracing paper with a series of tiny holes along the lines of the drawing (Fig. 101). A small bag filled with roasted kaolin powder is then used to transfer the design: the bag is lightly rubbed over the surface of the tracing paper and the design is transferred by the powder (Figs. 102–103). The painting stage can then be carried out.

PAINTING WITH *HORADAN* SOLUTION

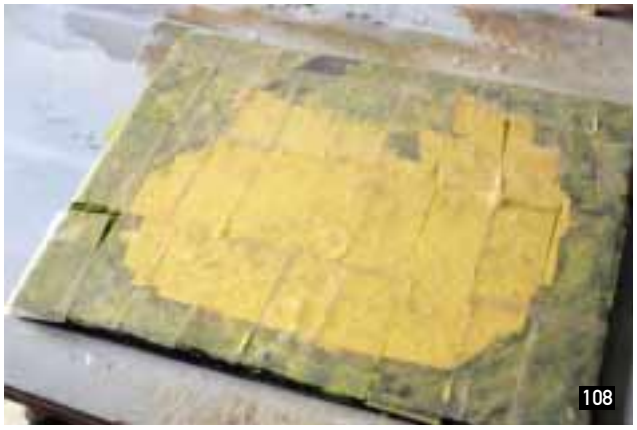
A special tool called *Sapan Meu* ('hand bridge', Fig. 104), must be made for this step of the procedure. This is a piece of wood placed under the painter's hand so that the painted area will not be accidentally rubbed out. To paint with *Horadan* solution, the smallest size brush must first be used to draw the main outline. This requires a high degree of skill and concentration, as the outline must be drawn slightly larger than the actual edge of the pattern. After drawing the main mass of the outline, the linear details follow and then the empty areas are filled with colours (Fig. 105). One technical problem is that the painter must stir the paint frequently so that the pigment will not precipitate. *Pak Som Poi* solution must be added frequently, followed by *Krathin* glue, to maintain the correct consistency.

RUBBING THE *RAK* SAP

Shed Rak is a Thai technical term meaning 'finding the *Rak* sap of proper concentration and viscosity'. Before treatment, the craftworker must verify that the lacquer is absolutely dry. A freshly prepared small bag filled with cotton wool is used as a rubbing tool (Fig. 106). The *Shed Rak* or rubbing process is necessary because the excess *Rak* must be removed. The correct amount of sap must be left to coat the surface in an even layer. To test this, the worker touches the surface lightly to see how

106

Lai Rod Nam: Thai gold-leaf lacquerware technique



107. Gold leaf is applied over the wiped-dry surface.

108. Paper with gold leaf is soaked with water. It is left for one minute, then washed off.

109. The final stage, gold inlaid pattern (here, decorative) is completed.

sticky it is. If the *Rak* application on the surface is too thick (not enough has been removed), the gold leaf cannot be properly applied, and it will not be shiny enough. On the other hand, if too much *Rak* sap has been removed (not enough left on the surface) the gold will not stick. Only experience will determine the proper amount of *Rak* to leave. Frequent practice makes for experienced workers.

APPLYING GOLD LEAF

When the entire surface has been rubbed, it is time to apply the gold leaf. The paper backing of the gold leaf is peeled down about one-third of the way. Starting from one end of the outline, the paper must be slowly unfolded, and the other hand must squeeze or press lightly so that the whole gold leaf is pressed correctly on to the surface. The procedure is repeated with each piece of gold leaf. An overlapping area of about 2 or 3 mm must be allowed for each successive leaf. The same technique is repeated until the gold leaf covers the whole designated area (Fig. 107). Then the worker presses the gold surface using a clean, dry finger. The pressure must be direct and vertical, never a back-and-forth motion, or the gold surface will be damaged. A cotton-wool bag is used to clean the gold surface and keep it smooth.

WASHING

Straw paper soaked in water is placed over the gold leaf area (Fig. 108). This paper is left in place for a short time, and then cotton wool is used to rub off the excess *Horadan* (which is easy to remove). The area is then washed with water once more and rubbed with clean cotton wool until all excess paint has been removed. The piece is left to dry, and the lacquering process is now complete (Fig. 109).

Traditional lacquerware manufacture in Viet Nam

TRAN HUY QUANG

Archaeological excavations at ancient tomb sites in Viet Nam, including the Viet Khe tomb, have brought to light objects dating from the fourth century B.C. Among the finds were lacquer-covered items and tools, such as a black-lacquered oar, a lacquered box with ornamental patterns, a lacquered writing table and a coffin painted in lacquer and gold leaf. Today, these objects are kept at the Hanoi Historical Museum, and they attest to the art of lacquering being one of the oldest in the country.

This traditional art has thus existed for many centuries in Viet Nam. Lacquered objects have traditionally included various kinds of boxes, vases for flowers, decorative dishes, chessboards, polished lacquer paintings, *quang dau* red-and-silver objects, *son kham trai* inlaid mother-of-pearl objects, and lacquered trays, screens and furniture. The most common motifs used to decorate Vietnamese lacquerware are animals such as the dragon, *li* (an imaginary sacred animal, similar to the lion), tortoise, phoenix, sparrow and flamingo; pine, bamboo, chrysanthemum and apricot trees; the four seasons and clouds; and pagodas and houses, to name just a few.

All the technical aspects involved in the profession of lacquer-making, such as producing gold and silver leaf, or making red cinnabar, have existed for a very long time and these activities were traditionally concentrated in different villages, which continue to maintain their professions. Each process has its own body of knowledge that has been transmitted from one generation to the next. At the present time, however, some of these professional activities are in danger of disappearing, without leaving behind any hereditary knowledge. A case in point is the beautiful red lacquer made from imported Chinese cinnabar, which is now being produced by just one woman, the last person in Viet Nam with this skill (see Fig. 110).

Some of the villages in Viet Nam are renowned for the quality of their lacquer products. In Boi Khe village in Phu Xuyen district of the Ha Tay province, most of the inhabitants are named Dinh, and there are Dinh lacquer craftworkers in every lacquer centre in the country. Son village of Phu Xuyen and Chuong My district of the same province have always provided master craftsmen

110. Producing red lacquer.

111. Felling lacquer trees and planting new ones.

112. Collecting sap from the lacquer tree.

for Kham Trai lacquer objects. In the village of Nhi Khe in Thuong Tin district, excellent turned wooden products are produced. Varnishing oil and joined bamboo products are developed in Cat Dang in Nam Dinh province. The best *son then* (black) lacquer comes from the village of Dinh Bang in Ha Bac province. The finest polished lacquer has been developed in Song Be and Thu Dau Mot provinces. In the village of Kieu Ky in Gia Lam district, the best silver and gold leaf is produced. Finally, the lacquer trees growing in Tam Thanh district in Phu Tho province give the best quantity and quality of sap.

VIETNAMESE LACQUER TREES

The forest of Vietnamese lacquer trees grows in the thin soil of the hilly, unpopulated areas of the provinces of Phu Tho, Tuyen Quang and Yen Bai. Here, the lacquer tree is known as *cay son* (*Rhus succedanea*). Adult lacquer trees attain a height of 3 m to 4 m and bear fruit in a raceme (inflorescence in which the flowers are borne along the main stem). These trees grow in the wild and have also been planted on an industrial scale for lacquer production. Lacquer planters are generally farmers, not highly skilled lacquer craftsmen. Saplings are set out in September and October (the dry season in Viet Nam); they take three years to develop sufficiently to begin yielding lacquer sap. The lacquer trees produce sap for three to four years and then the yield gradually decreases. These trees are then felled and new ones planted, the entire cycle taking six to seven years (Fig. 111).

LACQUER SAP

Lacquer sap from Vietnamese trees is very dense and milky white in colour as it seeps out of the tree. Upon contact with air and sunlight, the sap gradually turns a

blackish-brown colour and solidifies. Lacquer trees are able to produce sap all year round, for three days at a time, but the best-quality sap is harvested from September to January (the rainy season). During the dry season, the sap may be harvested only between sundown and the cock's crow the next morning.

A sharp, pointed knife is used to cut diagonal marks from top to bottom on the trunk of the tree, and seashells or ceramic shards are attached to the lower extremity to collect the sap that seeps out. The sap collected at the lower end of the trunk is of better quality (Fig. 112). The contents of the shells are emptied into plastic or bamboo baskets that have been waterproofed with lacquer. The sap is collected and stored in containers before sunrise and taken to the planter's house. It is then filtered through a coarse cloth or a closely woven basket into containers or baskets made from wood or waterproof bamboo, known as *sai*. The raw lacquer is tightly covered with oiled paper and the containers placed in a well-ventilated, dark, cool place. Raw lacquer is called *son song* or *son ta* in Vietnamese, not to be confused with ordinary paint or varnishes, also sometimes called lacquer.

RAW LACQUER, OR *SON SONG*

The composition of *son song*, or raw lacquer, is laccol, laccase and water. A thin layer of *son ta* is applied to an object in a single coat. It is best to work when the average daily temperature is around 20°C to 30°C, and the ambient humidity at least 75 per cent or more, for then the layer will dry in just one hour. When humidity is less than 50 per cent and temperatures are above 40°C, the lacquer dries only with great difficulty. After the *son song* has been stored in a *sai* container for several weeks, it undergoes a natural process of fermentation and settles into identifiable layers. Each layer contains a different percentage of laccol, giving the various grades (see Table 1).

Son song adheres well to various surfaces and can also be polished to a high lustre. When *son song* comes into contact with iron, it changes colour from brown to grey and finally turns black. When dry, lacquer is very resistant to fresh and salt water and some acids, as well as to variations in humidity and temperature.

The annual production of Vietnamese lacquer is able to meet the demands of both domestic and foreign markets. However, as regards the export market, the inconsistent quality of *son song* (either too soft or mixed with impurities) has led to a reduction in the number of customers. Japan imports most of this product. Another

Table 1. Grades of *son song* (raw lacquer).

Name	Percentage laccol	Characteristics	Colour
mat dau = 90°; best quality lacquer	90: high laccol, almost no laccase	Light and watery	Dark brown
son nha = 70° to 80°t	70 to 80		Light brown
son nhi = 60° to 65°	60 to 65		Pale yellow
'second lacquer'	50 to 55	Very heavy, dense	White
'third lacquer'	40 (60 per cent water)	Quite thick, dense	White

factor influencing the quantity of lacquer is that the tree planters have been destroying lacquer forests for many years now, substituting other industrial trees such as cassava and eucalyptus because they provide a better cash crop than the lacquer trees and thus have a higher economic value.

SON CHIN (RIPE LACQUER)

Son song must be treated before it can be used. The treatment produces a new type of lacquer with different characteristics, known as *son chin*. *Son song* is shiny, but handling an object coated with it will leave traces on the lacquer. There are three kinds of *son chin*: *son canh gian*, 'bright lacquer', reddish-brown in colour; *son quang dau*, 'varnishing lacquer'; and *son then*, 'black lacquer' (see Table 2).

The preparation, or ripening, of the lacquer is achieved by a process of stirring. When stirred the lacquer changes colour. A specific quantity of 65° or higher *son song* (say 3 kg) is poured into a wooden basin and stirred continuously using a tool called a *mo vay*. The left hand is placed on the upper section of the tool and the right hand holds the lower section, and the artisan uses fluid, constant movements to pull, push, stir and smooth the sap as it is brought from the bottom and the edge of basin to the surface and middle. As the sap comes into contact with the air, it begins to oxidize, gradually loses water, thickens and finally 'ripens'. When the lacquer is almost ripe, there will be bubbles on the surface and it will run in a continuous stream and no longer drip off the *mo vay* tool as it is lifted out of the basin. The entire process takes twenty-four hours (Fig. 113).

To test the ripe lacquer, a small amount is applied in an even layer on a piece of dry bamboo which is then placed in a *buong u*, or drying box (a tightly sealed box with a temperature between 20°C and 30°C and humidity above 75 per cent). After three to four hours, the lacquer should be dry, shiny and hard; a brush pen should leave no marks.

To produce lacquer that will give a higher sheen on finished products, pine resin or oil of turpentine (*Pinus palustris*) may be added to the raw lacquer. The lacquer will be easy to polish and the final layer will have a clearer and brighter colour. The proportions are 250 g of resin or turpentine to 1 kg of *son chin*. The pine resin (in crystals) is heated with gasoline; when all the crystals have dissolved, the mixture is removed from the heat

Table 2. Varieties of treated or ripened *son song*, called *son chin*.

Name	Composition	Use	Colour
son dau or *son quang dau* = 'varnishing lacquer'	70° *son song*	Top coat, for brilliance; no polishing required	
son canh gian *son thi* = dull *son quang* = shiny	65° or better *son song*	Primer coat for *voc* Finishing coat for sheen	'Cockroach wing' brown (a reddish brown)
son then = black lacquer *son thi* = dull *son quang then* or *then quang* = shiny	65° or better son song	Finishing and covering	Black

113. Preparing 'ripe lacquer'.

114. Making black lacquer.

and cooled down to 40°C to 50°C. It is then added to the lacquer basin and thoroughly stirred for some time.

After mixing turpentine or oil with ripe lacquer, it needs to be filtered, or 'squeezed', before it can be used. The filtering equipment is called *ban van son*. *Son chin* is placed on cotton or filter paper, which is then wrapped in gauze, the two ends of which are wrung in opposite directions to allow the lacquer to gradually run out. The *son canh gian* lacquer is differentiated into two types: shiny (*son quang*) used to cover and polish bright objects; and ordinary or dull (*son thi*), used as a primer coat or to polish *voc* lacquer boards.

All types of lacquer, whether *son song* or *son chin*, are stored in the same way. A *sai* is filled with lacquer, oiled paper is laid directly on the surface of the lacquer and firmly tied to the rim of the *sai*. *Son chin* that has been stored for a long time will produce better and more transparent lacquer finishes.

MAKING *SON QUANG DAU*

Son quang dau, or varnishing lacquer, is used as a bright finishing layer for objects; no polishing is required. It is made by taking 2 kg of raw, 70° lacquer and stirring exactly as in the preparation of *son canh gian*. When the *son canh gian* is ripe, 1 kg of lacquer is mixed with 200 g of abrasin oil, and stirred until completely dissolved into the lacquer. *Son quang dau* must be filtered very carefully in a dust-free environment. *Son quang dau* is a traditional Vietnamese product that has been in use for a very long time. It takes much longer to dry than other types of lacquer.

MAKING *SON THEN*

The technique for preparing black lacquer is slightly different from the above operations, as an iron bar with a rough surface is used to stir the *son song*.

Two kilograms of 65° to 70° *son song* are placed in a ceramic basin and stirred continuously with the iron bar, which is occasionally filed with sandpaper to maintain an abrasive surface. As the lacquer is thoroughly mixed and stirred, the sanded iron interacts with it to change its colour from dark yellow to brown and finally to black (Fig. 114).

After twenty-four hours, the lacquer ripens. The other

processes – testing, adding turpentine and squeezing – are the same as for *son canh gian*. Ferrous sulphate ($FeSo_4$) may be mixed with the lacquer to obtain *son then*, although the quality will not be as good as when it is stirred with an iron bar.

MECHANIZING THE PROCESS OF *SON CHIN* PREPARATION

In Viet Nam, the method for producing *son chin* has also been mechanized, reducing labour costs and increasing productivity. An electric mixer is used to stir two basins simultaneously, making it possible to produce 10 l of *son song*. However, the quality of the lacquer is not as good, in comparison with the hand-stirred variety. A combination of the two methods produces an acceptable result. The electric mixer is used to obtain *son chin*, which is then stirred for several hours by hand.

PRODUCING THE CORE FOR LACQUERWARE

Cot is the core material, or background, used as the base in making lacquerware objects. It is treated with certain grades of lacquer (used almost as glue or varnish), then painted or decorated with higher grades of lacquer for finishing and polishing. Three basic varieties of *cot* are commonly found: wooden, bamboo, and dry lacquer.

Wood to be made into a *cot* board has to be light and smooth, and without holes, cracks or warps. The best woods for lacquerware are the Japanese lilac (*Melia azedarach lin*), jacqk wood, talauma wood, pygeum, or plywood. The wood must be free of insects and dried to a humidity level of 10 per cent to 20 per cent before it can be used.

Bamboo *cot* is used like wooden *cot*. It is sanded, smoothed and dried, then cut into identical slats and closely joined into a round shape. *Son song* (50° raw lacquer) is mixed with sawdust to join the slats together. Round dishes of approximately 70 cm in diameter, or 1 m high vases, are created in this way. The object is then rubbed or planed smooth with a grinding stone. Bamboo *cot* is used for objects that are to be coated with *son quang dau*, as this type of lacquer is transparent. In this way the individual slats may be seen through the lacquer layer.

To make a dry-lacquer *cot*, a frame is made first. A mould is lined with paper to prevent the raw lacquer from adhering directly to the mould, as this would make the finished object difficult to remove afterwards. A coarse cloth is then placed over this and raw lacquer brushed on. This step is repeated (cloth, lacquer) until the desired thickness and solidity of the finished object is attained. For example, a 30 cm diameter dish *cot* requires seven layers of cloth.

When making wooden trays and boxes, nails can be used to attach the various sections. After glueing with *son song* and sawdust, the nails are pulled out, and lacquer is used to fill the empty nail holes. When the lacquer is entirely dry, the object is sanded to smooth out any slight imperfections.

There are a variety of tools used for decorating lacquer pieces. These include: *but thep* paint brushes, made from hair or cow tails, 0.5 cm to 10 cm wide; *mo* spatulas, made from buffalo horn or plastic and approximately 0.5 cm to 8 cm wide; *bay* palettes made from cattle ribs; and various engraving knives.

STEPS FROM CORE TO FINAL DECORATED PIECE OF LACQUERWARE

The steps involved in preparing *cot* objects to produce the final decorated piece of lacquerware comprise the process known as *voc*. The *cot* is smoothed and polished to transform it from the raw material into a precious object. The various steps in *voc* are described below.

Boc vai or *danh vai*

This step, generally used for wooden *cot* cores, involves covering the *voc* with cloth in order to make it more solid and resistant to breakage and cracking. The materials used are rags or other coarse cloth, 55 per cent to 60 per cent *son song* and sawdust. A *but thep* brush is used to apply *son song* in an even layer on the *voc*. A piece of cloth is then wrapped around the object and covered with lacquer; the cloth imbibes the lacquer and adheres closely to the core. Sawdust may be added as needed, and the *mo* tool is used to smooth out the entire surface. After twenty-four hours, this layer will be solid and dry. Two more layers are applied, and the object is now termed 'primed *voc*'.

Bo

Bo is a thick lacquer mixture used to modify the surface level of the primed *voc* piece. A paste or putty composed of 60° or 65° raw lacquer, finely powdered white clay mixed with water and sawdust, is required for this step. When preparing solid types of *voc,* equal amounts of clay and *son song* are well kneaded together and applied to the piece, and sawdust is gradually added until the *bo* no longer sticks to the *bay* palette. A thin layer of lacquer is painted on to the object with a *but thep* brush and the entire surface is smoothed out to a thickness of 1 mm with a horn *mo*. The *bo* must dry for twenty-four hours, after which it may be polished. For hollow objects, such as vases and boxes, the interior surface must be prepared in the *bo* step before the exterior surface. For trays, the large surfaces are prepared before the smaller sides.

115. Polishing for smoothness.

Polishing and sanding the *bo* are done when the piece is thoroughly dry. All surfaces must be polished, even small curved sides. In the past, pumice stones were used, but now it is current practice to use industrial grindstones for this step. The polishing is always carried out under running water. The practical method for polishing is always to polish so that the *voc* material no longer shows, and to let the piece dry between two or three series of polishing steps.

Hom lacquer

Hom is a technical stage similar to *bo* in the process of producing a smooth, even surface on the object. Here the putty is composed of equal amounts of 65° *son song* and finely ground alluvial soil mixed with water. The rest of the steps remain the same, with polishing carried out under running water, and two or three drying periods (see Fig. 115). The traditional polishing stone for *hom* was the *da gan ga*, 'stone the colour of a cock's liver', but an industrial grindstone may also be used.

Lot or *son lot*

This is the third primer and drying step, for which 65°

to 70° *son song* is used. The object is placed for twenty-four hours in the *buong u* (a tightly covered, humid box, pit or small basement) with humidity at 75 per cent and constant temperature at 20°C to 30°C. Keeping the object covered prevents dust, mosquitoes or other impurities from becoming attached to the sticky surface. Polishing with a very fine grade *da gan ga* or industrial grindstone follows the drying period.

Thi or *son thi*

The fourth primer step follows, using non-bright *canh gian son chin*; this lacquer is also known as *son thi*, or more simply *thi*. A fine, even layer of this lacquer is painted on to the surface with a *but thep* brush, then it is placed in the *buong u* for twenty-four hours. This step is repeated twice more; the lacquer is always painted on from front to back, outside to inside, and finally the edges. The object is polished after forty-eight hours of drying.

Quang (*son quang*)

The fifth primer is *canh gian* (ripe lacquer) or bright *then*. A thin coat is allowed to dry in the *buong u* for twenty-four hours; it is polished after seventy-two hours. At this stage, extreme care must be used in polishing so that no flaws or imperfections appear in this final primer coat. This is perhaps the most critical step in producing the finest and most lustrous lacquerware, for afterwards the final decorations will be applied. The quality of the final *voc*, here called a *lam voc*, depends on the number of coats of primer applied and on how carefully this has been done.

DECORATIVE PATTERNS ON LACQUERED OBJECTS

Classical lacquered objects

The most classical and traditional decorations use *son quang dau* lacquer, thinly laminated silver leaf and silver dust, and various types of cinnabar. Synthetic pigments are currently used to produce coloured lacquers for decorative paint.

Bamboo *cot* pieces, called *trang tri tren cot tre nua*, receive only four coats of primer and are usually painted with a variety of motifs that include dragon, phoenix and flower images painted in lacquer over cloud and leaf backgrounds. The colours used for this type of lacquerware are limited to red, black and yellowish-brown or plain yellow. The silver leaf provides a very bright and shiny contrast to the painted areas. The artisan estimates the space required for the design, and paints in the broad outlines of the motifs using *son quang dau* in fanciful patterns (flying dragon, dancing phoenix). The silver leaf is applied after a drying period of about ten hours and then the rest of the colours are applied. When the coloured lacquer is nearly dry, silver or cinnabar dust is sprinkled over the surface. A twenty-four-hour drying period in the *buong u* is then required before a final coat of bright *son quang* is applied.

Lacquer relief

Son dap noi, or lacquered objects in relief, are produced as high and low relief. The *voc* and *lot* (primer) stages here comprise only a surface coating of 60° to 65° *son song* and sawdust. In this technique, the *bo* step is repeated over and over again to build up the desired thickness of the relief design; each *bo* layer must dry and be smoothly polished before the next one is applied. Usually the colours in relief lacquerware are simple; silver leaf is sometimes added. When the background is in black lacquer, the relief is usually in red or yellow lacquer.

Coromandel lacquer

A black-lacquered core (*voc*) is used in this technique, sanded and polished until brilliant. The designs are carved, or incised, into the lacquer with a sculpting knife, and oil is used to rub the exposed parts. The incisions are painted with lacquer.

Polished lacquered objects

This technology has been in use only since 1930, when abrasin oil was replaced by turpentine, creating a more solid *canh gian* lacquer that is easier to polish. Here, *son canh gian* and *then* lacquers are used, along with silver and gold leaf and dust, cinnabar, various dyes, shells from duck and hen eggs, and oyster shells.

The cinnabar is treated to produce four different nuances of red: *son trai,* bright vermilion; *son tuoi*, vermilion; *son tham*, carmine; and *son nhi*, dark carmine.

Coloured patterns are drawn on paper from sketches that the painter usually learns by heart, and are then traced on to the object to be lacquered. *Son chin canh gian* or *son then* are used to paint the basic outlines, then spaces are filled in with colour and silver or gold dust is sprinkled on (Fig. 116). This is allowed to dry, and then a coating of *son canh gian*, red cinnabar or *son then* is applied. The object is dried for three days and then polished. White is created from hen or duck eggs and grey from mother-of-pearl. An incision is made on the *voc* in the desired shape, and the shell is attached with lacquer (Fig. 117). The entire object is entirely covered with lacquer and dried in the *buong u*. Polishing is carried out with a cock-liver-colour stone or industrial sanding stone under running water, and the images gradually 'appear' from beneath the lacquer coat. After polishing by stone, charcoal (in particular from the wood of *Melia azadirachta*) or sandpaper are used to continue polishing in order to ensure a smooth finish.

116. Sprinkling silver or gold dust.

117. Attaching shell with lacquer.

Polished lacquered paintings

Polished lacquered paintings, or *tranh son mai*, use the traditional black, red, yellow and brown lacquers along with newer colour nuances. Vietnamese painters have experimented over the years and have found that silver dust on black lacquer forms a grey colour, while on *canh gian* it turns an ochre colour. Inorganic pigments are currently

used to obtain blue and green lacquer, which are creating a new style of lacquered paintings in Viet Nam.

Nacre-inlaid polished lacquer

Lacquerware decorated with patterns cut into mother-of-pearl and attached to a polished lacquer *voc* is called *son kham trai*. This has always been a highly prized type of lacquerware, much sought after for its subtle combination of inlaid mother-of-pearl harmonizing with the soft colours of the lacquer. Oyster shells are heated on a fire and then smoothly pressed, polished and cut into strips of the same thickness. The *voc* is prepared with primer and then carefully polished. The design is traced on to the *voc* core, and then pieces of cut shell are attached using a mixture of lacquer and quicklime. The choice of shell pieces follows the colours and design determined by the craftworker (much as in mosaic work). When the lacquer is dry, the entire piece is covered with black lacquer or with *son canh gian*, usually in four coats, so that the pieces of shell are level with the last layer of lacquer. Polishing is quite complicated in this type of lacquerware, as the lacquer must be polished separately from the shell pieces. A sharp, pointed carving knife is used to engrave lines and separate out details, which are also the lines of the figures. A thin coat of *son then* is applied on the cut lines and smoothed to the base layer as the final step.

PRODUCTION AND MARKETING OF VIETNAMESE LACQUERWARE

Prior to 1954, lacquer craftsmen worked in groups to build and rebuild architectural works such as communal houses, pagodas, palaces, statues, and to produce the ceremonial objects used in religious and royal institutions. In Hanoi, shops on Cau Go Street (Street of the Wooden Bridge) specialized in selling lacquer and tools. From 1975 to 1995, the workers were grouped in traditional professional villages, co-operatives and state-owned enterprises to produce lacquerware for export to socialist countries and some European countries. Today, lacquer objects and polished lacquer paintings are sold to tourists and Asian and European entrepreneurs.

In state-owned enterprises, producing lacquer objects for export, production is divided into sections or departments. These include *voc*-making and finishing, painting, creating and designing, and so on. In the *voc* section, different types of specialist workers prepare lacquer, make the *voc*, paint *quang* and polish the final products. In the painting section, workers paint lacquer objects, prepare lacquer paintings, paint mass-produced objects, paint and test patterns and present these to customers. The creative department includes designers, decorative painters, and those who prepare paintings and screens.

Vietnamese *son mai*, an art both traditional and modern

PHANG DANG NHAT

Son mai (pumice lacquer) is the Vietnamese term for lacquer polished with a pumice stone. The term was introduced at the School of Fine Arts in Hanoi in the 1930s. We use it here to denote all Vietnamese lacquerware.

SON MAI IN VIETNAMESE HISTORY

Lacquerware and the art of lacquering are very old. Many lacquered items and lacquer tools have been found in tombs dating from 400 B.C. Both objects and tools have similar properties and characteristics and are made from similar materials as those found in large quantities elsewhere in South-East Asia. In ancient times, from before the Christian era until the tenth century A.D., lacquer was used mainly for decorating coffins and funeral objects (Figs. 118–119).

Over the centuries that followed, lacquerware came to be used for religious ritual, and statues, shrines, carved beds, palanquins, ancestral tablets, ornamental weapons, horizontal boards, pagoda and temple columns, roll boards, reliefs, paintings, trunks for royal ordinances, joss-stick bowls, incense tables, altars, drum stands, looking-glass stands, jar supports, statue pedestals, candlesticks, ritual trays and wooden flower vases were all lacquered.

Later, lacquerware for home use was developed: betel-leaf boxes, looking-glass stands, trunks, dragon-shaped pillars, chopsticks, chests, screens, wooden pillows and cylindrical boxes. Lacquer was applied mostly to wood, and sometimes to metal and porcelain. In special cases, lacquer was used for mummification. Two lacquered mummies are to be found in the Dau pagoda (Thuong Tin district, Ha Tay province). Bonzes (Buddhist priests) under the Le dynasty (1428–1737), they were mummified sitting in a meditation position, their skin covered with a coat of lacquer (Fig. 120).

Vietnamese lacquerware may be divided into two basic types, *son mai* (polished lacquer) and *son mai quang* (varnishing lacquer). The latter uses fewer raw materials

118–119. Coffin and grave effigies.

and is usually monochromatic. It is designed so that one coat of paint and one coat of lacquer can be applied. *Son mai* uses a range of materials to obtain numerous shapes and various forms and differences in quality. This distinction is only relative, however, as *son quang* comes under the category of *son mai*.

Traditional tales and family records have handed down to us the names of some of the masters of the art of lacquer. The inhabitants of Chau Phong hamlet in Lien Ha village (Dong Anh district on the outskirts of Hanoi) relate that the lacquer masters in their locality were named Khæng and Tp. Concerning Tran Lu, the annals of the Tran family in Binh Vong village (Thuong Tin district of Ha Tay province) record that a craftsman born in 1470 (*Canh Dan*, the year of the tiger) was awarded a doctoral certificate during the reign of Le in the year *Canh Thong* (1498–1504). After his death, the inhabitants of Binh Vong built a temple in his honour.

In 1925, the Indochinese College of Fine Arts was founded. Some of the students had studied painting and art in the West, and had also inherited the national *son mai* tradition. As a consequence Vietnamese *son mai* was given a new direction in which to develop: *son mai* painting (Fig. 121). Many well-known painters worked in this field: Nguyen Gia Tri, Tran Van Can, Phan Ke An, Nguyen Van Ty, Tran Dinh Tho, Nguyen Hiem, Le Quoc Loc, Nguyen Kim Dong, Nguyen Khang, Huynh Van Thuan, Hoang Tich Chu, Nguyen Duc Nung, Pham Hau, Cong Van Chung, Sy Ngoc, Nguyen Sang, Huynh Van Gam, Duong Bich Lien, among others. Of these, Nguyen

120. Lacquered mummy of a bonze.

Gia Tri and Tran Van Can were recognized as 'Great Masters'.

BASIC CHARACTERISTICS OF VIETNAMESE *SON MAI*

Son mai is a cultural and artistic product used for many functions, including religious ritual, the applied arts and aesthetic enjoyment. As is the case with numerous popular and traditional crafted artefacts, these different functions are not separate entities in *son mai,* but harmonize with one another and interrelate. There is no separation of functions between what is useful in everyday life and life itself, and between art, creation and enjoyment. Until the 1920s, *son mai* was one single art. After this date, among the educated populations in urban areas who were influenced by Western painting, one part of *son mai* was reserved as a pure art form, that of *son mai* painting. However, among other people *son mai* maintained a more general multifunctional character.

Son mai employs techniques that rely on several raw materials. The principal material utilized is the resin of the lacquer tree. In Viet Nam, this tree belongs to the *Rhus succedanea* species, grows to a height of 3 m to 4 m, and provides good lacquer that is highly sought after worldwide. Lacquer trees are found in many regions of Viet Nam. They grow well in the midlands (Yen Bai, Phu Tho and Nghia Lo provinces) and provide high-quality resin. According to the Vietnamese *General History Outline,* lacquerware first appeared during the Tran dynasty (thirteenth century). Some written records exist of the art of lacquer and the lacquer tree that date back to the fifteenth century, such as the *Du dia Chi* [Geography Book] by Nguyen Trai. This book named the lacquer-tree growing areas and described the processing of the sap and the cultivation of the trees.

The sap of the lacquer tree is a multi-purpose material: not only does it provide excellent glue for bonding various materials, it can also be pigmented to form a wide range of colours. Lacquer has unusual properties; for example, a slowly dried coat can with care be brought to a very high polish. The lacquer hardens with time, and after a century it becomes even more solid and can effectively resist mould, damp and insects. Along with the resin, the art of *son mai* employs other materials, such as gold, silver, cinnabar, eggshells, clay, and so on (Figs. 122–123).

The *son mai* technique is sophisticated and complex. The value of a *son mai* product is determined by many subtle and elaborate processing steps, which are briefly described below.

121

122

123

121. *Son mai* painting.

122–123. Materials used in the art of *son mai.*

124–126. The processes of *son mai.*

The sap must be carefully filtered to eliminate impurities and dust. Three main colours can be made directly from the resin: reddish-brown, black and red. Other colours are obtained by mixing several different materials. In addition, gold and opaque paints are obtained through an elaborate cycle of preparation.

Core materials include wood, rattan, woven bamboo, clay, stone and bronze. Lacquering the core comprises many steps: mending, binding, framing, lining, varnishing, gilding (covering), coating and polishing (see Figs. 124–126). Afterwards, different shapes are created and painted in various colours. All these complex steps are performed in conformity with traditional practices and according to the sensitivity, expertise, care and skill of the artist (Figs. 127–128).

All the qualities of *son mai* demand that one should be aware of its value in order to recognize and appreciate it. It must not be evaluated according to the criteria used in scholarly or professional domains, where the art genres with their associated functions have been separated from the applied and practical arts. Moreover, *son mai* and lacquered painting must not be evaluated according to the criteria of Western art and painting, which are governed by different rules of composition, line, volume, light and colours from those of Vietnamese culture.

SON MAI TODAY AND TOMORROW

Son mai is a traditional art with its own cultural and artistic value. And this traditional value is compatible with modern trends. Art Nouveau, an important movement born at the beginning of the twentieth century, has been resuscitated as a new century opens and, we predict, will develop vigorously in the future. The outstanding feature of Art Nouveau is the close harmony between application and aesthetics, and this same harmony is an inherent characteristic of *son mai*.

A tendency in contemporary painting is the use of multiple techniques and materials. This, too, is characteristic of Vietnamese *son mai*. Thus we can say that *son mai* is both traditional and modern. Properly exploited, the continuing production of *son mai* could contribute in its own way to the art world of today.

Nevertheless, alongside *son mai* products with authentic technical and aesthetic qualities, poor quality lacquerware, or fake *son mai*, is unfortunately being produced in large quantities. At the same time, a tendency has emerged to use foreign materials as substitutes for authentic local materials. As a result, the prestige of Vietnamese *son mai* is falling in both local and world markets. Urgent action is required to stop the manufacturing of fake and substandard *son mai*.

The techniques and art of traditional *son mai* must be carefully nurtured and encouraged. Then, on this basis, the genuine value of these products will be raised through our own creativity, and by learning from the experiences of neighbouring South-East Asian countries which are so well known for their lacquer art.

127–128. *Son mai* artist at work.

Cambodian lacquer art and Khmer lacquerware

AN SITHA

Cambodia, home of the Khmer civilization, is the oldest nation in South-East Asia and dates back at least 2,000 years. Many historic sites attest to the rich cultural heritage that the Khmer ancestors have left to their descendants. It is clear that they were a creative and talented people, transforming natural materials into practical objects for use in daily life, ranging from marvellous, exotic temples and pagodas to domestic utensils, furniture, musical instruments and Buddhist ritual objects. The core materials used for these buildings and objects may be wood, bamboo, rattan, tree bark, horn, tusk, ivory, clay or stone. All were created with great skill and decorated or painted with vermilion or varnished with lacquer. Some objects have retained their splendour down through the generations. Among all the forms of Cambodian art, lacquer is one of the most important in everyday life.

CAMBODIAN LACQUER ART

The Khmer term for lacquer is *chor mreak* or *mreak*. Khmer lacquer resin is extracted from a tree called *dam kroeul* (*Melanorrhea laccifera*), which is found in particular in Kampong Thom and Kratie provinces. *Dam kroeul* is a hardwood with a dark-red bark. Lacquer is extracted by cutting or piercing the tree bark and attaching a container of plastic, bamboo or wood to catch the sap as it flows out. The accumulated resin is collected every day or every other day. Original Khmer lacquer resin, black in colour, is harvested in the dry season between February and May. Before it is refined, the raw lacquer is stored in sealed containers to prevent coagulation.

The Khmer term for lacquerware is *khmuk mreak khmer*. Lacquerware has traditionally been used not only for Buddhist ritual or sacred objects, but also for architectural decoration, furniture and musical instruments, to protect the core material from damp and insects, and even as an anti-rust coating. Khmer lacquer is used in

three principal ways: for varnishing and polishing objects to protect them from insects and damp, for decorative purposes, and for painting (known as pumice painting).

LACQUER USED FOR PROTECTIVE PURPOSES

The Khmer term for protective lacquer is *leap khmuk mreak*. This first type of lacquer product consists of household utensils of wood, bamboo, rattan or leather, and varnished or polished decorative objects, all with a smooth, water-resistant finish. Khmer lacquer of this variety is popular in rural areas of Cambodia, especially in the mountains where the *dam kroeul* tree grows. In urban areas, however, or the more central regions of the country, this technique is considered old-fashioned and is not used.

Technical aspects

The lacquer used in this technique is the original raw sap, unadulterated, unmixed with other substances such as charcoal ashes, and unheated. The lacquer is painted on to the surface of the object, which is then left to dry in the shade. Repeated layers are applied until the desired quality is achieved. No primer is used. The lacquer is applied with a paintbrush called *juoch leap*. No pigment is added to the lacquer but as the work proceeds the object takes on a black colour and becomes extremely resistant to all kinds of deterioration (insects, damp, cracking, etc.).

Some of the everyday objects treated with lacquer used by people in rural areas include *kanh chur*, a woven basket or bowl made from bamboo strips to hold rice, fruit, beans, corn and other foodstuffs; *lah-ey*, a round basket woven from bamboo strips, used for the same purpose as *kanh chur* though slightly smaller; *chang ay*, a large, flat, circular basket woven from bamboo strips, used to sift and separate rice and other grains from the chaff; *dtao*, a woven basket or bowl similar to *kanh chur* and *lah-ey*, used as a unit of dry measure equal to about 15 kg; and *pro orb slar*, a type of box still used to store betel leaves, tobacco and slices of *slar* (*Arica catechu*).

LACQUER USED FOR DECORATIVE PURPOSES

This is known as *khmuk mreak leap lum or* in Khmer. This second type of lacquer product is for decorative purposes only. It cannot protect the core body from damp, insects or other external irritants, because it is mixed with other substances. It is however the most expensive type and is used on items that are of cultural significance, such as Buddhist ritual objects, musical instruments, furniture, masks and crowns. An indication of its importance is the fact that it is used to decorate furniture in the Royal Palace, including the throne, palanquin and royal beds. Its value is further exemplified by its wide use in and around the city of Phnom Penh in homes, at weddings and during religious and other traditional ceremonies.

Technical aspects

This type of lacquer resin is mixed with other substances for moulding purposes. These substances include *pheh* (ash), which is produced by burning rice-straw residue (*cham boeung*) or palm-tree leaves, *sleuk tnaut* (*Borassus flabellifer*). The lacquer is mixed with *pheh,* which acts as a catalyst, speeding up the desired reaction and increasing the amount of lacquer produced. *Chor chong* (*chor* means 'resin' and *chong* means 'the top of the tree') is a kind of natural dry resin that is yellow in colour, hard and brittle. Obtained from the top of certain trees, especially from the *dam pchuek* (*Shorea obtusa*) and the *dam chor chong* (*Shorea vulgaris*), it is used to solidify the lacquer and to facilitate pouring it into the mould. *Chor toeuk* (wood oil resin, a sticky, elastic, brown

liquid; *toeuk* means 'water') is mixed with lacquer to make it softer and more elastic. *Chor toeuk* is not collected in the same way as the other types of natural resin: a large gash is carved into the bark of the tree, and the following day fire is applied to the gash for a few minutes. This procedure causes resin, which can be emptied into containers every day or so, to seep out constantly. The trees that produce *chor toeul* are the *dam trach* (*Dipterocarpus intricatus*), *dam chheou teal* (*Dipterocarpus alatis*), *dam tbeng* (*Dipterocarpus obtusifolius*) and *dam khlong* (*Dipterocarpus tuberculatus*).

Mixing lacquer compounds

The compounds made using this technique of mixing lacquer with other substances are prepared as follows: raw lacquer is placed in a large pot; this is heated until the liquid evaporates and the lacquer is dry; *pheh* ash is then added; the mixture is stirred until well mixed; *chor chong* and *chor toeuk* are added and the pot is again heated until the mixture is dry, at which point the warm lacquer compound is ready for use (see Fig. 129). The stirring utensil must be dipped in soapy water so that the solution does not stick to it.

129. Boiling raw lacquer with other substances.

As stated above, this 'cooked' lacquer solution is used for decorative purposes. It is applied to the surface of an object with glue, and additional colours can be added if desired, either natural or synthetic. Bright gold and silver are among the most popular. One of the unusual features of the black lacquer resin is the fact that it can be mixed with other pigments such as red, yellow or white without making them darker.

Relief technique

This is the so-called *khmuk kbach push* or *khmuk roeng* technique. Once 'cooked', the hot lacquer solution is poured into well-prepared moulds (Fig. 130). Any number of moulds can be made with different designs. Once removed from the mould (Fig. 131), the relief can be glued to an object for decorative purposes using *gcau sbek krobey* (*gcau* means 'glue', *sbek krobey* is the dried skin of the water buffalo). The relief is then painted with a mixture of *masao hong tan* (a red powder imported from China) and *solex* (a chemical substance in the form of highly transparent, dark-red, brittle sheets). Alcohol is poured on the *solex* to transform it into a dark reddish-yellow liquid, to which a little lacquer is added for smoothness and transparency. The object may then be further enhanced by applying gold powder or, for the very best quality, *meas sanleuk* (gold leaf) using the *bet pcheab* (sticking) method.

It is thought that this relief technique could have been originally influenced by techniques native to Myanmar. Khmers have their own history and a good deal of

130. Liquid lacquer being poured into the mould.

131. Removing the dried lacquer from the mould.

historical evidence, yet the technique is no longer widely practised by the Cambodian people. A similar technique is still found in Myanmar, however.

LACQUER USED FOR PUMICE PAINTING

The Khmer term for pumice painting, or shell-inlay, is *vichet trakam khmuk mreak*. This third type of lacquer is used for polishing, varnishing or rubbing the surface of objects to make them bright and smooth. Its lower quality and the fact that it has traditionally been employed for objects in daily use means that it is not so highly esteemed as the second method, so it is not used in temples or the Royal Palace. It is commonly found in homes on murals, furniture, musical instruments and folk jewellery. However, few such lacquered products are made in Cambodia today.

Technical aspects

Mreak chao (raw lacquer) is boiled in a mixture with *preyng kath* (petroleum oil); the resulting liquid is black at the bottom and dark brown towards the top. A few layers of the black lacquer are applied to the prepared wooden surface, followed by further layers, with the aid of a *kronath* (cotton cloth that helps to improve the quality of the finish). No pigment can be added to the black liquid, whereas the dark-brown liquid can be coloured. The natural pigments that were formerly used have now been replaced by synthetic pigments. Once the surface is smooth, it can be painted using *sam bork porng tea, sam bork porng moane*, *sam bork kchong* or *sanleuk prak* (duck and chicken eggshell, seashell, snail-shell or silver leaf). It is then rubbed with sandpaper or stone; a task facilitated by adding water while polishing. A coloured powder may be mixed with the boiled lacquer to produce certain effects on the surface of the object. Lacquer can also be mixed with snail-shell powder in order to make a different pattern on the surface (e.g. bird or

132. Applying the lacquer to the mask.

animal motifs), after which it is rubbed with sandpaper until flat and smooth. One of the traditional techniques and polishing methods may be employed by applying *pheh* ash from burnt *dam koh* (*Ceiba pentandra*) using a cloth (nylon is best).

CAMBODIAN LACQUERWARE: WORKSHOPS AND ARTISTS

The production of lacquerware and lacquer art (such as masks) today is less popular because it does not meet the needs of the current market, and also because of the lack of technical knowledge, experience and raw materials. Many experts died during the prolonged periods of war, and this art form has not attracted the younger generation. Lacquerware production has traditionally taken place in regions where the necessary raw materials – including *dam kroeul, dam pchuek, dam chor chong, dam chheou teal, dam trach, dam tbeng, dam khlong, chor chong* and *chor toeuk* – were readily available, in particular in Kampong Thom province and neighbouring districts. Lacquer work is scarce in other provinces due to the lack of raw materials. However, it does still enjoy some popularity and is imported for use in these areas. Today, for example, lacquer and the associated trees are shipped downriver to Phnom Penh from other provinces.

The present author's family is the only one in Phnom Penh today using this kind of traditional technique and more than willing to hand it over to the younger generation. He learned the technique from his father, retired in 1996, who still has a workshop in his house where he

133. Applying the lacquer to the mask.

continues to produce lacquerware even though it does not bring in very much money. But the will to learn traditional techniques has weakened as they no longer appeal to the younger generation, while investors are no longer attracted by the return on setting up such a business.

KHMER LACQUER MASK-MAKING

Lacquer mask-making is called *muk khmuk* in Khmer. Lacquer masks are made from papier mâché, lacquer, enamel paint and gold leaf. They are mounted on modelled heads, and have pointed, elongated crowns made from wood and metal. In order to make a mask, the head of the character is first sculpted in clay. The sculptor has to know the formal features and any ornamental details specific to each character, such as *Hanuman* (white monkey), *Krong Reap* (varana), *Yeak* (giant/demon) and *Svar* (monkey). These are usually learned through the study of traditional painting before being translated into three-dimensional form. When making a mask for a live performance, the sculptor/mask-maker must measure the head of the performer in order to ensure a perfect fit.

A mask can be made in either of two ways. The traditional method, common until the 1960s, uses a clay head. Layers of paper strips are glued to the clay head, gradually building up a mask form that is removed from the model when dry. Only one or two masks can be made from each clay model. The current method uses a cement mould. This has a longer life and allows masks to be made whenever a particular character is required. The idea of the mould was first formulated at the Royal Palace Arts Workshop in the 1960s. As in the case of the clay model, paper strips are glued to the mould until there are about ten layers and the surface of the mask is quite strong. This process is called *smach*. The paper mask form is removed from the mould while still damp and allowed to dry fully in the open air. Drying it on the mould would make it difficult to remove. Once the basic papier-mâché form of the mask is complete, ornamental details can be added such as 'leaves' on the ears of various characters and on the headband area, known as *kbang*. Surface ornaments are made from lacquer resin in moulds. Such moulds used to be chiselled directly using a glass stone called *thmar keo*. Today the design is carved in wax to make a cement mould. Cured lacquer resin is poured into the mould and allowed to set, after which the pieces are glued on to the mask. They are then painted with an orange-coloured primer that hardens and strengthens the resin. Finally, gold leaf is applied to enhance the ornamental details (Figs. 132–133).

Lacquer mask-making for performances is tedious and demanding work. The measurements must be perfectly accurate; there must be holes for the eyes and nose so that the actor can see and breathe. As a rule every mask

134. Khmer mask.

134

135. Khmer mask.

should belong to a particular person, as it is believed that the spirit of the mask's character remains with it and would be unhappy if it was worn by other performers (Figs. 134–135).

There is an urgent need in Cambodia today to revive and maintain the tradition of lacquer art and lacquerware techniques, otherwise these art forms will disappear entirely. Future generations may then not be aware of their own cultural heritage, and might even be led to believe that the techniques of this truly Cambodian art have been imported from elsewhere.

Myanmar lacquerware: historical background and cultural perspectives

KHIN MG NYUNT

Lacquerware is a word with an imprecise meaning. Any article or object covered with a hard, bright, smooth varnish called 'lacquer', a natural plant product, may be described as lacquerware. This varnish can be applied to plain or carved surfaces: wood, bamboo, brick, terracotta, stone, fabric, even metal or paper. Recently we have produced glazed objects covered with lacquer. In Myanmar there are two types of *lac*. The first is the *lac* resin or lacquer, which is called *thitsi* and is the sap of the *thitsi* tree (*Melanhorrnoea usitata*); it is native to South-East Asia. The second is shellac, or *cheik* in Myanmar; it is the gummy deposit of an insect (*Kerrial lacca*), which the Myanmar Forest Department is today producing for export. It was much in demand from the fifteenth to seventeenth centuries in the export market. The *lac* resin (*thitsi*) is used to make lacquerware in Myanmar, rather than shellac. The cultivated tree from which lacquer is tapped in eastern Asian countries, especially China and Japan, is a different species, *Rhus vernicifera*. In Europe, lacquerware is often called 'japanned' ware and the process of applying the lacquer to wooden articles is known as 'japanning'.

MYANMAR LACQUERWARE ART IN HISTORY

Lacquerware is one of the ten Myanmar traditional arts and is known as *ran yun*. The names of the other arts also have the prefix *ran*, the word for 'flower' being used to designate ornamental activity. Any arts or crafts that create aesthetic beauty are given the prefix *ran*. The exact origin of lacquer art, and the date of its first appearance in Myanmar, are questions that still puzzle researchers.

There are isolated references to lacquerware in ancient epigraphs. Stone inscriptions at Pawdawmu Pagoda and the Bodhi Pagoda at Pagan mention alms bowls, most made from lacquered wood or bamboo, with dedications to monks inscribed on them. The *Chin* song of the Minister Padethayaza of the Nyaung Yan period (seventeenth to eighteenth centuries), which describes the life of a palm-tree climber, mentions lacquerware known as *hni daung lan*, on which ordinary Myanmar families used to serve their daily meal. A *hni daung lan* is a three- or four-legged, low circular table made from bamboo strips,

soft wood and lacquer, which is still used in remote villages and monasteries in Myanmar.

The Myanmar chronicles describe the use of lacquerware on formal state occasions and at royal receptions. During the reign of King Anaukpetlun (1605–99), the envoys from the Mogul Emperor Akkbar and those from the Maha Rujah of Achin came to the court. In the receptions that were held for them, pickled tea was served on a fine lacquered *kalat* (a small circular tray with a stem), and the credential letters were placed on an exquisitely lacquered gilt *kalat*.

136. A 50 kyat banknote showing the manufacture of traditional lacquerware.

In the list of royal gifts sent with diplomatic missions to the rulers of neighbouring countries, lacquerware was considered to be an article of priority. In 1475 King Dammazedi (1472–92) sent a religious mission to Ceylon (Sri Lanka) consisting of twenty-two monks, with clothes and betel boxes of speckled lacquer made in Chiangmai, to be presented to the Singhalese monks. In 1744, King Maha Dhammaraja Dipati (1733–52) sent his envoys to the King of Ayuthia bearing gilt lacquer goblets, dishes, and betel boxes. During the reign of King Hsinbyushin (1763–76) diplomatic exchanges were frequent between Myanmar and China. One of the expeditions sent to China by King Bodawpaya (1782–1819) carried royal gifts for the Chinese emperor, including ivory elephants, fabrics, carpets, ivory helmets studded with rubies and sapphires, Pagan (or Bagan) lacquer boxes, jewelled rings and peacock feathers. This group brought back gifts for the Myanmar king from the Chinese emperor, including fans, miniature gardens, horses, teasets, fur jackets lined with yellow silk, mules and various local objects. The Myanmar chronicles describe lacquered armour and leather helmets used by King Alung Paya's men when they besieged the seaport town of Than Hlyin in 1756.

John Crawfurd, a British envoy who came to the court of King Bagyidaw (1819–37) noted in the *Journal of an Embassy from the Governor-General of India to the Court of Ava* (London, 1834), that the Myanmar exports to China were 'cotton above all, edible birds' nests, salt, ivory, horn, amber and a little lacquerwares [sic] and precious stones'. Michael Symes, who led two English missions to the court of King Bodawpaya, remarked on Myanmar lacquerware: 'Lacquer is considered a minor art in most countries, but for the last three centuries it has been one of the show industries of Burma. The Burmese kings often presented gifts of silk, precious stones, and lacquerware to foreign envoys'.[1] There is, however, much more epigraphical and historical evidence of Myanmar lacquerware to be gleaned from old records (see, for example, the banknote in Fig. 136).[2]

THREE SCHOOLS OF THOUGHT

Though there is very little discrepancy in the descriptions of Myanmar lacquerware production processes, there is a wide divergence of opinion regarding the origin of Myanmar lacquerware art. There are, in fact, three schools of thought.

One school maintains that the technique of lacquerware was introduced to Myanmar from China. The reasons given for this view are that China had several thousand years of lacquerware production, that Myanmar and

China have a long record of contact, and that one of the early civilizations in Myanmar, that of the Pyu, was known from Chinese.

Another school claims that it was during the reign of King Anawrahta (1044–77) that this art was introduced to Pagan. One major historical event of that time was cited to justify or confirm this opinion, Anawrahta's conquest of Thaton, the capital of the Mon kingdom in Lower Myanmar, in 1058. On his return home, Anawrahta took with him not only learned monks, Buddhist relics and scriptures, but also many artists and craftsmen including lacquerware makers, whom he settled at his capital. As the Mon kingdom was contiguous with Chiangmai, with which there was an inland trade route, the Mon must have acquired the lacquer art from Chiangmai. The exponents of this theory were Taw Sein Ko and U Lu Pe Win.[3]

The third school of thought puts forward that the art of lacquerware was unknown in Myanmar before the sixteenth century. According to this theory, King Bayin Naung (1551–81) conquered and ruled the Shan kingdoms of Linzin (Lao People's Democratic Republic), Chiangmai and Ayuthia. Like Anawrahta of Pagan, Bayin Naung took home artists and artisans from the conquered countries, including lacquer artists, known in Myanmar as *thit-si thama*, from whom Myanmar artists learned the technique. This theory is based upon the interpretation of the Myanmar word *yun-the*, 'lacquerware'. The word *yun* is merely the Shan name for the Laotians, and so the lacquerware *yun-the* and its arts must have originated among the Laotians. Just as we call porcelain 'Chinaware' because the art of porcelain-making originated in China, we call lacquerware '*yun* ware' because it originated in the Yun country.[4]

In my opinion none of these theories are plausible, because they are either biased or too far-fetched. The first school of thought came from a group of sinologists in Myanmar led by G. H. Luce, professor of Oriental Studies at Rangoon University at the time, who tried to link everything in the Myanmar culture to Chinese civilization and culture through a study of the ancient Pyu. As the only available materials for the historic period in question were Chinese, it is no wonder that Professor Luce and his colleagues became 'China-biased'. Cultural flow, however, is not one way; it is reciprocal. The fact that a neighbouring country is larger and its civilization much older does not necessarily mean that the civilizations of its neighbours are its automatic offshoots. Prehistoric wall paintings in the Padaline Caves in the southern Shan state of Myanmar portray wild animals and motifs of the moon and sun quite similar to those found in prehistoric caves in Spain. It would be illogical to conclude that prehistoric wall painting originated in Spain and that Myanmar copied it, or vice versa.

The second theory is more conjectural. It was a common practice in ancient times for the conqueror to take home treasures and artists from conquered countries. But we do not know with complete certainty whether there were Chiangmai lacquer craftsmen among the Mon captives that King Anawrahta took to Pagan; it is only a scholars' surmise. The Mon had been producing their own style of lacquerware before they opened up trade with Chiangmai. Even U Kyaw Tun (who supports the third theory) said that 'the Mon knew how to make a betel box of lacquerwork long ago, for they have its name in their own language'. Antique lacquerware pieces have been excavated from time to time at the archaeological site at Pagan, as well as in the Mon state, and these all show evidence of a purely local design. Some of these may predate 1058, the year of Anawrahta's conquest of Thaton.

As to the third theory, it is quite evident that it is based on the Myanmar word *yun-the*, meaning lacquerware. Myanmar people do not call porcelain 'Chinaware', they call it *kywe the*. We call tea *letpet*, not *cha* or *ti* as do the other countries that adopted the tea culture from China, because tea plants are native to Myanmar, as are tea

drinking and eating pickled tea. There is a good deal of confusion concerning the use of the word *yun*. In the Myanmar chronicles and literature the word *yun* is used to mean several different things. First, it is used to mean Chiangmai, or Laos (Lin Zin) or Yodia (Ayuthia) or any of the ancient countries where the Shan lived, east of Myanmar. It is also used as the name of a distinct group of Shan called the Yun. There are variations of Shan nationalities, such as Maw Shan, Khun Shan, Lu Shan, Lem Shan and Yun Shan, who all live in different parts of the Shan state. The Myanmar word for lacquer is *thit-si*, meaning the resin from a tree; a person who earns his living applying lacquer is called *thit-si thama* or *thitsi saya* ('the master of *thitsii*). He is not called *yun thama* or *yun shaya*, although the lacquering art is known as *pan-yun*.

Does *yun* mean anything other than the name of a country or an ethnic group? If it were the name of a group of people we would have learned the *yun* craft from the Yun Shan of our own Shan state, rather than from the Yun Shan from a remote country. The theory that lacquerware art was introduced to the former Burma only in 1564, the year of Baying Naung's conquest of Yun countries and 'so the industry must have reached Pagan only at a later period' (the conclusion reached by U Kyaw Tun), cannot explain the very old lacquer artefacts discovered at ancient Pagan sites. A lacquered cylindrical teak box dated 1274 was excavated in the Mingala Zedi pagoda at Pagan. In addition, the Archaeological Museum at Pagan today has a number of excavated lacquer works of antiquity on display including images of Buddha, votive objects and utensils that show that Pagan had already developed lacquer arts long before Bayint Naung's time (see the red-lacquered temple door in Fig. 137). U Kyaw Tun's explanation for the lacquered container of 1274 would seem to be somewhat contradictory:

It [the lacquered container] is a *kyup*, a circular case of teak, which has been painted with *thitsi* and yellow ochre. It is plain work and not *yun* work. This kind of plain, wooden lacquerwork must have been known to the Burmans much earlier. *Daunglan*, *byat*, *kalap*, *kwet*, *ok*, etc., which are plain lacquerware, have been used by the Burmans from time immemorial. One cannot say when the Burmans began to know about this industry. According to U Maung Maung Tin, a member of the Myanmar Historical Commission whom I have consulted on this subject, there are two types of lacquerware in Myanmar. The first type is plain lacquerwork of wood or bamboo and *thitsi* with black or red colouring. It is called 'Kyauk Ka ware'. The second type is intricately decorated lacquerware using various colours and gold foils. It is called '*Yun* ware'. Kyauk Ka art is much older than *Yun* art, but the latter is much more sophisticated and advanced than the former. Though it is called Kyauk Ka ware because it is produced mainly in Kyauk Ka village, plain lacquer art was quite widespread. It is practised in Pagan, Monywa, Pyay, the Shan, the Mon and the Rakhine states.

ARTISTIC EVALUATION OF MYANMAR LACQUERWARE

There are six different basic types of Myanmar lacquerware. These are: plain lacquerware (*Kyauk Ka*); incised lacquerware (*yun*); gilt lacquerware (*shwezawa*); relief-moulded lacquerware (*tha-yo*); glass mosaic and gilt lacquerware (*hmansi shwecha*); and dry lacquerware (*man* or *man-hpaya*).

Plain lacquerware, or *Kyauk Ka* ware, is an indigenous product with a core framework made from either bamboo or wood, or both. *Thitsi* (resin), which is Myanmar native lacquer from the *thitsi* tree, is applied in coats and painted with black and red colours produced from natural materials. This type of lacquerware is used by villagers and in monasteries and shrines in remote areas. Commonly found *Kyauk Ka* objects are domestic utensils, trays, goblets, cups, rice receptacles, boxes, circular tables, betel boxes, containers (for pickled tea,

137. Detail of a sculptured, red-lacquered temple door at Pagan, Myanmar.

138. The core of various containers made from woven bamboo strips, coiled bamboo and horsehair.

139–140. Pagan lacquer bowls with a core of woven horsehair and rich engraved ornamentation.

141. A fine iron stylus (*kauk*) is used for engraving *yun* lacquerware.

142. Engraving ornaments in a lacquer workshop, Pagan, Myanmar.

143. Dyeing and polishing in a Pagan lacquer workshop.

medicine, and tobacco or cheroots), pillows, votive objects and monastic utensils such as flower vases or pots, fans, containers for offerings, chests to store sacred books, spittoons and so on. These objects are made either by craftsmen or by amateurs in the villages. Those made by amateurs are valued as Myanmar folk art objects. They are greatly sought-after collectors' items. Plain lacquerware is notable for its light weight, practicality, durability, artistic simplicity and genuine traditional craftsmanship (Figs. 138–140).

Yun ware is incised lacquerware. The framework is made from the same materials as plain lacquerware, but the bamboo strips are fine and are woven or coiled to form the frame. The design and decoration are sophisticated and exquisite. The *yun* technique is more advanced. Using a fine iron stylus (*kauk*, Figs. 141, 142), decorative motifs or design are filled with pigment. The colours used are red (cinnabar), yellow (orpiment), orange, blue (indigo), green (indigo mixed with orpiment), white and black (Fig. 143). Lacquerware of this type is mostly intended for ornamental, decorative and votive purposes. Items commonly produced include, for example, folding screens and tables, chests, flower pots, caskets for sacred relics, decorative plaques, plates for inscribing scriptural verses, napkin rings, bracelets and objects for the tourist trade.

In gilt lacquerware or *shwei-zawa*, designs or figures are incised on the surface of the object, which is then given numerous coats of black or red lacquer. Gold foils are applied to the incised areas. The result is extremely regal and beautiful. In the days of the Myanmar kings, *shwei-zawa* ware was made exclusively for religions and royal use. Today this is the most expensive lacquerware, due to the price of gold. Several ancient temples and monasteries in the Shan state have walls and ceiling covered with panels of *shwei-zawa* work.

Relief-moulded lacquerware is called *thayo*, which means 'animal bones'. A fine, sticky plaster is mixed

144a

144b

144 *a* and *b*. Two views of a lacquered and gilt dry-lacquer image of Buddha, Myanmar.

from the ashes of animal bones, rice husks, and teak-wood sawdust. This malleable plaster, also called *thayo*, is mixed with lacquer and formed into long 'strands' of the required thickness. Using a wooden or iron stylus, the artisans apply these strands to the surface of a smooth, lacquer-coated object to form a relief design, which is already sketched out on the surface. Experienced craftsmen can create any design or figure freehand. When the *thayo* has dried and is firmly attached to the surface, many lacquer coatings are applied. After painting or gilding, the whole *thayo* object looks like a finely carved piece of sculpture. Mandalay, Kyauk Ka and Leigya in the southern Shan state are the centres for this particular craft.

Glass mosaic and gilt lacquerware is called *hman-zi shwei-cha*. Pieces of mirror or coloured glass are first cut into different geometric shapes. These are inlaid on the surface of the *thayo* lacquerware using another special lacquer as an adhesive. After gilding, the whole surface is washed with water so that the gold foil on the glass washes away while that on the *thayo* remains. This type of lacquerware is much more expensive to produce than *shwei-zawa*, due to the gold and glass as well as the skill of the artisan and amount of time and labour involved. Many fine pieces of this type are found as furniture, chests, betel boxes, caskets, containers, or covers for folding and palm-leaf manuscripts.

Dry lacquerware, *man* or *man-hpaya*, is used for images of the Buddha (Figs. 144 *a* and *b*, Fig. 145). *Man* means 'to cover with a paste-like substance'. *Man-hpaya* is a lacquered wickerwork image of the Buddha. Well-kneaded clay is first shaped into the rough form of an image. A plaster of straw ash and water is rubbed on to the clay image. A piece of cloth, usually from a monk's robe, or a scarf or turban that belonged to an aged member of the family, is soaked in lacquer and wound around the

lacquer-smeared clay image. *Thayo* plaster is applied over this base to a thickness of up to 1 cm or more. Details of the image are executed with an iron implement called *thn-let*. When the image has dried and hardened, the clay is removed by washing and cutting. The openings are sealed using lacquer. The image is then coated with lacquer mixed with a paste of straw ash. When the lacquer is dry it is finished by smoothing, washing, polishing and lacquering. Decoration or ornamentation of any type is then added: painting, gilding or glass mosaic and gilding. As *man* images are hollow, they are very light. Some have a framework of wooden or bamboo wicker. The largest *man* Buddha image in the lotus posture is found at Sale; it measures about 6.5 m high. It has a hollow bamboo wicker frame, and is so light that one person can lift it unaided. Another Buddha with a bamboo framework is found in the Dhammayone in the centre of Taung Gyi in the southern Shan state. In some *man* images in the eastern Shan state, *maing kaing* paper instead of lacquer-soaked cloth is used to cover the framework.

145. Black- and red-lacquered image of Buddha in a Pagan temple.

DECORATION AND ORNAMENTATION OF LACQUERWARE

The designs and motifs used on Myanmar lacquerware form a subject of their own, which art historians or connoisseurs would be better qualified to assess. Generally speaking, they do not differ much from those used in other Myanmar art forms, such as frescoes, sculptures, carvings and so on, where the designs are geometric, with wavy, floral, scroll or arabesque patterns. Four main basic styles of Myanmar traditional drawing, designated by Pali words, are applied in lacquerware decoration. The *kanou* style depicts convoluted lotus stems, buds, blossoms, or scroll work with floral motifs or arabesques. Any beautiful floral drawing or intricate design may be called *kanou*. *Kapi* depicts apes, monkeys and the like, and action and movement portrayed in a drawing may be called *kapi*. *Gaza* depicts elephants, horses, cattle or any massive objects such as mountains, rocks or tree trunks, and *nari* depicts human figures.

There is no perspective in ancient Myanmar art. The required effect is achieved by means of lines and colours. The artist draws a design freehand to express an idea. Motifs commonly used are lotus, orchids, mythical animals, demons and divas. Favourite symbols are the nine planets and the twelve zodiac signs. Scenes and episodes from the *Jatakas* (birth of the Buddha stories), well-

known folk tales and fables, pagoda legends and *nat* (spirit) stories are depicted in panels. Enough space is left on the object for inscribing the artist's name and the date, or other words should the buyer wish to have a name inscribed, for example.

This brief outline of Myanmar lacquerware has presented a few historical and cultural perspectives. The origin of lacquerware art, and how and where it spread, are questions that may perhaps never be satisfactorily answered. We should therefore leave them in the domain of research and let scholars carry on with their discussions. But we should bear in mind that culture knows no boundaries. No culture is absolutely isolated. Despite natural or artificial barriers between nations, a continuous process of reciprocal cultural exchange continues to flow, as it has since time immemorial. History has proved that this process has resulted in identical cultural forms and experiences in more than one country, and this explains why we find the aspects of one country's culture reflected in those of another, especially if it is a neighbouring country.

NOTES

1. Michael Symes, *An Account of an Embassy to the Kingdom of Ava*, London, 1880, p. 406.

2. Among the many writers on Myanmar lacquerware art, the head monk of Zetawun monastery at Monywe, Dagon Nat Shin, Thabye Nyo Maung Ko Oo, Bagan U Khin Maung Gyi, Taw Sein Ko, U Lu Pe Win, Dr Than Tun, Maung Theikpa and Sein Mann are all Myanmar authors. Among foreign writers, A. P. Morris, A. Williamson, John Lowry, Sir George Scott, Sylvia Fraser-Lu and Susan Markert should be mentioned.

3. The former was the Superintendent of the Epigraphic Office of British Burma and the latter the Director of the Archaeology Department of Myanmar. U Tin, the Subdivisional Officer of Pagan in the British colonial period, supported this theory.

4. Mr Morris, Provincial Art Officer, former British Burma, put forward the *yun* theory when he gave a lecture on the Burmese lacquerware industry, which was published in the *Journal of the Burma Research Society*, April 1919. U Kyaw Dun, the Deputy Commissioner at the time, supported this theory. Certain modern writers on this subject also agree with Morris.

Myanmar traditional lacquerware techniques

THAN HTAIK

BRIEF HISTORICAL BACKGROUND OF MYANMAR LACQUERWARE

Each nation has its own culture and it is the responsibility and privilege of that nation to preserve its traditional culture. This is true of Myanmar, and we want to prevent the extinction of traditional crafts. It is our hope to develop them in co-operation with the older generation for future generations. Myanmar lacquerware craftsmen have passed this art down through the ages, from the Pagan period (1044–1287), through the Ava period (1208–1364), the Inwa period (1364–1555), the Taunggoo period (1486–1599), the Ngyaung yan period (1599–1752), and the Konbaung period (1752–1819) and (1819–85), until the present day.

Myanmar crafts are unique and they illustrate aspects of the culture of the country. The ten traditional arts and crafts traditionally handed down from one generation to the next in Myanmar are: *Pan-chi* (*bagyi*), painting; *Pan-pu* (*babu*), wood and ivory carving; *Pan-taih* (*badein*), gold- and silversmith work; *Pan-tei* (*badin*), bronze, copper and brass casting; *Pan-pe* (*babe*), blacksmith's work; *Pan-taw* (*pan-do*), stucco relief work; *Pan-tamaw* (*pan-taino*), stone sculptures; *Pan-put* (*pan-pu*), turning; *Pan-yan* (*pan-yam*), masonry; and *Pan-yun* (*pan-yum*), lacquerware.

In Myanmar, the lacquerware craft began with the Pagan period. The earliest known example of lacquerware in Myanmar is a plain cylindrical teak box painted with lacquer and yellow ochre. This specimen was discovered at the Mingala Zedi pagoda, the last pagoda to be built at Pagan. The piece is marked with a date equivalent to 1274. Although some international publications have closely examined the historical background of Myanmar lacquerware, we have recent evidence suggesting that Myanmar traditional lacquerware originated in about the twelfth century. During an excavation in May 1991 at a Pagan archaeological site, in Le-myet-hna pagoda near Minnanthu village, a black lacquerware bowl was found that is now on permanent display in the lacquerware museum of the Myanmar Lacquer Ware Institute in Pagan. The craft spread within Myanmar from Pagan to

Maungdaung, Budalm, Kyaukha in Sagaing division, Tada-U, Amarapura, Inwa in Mandalay division, Kyaington in Shan state and Bago in Bago division.

PRODUCTION TECHNIQUES

In Myanmar the *thit-si bin* lacquer tree (*Melanorroea usitata*) grows wild in hilly areas at a minimum altitude of 750 m. The *thit-si* resin drips from V-shaped incisions in the trunk of the tree. The sap is strained to remove dirt particles and solid impurities; this results in liquid *thit-si*, which is stored in airtight tin and wooden containers. The best-quality grade is termed *avaung-tin thit-si*, which means 'black lacquer'. The water content is less than 25 per cent when the lacquer finally dries. A brown *thit-si* is usually used in the base coating, and red *thit-si* is used mainly for the creation of different-coloured articles. The quality generally depends on the water content and the amount of urushic acid.

Most of the production centres build underground cellars, called *myay-taik*, or above-ground cellars, called *yay-taik*, depending on the locality, where the lacquerware is stored to dry in a humid atmosphere. It is a well-known fact that lacquer 'dries' under these conditions. Research is under way to accelerate the drying techniques for lacquer-coated products and for bamboo and wood preservation, as in the usual drying process it takes about three months to obtain the right quality. Some of the traditional working tools and implements may require modification to make them longer lasting and more precise, and for this purpose regional exchanges may be fruitful. For export purposes, proper packaging techniques need to be introduced.

In traditional production, articles for domestic use were coated with *thit-si* to make them last longer, and this practice was the starting point for the production of lacquerware. The basic processes involve making the bamboo- and wood-based plain bodies, making black bodies, painting and drawing designs on the ware, engraving, etching and embossing. The raw materials used are generally bamboo, wood, cane, horsehair, earthenware and ceramic ware. The gilding with pure gold leaf sometimes used in this craft is of cultural as well as commercial importance.

To make it more attractive and decorative, the lacquerware is further embellished with motifs and scenes from Myanmar Buddhist mythology and astrology. *Bodhisattva* legends and scenes from the tales of the Buddhist *Jatakas* are also popular motifs, and include gods, kings, the twelve signs of the Myanmar calendar and zodiac designs. Other motifs that are commonly used portray Myanmar festivals, Buddhist monks, well-known heroes, dancers, Myanmar traditional sports, fashion designs and all kinds of animals.

There are several different varieties of lacquerware: incised lacquerware (*yun*), gold-leaf lacquerware (*shwezawa*), relief-moulded lacquerware (*thayo pan kywa*), glass-inlay (*hmanzishwecha*), and 'modern' lacquerware. Research and development are also being done to modernize the production techniques, while preserving traditional cultural aspects. One unique feature in Myanmar lacquerware is the creation of Buddha images known as *manpaya*, with dry lacquer applied layer upon layer.

MARKETING LACQUERWARE

Today in Myanmar there are more than a hundred workshops creating and producing objects of lacquerware, for everyday use as ornaments, for interior decoration, as traditional souvenirs, as religious objects and as objects for secular use. The buyers come from around the world, and each has different tastes. However, one common observation is that most of the buyers prefer

Myanmar articles finished in traditional style with pure gold leaf.

A rough estimate of the total number of lacquerware craftworkers stands at 2,500, of which 60 per cent are settled in Pagan. At least ten main registered companies and co-operatives export lacquerware, but in Pagan every household produces and sells lacquerware for export. The Ministry of Trade, the Co-operative, private companies and government economic enterprises export these items. A rough figure of US$20,000-worth of lacquerware may be given for 1994–95 for the amount exported to Japan, the United States, Germany, France, Thailand and Singapore. The value of items carried away personally by tourists is probably more than this figure. For the year 1996, officially registered souvenir shops, where tourists could buy items or negotiate for export services, were established throughout the country.

The lacquerware industry in Kyaukka today

MYO MYINT

This is the preliminary report of the ongoing research project by Monywa Degree College, Myanmar. It is the result of three visits to Kyaukka village, where interviews were conducted concerning the problems and prospects of the lacquerware industry. Although there is still controversy regarding the origin of lacquerware in Myanmar, the association of Kyaukka with lacquerwork is of recent origin. The fact that lacquerware from Kyaukka is popularly known as Kyaukka-ware (instead of Kyaukka-*yun*) strongly suggests a more indigenous element in its development than Bagan lacquerware. Oral tradition asserts that U Kihtika, abbot of Ywa U monastery, studied the lacquerware from Maung-daung[1] more than a hundred years ago and introduced that art to Kyaukka village during the reign of King Mindon (1853–78).

Kyaukka village is comprised of two parts, Kyaukka North and Kyaukka South. According to estimates, there were 1,320 persons living in Kyaukka in 1901, and 1,415 in 1906–7; there were only about 1,000 in the late 1960s. There were nearly 1,000 houses on the eve of the Second World War. At present there are 1,823 people in 283 houses in Kyaukka South, and 333 houses with a population of 2,061 in Kyaukka North. The village is situated on the Monywa Ayadaw Road at the foot of Kyaukka Hill, 16 km east of Monywa in Sagaing division. Because of less fertile soil and low rainfall, the area is suitable for the cultivation of beans, sesame and cotton. Along with lacquerware, the villagers also produce weaving. Perhaps the abbot U Kihtika wanted the villagers in Kyaukka to be able to earn additional income by having two crafts. The two sections of Kyaukka South furnished plain bamboo articles that were then lacquered in Kyaukka North.

Kyaukka lacquerware is well known for its durability and simplicity of design. It seems that the village initially produced articles for religious use, then diversified into various articles for domestic use. Reminiscing about the good old days, one elder told the story that villagers used to demonstrate the durability of their betel boxes by sitting on them and the strength of their cups by striking them on the ground. He even went to the extent

of saying that nothing was more important to a man's life than his wife and his lacquerware basket. Kyaukka lacquerware is the best example of how Myanmar excels in bamboo craft. Using the technique of coiling bamboo strips into different shapes, Kyaukka villagers can produce literally any type of lacquered article for religious or domestic use.

Myanmar lacquerware has been studied by both local and foreign scholars from the artistic and historical points of view. Although Pagan lacquer is thriving now, as a result of the increase in tourism and demand from abroad, the future of Kyaukka lacquerware is more problematic. Here we examine the present state of the lacquerware industry in Kyaukka village, the problems facing the workers and owners, and we make some suggestions for improving the industry. The problems are examined in terms of acquiring raw materials, labour and marketing.

RAW MATERIALS

The fact that lacquerware is a commodity should not obscure the fact that it is also a piece of artwork. Sometimes it is difficult to reconcile the two aspects. The quality of the product largely depends on the quality of the raw materials used. Some of the raw materials are available on the domestic market, while others have to be imported from abroad. For the production of good-quality lacquerware, particular kinds of raw material must be used. For example, only one particular type of bamboo from the Upper Chindwin district (Meitinkha and Tinwa) is suitable for coiling the bamboo strips into the desired shapes. An abundant, cheap supply of that type of bamboo would be a great help to the villagers of Kyaukka South, who earn most of their living by coiling bamboo strips and selling them to Kyaukka North, where the lacquering and finishing work are carried out.

The two most important materials for making lacquerware are the lacquer resin from *thitsi* trees and *himpathada* vermilion. The resin can be obtained locally, but the colour comes from China. Although the *thitsi* can easily be obtained in domestic markets, price increases mean that the villagers must use that of a poorer quality, which in turn affects the quality of the product. As for vermilion, the villagers long ago gave up using the real thing (obtained from cinnabar) because of the exorbitant price. Instead, red synthetic pigments are imported from China and the United Kingdom. This is cheaper and a good substitute for vermilion, but it still cannot compare with vermilion in its colouring effect. At least it is economical for the villagers to use synthetic products. Their difficulty is that although the raw materials for making good lacquerware have become more expensive, the finished products do not bring a higher price in the market. Even if the price of raw materials were to rise by a factor of ten, it would not be possible to raise the price of lacquerware by the same amount.

According to U KyM, who was trained by the Japanese specialists at the Pagan Lacquer Ware School in 1955, the villagers need seventy-four different chemicals for the production of good lacquerware. He could not cite every single chemical but did mention three essential ones, magnesium carbonate, titanium dioxide (TiO_2) and iron oxide (Fe_2O_3) (red powder, chemical substitute for vermilion). He said that he knows the technique for improving the quality of *thitsi*, but cannot obtain the materials for it. A Lacquer Ware Workers Co-operative has been in existence since the late 1970s. Where possible the villagers will obtain raw materials through the co-operative, which should also take an active part in village welfare, such as health care. Research should also be carried out to find substitutes for the essential chemicals used in the lacquerware industry, which could then be produced in large quantities. In the meantime, however, the villagers have suggested that the government should import more chemicals and raw materials for the industry.

LABOUR

It was reported in the late 1960s that there were about 500 people in Kyaukka South engaged in making plain bamboo containers. In the mid-1980s, Kyaukka South had a population of 1,500, of whom 250 were involved in coiling bamboo strips into containers of various shapes. At that time in Kyaukka North, out of a population of 600, only fifteen families were involved in the finishing process. In 1995, out of the total population of 2,061 in Kyaukka North, about ninety people were engaged in the industry and ten families had their own business. The villagers stated that the industry is either declining or stagnant in Kyaukka. If the present rate of decline continues, the lacquerware industry in Kyaukka could become extinct in twenty years.

As everyone knows, making lacquerware is very labour intensive. It is a cottage industry, where the family members are the workers. It takes at least three months to finish one piece of lacquerware without omitting any essential steps. In both Kyaukka North and South the age group engaged in lacquerware production varies from 7 to over 70 years. One ninety-year-old man still continues coiling bamboo strips into containers. As regards the gender division of labour, splitting the bamboo into thin strips, coiling the strips into containers, and gilding and decorating are done mostly by the men. Applying the mixture of lacquer and sawdust on to the plain bamboo ware, and applying lacquer and polishing the surface are done by the women.

For various reasons, the lacquerware industry in Kyaukka is now faced with an acute labour shortage. First, the work is not well paid in comparison with other types of employment, and it is continuous from early morning until late afternoon for only subsistence wages. No matter whether the work consists of coiling the containers or finishing pieces, the pay is the same. Second, there are other options for earning a living. Third, this is not an exciting job for energetic young people who are bored by working in one place for long hours. Some youths even regard the art as messy and dirty, although others have learned it by watching their elders and imitating them.

The villagers now want a lacquerware school in the village to teach the art, which would be less expensive than sending young people to the Pagan Lacquer Ware School. In fact the villagers were unable to financially support one student who was chosen by the Lacquer Ware School in Pagan, even though the school provided a scholarship. The establishment of a lacquerware school in Kyaukka might also contribute to the development of the village. U Kyin, a trained veteran of the Pagan Lacquer Ware School with much experience, maintains that he would be capable of teaching if a school were opened in the village. A trainee with a proper educational background is easier to teach than one without education. Some youths are still willing to work in the lacquerware industry because it is the family business, and they want to carry on family traditions. In fact most of this industry is family-run and belongs to the third generation of workers, but qualified workers are now hard to find.

Kyaukka village is in the critical phase of transmitting the art of lacquerware from the older to the younger generation. There are only three people in the village who were trained in the Pagan Lacquer Ware School, one of whom is now in poor health. Some experts at applying lacquer are still alive, but they are ageing and are no longer professionally active. There are only four people still living in the village who excel in coiling the bamboo containers, and five who are good at lacquerware carpentry. Only two men, U Kyin and U Than Maing, are familiar with the whole process of lacquerware from beginning to end. Unless drastic and timely measures are taken for the transmission of knowledge to the younger generation, the prospects of lacquerware art appear rather discouraging for Kyaukka village.

LACQUER MARKETS

There are various outlets for selling the lacquerware from Kyaukka village. To begin with, lacquerware is sold at the pagoda fairs in Upper Myanmar. On festival days, people come from the surrounding areas to buy products from all over the country. Many pagoda fairs are held regularly throughout the year, including Shwegum Pagoda Festival at Kyaukka, Pakkoku Yezagyo Festival, Ma-oo Pagoda Festival, Avardaw Affoda Festival, Paungwa Pagoda Festival at Myinniu, Myotaung Pagoda Festival at Shwebo, Sutaungpye Pagoda Festival at Monywa, Monyin Pagoda Festival at Monywa, Ananda Pagoda Festival at Pagan and Alone Pagoda Festival at Afflone.

Lacquerware is also sent to a shop in Yango that specializes in selling articles afterwards given to monks. Wholesale dealers from Mandalay and Pagan also buy different types of container with a first coat of lacquer and teak sawdust applied, but without any colouring. The finishing process is done later in their own towns. The villagers are of the opinion that the Lacquer Ware Workers Co-operative should be reactivated for marketing lacquerware on both domestic and foreign markets. Moreover, branches of Kyaukka lacquerware shops should be opened in major towns for trade promotion. The Myanmar Export and Import Enterprise acts as the commission agent between the foreign buyers and lacquerware producers. The more orders obtained from abroad, the more profit goes to the owner and the workers. The industry is currently expanding because of an increasing demand for Myanmar lacquerware from abroad, as well as a revival of interest in lacquerware in Myanmar itself. With increased effort in terms of marketing, Kyaukka lacquerware could very well become a thriving industry again. If tourism were to be extended to Monywa, the Kyaukka lacquerware industry might become a tourist attraction. However, as lacquerware has to compete with plastic, bamboo and cane products, improvements should be made in the design, colouring, decorations and quality of Kyaukka lacquerware.

NOTE

1. Maung-daung is a village situated in the cultural heartland of Myanmar, some 11 km north of Budalin, and famous for making *daunglan*, the shallow stand on which the dishes are arranged at mealtimes.

Lacquerwork in India

HAKU SHAH

In India a craftsman is called *vishwakarma*, the creator of the universe. Or the word *shilpi*, an artist, may be used. Innumerable crafted objects are still used in homes today on a daily basis, and lacquerwork still serves many purposes in Indian life. And although it may seem to be on the decline, thousands of craftworkers still make a living from it. The clay pot for drinking water may be found in every household. I once visited the Gandhi Ashram in Sevagram, western India, where hundreds of people were given hand-made lacquered bowls from which to eat and drink. And we had to throw them away after use! This does give an indication of how common, and how easily available, lacquerware has always been in India.

Craftwork of every kind can be found in Indian markets today. But in earlier times there was more sharing and bartering, final products were of high quality, and objects were made with a precise end in view. They were made for relatives, for the village or for the community, not just for sale. Objects made just to earn money are not beautiful objects.

LACQUER IN EVERYDAY LIFE

The basic material of lacquerwork in India is shellac, which is made from the resinous substance secreted by the lac insect, *Kerria lacca* or *Coccus laccae*, and collected from the branches and leaves of various trees. In Indian life, lacquer has always been important, whether on bracelets and jewellery, bowls, boxes, cradles, furniture, spinning wheels or children's toys. Even today one finds hundreds of lacquered *kankavti,* boxes for keeping *kumkum*, the vermilion applied to the forehead of married women, and *chakardi*, a small spinning toy that children play with.

AN EXQUISITE MATERIAL

The tremendous variety of lacquered objects that have been created gives some idea of the qualities of the material and the skill of those who manipulate it. Lacquer can be combined with other materials as well, including

wood, clay, silver and gold. This material is not only lovely, it is durable. However fragile it is reputed to be, a lacquer bangle can be worn for many years. A *kamkavati* can last for generations in an Indian household. Lacquer is both flexible and easy to work with, and when one sees craftsmen working with it, one has the impression that they are playing with flower petals. At the same time, it is so light that it tests and challenges the creator's skill. An example of this is the work of the lacquer craftsmen of the Vadha community in Kutch (western part of Gujarat state) with their designs symbolizing the *lehar*, or waves, which appear to be both in the water and in the air at the same time.

LACQUER FOR RICH AND POOR

Lacquer is used by both rich and poor people. Tribal peoples utilize lacquer bowls that are very useful as well as precious to them as part of their daily routine. They go into the forest and collect lacquer and cover a carved bowl with it. More elaborate lacquered objects are used by the well-to-do, including *bor-mala* or gold balls filled with lacquer and *tulsi-mala*, garland plants interspersed with *bor-mala*. People of all ages use lacquered objects, from toys for children to canes and bedsteads for old men.

LACQUER: COLOURS AND TECHNIQUES

Authentic hand-lacquered objects have a distinct look about them and stand quite apart from things decorated with acrylic and oil paints. Lacquer colours may be shiny, or the colours can be muted, which is more soothing to the eyes. Four main colours are used: yellow, green, red and silver-grey; these can be mixed to produce many different shades. For instance, the Rajasthani bangle, the rolling pin in Kutch and the *chakardi* toy in Lucknow are all yellow yet are distinctly different. The application of colour through wood-turning may be described as follows:

The craft of lacquer-turnery is not very difficult and can be easily explained. Shellac [lac] is first warmed by holding over a fire until it becomes malleable. Then it is placed on a stone and a small amount of the desired pigment, previously dissolved in oil or water depending on the substance used, is placed within a hollow made in the surface of the softened lacquer. This is closed by drawing the hot lacquer over the hole and the lacquer is strenuously hammered and kneaded until it achieves the consistency of rubber. The lacquer is now rolled into rods of about the same length and thickness as an ordinary pencil, or sometimes much thicker for certain special purposes. These are known as *battis* in most parts of the country. As above, mostly mineral colours are used for mixing with lacquer. In the Punjab, the following formulas were and possibly are still followed for making the colour *battis,* as recorded around 1890 by M. F. O'Dwyer:

Yellow: 1/4 *seer* of shellac, 2 *chattaks* of arsenic, sulphide called *hartal*; the latter is well pounded, mixed with the shellac and warmed gently.

Red: 1/4 *seer* of shellac, 2.5 *chattaks* of cinnabar; the latter is pounded with water for several hours and, when dry, mixed with the shellac.

Green: 1 *chattak* yellow warmed and mixed with indigo.

Black: 1/4 *seer* of shellac and 2 *chattaks* of carbonate of lead, pounded and mixed with indigo.

Once the article has been made smooth and perfect, the colour *battis* is pressed against the revolving wood: the lacquer melts through friction and produces designs on the wood.

Certain particular techniques used in lacquerwork, including wood 'scratching', 'scraping' and etching have contributed in no small measure to the beauty of Indian lacquerware. The etching technique is described here.

Etched *Nakshi*, or pattern work. Softened *battis* of different colours are applied on top of each other [in] three or four uniform coats. As a rule, the first coat is yellow, the second red, then green and the last black. Now, using a fine pointed stylus,

the [artist] scratches the lacquer coating, pressing heavily or lightly according to the depth of the engraving required to produce the different colours. Thus, on a solid black background, a design consisting of red flowers, green leaves and yellow stems, with multi-coloured shading and other details would be produced.

In some parts of the north of the country, the floral designs are produced mainly in different shades that are artistically very appealing. A red and brown fern-like ornamentation could be produced on a green background, the arrangement being generally geometrical. Jaipur produces articles with etched hunting scenes in which the shading and colouring of the figures are attained through the varying degree of pressure given to the [etching tool].[1]

Floral designs may consist mainly of yellow and red flowers on a panelled green surface with animal figures interspersed among the foliage. Or again, the background may be black and the design in yellow shaded with green; the design may also consist of red flowers and a yellow border.

In the case of scraped *nakshi* ornamentation, the article first receives a coating that gives a plain *attashi* or 'fired' effect; it is then polished with oil. The designs, which may be floral or hunting or rural scenes, are then carved or scratched on to the surface or, in larger areas of the designs, on to the layers of the original oil-bound *batti*, and water-mixed *batti* are applied through friction on the lathe. Only those lines or areas that have been scraped take the new colour, as the original oil-polished areas reject the water-bound lacquer. Following this second colouring, the article is again completely oil-lacquered, and the parts of the design that have to be coloured in another hue are scraped and treated as before. This is repeated again and again till the design has been completed and given all the desired colours. Hoshiarpur in the Punjab and Jodhpur in Rajasthan are particularly noted for this kind of work.

Indian craftwork attaches great importance to using the best materials and the right techniques to produce a good result; these techniques are occasionally improvised upon or changed. J. B. Waring has commented that no surface decoration could be more rich and harmonious in design and in execution, or less expensive to produce. Comparing Indian craftwork with lacquerwork in China and Japan, he explains that Indian lacquer is more properly classified as 'painted' paper or woodwork, where the varnish is used specifically as a preserving substance. Japanese ornaments are of a more naturalistic tendency, whereas those of India are purely conventional. In almost every case in Indian lacquerware, the decoration is confined to conventional motifs and foliage designs.

The effects of brightness peculiar to the Indian craft tradition have long since taken the visual aspect of lacquered objects to great heights and invested them with a certain power.

FOIL ORNAMENTATION

The technique of making coloured tinfoil has long been known in India. The process is quite simple. A tiny piece of lacquer of the desired colour is laid on the tinfoil and placed over a slow fire. The lacquer melts and covers the surface of the foil completely. Such coloured foil is used throughout the country for costume jewellery and lacquer-turnery. The foils are cut into different shapes and glued to the surface of the wooden article to form a design. When completed the whole surface is protected with varnish. If, however, it is possible to turn the article on a lathe, it may be coated with lacquer in the usual way rather than with varnish. This custom of using tinfoil under the lacquer used to be very popular in Baroda (Gujarat), and still is to some extent. It has been pointed out that instead of a lacquer varnish, a golden varnish made from copal (resin), myrrh and sweet oil is sometimes used. The lacquer is applied with a brush.

LACQUERWORK THROUGHOUT INDIA

It is not possible to speak here of all the regions of India with their diversity of technique and output; suffice it to say that thousands of craftworkers make their living from lacquerwork. For instance, in Sankheda, a small village in Gujarat state, articles worth 10 million rupees are made each year.

The process of making lacquer bracelets and decorative beads as practised in Delhi and in parts of Benaras, Bengal, Lucknow, Patna, Punjab, and so forth is rather interesting. To lend a 'silver' effect to a lacquer bracelet, tinfoil is pounded with half its weight of dry glue until the two form an amalgam (after about six hours). Water is added and the mass is then placed over a hot fire until it breaks into tiny pieces. The water is drained off and the pieces washed repeatedly in water until all impurities and dirt have been removed. The pure amalgam is then boiled and left to stand overnight. The resulting silvery glue is used for painting lacquer bangles and bracelets with a brush. When dry, the silvery paint is burnished bright by rubbing and polishing with a string of beads. A similar, golden varnish is made as described above. Such silver and gold amalgams and varnishes are also used for painting articles such as boxes and plates. Lacquer bracelets can be further embellished by inserting tiny pieces of tin and copper and glass beads along the edges.

The lacquer bracelets and necklaces that used to be made at Indore and Rewa were of superb design and workmanship. Lacquered wooden bracelets, bangles and toys are also made at Surat and Ahmedabad, and in Bellary district and Mysore. Beautiful lacquer ornaments for women are a speciality of Bihar and some other regions of the country. The traditional products of certain regions of India have very distinctive features. For example, boxes made in the Punjab as a rule are lacquered in a rich purple colour, while those made in some areas of Rajasthan have a dull background and conventional bicolour designs that are either geometrical or floral, or both.

Like so many other crafted articles, the beautifully painted or lacquered paper boxes, trays, tobacco jars, ashtrays and other small articles for domestic or ornamental use that are made at Srinagar in Kashmir are among the best in all India. Two kinds of traditional design are particularly common: the pale shawl pattern painted in many colours, a particularly suitable type of decoration for small articles but unsuitable for use on large pieces such as tables, chairs and screens. The other is the minute flower pattern with roses, pinks, narcissus and jasmine treated naturalistically as to form and colour, but without any attempt to produce effects of perspective or depth with light and shadow (chiaroscuro).

The several varieties of lacquerware made in Kashmir are classed in two categories, Masna or Royal, Farsi or Persian. The former are articles of table furniture that are more or less bulky, whereas the latter are portable. Influenced by Persian lacquer art, they are usually long shallow boxes, like pen-boxes in shape and operation, rounded at the ends and with a sliding convex cover. They are usually made from paper that has been written upon, although they are sometimes of light wood. The background colouring is commonly metallic, i.e. of gold or tin, and the pigments employed are as follows: cochineal or red dye from the *kermes* insect, ultramarine from Yarkant (China), white lead from Russia and verdigris from Surat (Gujarat) and the United Kingdom. Other colouring-matter found in the country includes aloe resin (storax); the finest is *kahruba*, which is usually regarded as amber but is actually secreted by certain native plants. Copal too is abundant and is derived from a number of native trees. The brushes used are made from the hair of the shawl-wool goat, and the pencils from cat-fur.

The background of the lacquerware of Mysore and certain parts of the Deccan Plateau is of transparent green

146. Examples of *tavlo* lacquered bowls; lower right, a lacquer *patti*.

painted on tinfoil. The subjects, which are predominantly mythological, are lacquered in very bright colours on the shining surface: this produces a charming effect that brings to mind the brilliance of the famous enamels of Jaipur. Many places in the south are famous for their painted or lacquered articles that as a rule carry floral designs. Particularly noteworthy are palm-leaf paper and cloth fans, beautifully lacquered in bright colours. Distinctive toys, miniature cups, pots and other domestic ware are made from the light-coloured wood of *Holarrhens anti-dysentica*, known locally as *vepale*, and are beautifully finished. Coloured lacquers are used, rather than watercolours, and the final coat is varnish or clear lacquer.

In certain areas of the original state of Hyderabad, and especially in the Raichur district, beautiful lacquerwork is produced, mainly for domestic use. This is of two kinds: embossed or *muna bathi*, and plain or *lajarwardi*. Embossing is said to be a tedious process. Shells or slag from the forge are finely ground with a glutinous substance – its identity is a secret – and layer upon layer of this ingredient is put on with a brush until the desired boss, or raised relief, is achieved. The whole object is then covered with gold leaf, the designs are picked out in paint and a layer of varnish is applied.

A tin background under superimposed transparent colours is used in Hoshiarpur lacquer-turned work. Apart from the designs scratched in the lacquer coatings, mythological figures may also be painted in bold style and then varnished. The colours used today are mostly artificial aniline dyes. A speciality of this 'school' is the practice of scratching the design or figures on the lacquer background of one colour, filling the lines with another colour, and then polishing the entire surface until smooth.

Beautifully turned and coloured toys, cradles and furniture in the local style are produced at Sankheda. The method used is slightly different from the one described above. The turned wooden articles are first coated with watercolours as the groundwork. The designs are painted on using a mixture of powdered tin and liquid glue and allowed to dry. The articles are then put back on the lathe and coloured lacquer is applied as they turn at high speed. A hot charcoal brazier is placed near the lathe to keep the lacquer soft. The lacquer coat is then burnished with *akilka* stone while an article is rotating. The glittering metallic design glowing through the coat of thin lacquer is very appealing. The final polish is achieved by means of a *kevada* leaf and *fil* (sesame) oil.

In Andhra Pradesh, Effikoppaka is famous for its coloured lacquer toys. Gujarat produces lacquer turnery not only in Kutch and Sankheda but also in Dhoraji, Junagarh and Mahua. Haryana state makes toys of wood and lacquer. In Karnataka, Channapatna is well known for its toys, dolls and napkin rings. In Madhya Pradesh, districts such as Bundi, Ratlam and Sheopur produce an abundance of lacquer toys and furniture.

Lacquer craft centres are found almost everywhere in India. Many of them are unsung heroes of the struggle to save traditional crafts and industries. Among such centres are Patna in Bihar, Birbhum and Murshidabad in Bengal, Assam, Agra, Fatehpur, Lucknow, Mirzapur, Benaras, certain parts of Punjab, Rajasthan (Alwar, Bikaner and Jodhpur), Bangalore, Mysore and some regions near Madras and in Bombay state. These and many more such centres are working even today. Yet lacquerwork unfortunately is being replaced by synthetic products.

THE LACQUERED CLAY BOWLS OF THE TRIBES IN GUJARAT

Thousands of potters work in communities in India. Tribal people make clay figures for their rituals; these are generally not fired. In Gujarat a colourful tribe called the Rathwa make a beautiful clay bowl (*tavlo*) that is lacquered on the inside and is used to fry *dhebra* and *rudla* cake. It is sold at the markets in Ambala, Kanvat and Rangpur where it is made. This skill dates from time immemorial. The *tavlo* is an important asset to any family and is generally entrusted to the women on the occasion of marriage, childbirth or village festivals such as the Indh. Cooking and frying are both done using this vessel: the lacquer coating on the inside seals the pores and keeps the oil inside.

The following tools and materials are used to make the *tavlo*: common clay, red clay from a hilly terrain, dry baskets, cow-dung pats, palm leaves, tree branches, stone, *kodali, pavdo* (hoe) and lacquer. Women find the clay in forested areas. They work it with their hands, breaking up the pieces to make it even, and then spread it out and liberally sprinkle water over it. They add cow-dung in a proportion of 1 to 15, knead the mixture and stamp on it with their feet. The mixture is then made into small balls known as *pinda*. Both hands are used to give each

147

148

149

147–149. Demonstration of *tavlo* technique, using an old pot to make a bowl. Here, men and women working together in their field.

150. Fixing the edge of a bowl with the hands.

151. Bowls drying in the sun before being fired in the kiln.

152. The open kiln.

153. Removing the fired bowls with wooden sticks in order to apply lacquer.

154–155. Applying lacquer.

156–157. Applying lacquer.

158. Final touches are added using pieces of broken pot.

pinda the shape of a dish 30 cm to 45 cm (12 in to 18 in) in width. An old pot is placed upside down on this, and work continues on the dish-like form. After a while it is removed and placed in the sun to dry for two hours or more. It is then carefully placed inside a broken half-pot and a rope-like piece is added to make the rim of the bowl. Triangular protrusions in the bowl give it a pleasing shape. When dry, it is rubbed with a little red clay. The *tavlo* is now ready to be fired.

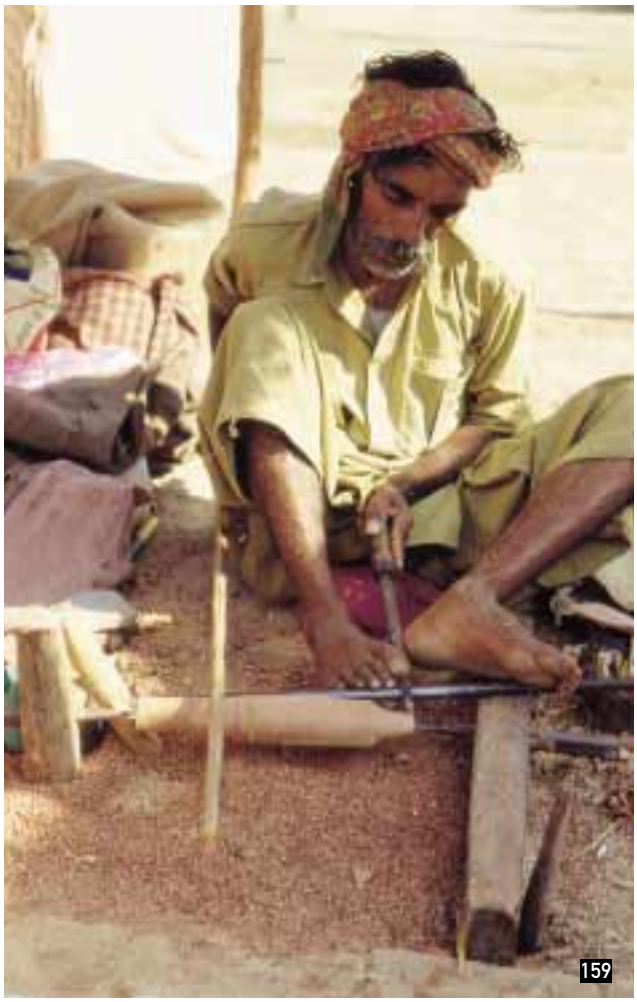
A small open kiln is made and all the *tavlo* are placed in a triangular pattern to allow the air through. They are then covered with wood, cow-dung pats and palm leaves. The fire is lit in the kiln and the *tavlo* are fired. Preparations are then made for the lacquerwork. The lacquer is collected in particles from the branches of the *khakra* tree. Sometimes the tree is cut, and sometimes the branches are shaken. The lacquer or *khobra* is heated and water is added to make 15 cm (6 in) long pieces. When the *tavlo* have been fired for long enough, they are taken out of the kiln with the aid of two branches. Lacquer is then rubbed inside the bowl. Cow-dung dust may be applied before the lacquer in order to make it dark brown in colour. The resulting colour may be anything from red to dark brown. The *tavlo* is shiny inside and red on the outside (see Figs. 146–158).[2]

LAKH CHO KAAM LACQUERWORK

The Vadha community of Kutch is a small population, and very few people practise the craft known as *Lakh Cho Kaam, Lathe kaam* or *Ranggi Kaam* (colour work). I visited Vitkya Meran Vadha and his son Sharied in 1995. They came from a village called Nirona, which is in Nakhatrana Taluka in the Bhuj district of Gujarat, and are expert lacquerworkers. There are twenty-four families in Nirona, six of whom are engaged in lacquerwork. Others have abandoned it. Members of the same Vadha community in nearby villages are still at work, although more from a feeling of solidarity with their fellow-workers than from conviction.

The following gives a description of the tools used by Vitkya. They are kept in gunny bags. The wooden tools were made by him, whereas the iron ones were forged by the village blacksmith. To begin with, they use a lacquer-turning lathe known as *sanghado*. A wooden log about 45 cm (18 in) long and 10 cm (4 in) thick is pegged to the ground to the left of the craftsman. On his right are two other logs, about 30 cm (12 in) long and 7.5 cm (3 in) thick. Two thick nails (*kila*) or spikes are inserted in the log horizontally at the front in order to fix it for turning. An iron bar (*kho*) is fixed in the slits to hold the lathe when it is tightly pressed and held by foot. A bow is inserted in the front block of the wood and, while rotating with the bow, the craftsman moves the chisel backwards and forwards. This is one of the principal tools. It is very handy and can be fixed anywhere in the ground in a mere fifteen minutes.

The other tools are a saw (*karavat*) for cutting wood; a large chisel (*vahlo*) to shape the wood; a chisel (*makhanu*) for use with the lathe; a small chisel (*nevu*) for carving; a cloth *Agadi* (*ladi*) for polishing and making the design; a bamboo tool (*pambo*) to spread colour evenly on the lathe; a nail (*khil*) fixed in the lathe to hold the piece; a curved blade (*nevo*) to carve on the lathe; a rod (*math*) at the centre of the lathe; a stick of lacquer


159

160

159. Demonstration of *Lakh Cho Kaam* technique: Vadha Vitkyo, in the Kutch district of western India, working on his *sanghado*, or lacquer-turning lathe, about to make a lacquered spoon. The *sanghado* is easy to install: in a short time he is going about his work.

160. Exhibiting the art of lacquering at a craft fair. Mr Vitkyo applying red lacquer.

(*lorchi kadhi*) to rub with and make the design; a rod (*kho*) to hold the lathe; a bow to rub (*khapto*), being part of the *sanghado* for turning wood; an axe (*kavado*) to cut branches, and a hoe (*pavdo*) to collect clay.

Although the range of tools is limited, the Vadha community none the less produces magnificent work. The Vadhas obtain their wood nearby. The wood chiefly used today is *baval* or *babool*, and sometimes *nim* or *neem*, *niladuri, thankaro, lahi* and *khared*. They keep the *karavlo* and the *pavlo* with them when they cut wood. As they do not need large logs, they just cut thick branches.

LACQUERWORK

Small pieces of lacquer are prepared with coloured powders bought at the market. Black is made from charcoal. The colours are mixed in a paste with a shellac called *chapdo*, found in the local bazaar. It is slowly heated on hot coals and rubbed into the powder. While the

161

162

163

161. Smoothing and spreading the lacquer in an even layer using a small, home-made bamboo tool.

162. Rubbing the lacquer with a rag.

163. To create a design, yellow lines are drawn on the red lacquer with a bamboo stick.

164. Applying various colours.

165. Rubbing the yellow lines is an art in itself.

166. Marks are made on the yellow lines.

167. Creating wavy designs with a bamboo stick.

168. Second rubbing. Rags and pieces of bamboo are the simple tools of lacquerware.

169. Applying green colour.

170. Attaching red stripes over the green.

164

167

168

165

169

166

170

171

172

mixture is still warm, it is shaped in 12 cm (5 in) flat sticks called *patti*. Two kinds of powder may be used to get the mixture right. The colours chiefly used are red (*ralto*), yellow (*hariyalo*), black (*karo*) and green (*say*). First, the log is turned and chiselled to give it the required shape. When it is quite smooth, the coloured *patti* is pressed against the revolving wood. The heat thus generated melts the lacquer and coats the wood. A piece of bamboo is held against the log where the lacquer has been rubbed to make it uniform and a piece of wet cloth applied to the wood while it is still revolving in the lathe. The craftworker now takes a coloured stick (*lorchi kandhi* meaning 'stick of waves') to make the waves, rubbing horizontally where the red is to be applied. The moving stick traces different coloured lines on the handle. When the cloth (*ladi*) is held to the handle, the straight line turns into waves, hence the name of the design, *ladi chi lor* or waves of cloth. In the same way, if bamboo or *pambo* is used instead of damp cloth, the resulting square designs are also called waves or *pambo-paitiba chi lor*.

Different colours are applied to the sides to create interesting combinations of yellow, green, black, silver and so forth. Sometimes even one colour placed on another gives a totally different result. Designs are applied only in certain places. Another technique, which involves carving, is called *kundh choyaje*. Different colours are used to guide the carving. A small chisel is used to scoop out the pattern and create the design, giving much the same effect as the tie and dye method with textiles. This

171. Mr Vitkyo works on the lower portion of the spoon.

172. A special technique of creating designs with a chisel by 'pealing' the upper colour.

173. Materials used in lacquering.

174. The finished spoon.

175. Lacquered articles in Kutch district, western India.

173

174

175

effect is most interesting, besides being permanent. Sometimes the base lacquer colour alone is applied before scooping where only the colour of the wood is visible. The Vadhas customarily use these two techniques. As a rule they work outside their front door in the open. Vitkya learned his trade by observing his father Meran at work (see Figs. 159–175).

The articles he showed me were all made from wood and lacquer. They included a stand for bangles (*bagali sten*), a spindle for spooling thread (*pat witani*), a spinning top (*bhamardo*), a box (*daburio*), sticks for dancing (*dandiya*), a spoon for serving (*doya*), a flat spoon for cooking (*uthlanu*), a kitchen fork (*pana*), a rolling pin for making *chapati* (*velan*), a toy (*chakardi*), and shirt buttons (*bida*). Some of these objects were made only quite recently. Previously Vitkya made objects such as wood spinners, turners, oil containers and legs for cots and cradles. But unfortunately there are no longer many buyers left for some of these things.

NOTES

1. Rustom J. Mehta, *Handicrafts and Industrial Arts of India*, Bombay, D. B. Taraporevale–Treasure House of Books, 1960, 157 pp.

2. From the booklet *Tavlo*, edited by Haku Shah for the Government of Gujarat.

Glossary

MONIKA KOPPLIN

This glossary is compiled from the lacquer arts and crafts in East and South-East Asia. Most of the terms refer to lacquer techniques, but the glossary also includes decorations and objects particularly relevant to lacquer art. Most of the terms originated in Chinese, Japanese, Korean, Myanmar, Vietnamese and Siamese, while a few come from English, French and German.

In view of the wealth of lacquer techniques and the corresponding terms, many of which have changed over the centuries, this glossary can represent only the nucleus of a much-needed encyclopaedia of historical lacquer terms. It is to be hoped that researchers will indeed investigate this path of knowledge.

→ = see also. Indicates techniques and objects that possess names in two or more languages. Arrows also refer to techniques, raw materials and so on that are linked to the specific term.

* = cross-reference; term has its own entry in the glossary.

aokin 青金
Japanese: green gold
alloy of gold and silver

aokin togidashi 青金研出
Japanese: green gold togidashi
→ togidashi

awabi 鮑
Japanese
sea-ear/abalone (zo. *Haliotis tuberculata*);
mother-of-pearl with particularly iridescent lustre
→ laque burgautée

ayaung-tin thit-si အရောင်တင်သစ်စေး
Myanmar
black lacquer

Bantam work
English
English term for → Coromandel lacquer*, named after the port of Bantam on Java → k'ê-hui → k'uan-ts'ai → vernis de Coromandel

bó
Vietnamese
mixture of raw lacquer → són sõng, white clay and sawdust; used as primer and to build up relief lacquer → són dap nõi

boc vai/
dánh vai
Vietnamese
cloth covering of wooden core

buông u
Vietnamese
drying cage for lacquerware

cây són
Vietnamese
lacquer tree (bot. *Rhus succedanea*)

chang rak ช่าง รัก
Thai
craftsman producing lacquerware

chia-chu 夾紵
Chinese: filled with hemp
dry lacquer; the core of this lacquerware consists of layers of fabric impregnated with lacquer; the technique was used mostly for Buddhist and other images → kanshitsu → man → t'o-t'ai → vai bôi

chian mak	เชี่ยน หมาก	Thai betel box → kun-it
ch'iang-chin	鎗金 or 戧金	Chinese: decorated with gold engraved and gold-plated lines → ch'iang-chin-yin* → chinkin-bori
ch'iang-chin-yin	鎗金銀	Chinese: adorning with gold and silver inlaying of gold and silver foil into finely incised engravings on black or red lacquered base → chinkin-bori
ch'ilgi	칠기	Korean lacquerware
ch'iljon	칠전	Korean government workshop manufacturing lacquerware in the kingdom of Silla
ch'ilp'i	칠피	Korean lacquerware (armour) with leather core
chinkin-bori	沈金彫	Japanese: engravings with recessed gold Japanese term for the → ch'iang-chin-yin-technique*
chinkoku-bori	沈黒彫	Japanese: engravings with recessed black engravings filled with black lacquer
chinshu-bori	沈朱彫	Japanese: engravings with recessed red engravings filled with red lacquer
ch'i-shu	漆樹	Chinese lacquer tree (bot. *Rhus verniciflua*) → onnamu → urushi no ki
ch'i-yüan	漆園	Chinese: lacquer garden lacquer tree plantation
ch'och'il	초칠	Korean primary lacquer collected in the first phase of harvesting
chor mreak/mreak	ជ័រម្រ័ក្សណ៏ / ម្រ័ក្សណ៏	Khmer: lacquer

chui-hua 錐畫
Chinese: needle painting
incised lacquer

chungch'il 중칠
Korean
intermediate lacquer collected in the second phase of harvesting

chungsangso 중상서
Korean
name of a government workshop manufacturing mother-of-pearl inlaid lacquerware

churumjil 주름질
Korean
cutting out small pieces of mother-of-pearl using paper patterns as models

Coromandel lacquer
English
the decorative design of this black lacquerware is achieved by carving the lacquer down to a thick layer of primer containing ash, raw lacquer and other ingredients; the cut-out parts are then partly painted with oil paints and partly gold-plated; the term refers to the South-east Indian Coromandel coast and was first used by French merchants in the eighteenth century
→ Bantam work → k'ê-hui
→ k'uan-ts'ai → *vernis de Coromandel*

côt
Vietnamese
core of lacquer paintings or lacquer objects made of wood, bamboo → côt tre nua or dry lacquer → côt vai bôi

côt tre núa
Vietnamese
bamboo core

côt vai bôi
Vietnamese
dry lacquer core

dam kroeul ដើមក្រឹល
Khmer
lacquer tree (bot. *Melanorrhoea laccifera*)

dô són mài
Vietnamese: object with polished lacquer
→ són mài

e-nashiji 絵梨子地
Japanese: picture-nashiji
→ nashiji being part of the decoration

fu-hung 覆紅
Chinese: covered red
inlaid tortoise-shell with red or yellow underpainting

fu-ts'ai 覆彩
Chinese: covered colour
→ fu-hung

guri 曲輪 or 屈輪
Japanese: arch and circle
carved lacquer built up of layers of different colours and decorated with a spiral pattern → t'i-hsi → yün-tiao

haku-e 箔絵
Japanese: foil painting
thin gold leaf applied to a wet lacquer design with the inner lines finely inscribed after drying

haribori/ harigaki 針彫 針描
Japanese: needle carving
inscribing the inner lines in → Kodaiji-maki-e

heidatsu 平脱
Japanese: shallow scooping
inlays of cut gold or silver plate → hyômon → kanagai → p'ing-t'o

heijin 平塵
Japanese: flat dust
lacquer base with sparse sprinkling of gold dust

hinomaru-bon 日の丸盆
Japanese: sun-round-tray
name of a group of round trays from the thirteenth century decorated in → Negoro-nuri

hiramaki-e 平蒔絵
Japanese: flat sprinkled picture
→ maki-e

hirame 平目
Japanese: flat eyes
flattened metal filings sprinkled into lacquer which is polished after drying → okibirame

hman-zi shwei-cha မှန်စီရွှေချ
Myanmar
gilt lacquerware with relief-moulded design → thayò pan kywa and inlays of glass mosaic

horadan/horidan — หรดาน / หรดาล
Thai
mixed with → kao krathin glue, used to apply the negative design of → lai rod nam

hsi-p'i — 犀皮 / 西皮 u.a.
Chinese (various writings documented)
marbled lacquer; the object is covered with thickened lacquer of a basic colour which is kneaded with the fingers to create an uneven surface; this is painted over with layers of alternating colours; the marbled effect is achieved by polishing the whole surface after it has dried → Tsugaru-nuri

hwangch'il namu — 황칠나무
Korean
lacquer tree (bot. *Textoria morbifera*)

hyômon — 平文
Japanese: flat pattern
→ heidatsu* → kanagai → p'ing-t'o

ikakeji — 沃懸地
Japanese: densely sprinkled ground
densely sprinkled gold base with a foil-like effect

inrô — 印籠
Japanese: seal container
small portable medicine case attached to the belt and worn by Japanese men

iro-e-togidashi — 色絵研出
Japanese: coloured picture togidashi
→ togidashi maki-e; made of pulverized coloured lacquer or by sprinkling gold powder over a coloured underpainting

iro-urushi-e — 色漆絵
Japanese: coloured lacquer painting

jimaki — 地蒔
Japanese: sprinkled ground
lacquer base sprinkled with gold dust

jinoko — 地の粉
Japanese: earth powder
burnt and pulverized silicon earth → keisôdo used as primer in → Wajima-nuri

kae-onnamu — 개옻나무
Korean
lacquer tree (bot. *Rhus trichocarpa mig.*)

Kaga-maki-e 加賀蒔絵

Japanese
lacquerware in → maki-e-technique from Kanazawa in the Kaga province (now the Ishikawa prefecture); the school was established in the seventeenth century

Kamakura-bori 鎌倉彫

Japanese: Kamakura carving
lacquered wood carving originally imitating the style of true carved lacquer, but later developing its own aesthetic criteria

kanagai 金貝

Japanese: golden shell
inlays of gold or silver plate, often in combination with → maki-e; term used from the Kamakura period on for → heidatsu* → hyômon

kanshitsu 乾漆

Japanese: dry lacquer
→ chia-chu* → man → t'o t'ai → vai bôi

Kanton-Lack

German: Canton lacquer
gold painting on black lacquer basically produced in Cantonese workshops for export

kao krathin กาว กระถิน

Thai: krathin glue
yellow glue obtained from soaking the yellow crystal of the krathin plant (leguminous plant) in water; it serves as a binder for → horadan mineral

karamono 唐物

Japanese: Chinese things
comprehensive term for objects of foreign taste and origin

katami-gawari 片身替

Japanese: one half different
bold and striking compositional scheme developed in the Momoyama period

k'ê-hui 刻灰

Chinese: engraved ash
Chinese term for → Coromandel lacquer* → Bantam work → k'uan-ts'ai → vernis de Coromandel

keisôdo 珪藻土

Japanese
earth containing silicon; essential component of the primer → jinoko used in → Wajima-nuri

khmuk kbach push/
khmuk roeng

ខ្មុកក្បាច់ពុះ / ខ្មុករឹង

Khmer
relief-moulded lacquer
lacquer application of moulded lacquer mixed and prepared like the → khmuk mreak leap lum or; the moulded elements are affixed with gcau sbek krobey glue (prepared from the skin of the water buffalo) and afterwards varnished or gilded with gold-leaf (meas sanleuk) → thayò pan kywa

khmuk mreak

ខ្មុកម្រ័ក្សរណ៏

Khmer
lacquerware

khmuk mreak leap lum or

ខ្មុកម្រ័ក្សរណ៏លាបលន

Khmer
lacquer decoration; application of dehydrated lacquer mixed with ash (pheh) from rice straw or palm tree leaves, chor chong and chor toeuk resin, well stirred and heated; it is usually pigmented for decorative purposes

khunumjil

끊음질

Korean
cutting shells with a jig saw into geometric design

kimma

蒟醤

Japanese
black lacquerware thinly covered with water-soluble, gummy paint, finely engraved and then covered with red lacquer; after drying the whole surface is washed leaving the red decoration on the black lacquer ground; kimma imitates the technique and style of South-east Asian lacquerware from which the term kimma is derived: kin-mak = eating betel nuts in Thai language → chian mak

kingin deiga/
kingin-e

金銀泥画
金銀絵

Japanese: gold and silver (mud) painting
painting with gold or silver powder bound with lacquer or glue; unlike → maki-e it is applied with a brush

kirigane

切金

Japanese: cut gold
ornamental triangle or square-cut metal foils used to accentuate the design

ki-urushi

生漆

Japanese
raw lacquer

Kôdai-ji maki-e 高台寺蒔絵

Japanese
→ maki-e from the Momoyama and early Edo periods with a distinctive picturesque and highly decorative style; named after the Buddhist temple Kôdai-ji at Kyoto → haribori

k'uan-ts'ai 款彩

Chinese: engraved polychrome
Chinese term for → Coromandel lacquer*
→ Bantam work → kê-hui → vernis de Coromandel

kùn-it ကွမ်းအစ်

Myanmar: betel box → chian mak

Kyauk-ka ကျောက်

Myanmar
village in upper Myanmar (Chin-dwin district) where mostly plain black and red lacquerwork of wood or bamboo is produced in large quantities

lai rod nam ลาย รด น้ำ

Thai: ornaments washed with water
gold leaf decoration in negative design technique
→ shwei-zawa

laque burgautée
(also laque burgauté)

French
mother-of-pearl inlaid lacquer using small and thinly cut pieces of mother-of-pearl (French: burgau) from the sea-ear
→ awabi

leap khmuk mreak លាបខ្មុកម្រ័ក្សណ៏

Khmer
protective application of non-pigmented raw lacquer

lo-tien 螺鈿

Chinese: inlays of polished conch
mother-of-pearl inlay → najon ch'ilgi → raden

maki-bokashi 蒔暈し

Japanese: sprinkling in a range of shades
gold and silver decoration sprinkled in varying cloud-like densities

maki-e 蒔絵

Japanese: sprinkled picture
the design is created by sprinkling gold or silver powder into the wet lacquer painting, which is polished after drying

maki-eshi 蒔絵師

Japanese: maki-e painter
master lacquerer working in the → maki-e technique

makkinru	末金鏤	Japanese: sprinkled gold particles gold filings; term dedicated to a single piece of lacquer art kept in the Shôsô-in in Nara; it was decorated by sprinkling gold filings into the freshly-applied lacquer design
malch'il	말칠	Korean last lacquer, collected in the third and final phase of harvesting
miao-ch'i	描漆	Chinese lacquer painting
mijingai-nuri	微塵貝塗	Japanese: lacquer with small pieces of shell dense application of pulverized shell
mi-t'o-sêng	密陀僧	Chinese: litharge (PbO, lead monoxide or oxide) → mitsudasô
mitsuda-e/ mida-e	密陀絵	Japanese: litharge painting oil painting with lead monoxide → mitsudasô → mi-t'o-sêng, applied to a lacquer base
mitsudasô	密陀僧	Japanese: litharge added as a drying agent to produce → mitsuda-e
mreak chao	ម្រ័ក្សរណ៌ឆៅ	Khmer raw lacquer
muk khmuk	មុខខ្មុក	Khmer masks made of papier-mâché → smach, decorated with relief-moulded lacquer → khmuk kbach push and gold-leaf
myay-taik	ဓမြေတိုက်	Myanmar: shadow house underground cellar for drying lacquerware → yin-shih
najon	나전	Korean mother-of-pearl
najon ch'ilgi	나전칠기	Korean lacquerware with mother-of-pearl inlays → lo-tien → raden

namban
南蛮
Japanese: southern barbarians
name for the first Portuguese arriving in Japan in the sixteenth century

namban karakusa
南蛮唐草
Japanese: namban scroll
characteristic scroll ornament on Namban lacquerware

namban shikki
南蛮漆器
Japanese: namban lacquerware
lacquerware of the sixteenth and seventeenth centuries produced for the European market

nashiji
梨子地
Japanese: pear ground
gold sprinkled lacquer ground with flaky structure which resembles the skin of the Japanese pear (nashi)

Negoro-nuri
根来塗
Japanese: Negoro lacquer
black and red lacquer utensils with a pattern of irregular spots or stripes; named after the Buddhist temple Negoro-dera (Wakayama prefecture)

netsuke
根付
Japanese: root attachment
counterweight of the → inrô, worn on the kimono belt

okibirame
置平目
Japanese: placed flat eyes
flattened metal filings which unlike → hirame are fixed separately to the lacquer

onnamu
옻나무
Korean: lacquer tree (bot. *Rhus verniciflua*)
→ ch'i-shu → urushi no ki

pan lai rak smook
ปั๊น ลาย รัก สมุก
Thai
relief design made of gold-plated lacquer paste → rak smook → thayò pan kywa

pan-yun
ပန်းယွန်း
Myanmar
lacquering is one of the ten traditional arts and crafts in Myanmar

p'ing-t'o
平脫
Chinese: shallow scooping
inlays of gold and silver plate → heidatsu → hyômon → kanagai

pradab smook — ประดับ สมุก
Thai
mother-of-pearl inlay

raden — 螺鈿
Japanese: conch ornament
lacquer with (white) mother-of-pearl inlays → najon ch'ilgi → lo-tien

rak — รัก
Thai
lacquer

rak khi mhoo — รัก ขี้ หมู
Thai
lacquer tree (bot. *Semecarpus cochinchinensis*)

rak luang — รัก หลวง
Thai
lacquer tree (bot. *Melanorrhoea usitata*)
→ thit-si bin

rak nam/rak mhoo — รัก น้ำ / รัก หมู
Thai
lacquer tree (bot. *Buchanania latifolia*)

rak nam klian — รัก น้ำ เกลี้ยง
Thai
purified lacquer sap

rak pah — รัก ป่า
Thai
lacquer tree (bot. *Semecarpus curtisii*)

rak shed — รัก เสษ
Thai
dehydrated lacquer sap

rak smook — รัก สมุก
Thai
mixture of lacquer with pulverized charcoal of banana leaves
→ pan lai rak smook

rantai shikki — 藍胎漆器
Japanese: woven body lacquerware
lacquerware with a core of woven bamboo

sabi-urushi — 錆漆
Japanese: rusty lacquer
mixture of raw lacquer → ki-urushi and grinding-stone powder

saeng-ot/ nal-ot — 생옻/날옻 — Korean
filtered and dehydrated raw lacquer

sangsa — 상사 — Korean
cutting shells lengthwise, vertically or diagonally

shao-tang — 梢當 — Chinese: mixture of raw lacquer and glue

shishiai maki-e — 肉合蒔絵 — Japanese: meaty sprinkled picture
combination of → togidashi maki-e and → takamaki-e

shwei-zawa — ရွှေဇော် — Myanmar
gold leaf decoration in negative design technique
→ lai rod nam

smach — ស្មាច់ — Khmer
a technique similar to dry lacquer → chia-chu;
a clay or (recently) a cement mould is covered with about ten layers of pressed stripes of paper which are soaked with glue; after removing the damp paper mask from the mould, it is fully dried and then decorated with relief-moulded lacquer
→ khmuk kbach push and gold-leaf

son canh gian — Vietnamese: cockroach-wing coloured lacquer
bright brown lacquer; dehydrated and homogenized ripe lacquer → son chin; its warm brown colour resembles that of cockroach-wings

son chin — Vietnamese
ripe lacquer → son canh gian → son quang dau → son then

son dap noi — Vietnamese
lacquerware with relief design applied with a mixture of raw lacquer → son song, white clay and sawdust → bo; the relief design is then covered with silver leaf and → son quang dau, or with coloured lacquer

son khac — Vietnamese
engraved lacquer; the design is traced on a black lacquered → voc, cut out with a knife and painted with oil paints; the technique resembles → Coromandel lacquer*

són kham trai		Vietnamese: lacquer with polished mother-of-pearl inlay selected pieces of mother-of-pearl are fixed on the primer and covered several times with → són cánh gián or black lacquer; after drying the whole surface is polished until the nacre design reappears which is finally engraved with inner lines
són mài		Vietnamese: polished lacquer the design is created by applying many layers of different coloured lacquer; then egg shells and oyster shells and gold or silver are inlaid and then completely covered with lacquer; once it has dried the whole surface is smoothly polished until the deeper inlays and colours partially reappear → vichet trakam khmuk mreak; the technique is used both for objects → dô són mài and for painting → tranh són mài
són quang dâu		Vietnamese varnished lacquer; → són cánh gián lacquer mixed with → t'ung oil and then filtered carefully
són sông/ són ta		Vietnamese raw lacquer
són then		Vietnamese: black lacquer bright black lacquer; ripe lacquer → són chin which turns black when stirred with an iron bar
songch'il	성칠	Korean: 'mature' lacquer sap collected in the second phase of harvesting
suzuribako	硯箱	Japanese writing box
taik	တိုက်	Myanmar underground cellar for drying lacquerware
takamaki-e	高蒔絵	Japanese: raised sprinkled picture relief → maki-e; the design is usually modelled with a mixture of raw lacquer → ki-urushi and grinding-stone powder → sabi-urushi and then covered with → maki-e or coloured lacquer

ta lum ตะลุ่ม
Thai
square- or octagonal-shaped fruit and food container

Tausendfüßlerranke
German: centipede scroll
term describing the densely composed scroll work of Korean mother-of-pearl inlaid lacquer of the Kōryō period

tebako 手箱
Japanese
toiletry box

thayò သရုပ
Myanmar
lacquer mixed with ashes, pulverized bone, paddy husks or cow dung; this plastic material is used for relief-moulded lacquer → thayò pan kywa

thayò pan kywa သရုပ
Myanmar
relief-moulded lacquerware
→ thayò lacquer paste is modelled to design elements, lacquered on the back and fixed to the object; the ornamental surface is coated with lacquer, gilded and often highlighted with inlays of glass fragments → hman-si shwei-cha
→ khmuk kbach push

thit-si သစ်စေး
Myanmar
lacquer/resin

thit-si bin သစ်စေးပင်
Myanmar
lacquer tree (bot. *Melanorrhoea usitata*) → rak luang

thit-si thama/
thit-si shaya သစ်စေးသမား
သစ်စေးဆရာ
Myanmar
craftsman producing lacquerware

tiab เตียบ
Thai
fruit and food container with pyramid-shaped cover

tiao-t'ien 雕填
Chinese
incising and filling → t'ien-ch'i

t'ien-ch'i 填漆
Chinese
filled-in lacquer

t'i-hei 剔黑
Chinese: cut black
black carved lacquer → tsuikoku

t'i-hsi 剔犀
Chinese
→ guri → yün-tiao

t'i-hung 剔紅
Chinese: cut red
red carved lacquer → tsuishu

t'i-ts'ai 剔彩
Chinese: cut colours
polychrome carved lacquer

togidashi 研出
Japanese: polish out

togidashi-maki-e 研出蒔絵
Japanese: polished sprinkled picture
→ maki-e which after drying is entirely covered with coloured lacquer; the image gradually reappears through polishing

tonketsu shitaji 研出蒔絵
Japanese
primer to which pig's blood is added

too phra tamma ตู้ พระธรรม
Thai
cabinet for Buddhist manuscripts

t'o-t'ai 脫胎
Chinese: no body
dry lacquer → chia-chu* → kanshitsu → man → vai bôi

tranh són mài
Vietnamese: painting with polished lacquer
→ són mài

Tsugaru-nuri 豚血下地
Japanese: Tsugaru lacquer
marbled polychrome lacquerware produced in the former Tsugaru-district in the north of the island Honshû → hsi-p'i

tsuikin 堆錦
Japanese: heaped brocade
lacquer-paste relief → tsui-ts'ai; stamped out pieces of polychrome lacquer paste applied to a lacquer base

tsuikoku 堆黑
Japanese: heaped black
black carved lacquer → t'i-hei

tsuishu	堆朱	Japanese: heaped red red carved lacquer → t'i hung
tui-ts'ai	堆彩	Chinese: heaped polychrome → tsuikin
t'ung	桐	Chinese: wood oil wood oil, China wood oil or tung oil, derived from the seeds of the t'ung-ye tree (bot. *Aleurites fordii*) or other species of the tung oil tree; it was added to lacquer or varnishes as a waterproofing agent but also as an adulterant
urushi	漆	Japanese resin/sap of the lacquer tree
urushi-e	漆絵	Japanese lacquer painting
urushi ganryô	漆顔料	Japanese lacquer pigment
urushi no ki	漆の樹	Japanese lacquer tree (bot. *Rhus verniciflua*) → ch'i-shu → onnamu
urushibe	漆部	Japanese lacquerworkers employed in government workshops
uta-e	歌絵	Japanese poem picture; → maki-e depicting a classical poem and often including inlaid characters made of cut metal
vai bôi		Vietnamese dry lacquer → chia-chu* → man → kanshitsu → t'o-t'ai
vernis de Coromandel		French → Coromandel lacquer*; the term is first documented in 1748 in the ledger of the Parisian merchant Lazare Duvaux
vichet trakam khmuk mreak	វិចិត្រកម្មខ្មុកម្រ័ក្សរណ៏	Khmer polished lacquer; after the wooden core is impregnated with a mixture of raw lacquer → mreak chao and preyng kath oil

and then made smooth, the object is painted with coloured lacquer using additionally inlays of shells of duck and chicken egg or sea and snail shells and silver-leaf; alternately the lacquer can also be mixed with snail shell powder and then being applied; after drying, the surface is polished by using nylon cloth and ash → són mai

vóc

Vietnamese
core of lacquerware prepared for decoration by covering with cloth and various layers of polished primer

Wajima-nuri 輪島塗

Japanese: Wajima lacquer
comprehensive term for lacquerware produced in Wajima (Ishikawa prefecture), mostly decorated in → chinkin-bori and → maki-e

warigai 割貝

Japanese: crushed shell
Korean technique of inlaying crackled shell which was adopted by by the Japanese in the late sixteenth century

yay-taik ရေတိုက်

Myanmar: earth house
above ground cellar for drying lacquerware

yin-shih 蔭室

Chinese: shadow house/room for drying lacquerware
→ myay-taik

yun ယွန်း

Myanmar
incised and filled-in lacquerware (from Pagan)

yün-tiao 雲雕

Chinese: engraved clouds
→ guri* → t'i-hsi

Selected bibliography

GENERAL WORKS ON LACQUER

ARAKAWA, Hirokazu. *Raden* [Mother-of-pearl lacquer]. Kyoto, 1985. 410 pp.

BALLOT, M.-J. *Les laques d'Extrême-Orient. Chine et Japon* [East Asian lacquer. China and Japan]. Paris/Brussels, 1927. 38 pp., 32 pl. (Architecture et arts décoratifs.)

BOURNE, Jonathan (i.a.). *Lacquer. An international history and collector's guide*. London, 1989. 256 pp.

BROMMELLE, N. S.; SMITH, Perry (eds.). *Urushi: Proceedings of the Urushi Study Group. June 10–27, 1985, Tokyo*. Marina del Rey, Getty Conservation Institute, 1988. 258 pp.

BURMESTER, A.; BRANDT, K. J. Beitrag zur Archäometrie organischer Materialien – Ostasiatischer Lack [Essay on the archaeometry of organic materials – East Asian lacquer]. *Berliner Beiträge zur Archäometrie*, Vol. 7, 1982, pp. 216–51.

DIESINGER, Gunter Rudolf. *Ostasiatische Lackarbeiten sowie Arbeiten aus Europa, Thailand und Indien. Katalog der Sammlung* [East Asian lacquer, lacquerwork from Europe, Thailand and India. Catalogue of the collection]. Braunschweig, Herzog Anton Ulrich Museum, 1990. 290 pp.

FAILLA, Donatella. *Lacche orientali del Museo Chiossone* [Oriental lacquer from the Chiossone Museum]. Genoa, Chiossone Museum, 1996 (collection catalogue), Rome, 1996. 350 pp.

GABBERT, Gunhild. *Ostasiatische Lackkunst* [East Asian lacquer art]. Frankfurt am Main, Museum für Kunsthandwerk, 1978 (collection catalogue). 160 pp.

HERBERTS, Kurt. *Das Buch der Ostasiatischen Lackkunst*. Düsseldorf, 1959. 549 pp. [English edition: *Oriental lacquer. Art and technique*. London, 1962].

IMPEY, O. R.; TREGEAR, M. *Oriental Lacquer. Chinese and Japanese lacquer from the Ashmolean Museum Collections*. Oxford, Ashmolean Museum, 1983 (collection catalogue). 6 pp., 20 pl.

KOPPLIN, Monika. *Ostasiatische Lackkunst. Ausgewählte Arbeiten* [East Asian lacquer art. Selected works]. Münster, Museum für Lackkunst, 1993 (collection catalogue). 207 pp.

KUWAYAMA, George. *Far Eastern Lacquer*. Los Angeles, Los Angeles County Museum of Art, 1982 (exhibition catalogue). 128 pp.

——. Far Eastern lacquer in Los Angeles. *Arts of Asia* (Hong Kong), Vol. 15, No. 5, 1985, pp. 49–67.

LEE, Yu-kuan. *Oriental Lacquer Art*. New York/Tokyo, 1972. 394 pp.

MITCHELL, Suzanne W. 1986. A portfolio of East Asian lacquers. *Apollo: The International Magazine of the Arts* (London), Vol. 124, No. 298, pp. 74–8.

RAGUÉ, Beatrix von. Zur Technik ostasiatischer Lackarbeiten. Ein Nachtrag zu Herberts *Das Buch der Ostasiatischen Lackkunst* [East Asian lacquer techniques. Supplement to Herberts' *Oriental Lacquer. Art and technique*]. *Nachrichten der Gesellschaft für Natur- und Völkerkunde Ostasiens. Zeitschrift für Kultur und Geschichte Ostasiens* (Hamburg), No. 92, 1962, pp. 29–40.

SHÔNO-SLÁDEK, Masako. *Der Glanz des Urushi. Die Sammlung der Lackkunst des Museums für Ostasiatische Kunst der Stadt Köln. Bestandskatalog mit kulturhistorischen Betrachtungen* [The lustre of *urushi*. The collection of lacquer art in the Museum of East Asian Art Cologne. Catalogue with cultural and historical comments]. Cologne, Museum für Ostasiatische Kunst, 1994 (collection catalogue). 627 pp.

SPEISER, Werner. *Lackkunst in Ostasien* [Lacquer art in East Asia]. Baden-Baden, 1965. 375 pp.

TOKUGAWA ART MUSEUM (ed.). *Karamono shikki. Chûgoku, Chôsen, Ryûkyû. Karamono* [Imported lacquerwork – Chinese, Korean and Ryukyuan (Okinawa)]. Nagoya, Tokugawa Art Museum, 1997. 142 pp. (Selections from the Tokugawa Art Museum, No. 2.)

——. *Raden. Nijiiro ni kagayaku kai to urushi no geijutsu* [East Asian urushi lacquerwork with mother-of-pearl inlay]. Nagoya, Tokugawa Art Museum, 1999 (exhibition catalogue). 146 pp.

TOKUGAWA ART MUSEUM. NEZU INSTITUTE OF FINE ARTS (eds.). *Chô-shitsu, urushi no rerîfu* [Carved lacquer]. Nagoya/Tokyo, Tokugawa Art Museum/Nezu Institute of Fine Arts, 1984 (exhibition catalogue). 317 pp.

TOKYO NATIONAL MUSEUM (ed.). *Tôyô no urushi kôgei* [Oriental lacquer arts]. Tokyo, Tokyo National Museum, 1977 (exhibition catalogue). 257 pp.

WATSON, William (ed.). *Lacquerwork in Asia and Beyond: A colloquy held 22–24 June 1981*. London, 1982. 345 pp. (Percival David Foundation of Chinese Art, *Colloquies on Art and Archaeology in Asia*, No. 11.)

WATT, James C. Y.; BRENNAN FORD, Barbara. *East Asian Lacquer. The Florence and Herbert Irving Collection*. New York, Metropolitan Museum of Art, 1991 (exhibition catalogue). 388 pp.

CHINESE LACQUER

BEURDELEY, Cécile; BEURDELEY, Michel. Mobilier en laque [Lacquered furniture]. In: Cécile and Michel Beurdeley, *Le mobilier chinois: Le guide du connaisseur* [Chinese furniture: A guide for the connoisseur], pp. 97–143. Fribourg, 1979.

BRANDT, Klaus Joachim. *Chinesische Lackarbeiten* [Chinese lacquerware]. Stuttgart, Linden-Museum, 1988 (collection catalogue). 159 pp.

CH'ÊN, Chên-yü. *Chan-kuo*. Fu-chou, 1997. 206 pp., 62 pp. catalogue (*Chung-kuo ch'i-ch'i ch'üan-chi*, 2.)

——. *Hsien-Ch'in*. Fu-chou, 1997. 170 pp., 64 pp. catalogue (*Chung-kuo ch'i-ch'i ch'üan-chi*, 1.)

CHU, Chia-chin; HSIA, Kêng-ch'i. *Ming*. Fu-chou, 1995. 220 pp., 67 pp. catalogue (*Chung-kuo ch'i-ch'i ch'üan-chi*, 5.)

——. *Ch'ing*. Fu-chou, 1996. 204 pp., 85 pp. catalogue (*Chung-kuo ch'i-ch'i ch'üan-chi*, 6.)

CLIFFORD, Derek. *Chinese Carved Lacquer*. London, 1992. 160 pp.

CLUNAS, Craig. Human figures in the decoration of Ming-lacquer. *Oriental Art* (London), New Series, Vol. 32, No. 2, 1986, pp. 177–88.

——. Whose throne is it anyway? The Qianlong throne in the T. T. Tsui Gallery. *Orientations* (Hong Kong), Vol. 22, No. 7, 1991, pp. 44–50.

DITTRICH, Edith. Ein chinesischer Geburtstagsparavent aus dem 17. Jahrhundert im Museum für Ostasiatische Kunst in Köln [A Chinese birthday screen from the seventeenth century in the Cologne Museum of East Asian Art]. In: Peter Bloch and Gisela Zick (eds.), *Festschrift für Heinz Ladendorf*, pp. 1–8, 7 pl. Cologne/Vienna, 1970.

DUBOSC, Jean-Pierre. A rare example of late fifteenth-century carved lacquer in an English private collection. *The Connoisseur* (London), Vol. 162, No. 652, 1966, pp. 78–81.

——. Pre-Ming lacquer. A Yuan date suggested for a related group of Chinese lacquer. *The Connoisseur* (London), Vol. 165, No. 666, 1967, pp. 225–29.

ESKENAZI (ed.). *Chinese Lacquer from the Jean-Pierre Dubosc Collection and others*. London, Eskenazi, 1992 (exhibition catalogue). 69 pp.

FIGGESS, Sir John. Ming and pre-Ming lacquer in the Japanese tea ceremony. *Transactions of the Oriental Ceramic Society* (London), Vol. 37, 1967/69, pp. 37–51.

——. Chinese lacquer from Han to Ming. Synopsis of a talk given on 29th April 1976. *Bulletin of the Oriental Society of Hong Kong* (Hong Kong), No. 3, 1977/78, pp. 9–18.

GARNER, Sir Harry. *Guri* lacquer of the Ming dynasty. *Transactions of the Oriental Ceramic Society* (London), Vol. 31, 1957/59, pp. 61–73.

——. Diaper backgrounds on Chinese carved lacquer. *Ars Orientalis: The arts of Islam and the East* (Washington, D.C.), Vol. 6, 1966, pp. 165–89.

——. A group of Chinese lacquers with basketry panels. *Archives of Asian Art* (New York), Vol. 20, 1966/67, pp. 6–24.

——. The export of Chinese lacquer to Japan in the Yüan and early Ming dynasties. *Archives of Asian Art* (New York), Vol. 25, 1971/72, pp. 6–28.

——. *Chinese and Associated Lacquer from the Garner Collection*. London, British Museum, 1973 (exhibition catalogue). 48 pp., 80 pl.

——. *Chinese Lacquer*. London/Boston, 1979. 285 pp. (The arts of the East.)

GYLLENSVÄRD, Bo. *Lo-tien* and *laque burgauté*. Two kinds of Chinese lacquer inlaid with mother-of-pearl in Swedish collections. *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 44, 1972, pp. 115–31, pl. 1–30.

HUANG, Kuang-nan (ed.). *Ch'ing-tai ch'i-i wên-wu t'ê-chan. Fu-chan T'ai-wan ts'ao-ch'i ch'i-i* [Ch'ing lacquer artifacts with early Taiwanese works]. Taipei, National Museum of History, 1997 (exhibition catalogue). 179 pp.

JENYNS, R. Soame. Lacquer. In: R. Soame Jenyns and William Watson, *Chinese Art: The minor arts – gold, silver, bronze, cloisonné, Cantonese enamel, lacquer, furniture, wood*, pp. 272–367. New York, 1963.

JOURDAIN, Margaret; JENYNS, R. Soame. Lacquer and lacquered furniture. In: Margaret Jourdain and R. Soame Jenyns, *Chinese Export Art in the Eighteenth Century,* pp. 16–24. London, 1950.

KRAHL, Regina; MORGAN, Brian. *From Innovation to Conformity. Chinese lacquer from the thirteenth to sixteenth centuries*. London, Bluett and Sons, 1989 (exhibition catalogue). 92 pp.

KUWAYAMA, George. Qiangjin lacquer. *Bulletin of the Oriental Ceramic Society of Hong Kong,* No. 10, 1992/94, pp. 8–17.

LAM, Peter Y. K. (ed.). *2,000 Years of Chinese Lacquer*. Hong Kong, Oriental Ceramic Society of Hong Kong/Art Gallery, Chinese University of Hong Kong, 1993 (exhibition catalogue). 246 pp.

LAM, Peter; WA, Yau Hok (eds.). *Hu-pei ch'u-t'u Chan-kuo Ch'in-Han ch'i-ch'i* [Lacquerware from the Warring States to the Han Periods excavated in Hubei province]. Hubei Provincial Museum/Art Gallery, Chinese University of Hong Kong, 1994 (exhibition catalogue). 58 pp., 82 cat. nos.

LEE, King Tsi; HU, Shih Chang. *Drache und Phönix: Lackarbeiten aus China. Sammlung der Familie Lee, Tokyo*. [Dragon and phoenix: Chinese lacquerware. Lee family collection, Tokyo]. Cologne, Museum für Ostasiatische Kunst, 1990 (exhibition catalogue). 229 pp.

——. Inscriptions on Ming lacquer. *Bulletin of the Oriental Ceramic Society of Hong Kong*, No. 10, 1992/94, pp. 28–34.

LI, Chêng-kuang. *Han-tai ch'i-ch'i i-shu* [Lacquer art of the Han period]. Beijing, 1987. 170 pp.

LI, Ch'iao-p'ing. Lacquer and lacquering. In: *The Chemical Arts of Old China*, pp. 104–12. 1979 (reprint of the 1948 ed. published by the *Journal of Chemical Education*, Easton, Pennsylvania).

LI, Chiu-fang. Ming-tai ch'i-ch'i tê shih-tai t'ê-chêng chi chung-yao ch'êng-chiu [The features of the times of

lacquerware of the Ming Dynasty and its important achievements]. *Palace Museum Journal* (Beijing), No. 3, 1992, pp. 3–10.

LOVELL, Hin-cheung. Sung and Yüan monochrome lacquers in the Freer Gallery. *Ars Orientalis. The arts of Islam and the East* (Washington, D.C.), Vol. 9, 1973, pp. 121–30.

LÖW-BEER, Fritz. Zum Dekor der Han-Lacke [On the decoration of Han lacquer]. *Wiener Beiträge zur Kunst- und Kulturgeschichte Asiens* (Vienna), Vol. 11, 1937, pp. 65–73, fig. 1–28.

——. Chinese lacquer of the early fifteenth century. *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 22, 1950, pp. 145–67, pl. 1–30.

——. Chinese lacquer of the middle and late Ming period. *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 24, 1952, pp. 27–49, pl. 1–56.

——. Three Ming lacquer boxes. *Oriental Art* (London), New Series, Vol. 7, No. 4, 1961, pp. 3–6.

MAYER, Martina. *Koromandellacke (kuancaiqi): Überblick über den bisherigen Stand der Forschung und Untersuchungen zu ausgewählten figürlichen Motiven* [Coromandel lacquer. Overview of previous research and studies of selected figurative motifs]. 2 vols. Heidelberg, unpublished Master's thesis, 1990/91.

MENSHIKOVA, Marija L. Kitaiskii stolik resnogo krasnogo laka [A small Chinese table of carved vermilion lacquer]. *Soobshtshenija gosudarstvennogo Ermitazha* (Leningrad), No. 51, 1986, pp. 52–4.

——. Kitaiskie resnye laki XIV-XVII vv. v sobranii Ermitazha [Chinese carved lacquer from the fourteenth to the seveneenth centuries in the Hermitage collections]. *Trudy gosudarstvennogo Ermitazha* (Leningrad), No. 27, 1989, pp. 96–107.

——. A lacquer table screen in the Hermitage Museum. *Orientations* (Hong Kong), Vol. 24, No. 1, 1993, pp. 41–4.

MICHAELSON, Carol. Mass production and the development of the lacquer industry during the Han dynasty. *Orientations* (Hong Kong), Vol. 23, No. 11, 1992, pp. 60–5.

MUSEUM OF EAST ASIAN ART (ed.). Lacquers. In: *Inaugural Exhibition: Chinese Metalwares and Decorative Arts,* pp. 123–42. Bath, Museum of East Asian Art, 1993 (collection catalogue).

NATIONAL PALACE MUSEUM (ed.). *Ku-kung po-wu-yüan ts'ang tiao-ch'i* [Carved lacquer in the collection of the Palace Museum]. Beijing, National Palace Museum, 1985. 294 pp.

NATIONAL PALACE MUSEUM, Taipei (ed.). *Masterpieces of Chinese Carved Lacquer Ware in the National Palace Museum*. Taipei, National Palace Museum, 1971 (collection catalogue). 96 pp.

——. *Chinese Lacquer in the Palace Museum Collection*. Taipei, National Palace Museum, 1981 (collection catalogue).

——. *Hai-wai yi-chen* [Chinese art in overseas collections. Lacquerware]. Taipei, National Palace Museum, 1987. 200 pp.

NISHIOKA, Yasuhiro. *Chûgoku no raden* [Chinese mother-of-pearl lacquer]. Tokyo, Tokyo National Museum, 1981 (exhibition catalogue). 204 pp.

——. Chinese 'Southern Song style' carved lacquer, centring around the works with the signature of Lu Pu Zao. *Bulletin of the Oriental Ceramic Society of Hong Kong*, No. 10, 1992/94, pp. 18–27.

PALMGREN, Nils. A carved lacquer box in the collection of H.M. the King of Sweden. *Röhsska Konstslöjdmuseet årstryck*, 1952, pp. 31–4.

PRÜCH, Margarete. *Die Lacke der Westlichen Han-Zeit (206 v. Chr.–6 n. Chr.). Bestand und Analyse* [Lacquer from the Western Han period. Inventory and analysis]. Frankfurt am Main/Berlin/Berne/New York/Paris/Vienna, 1997. 617 pp. (European University Studies, Series XXVIII. History of Art, Vol. 299.)

RAGUÉ, Beatrix von. Yüan lacquerware. Some basic information for further studies. *Oriental Art* (London), Vol. 16, No. 2, 1970, pp. 1–5.

——. Zu chinesischen Perlmuttlacken des 14. Jahrhunderts [On fourteenth-century Chinese mother-of-pearl lacquers]. *Artibus Asiae* (Ascona), Vol. 38, No. 2/3, 1976, pp. 128–38.

——. Some Ming mother-of-pearl inlaid laquer objects in Japanese collections; and their relations to Chinese unofficial ceramics. In: *International Symposium on Chinese*

Ceramics, Seattle Art Museum, July 24–28, 1977, pp. 112–19.

——. Über Daten, Orts- und Künstlernamen auf Perlmuttlacken der Ming-Zeit [Dates, place names and artist's names on Ming period mother-of-pearl lacquers]. In: Roger Goepper, Dieter Kuhn and Ulrich Wiesner (eds.), *Zur Kunstgeschichte Asiens. 50 Jahre Lehre und Forschung an der Universität Köln,* pp. 177–87. Wiesbaden, 1977.

——. Eine chinesische Schnitzlack-Fussbank aus dem frühen 15. Jahrhundert. Neuerwerbung des Museums für Ostasiatische Kunst [A Chinese footrest made of carved lacquer in the early fifteenth century, newly acquired by the Museum of East Asian Art]. *Jahrbuch Preussischer Kulturbesitz* (Berlin), Vol 15, 1978, pp. 131–44.

——. *Die Pfirsiche der Unsterblichkeit. Ein chinesischer Kaiserthron* [Peaches of immortality: A Chinese imperial throne]. Berlin, 1982. 88 pp. (Bilderheft der Staatlichen Museen Preussischer Kulturbesitz, 40/41.)

SHIMAGUCHI, Keiichi. Chûgoku Izoku no urushi bunka [The lacquerware and culture of Yi nationality in China]. *Shikkôshi. History of lacquer art. Bulletin of the Academy of Lacquer Research* (Atami), Vol. 18, 1995, pp. 37–53.

SILVA, John da. A small group of eighteenth-century Chinese court lacquers. *Transactions of the Oriental Ceramic Society* (London), Vol. 44, 1979–80, pp. 67–72.

STRANGE, Edward F. *Catalogue of Chinese Lacquer.* London, Victoria and Albert Museum, 1925 (collection catalogue). 36 pp., 44 pl.

——. *Chinese Lacquer*. London, 1926.

SZU-CH'UAN LIANG-SHAN I-TSU PO-WU-KUAN (ed.). *Liang-shan I-tsu wen-wu t'u-p'u. Ch'i-ch'i* [Collection of plates documenting the culture of the Yi nationality of Liang-shan. Lacquerware]. Liang-shan, 1982. 69 pp.

TOKYO NATIONAL MUSEUM. *Urushi de kakareta shinpi no sekai. Chûgoku kodai shikki-ten.* [A mysterious world of ancient designs. Lacquerware from the Tombs of Hubei, China]. Tokyo, Tokyo National Museum, 1998 (exhibition catalogue). 227 pp.

UMEHARA, Sueji. *Shina Kan-dai kinen mei shikki zusetsu* [Illustrated study of Chinese lacquerware of the Han dynasty with dated inscriptions]. Kyoto, 1943. 70 pp., 47 pl.

WANG, Shixiang. *Ancient Chinese Lacquerware*. Beijing, 1987. 225 pp.

WANG, Zhongshu. Lacquerware. In: Zhongshu Wang, *Han Civilization*, pp. 80–91, fig. 95–115. Connecticut/London, New Haven, 1982.

WATSON, William. Chinese lacquered wine-cups. *The British Museum Quarterly*, Vol. 21, 1957/59, pp. 21–6.

WATT, James C. Y. *The Sumptuous Basket. Chinese lacquer with basketry panels*. New York, China House Gallery, 1985 (exhibition catalogue). 103 pp.

Wen-wu ts'an-k'ao tzu-liao (Beijing), No. 7, 1957. Numerous articles on Chinese lacquer art.

WIRGIN, Jan. An early fifteenth century lacquer box. *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 38, 1966, pp. 193–201, pl. 1–8.

——. Some Chinese carved lacquer of the Yüan and Ming periods. *The Museum of Far Eastern Antiquities Bulletin* (Stockholm), No. 44, 1972, pp. 93–114, pl. 1–40.

KOREAN LACQUER

ARAKAWA, Hirokazu. Dekore und Techniken koreanischer Perlmuttlacke der Koryo-Zeit [Decorations and techniques of Korean mother-of-pearl lacquer from the Koryo period]. *Jahrbuch Preussischer Kulturbesitz* (Berlin), Vol. 22, 1986, pp. 307–44.

EHWA YOJA TAEHAKKYO PAKMULGWAN (ed.). *Nachonch'ilgi hwagakgongye*. Special exhibition of lacquered wood with inlaid mother-of-pearl and painted ox-horn sheet handicrafts. Seoul, Ewha Womens' University Museum, 1989 (exhibition catalogue). 84 pp.

FIGGESS, John. Mother of pearl inlaid lacquer of the Koryo dynasty. *Oriental Art* (London), New Series, Vol. 23, Nos. 1–4, 1977, pp. 87–95.

FONTEIN, Jan. Notes on Korean lacquer. *Bulletin Vereeniging van vrienden der aziatische kunst* (Amsterdam), Series 3, No. 6, 1956, pp. 88–93.

——. Koreanische Lackkunst der Yi-Zeit [Korean lacquer art

from the Yi period]. In: August Riekel (ed.), *Koreanica: Festschrift Professor Dr Andre Eckardt zum 75. Geburtstag*, pp. 77–84. Baden-Baden, 1960.

——. Masterpieces of lacquer and metalwork. *Apollo: The International Magazine of the Arts* (London), Vol. 88, No. 78, 1968, pp. 114–19.

GÔKE, Tadaomi. Kôrai raden-ki zakkô [Speculations on Korean lacquerware with mother-of-pearl inlay decoration]. *Museum* (Tokyo), No. 319, 1977, pp. 16–23.

GOMPERTZ, G. St. G. M. Korean inlaid lacquer of the Koryo period. *Transactions of the Oriental Ceramic Society* (London), Vol. 43, 1978/79, pp. 1–31.

GRAY, Basil. Korean inlaid lacquer of the thirteenth century. *The British Museum Quarterly*, Vol. 32, 1967/68, pp. 132–37.

HAYASHI, Susumu. Kôrai kyôbako ni tsuite no ni san no mondai – tokuni Kôrai Sôshokukyô to no kankei ni tsuite [A few problems concerning the Sutra box from Koryo, especially on the relation with the decorative Sutra of Koryo]. *Bukkyô geijutsu* (Tokyo), No. 138, 1981, pp. 41–52.

KAWADA, Sadamu; TAKAHASHI, Takahiro. *Kôrai Ri-chô no raden* [Mother-of-pearl lacquer from the Koryo and Yi dynasties]. Tokyo, 1986. 230 pp.

MI-SUL-GUAN GALLERY (ed.). *Lee Seong-un najon gong-ye jon* [Exhibition of mother-of-pearl lacquerwork by Lee Seong-un]. Seoul, Mi-sul-guan Gallery, 1987 (exhibition catalogue).

NAKAGAWA, Sensaku. Kôrai raden to seiji zôgan no monyô ni tsuite [Korean designs found on Koryo nacre inlays and clay-inlaid celadons]. *Bijutsu kenkyû* (Tokyo), No. 175, 1954, pp. 14–21.

NATIONAL FOLKLORE MUSEUM (ed.). *Hangkuk ch'ilgi yich'on nyon* [2,000 years of Korean lacquerware]. Seoul, National Folklore Museum, 1989 (exhibition catalogue). 254 pp.

OKADA, Jô. Bunken-jô yori mita Kôrai-raden [Literary sources of study on Koryo nacre inlays]. *Bijutsu kenkyû* (Tokyo), No. 175, 1954, pp. 42–4.

RAGUÉ, Beatrix von. Zur Quellenkunde koreanischer Lacke mit Perlmutt-Einlagen [Study of literary sources for Korean mother-of-pearl inlaid lacquer]. *Oriens Extremus. Zeitschrift für Sprache, Kunst und Kultur der Länder des Fernen Ostens* (Hamburg), Vol. 8, 1961, pp. 247–51.

YOSHINO, Tomio. Kôrai no radenki [Korean nacre inlay works of the Koryo dynasty]. *Bijutsu kenkyû* (Tokyo), No. 175, 1954, pp. 1–13.

JAPANESE LACQUER

ARAKAWA, Hirokazu. *Namban shitsugei* [Namban lacquer art]. Tokyo, 1971. 184 pp.

——. Concerning lacquer techniques and the origin of the inrô. *Andon. Bulletin of the Society for Japanese Arts and Crafts* (The Hague), No. 9, 1983, pp. 1–8.

ARAKAWA, Hirokazu; HOSOKAWA, Morisada. Hosokawa-ke denrai. Makie shitsugei [The legacy of the Hosokawa family. Makie]. Kyoto, 1988. 281 pp.

ARAKAWA, Hirokazu; KOMATSU, Taishû; HAINO, Akio. Kinsei daimyô konrei chôdo ni tsuite. [Wedding paraphernalia of the feudal lords in the pre-modern period; Research on the basic materials of pre-modern lacquer crafts (Parts 1 and 2)]. *Museum* (Tokyo), No. 419 (2), 1986, pp. 19–28; No. 420 (3), 1986, pp. 17–27.

BOYER, Martha. *Japanese Export Lacquers from the Seventeenth Century in the National Museum of Denmark*. Copenhagen, 1959. 149 pp., 60 pl.

——. *Japanese Lacquers in the Walters Art Gallery*. Baltimore, Walters Art Gallery, 1970 (collection catalogue). 94 pp., 178 pl.

BRÄUTIGAM, Herbert. *Schätze japanischer Lackkunst auf Schloss Friedenstein* [Treasures of Japanese lacquer art at Castle Friedenstein]. Gotha, Schlossmuseum, 1998 (collection catalogue). 110 pp.

BREUER, A. A. The influence of China on lacquer in Japan. *Transactions of the Japan Society, London*, Vol. 12, 1914, pp. 158–76.

CASAL, U. A. The inrô. *Transactions and Proceedings of the Japan Society, London*, Vol. 37, 1941, pp. 1–53.

DAVEY, Neil Kenneth; TRIPP, Susan Gerwe. *The Garrett*

Collection: Japanese art – lacquer, inrô, netsuke. London, 1993. 325 pp.

DEES, Jan. Japanese imperial presentation boxes 1900–1930. *Oriental Art* (London), Vol. 43, No. 1, 1997, pp. 2–9.

——. Ferns, feathers and flowers. Growing individuality in Japanese lacquer art 1890–1940. *Arts of Asia* (Hong Kong), Vol. 28, No. 4, 1998, pp. 43–59.

EARLE, Joe (ed.). *Meiji no takara. Shibata Zeshin meihin-shû*. [Treasures of imperial Japan. Masterpieces by Shibata Zeshin.] London, 1996. 288 pp. (Nasser D. Khalili Collection of Japanese Art.)

ESKENAZI (ed.). *The Charles A. Greenfield Collection of Japanese Lacquer*. London, Eskenazi, 1990 (exhibition catalogue). 245 pp.

——. *Japanese Inrô and Lacquerware from a Private Swedish Collection*. London, Eskenazi, 1996 (exhibition catalogue). 102 pp.

FAILLA, Donatella. Laques du XIX^e^ siècle au Musée Chiossone entre austérité, magnificence, classicisme et *sôshoku*. Quelques chefs-d'œuvre inédits et leurs sources [Simplicity and splendour, classicism and *sôshoku* – lacquerwork from the 19th century in the Chiossone Museum. Unpublished masterpieces and their sources]. *Artibus Asiae* (Zurich), Vol. 56, No. 1/2, 1996, pp. 145–73.

GAHBLER, Heribert. *Wakasa-nuri und Kagawa-shikki. Technik und Tradition lokaler Lackerzeugnisse* [Wakasa-nuri and Kagawa-shikki. Technique and tradition of local lacquercraft]. Bonn, unpublished Master's thesis, 1991.

GÔKE, Tadaomi. Shibata Zeshin. Tokyo, 1974. 104 pp. (*Nihon no bijutsu*, 2, No. 93.).

HAINO, Akio. *Kamakura-bori*. Kyoto, 1977. 327 pp.

——. *Makie. Shikkoku to ôgon no nihon-bi*. [Makie: The beauty of black and gold Japanese lacquer]. Kyoto, Kyoto National Museum, 1995 (exhibition catalogue). 223 pp.

——. Ogawa Haritsu – Edo kôgei no iki [Ogawa Haritsu – elegance of Edo arts and crafts]. Tokyo, 1998. 98 pp. (*Nihon no bijutsu*, 10, No. 389.)

HELMERT-CORVEY, Theodor (ed.). *Inrô. Das Ding am Gürtel. Japanische Medizindöschen aus der Sammlung Heinz und Else Kress* [Inrô. The thing on the belt. Japanese medicine cases from the collection of Heinz and Else Kress]. Münster Bielefeld, Museum für Lackkunst, 1997 (exhibition catalogue). 295 pp.

HOLZHAUSEN, Walter. Die Lackschränke des kurfürstlich bayerischen Münzkabinetts in München [The lacquer cabinets in the electoral numismatic collection of Bavaria in Munich]. *Münchner Jahrbuch der bildenden Kunst* (Munich), Dritte Folge, Vol. 5, 1954, pp. 205–16.

HUTT, Julia. The Gifu inro. A set of one hundred inro by Koma Yasutada. *Transactions of the Oriental Ceramic Society* (London), Vol. 53, 1988/89, pp. 65–86.

——. *Japanese Inrô*. London, Victoria and Albert Museum, 1997. 128 pp. (Far Eastern series.)

——. Highlights of Meiji and Taishô period lacquerware in the Victoria and Albert Museum. *Oriental Art* (London), Vol. 44, No. 2, 1998, pp. 24–7.

Inrô, Gürtelschmuck des Japaners, aus Beständen des Linden-Museums Stuttgart [Inrô, belt ornament of the Japanese, from the collections of the Linden-Museum Stuttgart]. Pforzheim/Stuttgart, Schmuckmuseum/Linden-Museum, 1988 (exhibition catalogue).

ISHIKAWA WAJIMA URUSHI ART MUSEUM (ed.). *Gendai shitsugei no kyoshô-tachi* [Masters of contemporary lacquer art]. Wajima, Ishikawa Wajima Urushi Art Museum, 1991 (exhibition catalogue). 83 pp.

——. *Mae Taihô to ichimon ten* [Mae Taihô and his disciples, exhibition]. Wajima, Ishikawa Wajima Urushi Art Museum, 1992 (exhibition catalogue). 50 pp.

——. *Mitsui-ke no shippô-ten* [Treasures of lacquer art from the Mitsui family]. Wajima, Ishikawa Wajima Urushi Art Museum, 1992 (exhibition catalogue). 84 pp.

JAHSS, Melvin; JAHSS, Betty. *Inro and other miniature forms of Japanese lacquer art*. 2nd ed. Tokyo, Rutland, 1981. 488 pp.

KAWADA, Sadamu. Negoro *nuri* [Negoro *nuri* lacquer]. Tokyo, 1976. 102 pp. (*Nihon no bijutsu*, 5, No. 120.).

——. *Raden* [Mother-of-pearl lacquer]. Tokyo, 1983. 94 pp. (*Nihon no bijutsu*, 12, No. 211.).

——. *Negoro* [Negoro lacquer]. Kyoto, 1985. 362 pp.

KOMATSU, Taishû. Shitsugei-hin ni okeru bungaku ishô [Designs of literary subjects in lacquer art (Parts 1–2)].

Museum (Tokyo), No. 360, 1981, pp. 4–21; No. 366, 1981, pp. 26–38.

KONGÔ, Iwao. *Meihô shikki zuroku* [A collection of the treasures of lacquerware in Japan]. Tokyo/Osaka, 1933. 48 pp.

LEWIS, Edmund J.; EARLE, Joe. *Shadows and Reflections* (Japanese lacquer art from the collection of Edmund J. Lewis at the Honolulu Academy of Arts). Honolulu, Academy of Arts, 1996 (exhibition catalogue). 196 pp.

LITTLE, Stephen. Japanese lacquer in the collection of Edmund J. Lewis. *Orientations* (Hong Kong), Vol. 27, No. 11, 1996, pp. 37–44.

MEECH, Julia. *Lacquerware from the Weston Collection* (selection of inro and boxes). New York, Christie's, 1995 (exhibition catalogue). 200 pp.

MENDES PINTO, Maria Helena. *Namban Lacquerware in Portugal: The Portuguese presence in Japan (1543–1639)*. Lisbon, 1990. 127 pp.

MÖBIUS, Martin. Der japanische Lackbaum, *Rhus vernicifera DC*. Eine morphologisch-anatomische Studie [The Japanese lacquer tree, *Rhus vernicifera DC*. A morphological and anatomical study]. *Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft* (Frankfurt), Vol. 20, No. 1, 1897, pp. 201–47.

NAKASATO, Toshikatsu. *Chûson-ji Konjiki-dô to Heian-jidai shikkei gihô no kenkyû* [Studies on the lacquerworks at Konjikido, Chusonji and lacquer art techniques of the Heian Period]. Tokyo, 1990. 660 pp.

——. Chûson-ji no shitsugei [Lacquer art at Chûson-ji]. Tokyo, 1992. 98 pp. (*Nihon no bijutsu*, 11, No. 318.)

NATIONAL MUSEUM OF MODERN ART TOKYO (ed.). *Japanese Lacquer Art: modern masterpieces*. New York/Tokyo/Kyoto, National Museum of Modern Art Tokyo, 1982. 299 pp.

O'BRIEN, Mary Louise; FOULDS, Martin; LINK, Howard A. *The Art of Shibata Zeshin. The Mr and Mrs James E. O'Brien Collection at the Honolulu Academy of Arts*. London, 1979. 195 pp.

OKADA, Barbra Teri. *Symbol and Substance in Japanese Lacquer. Lacquer boxes from the Collection of Elaine Ehrenkranz*. New York/Tokyo, 1995 (collection catalogue). 191 pp.

OSAKA MUNICIPAL MUSEUM OF ART (ed.). *Edo-jidai no makie. Chôdo. Lacquerware. Household Effects*. Osaka, Osaka Municipal Museum of Art, 1985. 141 pp. (Osaka shiritsu bijutsukan zôhin zuroku XV. Casal Collection chôdo-hen.)

——. Shikkogei no bi. *Momoyama kara Edo jidai e* [The beauty of lacquer art: From the Momoyama to the Edo periods]. Osaka, Osaka Municipal Museum of Art, 1987 (exhibition catalogue). 129 pp.

——. Sakura no en. *Joy Under the Blossoms. Lacquered picnic sets from the Osaka Municipal Museum of Art*. Osaka, Osaka Municipal Museum of Art, 1997 (exhibition catalogue). 21 pp.

RAGUÉ, Beatrix von. Ein Schnitzlack-Kôgô von Zôkoku [A carved lacquer kôgô by Zôkoku]. *Nachrichten der Gesellschaft für Natur- und Völkerkunde Ostasiens* (Hamburg), No. 93, 1963, pp. 60–2.

——. Materialien zu Iizuka Tôyô, seinem Werk und seiner Schule [Materials on Iizuka Toyo, his work and school]. *Oriens Extremus* (Hamburg), Vol. 11, 1964, pp. 163–235, fig. 1–12.

——. *Geschichte der japanischen Lackkunst*. Berlin, 1967. 380 pp. [English edition: *A History of Japanese Lacquerwork*. Toronto/Buffalo, 1976].

RAUSCH, Anthony S. *Tsugaru nuri*. Lacquerware of Aomori prefecture. *Arts of Asia* (Hong Kong), Vol. 27, No. 4, 1997, pp. 127–31.

RAUSCH, Anthony; SATO, Takeji; HIDANO, Yutaka. *Japanese Lacquerware, Tsugaru nuri*. Aomori, 1993. 97 pp.

SAKAI CITY MUSEUM (ed.). *Namban shikki. Shitsugei ni miru tôzai kôryu* [*Namban-shikki*. Cultural exchange between East and West through lacquer craft]. Sakai, Sakai City Museum, 1983 (exhibition catalogue). 108 pp.

——. Shu-urushi. *Negoro – sono yô to bi* [Red lacquer – utility and beauty of Negoro]. Sakai, Sakai City Museum, 1986 (exhibition catalogue). 164 pp.

SCHNEEBERGER, Pierre-F. *The Baur Collection Geneva: Japanese lacquer*. Geneva, 1984 (collection catalogue). 193 pp.

SHIMIZU, Christine. *Urushi. Les laques du Japon* [Urushi: Japanese lacquer]. Paris, 1988. 297 pp.

SHIRAISHI, Masami. *Rainbows and Shimmering Bridges:*

Contemporary Japanese lacquerware. New York, Japan Society Gallery, 1996 (exhibition catalogue). 79 pp.

SPINK (ed.). *Japanese Lacquer. Miyabi transformed*. London, Spink, 1997 (exhibition catalogue). 60 pp.

STRANGE, Edward F. *Catalogue of Japanese Lacquer. Part I. General*. London, Victoria and Albert Museum, 1924 (collection catalogue). 193 pp., 48 pl.

——. *Catalogue of Japanese Lacquer. Part II. Medicine cases (Inrô)*. London, Victoria and Albert Museum, 1925 (collection catalogue). 162 pp., 37 pl.

TOKUGAWA ART MUSEUM (ed.). *Konrei: Trousseau Heirlooms of Daimyô Ladies*. Nagoya, Tokugawa Art Museum, 1991. 176 pp. (Treasures from the Tokugawa Art Museum, No. 7.)

——. *Kirameku urushi. Makie* [Maki-e: Lacquer with sprinkled gold and glitter]. Nagoya, Tokugawa Art Museum, 1993 (exhibition catalogue). 169 pp.

URASOE-SHI BIJUTSUKAN (ed.). *Wajima shitsugei-ten* [Lacquer art from Wajima]. Urasoe, Urasoe Art Museum, 1996 (exhibition catalogue). 87 pp.

WEINMAYR, Elmar. *Kado Isaburô. Lackarbeiten* [Kado Isaburô. Lacquerwork]. Berlin, Museum für Ostasiatische Kunst, 1994 (exhibition catalogue). 107 pp.

——. *Nurimono. Japanische Lackmeister der Gegenwart* [Nurimono. Contemporary lacquer masters of Japan]. Münster, Museum für Lackkunst, 1996 (exhibition catalogue). 232 pp.

WIEDEHAGE, Peter. *Goldene Gründe. Japanische Lackarbeiten im Museum für Kunst und Gewerbe Hamburg* [Golden grounds: Japanese lacquer from the Museum of Applied Arts Hamburg]. Hamburg, 1996 (collection catalogue). 152 pp.

WRANGHAM, E. A. *The Index of Inrô Artists. Inrô daijiten*. Alnwick, 1995. 368 pp.

YAMATO BUNKAKAN (ed.). *Yamato Bunkakan shozôhin. Zuhan mokuroku 3. Shikkô* [Lacquerwares from the Museum Yamato Bunkakan Collection]. Nara, 1982 (Illustrated catalogue series, 3.)

YONEMURA, Ann. *Japanese Lacquer*. Washington, D.C., Smithsonian Institution, Freer Gallery of Art, 1979 (collection catalogue). 106 pp.

YOSHIMURA, Motoo. *Kodai-ji maki-e*. Kyoto, 1971. 46 pp., 6 pl., 86 fig.

RYUKYU LACQUER

ARAKAWA, Hirokazu. *Ryûkyû shikki-ten. Mikôkai korekushion* [Exhibition of Ryukyu lacquerware from unpublished collections]. Tokyo, Itabashi-kuritsu bijutsukan, 1973 (exhibition catalogue). 119 pp.

——. *Ryûkyû ôchô no tasaina shikki bunka. Oka korekushion meihin-ten* [Variety of lacquerware in the kingdom of Ryukyu. Exhibition of masterpieces from the Oka collection]. Urasoe, Urasoe Art Museum, 1992 (exhibition catalogue). 62 pp.

ARAKAWA, Hirokazu; HAINO, Akio; MAEDA, Kôin. *Ryûkyû shikki no biten. Kaetekita Ryûkyû shikki no seika* [Exhibition of Ryukyu lacquerware]. Urasoe, Urasoe Art Museum, 1983 (exhibition catalogue).

ARAKAWA, Hirokazu; TOKUGAWA, Yoshinobu. *Ryûkyû urushi kôgei* [Lacquer of the Ryûkyûs]. Tokyo, 1977. 319 pp.

GARNER, Harry M. *Ryûkyû Lacquer*. London, Percival David Foundation of Chinese Art 1972. 52 pp. (Monograph Series, No. 1.)

SEKAI NI HOKORU. *Ryûkyû ôchô bunka ihô ten Yôroppa Amerika hizô* [Ryûkyûan art treasures from European and American collections]. Urasoe, Urasoe Art Museum, 1992 (exhibition catalogue). 199 pp.

URASOE-SHI BIJUTSUKAN (ed.). *Urasoe-shi bijutsukan. Shûzôhin zuroku* [Urasoe Art Museum. Catalogue of the collection]. Urasoe, Urasoe Art Museum, 1990 (collection catalogue). 100 pp.

SOUTH-EAST ASIAN LACQUER

BHIRASRI, Silpa. *Thai Lacquer Works*. 5th ed. Bangkok, 1989. 24 pp. (*Thai Culture*, New Series, 5.)

CHUMBHOT, Pantip, Princess of Nagara Svarga (ed.). *The Lacquer Pavilion at Suan Pakkad Palace*. Bangkok, 1960. 24 pp., 33 fig.

CŒDÈS, G. L'art de la laque dorée au Siam [The art of gold-decorated lacquer in Siam]. *Revue des arts asiatiques* (Paris), Vol. 2, No. 3, 1925, pp. 3–8. pl. 1–5.

DESHPANDE, Olga P. Lacquered Thai statuettes at the Hermitage. *Oriental Art* (London), Vol. 41, No. 2, 1995, pp. 10–16.

DÖHRING, Karl (ed.). *Kunst und Kunstgewerbe in Siam. Lackarbeiten in Schwarz und Gold* [Art and applied art in Siam. Lacquerware in black and gold]. 3 vols. Bangkok, n.d., Vol. 1, 76 pp., Vol. 2, 25 pl., Vol. 3, 25 pl.

DUN, Kyaw. Lacquer ware called 'yun'. *The Journal of the Burma Research Society* (Rangoon), Vol. 10, Part 2, 1920, pp. 75–7.

FRASER-LU, Sylvia. *Burmese Lacquerware*. Bangkok, 1985. 164 pp.

——. The government lacquer school and museum of Pagan. *Arts of Asia* (Hong Kong), Vol. 16, No. 4, 1986, pp. 104–11.

——. Lacquer. In: Sylvia Fraser-Lu, *Burmese Crafts, Past and Present*, pp. 221–51. Oxford/Singapore/New York, 1994.

FRASER-LU, Sylvia; KRUG, Sonia. Thai mother-of-pearl. *Arts of Asia* (Hong Kong), Vol. 12, No. 1, 1982, pp. 107–13.

HELLING, Karen. Lackkunst aus Burma. Beispiele aus der Sammlung Otto Lorenz [Lacquer art from Burma (Myanmar): Some pieces in the collection of Otto Lorenz]. *Weltkunst* (Munich), Vol. 65, No. 15, 1995, pp. 2018–19.

HUSSFELD, Birgit; RADULOVIC, Veronika. *Lack, Erde, Steine. Fünf Künstler aus Vietnam* [Lacquer, earth, stones: Five artists from Viet Nam]. Münster, Museum für Lackkunst, 1996 (exhibition catalogue). 64 pp.

KO, Taw Sein. Lacquerware manufacture at Pagan. *The Journal of the Burma Research Society* (Rangoon), Vol. 1, Part 1, 1911.

MORRIS, A. P. Lacquerware industry of Burma. *The Journal of the Burma Research Society* (Rangoon), Vol. 9, Part 1, 1919, pp. 1–13.

PRUNNER, Gernot. *Meisterwerke burmanischer Lackkunst* [Masterpieces of Burmese (Myanmar) lacquer art]. Hamburg, 1966. 64 pp., 6 pl. (Hamburgisches Museum für Völkerkunde und Vorgeschichte, Wegweiser zur Völkerkunde, 9.)

SINGER, Noel F. Jengtung lacquerware. *Arts of Asia* (Hong Kong), Vol. 21, No. 5, 1991, pp. 154–62.

——. Kammavaca texts. Their covers and binding ribbons. *Arts of Asia* (Hong Kong), Vol. 23, No. 3, 1993, pp. 97–106.

——. Nineteenth-century court lacquerware from Myanmar and the box of 'The Sorceress'. *Arts of Asia* (Hong Kong), Vol. 26, No. 4, 1996, pp. 91–101.

TRUONG, Hanh. *Tranh són mài Viêt Nam. Les laques du Vietnam* [Lacquer from Viet Nam]. Hanoi, 1994. 128 pp.

WENK, Klaus. Der Buddha und seine Jünger. Zwei Perlmuttertafeln aus dem thailändischen Nationalmuseum in Bangkok [Buddha and his disciples. Two mother-of-pearl panels in the Thai National Museum in Bangkok]. *Oriens Extremus. Zeitschrift für Sprache, Kunst und Kultur der Länder des Fernen Ostens* (Hamburg), No. 1/2, Vol. 26, 1979, pp. 211–19, pl. 1–2.

——. *Perlmutterkunst in Thailand. The art of mother-of-pearl in Thailand*. Zurich, 1980. 140 pp.

ZELL, Rosemarie. Lackarbeiten aus Vietnam [Lacquerwork from Viet Nam]. *Kleine Beiträge aus dem Staatlichen Museum für Völkerkunde Dresden*, No. 4, 1981, pp. 16–20.

Index

'2000 Years of Chinese Lacquer', 46

Additives, use of, 19, 30, 99
    see also colour/pigments
Adhesives *see* glue
Alternatives to lacquer goods, 21, 80, 81, 82, 106–7, 109, 124, 137, 164, 190
Antler powder, 28, 144, 145
Aokin, 69–6, 206
Aokin-togidashi, 59, 206
Arakawa, Hirokazu, 70
Archaeological excavations/finds, 25, 28, 29, 30, 32, 42, 49, 50, 51, 52, 57, 81, 87, 90, 109, 110, 125, 149, 175
Artists, lacquerware, 57, 115, 117, 118, 160, 175, 191, 199–203
    named, 35, 39, 58, 62, 67, 68, 95, 125, 160–1, 189, 199, 203
Arts, métiers et cultures de la Chine, 26–27
Ash, use of, 104, 106, 166, 167, 169, 179, 180
Awabi, 52, 206
    see also mother-of-pearl

Bagan ware *see* Pagan lacquerware
Bamboo, 80, 139
    as base for lacquer, 5, 27, 31, 57, 73, 81, 88, 134, 150, 154, 156, 176, 178, 188, 189
    storage containers for lacquer, 97, 151
    supply of, 188
    as tool, 202
Bangkok 140–1
    Bicentennial, 141
Bantam work *see* Coromandel lacquer
Beijing, 93
    Forbidden City, 37
Berlin
    Museum für Ostasiatische Kunst, 44
    throne emsemble, 32, 44
Beurdeley, Michel, 39
Blood, hog's/pig's, 27, 39, 76, 104
Bodiless lacquerware, 95
    see also techniques, dry lacquer
Bo, 155, 206
Boc vai, 155, 206
Body of lacquer items
    bamboo, 5, 27, 31, 57, 73, 81, 88, 90, 104, 114, 154, 163, 184
    ceramic, 27
    clay, 87, 88, 90, 114, 163
    fabric, 27, 29, 58, 95, 114, 154, 179–80
    horn, 98, 104, 106
    leather, 27, 32, 104, 106, 107
    metallic, 27, 31, 50, 88, 90, 114, 163
    multi-layer, 90, 92
    paper, 27, 114, 126, 179–80, 194, 195
    preparation of, 26, 163
    stone, 27, 88, 163
    variety of, 27, 88, 90, 95, 114, 154, 163, 166, 184
    wood *see* wood
Bonanni, Filippo, 45

Bone, use with lacquer, 99, 111
Books and texts on lacquer, 5, 26–7, 28, 29, 31, 35, 40, 42, 45–9, 50–1, 68, 76, 82
Boxes, lacquer, 27, 31, 32, 37, 38, 41, 43, 51–64 *passim*, 73, 74, 75, 119, 154, 159, 174, 175, 193, 194
Brandt, Klaus, 46
Brennan Ford, Barbara, 46
Breuer, A., 45
Buddhism, 51–2, 57–8, 62, 63, 64, 111, 134–8 *passim*, 140, 165, 179–80, 184
Bunkazai Hogo Iin-kai, 68

Cambridge, Fitzwilliam Museum, 53
Cambodia, 82, 165–71
Carved lacquer *see* lacquerware, carved
Centipede scroll, 52–3
Ceramics
  as body for lacquerware, 27
  ceramic goods, 30, 31, 37, 52
Chang Ch'eng, 35–6, 48n20
Charcoal, use of, 50, 58, 126, 144, 157, 200
Chê-chiang, China, 19, 25, 30, 36
Chengdu Lacquer Ware Factory, China, 94
Chia-chu, 29, 205
Chiang Ch'ien-li, 45
Ch'iang-chin-yin, 40–1, 71–2, 73, 206
China
  archaeological finds from *see* archaeological excavations/finds
  areas for lacquerware production, 25, 30, 93, 94, 97
  areas for lacquer trees, 25
  Chan-kuo period, 29
  Chia-ching period, 72, 73
  Ch'in period, 28, 29
  Ch'ing period, 42, 45, 75
  Christian or Common era, 19
  Chou dynasty, 28, 81
  development of lacquer techniques in, 19–20, 25–46, 81, 87–95
  Emperors of, 31, 35–42 *passim*, 50
  Han dynasty/period, 20, 28, 29, 30, 39, 40, 49, 81, 90, 93
  influence of work from, 62, 63, 64, 65, 68, 71, 72, 73, 80–1, 93, 109, 125, 133, 174–5
  Jin dynasty, 90
  K'ang-hsi period, 31, 39, 43, 44, 45
  Ming period, 31, 33, 35, 37, 38, 39, 42–5, 62, 71, 75, 93, 95
  Neolithic period, 25, 80, 87
  present day lacquer industry, 93–4
  Qin dynasty, 90
  Qing dynasty, 93, 95
  Shang period, 28, 32, 42, 81, 88
  Song dynasty, 31, 91
  Southern, 31, 45
  Spring and Autumn period, 88
  Sung period, 30, 31, 33, 35, 36, 37, 40, 42, 43, 51, 111
  T'ang dynasty, 30, 39–40, 42, 50, 58, 91, 110
  Wan-li period, 31, 72
  Warring States period, 28, 88
  Wei dynasty, 31, 90
  Xuia dynasty, 88
  Yi people, 97–107
  Yuan period, 27, 30, 31, 33, 35, 37, 42, 43, 53, 91, 95
  Zhou dynasty, 88
Chinese red *see* colour, vermilion
'Chinese carved lacquer of the early fifteenth century', 46
'Chinese lacquer of the middle and late Ming period', 46
Chinese Lacquer, 46
Chinese University of Hong Kong, 46
Ch-ing pi-ts'ang, 31
Chiniesiche Lackarbeiten, 46
Chinkin-bori, 41, 68, 71, 72, 118–20, 130, 207
Ch'i-shu see rhus verniciflua
Ch'i-yüan, 29, 206
Chôan, 66
Chonham togam, 51
Chor mreak, 165, 206
Chou-li, 28
Chui-hua, 39, 207
Chung-shang-sh, 51
Cinnabar, use of, 72, 149, 156, 157, 178, 188, 192
  see also colour, vermilion
Clay, use of, 57, 87, 120, 144, 146, 194, 196–8
  in mask-making, 170
  production of bowls in Gujarat, 196–8
Clunas, Craig, 70
Collectors
  European, of lacquerware, 45–6, 65, 73
  Japanese, of lacquerware, 62
Cologne Museum for East-Asian Art, 39
Colour/pigments
  black, 25–6, 27, 28, 32, 33, 35, 39, 40, 41, 42, 49, 57, 58, 62, 63, 66, 67, 71, 75, 81, 95, 99, 113, 127, 150, 152, 153, 166, 184, 192, 200, 202
  black mixed with other colours, 167
  blue, 27, 157, 178
  brown, 39, 55, 75, 151, 152, 184
  colouring methods, 19, 27, 192, 194
  general/historical use of, 19–20, 29–32 *passim*, 37, 41, 57, 72, 112, 156, 178, 192–3, 195, 200–3
  gold *see* gold
  grades and qualities of, 27
  green, 27, 33, 37, 40, 71, 72, 75, 81, 127, 157, 178, 192, 194, 202
  grey, 192
  methods of producing, 156, 157, 200–2
  metallic *see* metals
  monochrome lacquer,28, 30, 31, 37, 92, 93, 159–60

ochre, 33, 35, 75
orange, 178
purple, 27
range of available, 25–7, 29–30, 49, 72, 156, 163, 194
of raw lacquer, 25, 168
red, 27, 28, 32, 33, 37, 40, 49, 57, 62, 63, 71, 72, 73, 75, 81, 99, 127, 149, 157, 178, 184, 188, 192, 194, 198, 202; use forbidden in Korea, 54; *see also* vermilion
red-brown, 27
two-tone in guri work, 33; in *tiexi* work, 92
vermilion, 19, 25, 35, 37, 81, 127, 188
white, 27, 49, 95, 112, 127, 151, 157, 178, 194
yellow, 27, 37, 81, 95, 111, 127, 151, 178, 192, 202
see also ochre
Conferences on lacquerwork, 94
see also workshops
Copal, 194
Coral, use with lacquer, 67
Core of lacquer items *see* body
Coromandel lacquer, 37–9, 40, 45, 156, 207
Cost
of lacquered goods, 29, 79, 80, 106–7
of materials, 139, 188
Cot, 154, 156, 207
Cotton wool, use of, 41
Crawfurd, John, 174
Crystal, rock, use of with lacquer, 42
Cultural diversity, 5–6
threats to, 79–80
Culture, decline of traditional, 79–80
Customers for lacquerware, 67
see also export, marketing, tourism

Daitoku-ji, Kyoto, 36, 76
Debussy, Claude, 46
Designs for lacquered goods, 31, 33, 35–7, 39, 43, 53–5, 58, 60, 63, 64, 65, 72, 111, 125–6, 130, 134–5, 180–1
fables/mythological, 43, 68, 195
hunting scenes, 193
see also motifs
Dianluo technique, 95
D'Incarville, P., 26–7
Din Sor Pong, 144
Dining/drinking utensils, lacquered, 28, 29, 30, 36, 49, 54, 57, 63, 66, 80, 81, 88, 94, 98–9, 106, 113, 119, 123, 134, 173, 176, 203
Domestic items, lacquered, 28, 49, 50, 57, 66, 67, 89, 94, 106, 113, 159, 166, 176–8, 191–4 *passim*
Drawings
Chinese, 43–4, 63–4
on reverse side of horn, 112
Myanmar techniques, 180
Thai techniques, 144, 145–6
Dry lacquer techniques *see* techniques
Drying
of wood for lacquerware cores, 104, 126
periods for lacquer, 21, 28, 33, 46n2, 76, 104, 113, 145, 151, 152, 153, 155, 156, 157, 184
room/cellar, 28, 184
techniques, 94
Du dia Chi, 161
Dust, techniques for avoiding, 28

Employment *see* workers, lacquer
E–nashiji, 61, 66, 209
Europe
attitudes to Oriental lacquerware, 66
lacquerwork in, 45
see also collectors, export, trade
Export
Korean efforts to locate exported work, 80
lacquer export/import, 82, 119, 130, 139, 151, 188
lacquerware export, 32, 39, 65, 75, 79–80, 93–4, 158, 185, 190
of shellac, 173

Fabric, 66
as body for lacquerware, 27, 29, 58, 95, 114, 154, 179–80
used in wooden lacquer items, 27, 33, 50, 155, 168
'Far Eastern Lacquer', 46
Figgess, J., 50
Fish skin, use of with lacquer, 55, 57n18, 80
Folk art, 55, 68, 178
see also handcrafts, traditional
Fontein, Jan, 50
Fraudulent imitations, 36, 45, 164
Furniture, lacquer, 27, 28, 34, 39, 40, 41, 45, 55, 64, 94, 113, 115, 123, 130, 134, 166, 173–4, 179, 194
Fuzhou lacquer, 95

Garner, Sir Harry and Lady, 45–6, 70, 71
General History Outline, Viet Nam, 161
Gifts, royal/official, 51, 73, 75, 111, 125, 174
Glass mosaic lacquerware, 176, 179, 184
Glue, 54, 58, 90, 144–5, 167, 193, 195
as primer, 39
fish, 50
lacquer, 19, 27, 50, 179
with tinfoil, 194
Gold, use with lacquer, 20, 29, 30, 31, 36, 40–1, 55, 61, 65, 67, 71, 72, 88, 92, 93, 95, 99, 125, 130, 135, 163
dust/powder, 58–9, 61, 68, 95, 120, 125, 167
flake technique, 92
foil, 20, 40, 41, 44, 49, 88, 93, 95, 178, 179
gold-plating, 90, 92, 95
inlay techniques, 118, 120
see also inlay
leaf, 73, 139, 144, 148, 167, 184, 185, 195

sprinkled particle technique, 20, 55, 58–61, 63, 65, 66, 67, 69–4, 72, 118
Gompertz, G., 50
Gonse, Louis, 68
Goods, lacquered, types of, 21, 28, 41, 49, 57, 59, 65–6, 67, 75, 80, 81, 94, 98–9, 106, 111, 113, 115, 118, 119, 123, 133, 134, 149, 159, 165, 168, 174, 176–7, 184, 187–8, 191, 195, 203
see also archaeological excavations, boxes, dining/drinking utensils, domestic items, furniture, jewellery, masks, military equipment, trays
Government support for lacquer industry, 50, 93, 106–7, 114, 132, 139
Gray, B., 50
Guri lacquer, 32–3, 47n16, 62, 208
see also lacquerware, carved

Hakue, 73, 130, 209
Haliotis tuberculata, 42, 52, 65
see also mother-of-pearl
Hamburg, Museum für Kunst und Gewerbe, 53
Handcrafts, traditional, 80–3
see also folk art
Hanoi Historical Museum, 149
Haribori, 66, 209
Harigaki, 66, 209
Harvesting of lacquer, 19, 21, 82, 97, 112–13, 151, 165
Hayashi, S., 50
Headiest technique, 125
Heating of raw lacquer, 25, 167, 168
Heidatsu, 50, 208
Heijin, 58, 61, 208
Hemp
as base for lacquerware, 29, 125
fabric, 25, 27, 126
Higashiyama lacquer, 64–5
Hiramaki-e, 61, 66, 208
History of Koryo, 111
History of the Three Kingdoms, 110
Hmansi shwecha, 176, 179, 184, 208
Hon-ami Kôetsu, 67, 125
Horadan, 143–5, 209
Horn
as body for lacquerware, 98, 104, 106
as decoration for lacquerware, 109, 111–12
Hsi-t'ang, China, 35–6
Hsiu-shi lu, 39, 43
Hsü Ching, 51
Hsu Ko, 111
Huang Ch'eng, 39, 43
Human Cultural Property designation, 115
Hyômon, 122, 210

Igarashi Shinsai, 125
Ikaheji, 61
Ikuma, Hiroshi, 139
Important Intangible Cultural Property/Treasure, 50, 119, 132
India 191–203
art, influence of, 42, 65
Gujarat lacquered bowls, 196–8
lacquerware centres, 192–6 *passim*
Indochinese College of Fine Arts, 160
Industrialization, impact of, 20–1
Inlay techniques, 20, 30, 42–5, 50, 54, 55, 61, 64, 65, 67, 73, 88, 90, 93, 99, 111, 114, 115, 118, 139
see also chinkin-bori; gold; metals, precious; mother-of-pearl
Inro, 67, 73, 75
Inscriptions, 30, 31, 36, 41, 58, 63, 173, 181
Iro-e togadashi, 67, 209
Iron, interaction of lacquer with, 153–4
Iron, use of hot, 50
Irving, Florence and Herbert, Collection, 46
Ishizawa, Hyôgo, 71, 72
Ivory, use with lacquer, 27

Jacquemart, Albert, 46
Jade, use with lacquer, 42, 88, 90
Japan, 35, 45, 117–22, 123–7
arrival of Europeans in, 65
Asuka period, 125
development of lacquer techniques in, 20, 27, 33, 41, 57–68, 81–2, 118–19, 123, 125
Edo period, 63, 66–8, 118
efforts to preserve traditonal culture, 80
Emperors of, 40, 42, 58
Heian period, 59–60, 68, 125
Jômon period, 57, 125
Kamakura period, 60–1, 63, 125
Kofun period, 125
lacquerware centres in, 65, 68
Meiji period, 119
Momoyama period, 65–6, 125
Muromachi period, 62–5, 118, 125
Nara period, 58, 125
Neolithic period, 57, 80, 81
sculpture, 61
Shoguns, 62, 64, 66–7, 71, 125
Showa period, 119
Taisho period, 119
tea ceremonies/masters, 54, 62, 63, 69n7
use of lacquer goods in, 21
Warring States period, 65
Yayoi period, 57, 125
Japanese terms in lacquer working, 19, 68, 206–22
Jenyns, Soame, 45
Jewellery, lacquered, 57, 178, 191, 192, 193, 194
Jimaki, 72, 209

see also techniques, sprinkled
Jinoko, 118, 120, 209
Ji Wu clan, 106
Journal of an Embassy…, 174
Ju-ware, 30

Kaga style, 125
Kahruba, 194
Kaizuri bugyôshu, 73
Kamakura-bori, 62, 69n9, 210
Kamakura, Meigetsu-in, 54
Kanagai, 64, 210
Kanshitsu, 58, 210
Kanton-lack, 31, 210
Kao Krathin, 144, 210
Kaolo Tuching, 111
Karamono, 62, 63, 75
Katami-gawari, 66
K'ê-hui, 39, 210
Kê-ku yao lun, 35, 42
Khaeng, 160
Kham Trai style, 150
Khmuk kbach push, 167, 211
Khmuk mreak khmer, 165, 211
Kihtika, U, 187
Kingindei-ga, 59, 211
Kingin-e, 59, 211
Kirigane, 61, 121, 211
Kiso lacquerware, 123–7
Koami Michinaga/Koami School, 125
Kôdai-ji style, 66, 67, 70n18, 212
Konjiki-dô temple hall, 59
Korea, 29–30, 41, 43, 58, 65, 71, 82, 109–15
archaeological excavations *see* archaeological excavations/finds
Choson era, 111–12, 114
development of lacquer techniques in, 20, 27, 49–56, 80–2, 109–14
efforts to preserve traditonal culture, 80, 114–15
Foundation for the Protection of Cultural Property, 115
influence of work from, 65
Japanese influence in, 114
Kings of, 51, 54
Koryo era, 50–2, 111, 114
lacquer tree growing areas, 112–13
Silla period, 49–50, 110–11
Three Kingdoms period, 49
Yi period, 51, 53–6
Koryo-sa, 51
Kôtuku, Bô, 75
Krahl, Regina, 31
K'uan-ts'ai, 39, 213
Kume, Ryukyu Islands, 71
Kundh choyaje, 202
Kuwayama, George, 46
Kyauk Ka ware, 176, 187–90, 213
Lacquer Ware Workers Co-operative, 188, 190
Kyaw Tun, U, 175, 176
Kyin, U, 189
KyM, U, 188
Kyo powder, 126
Kyoto, Japan, 59, 62, 64, 65, 66
Kôdai-ji, 66

Laccol, 82, 151
Lackkunst in Ostasien, 46
Lacquer
applications of, 19, 59, 80, 143, 165–6
see also goods, lacquered
coats, numbers of, 48n17, 62, 75, 104, 113, 119, 166
colours *see* colour/pigments
combination with other materials, 20
see also bone; coral; colour/pigments; crystal; fish skin; gold; horn; inlay techniques; jade; lead; metals, precious; mother-of-pearl; shell; stone; tinfoil; tortoiseshell; turquoise
demand for, 113
grades of, 113, 138, 143, 151, 152
life-enhancing properties of, 30
national varieties of, 113, 119, 143, 150
nature of as material, 19
oil-free, 127
preparation techniques, 25, 151–4, 163, 168, 184, 188, 192–3, 198
properties of raw, 19, 25, 80–1, 143, 150–1, 161
properties of refined, 19, 80–1, 113
protective, 166, 193
resources available, 82
see also lacquer trees
shellac considered as, 173, 191
storage of, 97, 151, 153, 165, 184
thickness of layers, 33
toxicity of, 138, 139
Lacquer trees, 19, 21, 25, 57, 81, 97, 112–13, 124, 130, 139, 143, 150, 161, 165, 173, 184, 188
age of, 25, 82, 139, 150
cultivation of, 29, 51, 81, 112–13, 139, 151
harvesting of see harvesting
origin of, 57
shortage of, 21, 82, 139, 152
wild, 82, 97, 150
see also Melanorrhea laccifera, Melanhorrnoea usitata, Rhus succedanea, Rhus trichocarpa, Rhus verniciflua, Thitsi
Lacquerware
carved, 20, 30, 31, 32–7, 44, 62, 71, 75, 77–8, 88, 92;
false carved *see tsuikin*
dry type *see* techniques, dry lacquer

historical development of craft, 19–21, 25–32, 81–2
organization of production, 158, 188–9; *see also* workshops
quantities produced, 88, 117, 123, 132, 184–5, 194
steps in production, 99, 119, 126–7, 144–8, 163–4, 176–80, 184, 192–3
Lai Rod Nam, 139, 143–8, 213
Lajarwardi, 195
Lakh Cho Kaam work, 199–203
Lao People's Democratic Republic, 82
Laque burgauté, 42, 45, 75, 76, 213
Laque cuir, 48n33
'Laques, Les', 46
Lead, use with lacquer, 67
Lead oxide/monoxide, use of, 49, 72, 73, 90, 125
Leather
as body for lacquerware, 27, 104, 106
treatment of, 106
Le Comte, Louis, 45
Le Pe Win, U, 175
Lee, Sherman, 29
Lee Collection, Tokyo, 32
Liangshan, China, 97–107
Living National Treasure title, 117
London, Victoria and Albert Museum, 37, 41, 54
Los Angeles County Museum, 46
Lo-tien, 42, 73, 213
see also mother-of-pearl
Löw-Beer, Fritz, 45, 46
Luce, G. H., 175

Maki-e, 58, 63, 66, 67, 69n4, 118–20, 125, 213
Man-hpaya, 179, 214
Marketing of lacquerware, 122, 123–4, 158, 184–5, 190
Martini, Martinus, 45
Materials shortages, 21, 139, 169
Masks, Cambodian, 170–2
Mechanization, 80, 154
Melanorrhea laccifera, 165
Melanhorrnoea usitata, 173, 184
Metals
as body for lacquerware, 27, 31, 50, 88, 90, 194
precious, use with lacquer, 20, 29–31, 39–40, 42, 44, 45, 50, 52, 55, 58–60, 67, 71, 75, 92, 95, 156, 167, 194
wire/thread, use of, 42, 45, 52, 54, 75, 111
see also gold; lead; tinfoil
Metallurgy, 28
Miao-ch'i, 28, 214
Miaojin lacquer, 93
Mida-e, 125, 214
Military equipment, use of lacquer on, 28, 32, 51, 81, 98, 99
Mishimi-taisha, 61
Mitsuda-e, 72, 214
Mongolia, 29
Monnyû, Master, 62
Monywa Degree College, Myanmar, 187
Mother-of-pearl, 20, 30, 42–5, 50–6 *passim*, 61, 65, 67, 73, 75, 80, 93, 109–11 *passim*, 114, 115, 120, 125, 135, 139, 157–8
crackled inlay, 54
kinds of, 73
Motifs, traditional, 29, 32–3, 35, 37, 41, 43, 49, 51–5, 62, 64, 65, 71, 111–12, 149, 180–1, 184
abstract/geometric, 29, 32, 41, 65, 75, 102
animals, 29, 149, 169, 180
birds, 29, 33, 39, 43, 65, 130, 168
Buddhist, 39, 184
Christian, 65, 125
dragon, 29, 33, 35, 37, 156
floral, 30, 33, 35, 39, 51, 55, 65, 75, 102, 111–12, 130, 149, 156, 180, 193, 194
four seasons, 149
landscapes/natural features, 33, 37, 75, 102, 149
leaf, 51–2, 54, 75
meanings of common symbols, 102–3
in Myanmar, 180–1, 184
phoenix, 33, 35, 112, 149, 156
royal, 76
shawl pattern, 194
stamped-out, 37, 75, 131
symbolic, 35
symbols of longevity, 112, 114
waves, 35, 192, 202
zodiac symbols, 180, 184
Muk khmuk, 170–2, 214
Mummies, lacquered, 159, 161
Muna bathi, 195
Münster, Museum für Lackkunst, 31, 62
Museum of Traditional Korean Crafts, 115
Myanmar, 82, 168, 173–81, 183–5, 187–90
development of lacquer work in, 20, 173–6, 183–4
Export and Import Enterprise, 190
Lacquer Ware Institute, 183
Pagan period, 183
ten traditional arts, 173, 183
workshop on lacquer techniques, 5, 21, 79

Nails, use of, 49, 154
Najon ch'ilgi, 50, 215
Nakshi, 192–3
Namban lacquer, 65, 69n15, 215
Nan-ts'un cho-kêng-lu, 27, 40
Nara, Japan
Hôryû-ji temple, 57–8
Shôsô-in Treasury, 39, 42, 50, 58, 112
Tôdai-ji, 63
Nashiji, 61, 215
National Museum of Korea, 110

Negoro-nuri, 63, 125, 127, 215
Neolithic period, 19, 25, 57, 81, 87
Nirona, Gujarat, 199–203
Nouveaux mémoires sur l'état préent de la Chine, 45
Novus Atlas Sinensis, 45
Nunogise honkataji, 119

Okada, Jô, 50
Okinawa, 71, 72, 75, 76, 130, 131
    see also Ryukyu islands
Oriental Lacquer Art, 46
Osaka, Kongo-ji, 60

Padethayaza, Minister, 173
Pagan, 185
    Archaeological Museum, 176
    lacquerware, 187–8
    Lacquer Ware School, 188, 189
Painting techniques, use of painting, 29, 31, 39, 42, 49, 65, 72, 88, 92, 93, 99, 102, 110, 114, 130, 145–6, 156, 167, 168
    figurative style, 29
        see also designs, motifs
    mida-e, 125
    needle, 39, 90
    scenic, 39, 40
    scratching, 90
Pak Som Poi, 144, 145–6
Pan Lai Rak Smook, 139, 215
Pan-yun, 183, 215
    see also ran-yun
Paper, as body for dry lacquerware, 27, 114, 126, 179–80, 194, 195
    in *warigai* technique, 54
Papier-machê, 27, 170
Perilla oil, use of, 130
Persia, 125
    influence of, 39, 194
Phan Dang Nat, 17
Pigments *see* colour
P'ing-t'o, 39–40, 50, 216
Poh-Chang College, Bangkok, 140, 141
Polishing techniques, 20, 27, 28, 43, 50, 58, 104, 125, 126, 139, 144–5, 155, 157–8, 168–9, 194, 195
Porcelain, 31, 37, 52, 73, 111
Pradab Smook, 139, 216
Primer/undercoat, 50, 77n14, 99, 104, 118, 120, 126–7
    five-stage Vietnamese process, 154–6
    ingredients used in, 27, 39, 57, 76, 104, 120
    use of lacquer as, 19, 50, 76, 104, 127, 153
Pumice, use of, 145, 155, 159
Putty, 155
Pyke, Isaac, 76

Raden, 54, 61, 73, 120, 125, 129, 130, 215
Ragué, Beatrix von, 52, 68
Rak, 133, 138, 139, 143, 145, 146, 216
Rak luang, 138, 139, 143, 216
Rak Nam Kliang, 143, 145, 216
Rak Smook, 143, 145, 215
Rakurogun, Korea, 81
Ramie, 25, 27, 29
Ran-yun, 173
    see also pan- yun
Research into lacquer techniques/ware, 71, 93, 139, 140, 188
Resin
    aloe, 194
    natural Cambodian, 166–7
    natural Indian, 193
    pine, 152
    synthetic, 82, 107, 113, 124
Rhus succedanea, 150, 161
Rhus trichocarpa, 112
Rhus verniciflua, 19, 25, 97, 112, 130, 173
    see also lacquer trees
Rice-flour paste, 27, 76
Rimpa style, 67
Roiro, 120
Ryukyu Islands, 31, 43, 45, 47n13, 70–6, 82, 129–32
    Chûzan kingdom, 71, 72, 75
    development of lacquerwork in, 20, 41, 130–2
    Shô dynasty, 73
Ryûkyû shikki kô, 71

Sabi-urushi, 63, 126, 217
Sakae, Tahara, 27
Samguk-sagi, 49
Sassanidian art, influence of, 42, 50
Sawdust, use of, 58, 155, 179
Schloss Ambras, 73
Sculpture, Japanese, 61
Sealing materials *see* primer
Sedgwick, Mrs Walter, 45
Sein Ko, Taw, 175
Shao powder, 40
Shao-tang, 27, 217
Shed Rak, 146
Shell, use with lacquer, 88 , 90, 95, 111, 168, 195
    see also mother-of-pearl, turban shell
Shellac, 173, 191–2, 200
Shen Shaoai, 95
Shishiai maki-e, 64, 217
Shono, M., 50
Shôsô-in Treasury, 39, 42, 50, 58, 112
Shuri Castle, Ryukyu, 129, 132
Shwezawa ware, 176, 178, 184
Siccatives, 49, 72
Silla lacquer, 40, 49, 110
Silpakorn University, Thailand, 140–1

Solex, 167
Son chin, 152, 216
Son dap noi, 156, 216
Son kham trai, 158, 217
Son mai, 159–64, 217
Son quang dau, 156, 217
Son song, 151, 217
Son then, 150, 217
Soy milk, use of, 104
Speiser, Werner, 46
Stone
    as body for lacquerware, 27, 88, 163
    powder, use in primers, 27, 39, 104
    powder, use in relief lacquer, 75
    precious, use with lacquer, 88, 93, 95
Stuttgart, Linden-Museum, 40
Styrofoam, use of, 126
Sulphur, use in lacquer techniques, 40, 127
Symbols *see* motifs
Symes, Michael, 174

Taihô, Mae, 119
Takamaki-e, 61, 64, 92, 93, 120, 125, 218
Taketori monogatari, 58
Tamamushi beetle, 58
Tamamushi shrine, Japan, 57–8, 69–2, 125
T'ao Tsung-i, 27, 40
Tawaraya, Sôsatsu, 67
Techniques
    avoidance of dust 28
    bodies *see* body
    brushwork, 25
    carving *see* lacquerware, carved
    colouring *see* colour
    dianluo, 95
    dry lacquer, 20, 29, 58, 125, 126, 154, 176, 179–80, 184
    embossing, 61, 64, 92, 93, 120, 125, 131, 195
    engraved, inlaid and filled, 39–42, 44, 68, 72, 120, 130
    engraved polychrome, 39
    etching, 192–3
    filtering, 25, 26, 153
    glass mosaic, 176, 179, 184
    hammering, 88
    heating, 25
    historical development of, 19–21, 25–32, 81–2
    incised, 39, 66, 94, 176, 178, 184
    inlay *see* inlay
    inscribed, 20, 71, 73
    marbling, 90
    mixing lacquer with compounds, 167
    modern, 94
    painted *see* painting
    polishing *see* polishing techniques
    preparation of raw lacquer, 151–4, 163, 168, 184, 188, 192–3, 198
    priming *see* primer
    raised lacquer, 61
    relief decoration, 75, 156, 167, 176, 178–9, 184
    'rhinoceros-skin', 90
    sanding, 104
    sawing, 88
    scratched designs, 195
    spinning, 90
    sprinkled, 20, 58–61, 63, 65, 66, 67, 69n4, 118
    stirring, 26
    tracing, 94
    turning, 88–90, 104, 150
    washing, 148
    weaving, 88, 178
    wood working *see* wood
    see also individual techniques by name
Thailand, 82, 133–41, 143–8
    Ayuthaya period, 140–1
    development of lacquerwork in, 20, 133–40
    lacquer tree growing in, 139
    ten cardinal disciplines, 140
Tha-yo, 176, 178, 184, 218
Thitsi, 176, 184, 188, 218
Thitsiol, 82
Thong Kud, 144
Tianxi lacquer, 92, 93
Tiao-t'ien, 41, 219
Tibet, 125
T'ien-ch'i, 41, 72, 219
Tiexi lacquer, 92
Timescale for lacquerwork, 21, 33, 27–8, 119, 152
Tinfoil, use with lacquer, 45, 75, 76, 193–5
Ting stoneware, 30
Togi-dashi-maki-e, 58, 61, 64, 67, 120, 125, 219
Tokugawa, Iemitsu, 66
Tokugawa, Yoshinobu, 70, 76
Tokyo
    National Museum, 64, 68
    Nezu Institute of Fine Arts, 62
Tongguk Munhon Pigo, 51
Tonketsu shitaji, 76, 220
Tools for lacquerwork, 25, 120, 146, 154, 155, 166, 178, 179, 180, 184, 192–3, 194, 199–200
Tortoiseshell, use with lacquer, 20, 27, 40, 42, 50, 52, 54, 55, 80, 88
T'o-t'ai, 29, 219
Tourism, impact of, 106–7, 113, 115, 158, 178, 185, 190
Toxicodendron verniciflua see rhus verniciflua
Tp, 160
Trade
    in lacquer goods, 5, 20, 29, 31–2, 39, 41, 45, 65, 69–16, 75

routes, in Asia, 20, 38, 71, 129
see also export
Trai, Nguyen, 161
Training of lacquer workers, 83, 93–4, 106, 114–15, 132, 140–1, 169–70, 188, 189
of researchers and curators, 83
Transparent lacquer, 25, 42, 50, 61, 113
Trattato sopra la vernice detta communemente cinese, 45
Trays, lacquer, 31, 32, 33, 63, 71, 154
Trees, lacquer *see* lacquer trees
Ts'ai Ch'ih-ch'u, 39
Ts'ao Chao, 35
Tsuikin, 75, 130–2
Tsuikoku, 62, 220
Tsuishu, 62, 220
Tui-t'sai, 75, 220
Tung, 220
leaves of tree, 27
oil, 19, 30, 99
Turban shell, 129, 130
Turquoise, use with lacquer, 50, 88
Tyrol, Ferdinand von, 73

UNESCO conference on laquer techniques, 5, 21
Urasoe Art Museum, 70
Urushi, 19, 46n2, 57, 82, 118, 119, 220
see also urushiol
Urushibe, 57, 220
Urushi-e, 125, 220
Urushiol, 19, 25, 46n2, 82, 124, 184
see also urushi
Uta-e, 64, 220

Vermilion *see* colour
Vichet trakam khmuk mreak, 168–9, 221
Viet Nam 82, 149–58, 159–64
development of lacquer techniques in, 20, 159–61
Vitayalai Chai Nai Wang, Thailand, 141
Voc, 155–6, 221

Wajima, Japan, 68, 117–22
Wajima-*nuri*, 117–22, 126
Wankô sales system, 118
Warigai, 54–5, 222
Waring, J. B., 193
Washington, DC, Freer Gallery of Art, 39, 62
Watt, James, 46, 70
'Way of Making and Laying on of the True China and Jappan varnish, The', 76
Wearing, signs of on lacquerware, 62, 63
Wickerwork, 27, 31
see also bamboo
Wood
as base for lacquer, 5, 27, 29, 33, 42, 50, 58, 63, 88, 90, 107, 114, 124, 125, 150, 154, 155, 168, 176, 184, 194, 195
shaping, 88, 90, 104, 126
turning, 192, 193, 195, 199
types of, 39, 50, 104, 114, 124, 125–6, 134, 195, 200
lacquer tree *see* lacquer tree
printing plates, 39
treatment of, 27, 104–6, 127–6; *see also* primer/undercoat
Workers, lacquer, 57, 58, 80, 97, 106–7, 123–4, 132, 185, 188–9, 199–203
age of, 124, 189
cooperative association of, 115
difficulties of, 137
gender division, 189
numbers of, 5, 21
as part-time farmers, 106, 137
planters, 150
shortage of, 189
see also artists, lacquerware
Workshops, lacquer
Cambodian, 169–70
Chinese Imperial/state, 28, 36, 44, 81
Japanese export-oriented, 65
Japanese feudal, 67
Korean government supported, 114, 115
Korean palace, 51, 111
large and small in China today, 93–4, 106
Okinawa Prefectural Art Workshop, 132
reproducing antique styles, 94
in the Ryukyu islands, 129, 132
Silla government, 110
UNESCO on lacquer techniques, Myanmar, 5, 79
Vietnamese government-owned, 158

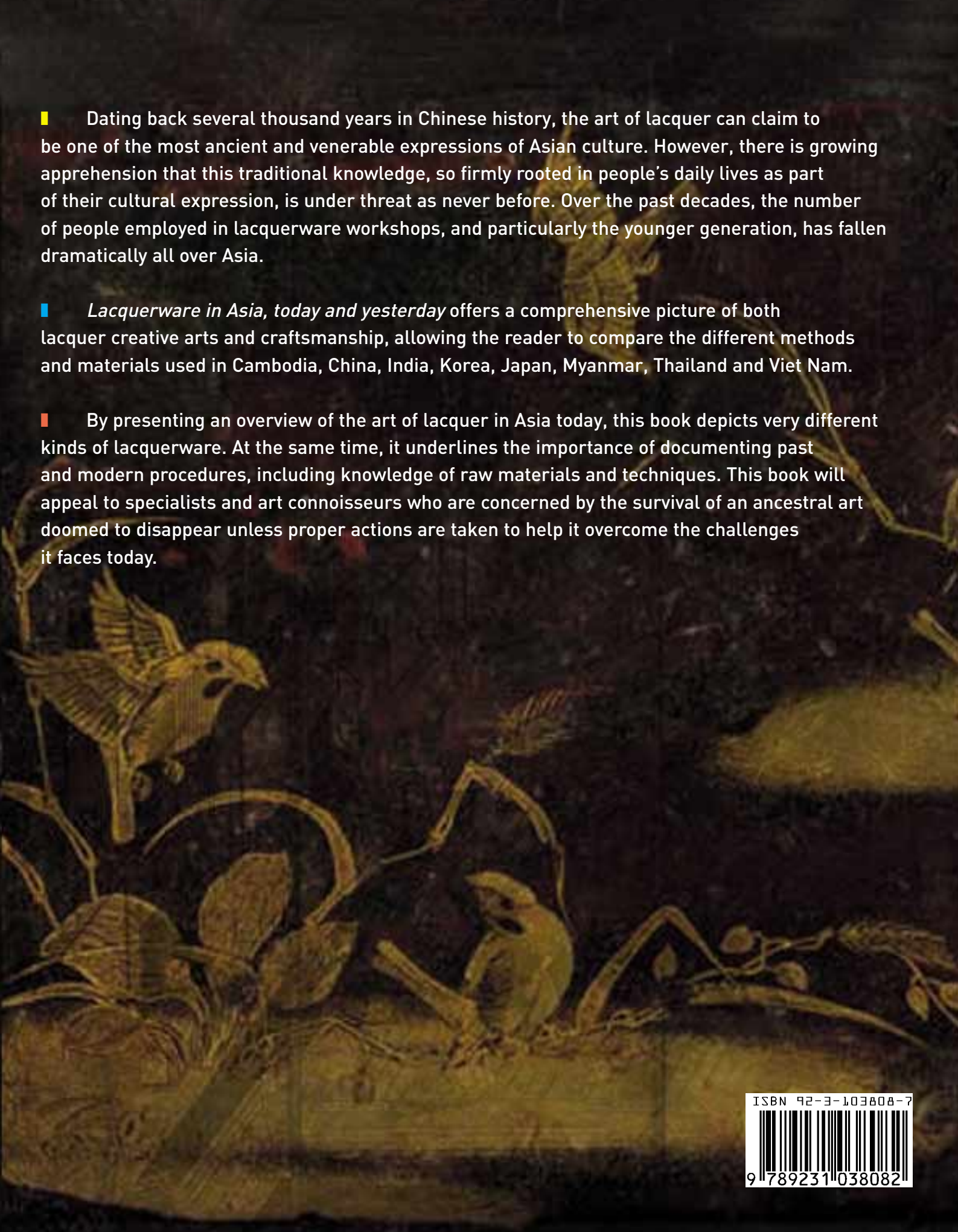
Yang Hui, 35
Yang Mao, 35–6, 48n20
Yang Ming, 39
Yangon, 21, 79
see also Myanmar
Yangzhoti Lacquer Factory, China, 95
Yangzhou technique, 95
Yasutada, Koma, 67
Yen-t'ieh lun, 29
Yi people, 97–107
Yin-shih, 28, 221
Yoshino, Tomio, 50
Young people
shortage of as lacquer workers, 5, 21, 124, 169, 189
training of, 83, 189
Yûgen, 64
Yu-kuan, Lee, 46
Yun-the, 175–6, 178, 184

Zhaoqi lacquer, 93

Dating back several thousand years in Chinese history, the art of lacquer can claim to be one of the most ancient and venerable expressions of Asian culture. However, there is growing apprehension that this traditional knowledge, so firmly rooted in people's daily lives as part of their cultural expression, is under threat as never before. Over the past decades, the number of people employed in lacquerware workshops, and particularly the younger generation, has fallen dramatically all over Asia.

Lacquerware in Asia, today and yesterday offers a comprehensive picture of both lacquer creative arts and craftsmanship, allowing the reader to compare the different methods and materials used in Cambodia, China, India, Korea, Japan, Myanmar, Thailand and Viet Nam.

By presenting an overview of the art of lacquer in Asia today, this book depicts very different kinds of lacquerware. At the same time, it underlines the importance of documenting past and modern procedures, including knowledge of raw materials and techniques. This book will appeal to specialists and art connoisseurs who are concerned by the survival of an ancestral art doomed to disappear unless proper actions are taken to help it overcome the challenges it faces today.



ISBN 92-3-103808-7
9 789231 038082