



# THE JOURNEY OF ARTIFACTS:

THE STUDY AND CHARACTERIZATION OF A NUCLEUS  
OF LACQUERED LUSO-ASIAN OBJECTS FROM THE  
16TH AND 17TH CENTURIES

## Volume II

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### 3. Material Analysis of Luso-Asian Lacquer Coatings

The fifty-eight lacquer samples collected from the nineteen investigated Luso-Asian objects were tested at the GCI<sup>1</sup> between 2013 and 2015 with the objective of the identification of their exact compositions, such as of drying oils present in ground and lacquer layers, the identification of proteins in primer layers, as well as the classification of further organic additives<sup>2</sup>. As described in Chapter 1.3., lacquer formulations can be composed of a multiplicity of organic and inorganic materials, dependently on the geographical and chronological provenance and techniques used. Thus, the attribution of a lacquered object to a specific lacquer tradition, region and time, usually requires the characterization and identification of its composition. The knowledge of the exact formulations present in the lacquerware complex multi-layer structure is further essential for the understanding of degradation pathologies, the development of appropriate conservation measures and the creation of adequate conditions for their future preservation.

Scientist at the GCI and conservators at the J. Paul Getty Museum (JPGM) in Los Angeles initiated the development of the RADICAL<sup>3</sup> expert system developed for conservators and conservation scientists with the aim of improving methodologies for the identification of organic components in European and Asian lacquer formulations. This includes the carefully study of cross-sections for the sampling of individual layers, and their analysis by pyrolysis-gas chromatography/mass spectrometry using thermally-assisted

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<sup>1</sup> Michael Schilling (TMH-Py-GC/MS), Ulrike Körber (cross-sections, optical microscopy, separation of individual layers through micro-excavation for TMH-Py-GC/MS analysis, interpretation of results), Julie Chang, David Carson (SEM-EDX of a scraped sample of the bole layer on mother-of-pearl inlay, Tray 2.5.2.), Herant Khanjian (FTIR, bole layer on mother-of-pearl inlay, Tray 2.5.2).

<sup>2</sup> Alongside were tested small amounts of remaining sample material from specimens (2.1.1., 2.1.2., 2.2.1., 2.2.3., 2.2.4., 2.5.1., 2.5.2., 2.5.3., 2.6.1) previously studied in Lisbon between 2009 and 2012. In the scope of this earlier analytical testing the lacquer species has been identified, the presence of a drying oil in the lacquer layers has been detected via Py-GC/MS, and inorganic materials have been identified via XRF or XRD, though several questions remained open such as the sources of drying oils, as well as the presence of drying oil and the sources of protein in ground layers. José Carlos Frade (Cross-sections, optical microscopy, Py-GC/MS, FTIR, interpretation of results), Ana Mesquita e Carmo (XRF) Maria José Oliveira (XRD), Lília Esteves (Identification of organic materials), Ulrike Körber (Cross-sections, optical microscopy, interpretation of results), cf. Frade & Körber (2011), Körber et al. (2011).

<sup>3</sup> Since 2012 the methodology is taught in international workshops called Recent Advances In Characterizing Asian Lacquer (RADICAL).

hydrolysis and methylation (TMH-Py-GC/MS). Software tools (Excel workbook with AMDIS report) are used for the identification of compounds present in the samples. The workbook used is constantly adjusted to facilitate the data analysis and interpretation of marker compounds<sup>4</sup> through a continuously growing database of reference materials, alongside the international exchange of knowledge between conservators and conservation scientists. The new technical advances in the study of Asian lacquer and the international collaboration and exchange encouraged by the GCI made it possible to complement our knowledge about the lacquer compositions present in the Luso-Asian lacquer coatings. TMH-Py-GC/MS detected the presence of further organic binders – a prerequisite for the identification of the specific lacquer tradition applied.

Additionally, this study also included the analyses of cross-sections under the scanning electron microscope (SEM-EDX) for elemental analysis<sup>5</sup>. With regard to the only occasionally exposed wooden substrates, some have been examined microscopically during the analyses in Lisbon between 2009 and 2012 (2.1.1., 2.2.2.), or by the Japanese biologist Noshiro Suichi<sup>6</sup> in 2016 (See 3.2.2.). In the case of the wood structure of other specimens, at least macroscopically, it could be stated that it is either tropical hardwood or softwood. The leather source of the Amsterdam shield (2.1.5.) has been identified using peptide mass fingerprinting (PMF)<sup>7</sup>. Organic fibers applied between two ground layers in two objects (2.1.1., 2.1.2.) have been prepared (separated and washed) for microscopic observation in 2014 (LJF-DGPC, Lisbon). The fibers have been stained with Hertzberg stain to enhance fiber contrast and accentuate specific features, as well as to detect the presence of several types of fibers. Unfortunately, the contamination with binding material has complicated their certain identification. An overview of the concluded results is provided in Table 5, while

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<sup>4</sup> For a detailed and comprehensive explanation on the methodology developed through the cooperation of Michael R. Schilling (GCI), Arlen Heginbotham (JPGM), Henk van Keulen (Cultural Heritage Agency, Amersfoort, The Netherlands) and Mike Szelewski (Winterthur Museum, Wilmington, USA), cf. Schilling et al. (2016).

<sup>5</sup> Performed by Luis Dias at the HERCULES Laboratory, University of Évora.

<sup>6</sup> Head of the Department of Wood Properties, Forestry and Forest Products Research Institute, Tokyo. The samples were collected by the Japanese biologist during a joint research in Portuguese museum and private collections in September 2016 and analyzed by him in Japan. The results of his wood identifications have been presented at a symposium held at the (NRICP) in Tokyo, cf. Noshiro (2017).

<sup>7</sup> Performed by analytical biologist Dr. Daniel Kirby at the Harvard Art Museums Cambridge, USA.

individual and detailed datasheets with sampling locations, cross-sections and analyses results for each layer analyzed of the nineteen specimens are listed in Appendix IV.

### **3.1. Analytical Methods**

#### ***3.1.1. Optical Microscopy***

Cross-sections of the lacquer samples were prepared for optical microscopy and analysis using a scanning electron microscopy coupled with energy dispersive X-ray spectroscopy (SEM-EDX). During the study at the LJF-DGPC, the samples were mounted in epoxy resin and polished. New mounted samples were embedded in Technovit 2000 LC methacrylate cast resin and polished manually using Micro-Mesh sheets up to a 12000 grit.

Optical microscopy was carried out under visible (VIS) and ultraviolet light (UV) using an Olympus BX51 optical microscope coupled to an Olympus E.330 digital camera; the same cross-sections were again observed at the GCI using a Leitz microscope equipped with visible and ultraviolet sources and with an excitation filter cube (I3) for blue light (BL) illumination (wavelength 450–495 nm).

#### ***3.1.2. SEM-EDX Analyses***

To visualize the distribution of inorganic materials and for elemental analysis, SEM-EDX of the cross-sections was carried out on a HITACHI S-3700N scanning electron microscope operated with an accelerating voltage of 20 kV and a chamber pressure of 40 Pa. Chemical microanalysis was performed with a Bruker XFlash 5010 Silicon Drift Detector (SDD) with a resolution of 129 eV at Mn K $\alpha$ .

One sample (I\_11\_04), scraped from the gilded lines on top of the mother-of-pearl inlay on tray 2.5.2., was analyzed at the GCI using a Philips-FEI XL30 ESEM-FEG equipped with an Oxford X-Max 80 elemental detector running with Aztec software. The experiment was performed in low vacuum mode at c.100 Pa and with the instrument set to a spot size of three.

#### ***3.1.3. Separation of Individual Layers through Micro-Excavation***

To prepare the sample material for TMH-Py-GC/MS, individual layers were scraped from loose lacquer flakes (fixed with glue onto microscope slides) with a micro-chisel under the microscope using either visible or ultraviolet light. Photomicrographs of the cross-sections were consulted frequently during sampling and the light source was changed as necessary to

ensure that the scraped material originated from the desired layer. The scrapings were carefully removed and placed in the well of a single-depression microscope slide. To avoid possible contamination, scraping was stopped as soon as the underlying layer became visible. In some cases lacquer layer separation was not possible due to the reduced thickness or to small amount of sample material.

#### **3.1.4. TMH-Py-GC/MS**

For TMH-Py-GC/MS analysis, tetramethylammonium hydroxide (TMAH) was added to the samples prior to analysis to convert any carboxylic acids, alcohols, phenols and catechols to more volatile products. A Frontier Lab PY-2020D double-shot pyrolyzer system was used for pyrolysis, with the interface maintained at 320°C. Samples were placed into 50 µl stainless steel Eco-cups, and three microliters of a 25% methanolic solution of TMAH were introduced for derivatization. After three minutes, the cup was fitted with an Eco-stick and then placed into the pyrolyzer where it was purged with helium for three minutes. Samples were pyrolyzed using a single-shot method at 550°C for six seconds. The pyrolyzer was attached to an Agilent Technologies 5975C inert MSD/7890A gas chromatograph/mass spectrometer. The split injector was set to 320°C with a split ratio of 20:1 and no solvent delay. An Agilent J&W Ultra-inert DB-5MS capillary column was used for the separation (30 m × 0.25 mm × 0.25 µm, but because the column was attached to a Frontier vent-free adaptor, the equivalent column length was 40 m). The helium carrier gas rate was set to 1 ml per minute. The oven of the GC was held at 40°C for two minutes then ramped to 320°C at 20°C per minute, followed by a nine-minute isothermal hold (for some samples, the oven heating rate was 6°C per minute). The MS transfer line was maintained at 320°C, the source at 230°C, and the MS quad at 150°C. The mass spectrometer was scanned from 10 to 600 amu at a rate of 2.59 scans per second. The electron multiplier was set to the autotune value.

### 3.2. Identification of Lacquer Compositions

The identification of other major classes of organic additives used in Asian lacquers has been challenging due to their complex formulations and the limited solubility of the catechol-rich and cross-linked sap from *Anacardiaceae* tree species. The identification of specific ingredients that might share chemical compounds is still not totally solved and shows the current status of the RADICAL expert system.

In this study, the identification of specific materials present in the ground and lacquer layers is based on the parameters developed in the scope of the RADICAL project described in detail by Schilling, Heginbotham, Keulen and Szelewski<sup>8</sup>. Only by testing a wide range of raw materials, reference samples obtained from botanically vouchered species and identical substances agglutinated in Asian lacquer, and by identifying marker compounds due to characteristic pyrolyse products, with every new analysis of reference and lacquer samples of artifacts it will become easier to scientists to differentiate certain drying oils, proteins, resins and other organic lacquer ingredients.

#### *3.2.1. Applied Parameter for Identification of Specific Materials via TMH-PY-GC/MS Analysis*

The THM-Py-GC/MS method applied only offers a qualitative and not a quantitative result. If the sample amount is very small it is possible that not all ions will be visible in the chromatogram and therefore will not appear in the report, which does not mean they are not present. This meaning that for very small samples the range of materials detected in the formulation is eventually only approximately shown.

#### Lacquer Type

The presence of Asian lacquer is confirmed when a certain combination of catechols, hydrocarbons and alkyl benzenes are all present in a sample [Figs. 158, 159]. The active catechol type in the individual lacquer layer was identified according to the maximum side chain length and characteristic composition as shown in Table 3 as follows:

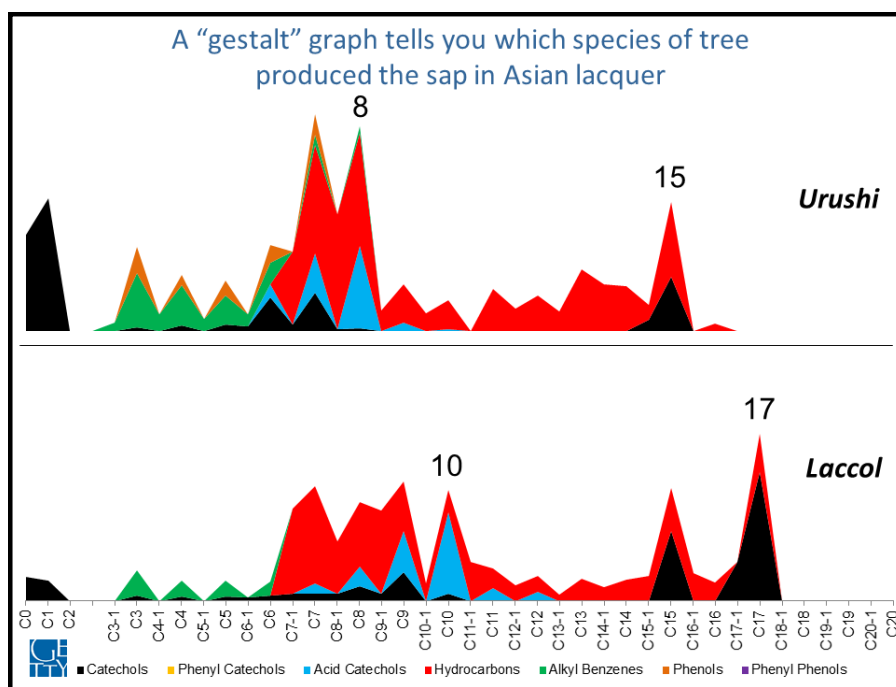
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<sup>8</sup> Schilling et al. (2016), Heginbotham et al. (2016).

**Tab. 1 Three Different Catechol Types Present in Asian Lacquer Saps**

<b>Urushi</b>	- composed of homologous series of catechols and hydrocarbons with <b>C<sub>15</sub></b> maximum side chain length and <b>C<sub>7</sub></b> most abundant member; most abundant acid catechol is <b>C<sub>8</sub></b> (Mazzeic acid); may have <b>C<sub>3</sub></b> to <b>C<sub>7</sub></b> alkyl benzene series.
<b>Laccol</b>	- presents homologous series of catechols and hydrocarbons with <b>C<sub>17</sub></b> maximum side chain length and <b>C<sub>9</sub></b> most abundant member; most abundant acid catechol is <b>C<sub>10</sub></b> (Arlenic acid); may have <b>C<sub>3</sub></b> to <b>C<sub>7</sub></b> alkyl benzene series.
<b>Thitsiol</b>	- dominant series of alkyl benzenes; homologous series of catechols and hydrocarbons with <b>C<sub>15</sub></b> maximum side chain length and <b>C<sub>7</sub></b> most abundant member; most abundant acid catechol is <b>C<sub>8</sub></b> (Mazzeic acid).

Cashew nut shell liquid does not contain any catechols, but hydrocarbons, acid catechols, and phenols with C15 maximum side chain length. It can be identified by the presence of methyl 8-(3-methoxyphenyl)octanoate, methyl 2-methoxy-6-(8-methoxy-8-oxooctyl)benzoate, and isomer of cashew nut shell liquid oxidation products.



**Fig. 1 Gestalt graph showing urushi and laccol marker compounds, © RADICAL Workshop 2012, GCI**

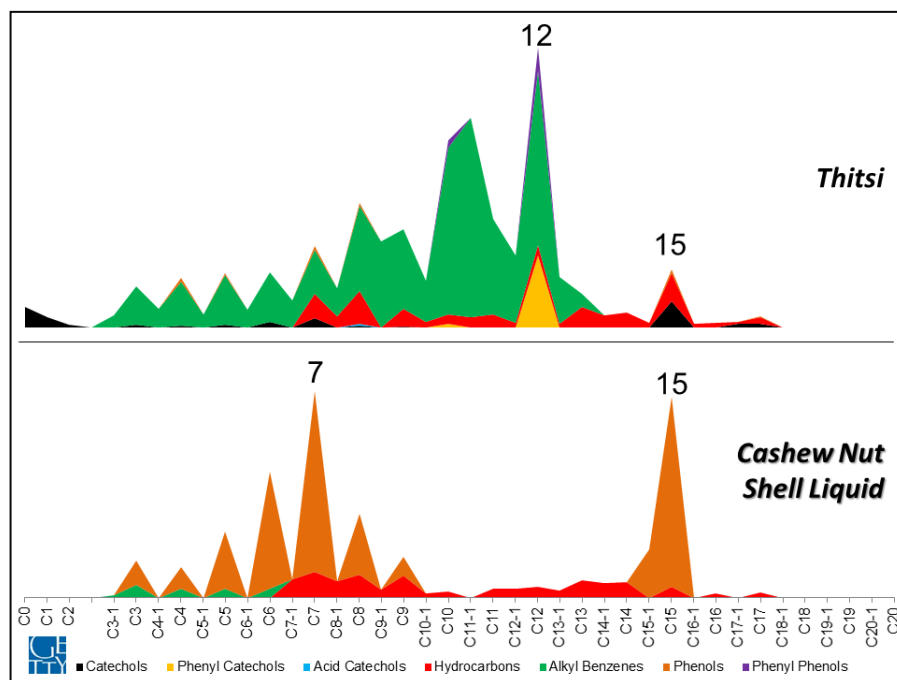


Fig. 2 Gestalt graph showing thitsi and cashew marker compounds, © RADICAL Workshop 2012, GCI

In the course of the last years it has been concluded that compounds such as tannins, native fatty acids or native proteins, which appear in the Excel report, also form part of the natural lacquer saps.

#### Vegetable Oil and Drying Oil

Most oils and lipids are composed of glycerol esters and fatty acids. Glycerol, which results from the hydrolysis of the acylglycerols, may also be detected for samples with significant oil content. The detection of glycerol therefore indicates for the presence of drying oil. The detection of both dicarboxylic and monocarboxylic fatty acids indicates the presence of drying oil. The ratios of P/S (methyl palmitate to methyl stearate) and of A/P (dimethyl azelate to methyl palmitate), as shown in Table 4 serve their identification. The A/P ratio broadly differentiates drying oils from other materials that contain fatty acids, including semi- and non-drying oils or fats from egg, animal glue, blood, and from raw Anacard lacquers. Also, other compounds added to lacquer contain measurable amounts of saturated fatty acids, including raw lacquer (native fatty acids), animal glue or blood. The latter two can be distinguished due to their characteristic pyrolyse products which are used as marker compounds. As the table illustrates, the P/S ratios of perilla, tallow tree or linseed oil are partly overlapping, their accurate identification cannot be identified with certainty and can



only suggest the presence of one of these oils. The identification of drying oils is further complicated when ester-type waxes, such as beeswax or carnauba wax (compounds often introduced during conservation treatments, consolidation or finishes) used in furniture polishes, are present as for instance the significant amount of fatty acids does interfere with the P/S ratios, turning their exact identification impossible. Further, methyl alkylphenyl alkanoates (APAs) are formed from highly unsaturated linolenic and eleostearic acids by bodying linseed, perilla or tung oils at elevated temperatures, thus their presence indicates the drying oil has been heat-bodied, as seen in Table 4 in the case of heat-bodied tung oil.

**Tab. 2 Characteristic Ratios of Frequent Compounds in Lacquer Formulations**

Material	P/S	Characteristic ratios and markers
Tung oil	1 – 1.2	High A/P
Heat-bodied tung oil	1 – 1.2	High A/P, presence of APAs
Linseed oil	1.2 – 2.5	High A/P
Tallow tree oil	~ 3	High A/P
Perilla oil	2 – 4	High A/P
Sesame oil	1.5. – 2	Low A/P
Rapa oil	2 – 3	Low A/P; presence of C <sub>22-1</sub> , C <sub>22</sub> , C <sub>20-1</sub> , C <sub>20</sub> , C <sub>24-1</sub> , and C <sub>24</sub> monocarboxylic fatty acids; C <sub>11</sub> dicarboxylic fatty acids
Blood	~ 2	Low A/P; presence of phosphate, cholesterol and blood markers
Urushi	~ 2	Low A/P; presence of C <sub>15</sub> Anacard markers
Animal glue	~ 4	Low A/P; presence of glue markers and characteristic pyrolyse products
Laccol	~ 7	Low A/P; presence of C <sub>17</sub> Anacard markers
Thitsiol	~ 7	Low A/P; presence of C <sub>15</sub> Anacard markers and alkylphenyl catechols

### Protein

Animal glue contains small amounts of dimethyl sulfide and dimethyl disulfide that are formed by the sulfur-containing amino acids. The presence of trimethyl phosphate, a compound formed by phospholipids, can be indicative for blood and egg. To determine the specific animal species of the blood a DNA analyses would be necessary<sup>9</sup>.

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<sup>9</sup> Miklin-Kniefacz et al. (2016).

### Carbohydrates (Polysaccharides)

The presence of starchy material, such as rice or wheat starch, in a lacquer formulation is confirmed by the detection of furfural or schellmannose markers. Furfural, a generic marker for carbohydrates that appears consistently in pyrograms for starch was identified in many samples of Japanese ground layers and in some Chinese lacquer layers analyzed at the GCI. Another category of carbohydrate marker originates from gums and glycoproteins naturally present in Asian lacquer saps. For instance, is the carbohydrate content of laccol sap nearly three times higher than that of urushi sap.

### Resins

In the studied pieces only a few resinous materials were detected. Markers for wood oil appear exclusively in connection with thitsi lacquer. It is not clear yet whether these markers refer to a compound of a specific thitsi variety or whether wood oil has been commonly added as a thinner. With regard to the origin of these markers, questions remain unanswered and more research is required. Both benzoin and camphor (borneol), identified in some of the analyzed formulations, have probably been added either as plasticizer or thinner. For example, in chest 2.2.2., both an orpiment and a red iron oxide pigmented lacquer layers have camphor added, probably to render them more fluid and easier to spread.

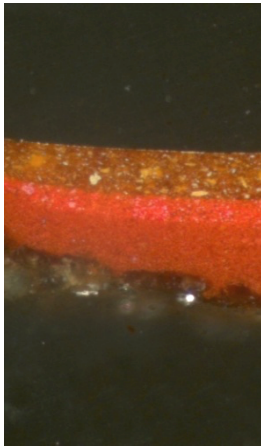
### Pigments, Other Inorganic Amendments, and Stains

Beside elemental analysis, few pigments and stains mixed with lacquer gave rise to distinctive marker compounds using THM-Py-GC/MS. These are arsenic pigments such as orpiment ( $\text{As}_2\text{S}_3$ ) or realgar ( $\text{As}_4\text{S}_4$ ), and also the natural dye indigo.

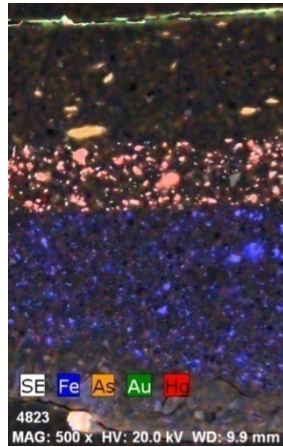
Markers for soot suggest products of the incomplete combustion of organic material are present, such as the carbon black pigments charcoal or animal black, both frequent additives to black colored lacquer layers. Animal or bone black can further be distinguished from charcoal by the presence of high amounts of calcium phosphate, as well as by the presence of trimethyl phosphate detected with THM-Py-GC/MS. As both, markers for soot and pine resin often appear together these possibly refer to pine charcoal, then to the resin itself. This question is also not fully solved.

Elementary analysis via SEM-EDX identified gold (Au) or silver (Ag) in the decorations. It further detected the presence of iron oxide pigments (Fe, O); sulfuric pigments

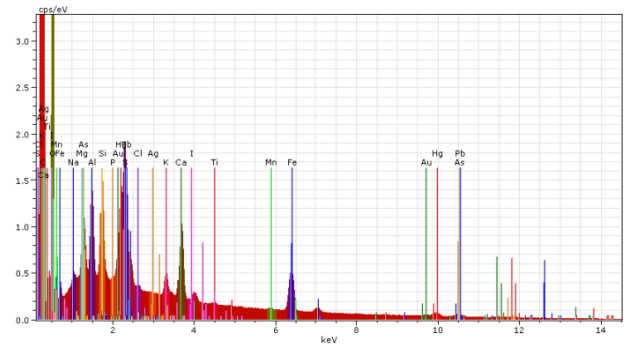
such as orpiment or realgar (As, S), cinnabar (Hg, S), charcoal (C), and animal black (Ca, P) in pigmented lacquer layers. Alongside with the pigments also fillers such as baryte (Ba, S, O), gypsum (Ca, S, O), quartz (Si, O) or calcite (Ca, C, O) have been detected. Aluminum silicates in ground layers were confirmed by the presence of Al and Si, alongside other elements frequently present in earth materials (Ca, C, Cl, O, Fe, K, Mg etc.).



**Fig. 3** Cross-section from chest 2.2.1., sample I\_06\_01, VIS



**Fig. 4** EDS image of the same cross-section under the electron microscope and detected chemical elements








The cross-section from the gold motifs in the red lacquered lids' interior of the “Pope’s trunk” is shown in Figure 160. EDX analyses under the electron microscope detect present chemical elements and show their distribution over the scanned area. In this particular case, it allowed identifying red iron oxide in the first, cinnabar in the second lacquer layer and an orpiment pigmented mordant layer to adhere the gold leaf on top [Fig. 161].




### 3.2.2. General Results

Tab. 3 General Analysis Results



Analysis Results - Overview

No.	Object	Substrate	Foundation	Lacquer Coating	Lacquer Decoration
2.1.1.		Tropical hardwood, leather	Front: Tung oil, blood, starch, aluminum silicates, earth material Rear: along the edges two layers with intermediate fibers	Front: Two layers: <b>laccol</b> lacquer, perilla oil, protein; first layer pigmented with animal black Rear: one <b>laccol</b> lacquer layer with drying oil; one thin black layer pigmented with charcoal	Gilded motifs: <b>gold leaf</b> on ornament pigmented layer, Incised gilded lines: <b>gold leaf</b> on iron oxide pigmented layer ( <b>laccol</b> )
2.1.2.		Wood, rayskin, leather	Rear: Two ground layers: perilla oil, blood, gum benzoin, aluminum silicates, earth material, and intermediate fiber layer of pure cellulose fibers of different origin	Front: Urushi lacquered rayskin Rear: First coating: two layers: <b>laccol</b> lacquer, tung or perilla oil, animal black; Second coating: one layer: <b>laccol</b> lacquer, tung or perilla oil	Gilded motifs: <b>gold leaf</b> on ornament pigmented layer ( <b>laccol</b> ) in both coatings Additional use of <b>shell gold</b>
2.1.3.		Wood, leather	Tung oil, blood, aluminum silicates, earth material	Two layers: <b>laccol</b> lacquer, tung or perilla oil; first layer: pigmented with charcoal	Gilded motifs: <b>gold leaf</b> on ornament pigmented layer ( <b>laccol</b> )
2.1.4.		Tropical hardwood, leather	Drying oil, blood, aluminum silicates, earth material	Rear: One lacquer layer: <b>laccol</b> lacquer, perilla oil, charcoal; thin charcoal layer underneath	Gilded motifs: <b>gold leaf</b> on red iron oxide pigmented layer ( <b>laccol</b> )
2.1.5.		Tropical hardwood, leather from Asian water buffalo	Two ground layers: <b>thitsi</b> lacquer, tung oil, wood oil, protein, pine resin, gum benzoin, charcoal, animal black	<b>Thitsi</b> lacquer, tung oil, wood oil, charcoal	Gilded motifs: <b>gold leaf</b> on <b>urushi</b> lacquer with <b>laccol</b> , pigmented with red arsenic and gypsum

## Analysis Results - Overview

No.	Object	Substrate	Foundation	Lacquer Coating	Lacquer Decoration
2.2.1.		Tropical hardwood	Tung oil, blood, gum benzoin, aluminum silicates, earth material	Interior: two red layers: <b>laccol</b> lacquer, perilla or tung oil, protein, first layer: red iron oxide, second layer: cinnabar Exterior: one black layer: <b>laccol</b> lacquer, perilla oil, charcoal; thin charcoal layer underneath	Gilded motifs: <b>gold leaf</b> and orpiment pigmented layer ( <b>laccol</b> and some <b>thitsi</b> ), <b>shell gold</b>
2.2.2.		Teak wood	Tung oil, blood, pine resin, gum benzoin, aluminum silicates, earth material	Interior: first red layer: <b>laccol</b> lacquer, tung oil, camphor, protein, red iron oxide; second red layer: <b>urushi</b> lacquer, perilla or tallow tree oil, cinnabar, barite	Gilded motifs: <b>gold leaf</b> on orpiment pigmented layer ( <b>laccol</b> ) with camphor
2.2.3.		Tropical hardwoods, including <i>Laureaceae</i> (drawers)	Tung or perilla oil, blood, aluminum silicates, earth material	Interior: red lacquer: <b>laccol</b> lacquer, tung or linseed oil, cinnabar, barite; thin red iron oxide underneath; gilded black lacquer: thin charcoal layer underneath	Gilded motifs: <b>gold leaf</b> on orpiment pigmented layer ( <b>laccol</b> )
2.2.4.		Tropical hardwood	Tung or perilla oil, blood, aluminum silicates, earth material	Interior: two red layers: <b>laccol</b> lacquer, tung oil; first layer: red iron oxide, second layer: cinnabar	Gilded motifs: <b>gold leaf</b>
2.4.1.		Tropical hardwood	Tung oil, blood, gum benzoin, animal black	Top: two layers: <b>laccol</b> lacquer, tung or perilla oil, starch	Gilded motifs: <b>gold leaf</b> on iron oxide pigmented layer ( <b>laccol</b> ) Blue litharge painting: tung oil, indigo, lead monoxide

Analysis Results - Overview

No.	Object	Substrate	Foundation	Lacquer Coating	Lacquer Decoration
2.4.2.		Tropical hardwood, ( <i>Lauraceae</i> )	Tung or perilla oil, blood, aluminum silicates, earth material	Top: <b>laccol</b> lacquer, tung or perilla oil, charcoal; thin charcoal layer underneath	Carvings: <b>gold leaf</b> on not pigmented layer ( <b>laccol</b> ) Gilded motifs: <b>gold leaf</b> on cinnabar pigmented layer
2.5.1.		Tropical hardwood, likely teak wood	Drying oil, blood, pine resin, aluminum silicates, earth material	Top: black lacquer: <b>laccol</b> lacquer, perilla oil, charcoal; thin charcoal layer underneath; red lacquer: <b>laccol</b> lacquer, tung oil, red iron oxide; gilded carvings: <b>laccol</b> lacquer, tung oil, red iron oxide; thin black layer underneath	Carvings: <b>gold leaf</b> and transparent layer ( <b>laccol</b> ) Gilded motifs: <b>silver leaf</b> on iron oxide pigmented layer ( <b>laccol</b> ) Exterior: <b>silver leaf</b>
2.5.2.		Tropical hardwood, likely teak wood	Drying oil, blood, pine resin, gum benzoin, aluminum silicates, earth material	Top: black lacquer: <b>laccol</b> lacquer, tallow tree oil; thin charcoal layer underneath; red lacquer: lacquer, tung or perilla oil, red iron oxide; gilded carvings: thin red layer with red iron oxide and clay underneath	Gilded motifs: <b>gold leaf</b> on orpiment pigmented layer ( <b>laccol</b> ); Carvings: <b>gold leaf</b> on red iron oxide pigmented layer; Gold paint on shell-inlay: <b>gold leaf</b> on red iron oxide pigmented layer ( <b>laccol</b> )
2.5.3.		Tropical hardwood, likely teak wood	Perilla oil, blood, aluminum silicates, earth material	Top: black lacquer: <b>laccol</b> , tung or perilla oil; thin charcoal layer underneath; Rear: red lacquer: <b>laccol</b> , tung or perilla oil, pine resin, red iron oxide	Gilded motifs: <b>gold leaf</b>
2.6.1.		Teak wood	Tung oil, blood, starch, aluminum silicates, earth material	Gilded carvings: First layer: <b>laccol</b> and <b>thitsi</b> , tung or perilla oil, blood, charcoal; second layer: <b>laccol</b> , tung or perilla oil, starch, charcoal; black lacquer: <b>laccol</b> , perilla oil; thin charcoal layer underneath	Carvings: <b>gold leaf</b> Gilded motifs: <b>gold leaf</b> on orpiment pigmented layer ( <b>laccol</b> )

Analysis Results - Overview


No.	Object	Substrate	Foundation	Lacquer Coating	Lacquer Decoration
2.6.2.		Tropical hardwood	Drying oil, blood, aluminum silicates, earth material	Two black layers: First layer: <b>laccol</b> lacquer, perilla oil, charcoal; second layer: <b>laccol</b> lacquer, perilla oil, charcoal; thin charcoal layer underneath	Gilded motifs: <b>gold leaf</b> on red iron oxide (and barite) pigmented layer ( <b>laccol</b> )
2.8.1.		Tropical hardwood	Unknown organic composition, aluminum silicates, earth material	Two black layers: <b>laccol</b> lacquer, tung oil, protein, starch, charcoal; thin charcoal layer underneath; red lacquer: <b>laccol</b> lacquer, tung oil, protein ; thin charcoal layer underneath	Carvings: <b>gold leaf</b> on not pigmented layer ( <b>laccol</b> ) Gilded motifs: <b>gold leaf</b> on red pigmented layer (orpiment, red iron oxide) ( <b>laccol</b> )
2.9.1.		Turned softwood	Exterior: foundation and red lacquer: <b>urushi</b> lacquer, perilla oil, protein, starch, cinnabar		Gilded motifs: <b>gold leaf</b> on pigmented layer?
2.9.2.		Wood or fabric?	<b>Laccol</b> lacquer, perilla oil, starch, blood, aluminum silicates, earth material	Exterior: two red layers: <b>laccol</b> lacquer, perilla oil, protein, starch; first layer: red iron oxide, second layer: cinnabar	Decoration: <b>shell gold</b> and lacquer painting

Table 5 gives an overview of the general results of the technological investigations and analyzes carried out.

### Overall Characteristics (Wooden Species)

Although in the scope of this study it was not possible to collect adequate samples from the wooden substrates of all the objects to permit the identification of specific species of trees, macroscopic examination showed in several cases that tropical hardwood had been used<sup>10</sup>. In the chest from Sintra (2.2.2.), where the wooden structure is exposed in bigger areas, both macroscopic and microscopic analysis identified teak wood (*Tectona grandis*)<sup>11</sup>.

Recently the Japanese biologist Noshiro Suichi performed microscopic analyses of the wood of some specimens. Noshiro collected samples in September 2016 from two objects of private collections in Porto, the chest (2.2.3.) and the tabletop (2.4.2.) and detected in both cases the presence of oil cells in radial section which point to trees from the *Lauraceae* family (containing 50 genera), but it was impossible to distinguish specific genera.

General observations of *Namban*-style lacquered Luso-Asian objects lead to the conclusion that wooden substrates adorned with south Asian wood carvings are made of tropical hardwood, while the substrates of Luso-Asian items without carvings but with the same type of lacquer decoration (motifs in gold and mother-of-pearl) were often produced from softwood, as for instance in the case of mass book lecterns (See chapters 2.7. and 4.4.). Also, the East Asian bowl (2.9.1.) is made of turned softwood, as indicated by the protruding closely lined up annual rings<sup>12</sup>.

Without consideration of subsequently applied layers during repairs or conservation work, the Luso-Asian lacquer coatings are consistent of several layers that are either forming the foundation (one or two layers), the main lacquer coating (generally one or two lacquer layers), and decorative layers (mordant layers, gold or silver leaf, shell gold or oil paint).

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<sup>10</sup> Tropical hardwood can be distinguished from other hard- and softwoods by characteristic macro-anatomical features, cf. Gottwald (1958), Sachsse (1991).

<sup>11</sup> Report of the wood identification of the Sintra chest: Lilia Esteves (LJF-DGPC), 09.04.2012, in the conservation report: Processo IMC: N<sup>o</sup> Guia: 04/11; N<sup>o</sup> Restauro: D/ 11, in Körber (2012a).

<sup>12</sup> Although only a small part of the wooden substrate is visible the annual rings distinguished on the underside of the bowl are characteristic of softwood.



### Lacquer Type

According to the East Asian properties of the decorations, the Luso-Asian lacquer coatings of the reunited objects used almost exclusively laccol lacquer. Only in a few cases urushi lacquer was detected, forming finishing or mordant layers. The rayskin covering on the Vienna shields' front was coated with urushi (2.1.2.). The mordant layer of the shield in Amsterdam consisted of urushi mixed with laccol (2.1.5.), and for the final cinnabar red lacquer layer of the chest in Sintra urushi has been identified (2.2.2.).

Interestingly, in the case of the so-called Pope's trunk in Vienna (2.2.1.), the mordant layer for the gold leaf motifs on red lacquer was composed of laccol and some thitsi lacquer. Furthermore thitsi lacquer appears mixed with laccol lacquer in a black pigmented (charcoal) lacquer layer applied in the area of carved decoration of an oratory (2.6.1.).

The coatings of the domestic Asian objects are either composed of urushi or laccol lacquer. Urushi was identified in the case of the so-called "Ryūkyū bowl" (2.9.1.). Due to the tiny amount of sample, which did not allow the layers to be separated for individual testing, the whole sample was pyrolyzed. Nevertheless, perilla oil, starch, and blood were also detected within the sample. In turn, the mounted Chinese cups were exclusively lacquered with laccol lacquer (2.9.2.).

An exception is the Amsterdam shield (2.1.5.). In contrast to the Chinese nature of its decoration, the composition and sequence of the underlying lacquer layers indicate a different tradition, namely one that corresponds to materials and techniques applied in the closely related lacquer arts of the ancient kingdoms of today's Myanmar and Thailand, where the lacquer coatings are based on thitsi lacquer (See Chapter 1.3.2.). The black coating is consistent of three different lacquer containing layers with an increasing degree of pureness and lesser additives. The lowest, first layer is consistent of thitsi lacquer, wood oil, tung oil, protein, gum benzoin, to which charcoal were added, and which is of a wholly organic composition. The following layer is a mixture of thitsi lacquer, wood oil, drying oil, gum benzoin, earth material (probably including phytolithes due to the organic structure of the silica), and bone black. The last, upper layer contains thitsi lacquer, wood oil, tung oil and traces of laccol (which might originate from the mordant layer above). In contrast, the urushi and laccol agglutinated mordant layer fixing the gold decoration corresponds to both the motifs in gold leaf and to the Eastern Asia lacquer crafts, equally present on the remaining

objects studied. This decorative technique of gold painting by applying gold leaf or shell gold to a pigmented bole layer is not of Southeast Asian origin and was neither applied to historic Burmese nor Siamese lacquerware.

### Foundation

With a few exceptions<sup>13</sup> one foundation layer was applied either onto the leather substrates of the shields or onto wooden surfaces of the resting items, consisting of a mixture of clay and earth materials agglutinated in a blend of drying oil and protein (mostly blood). In some specimens the presence of starch or benzoin resin in the ground layers was detected. These additives were probably intended to function as plasticizers in case of benzoin resin and to increase viscosity and adhesive force in case of starch. Also, the detection of soot suggests the presence of carbon black. Animal or bone black was identified only twice as being added to foundation layers<sup>14</sup>. In contrast to the majority of oil and protein-based primers, the foundation layers of the domestic Asian cups contain lacquer, which is already suggested by their darker color<sup>15</sup>. The absence of ground layers of an inorganic matrix or the presence of only tiny traces of inorganic material is characteristic of areas with gilded wood carvings.

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<sup>13</sup> There are two exceptions where the foundation was applied in two layers with an intermediate layer of organic fibers. Two ground layers are present on the rear sides of the Porto and Vienna shield (2.1.1., Sample I\_01\_04, and 2.1.2., Sample I\_02\_04).

<sup>14</sup> It is present in ground layers of the Porto and Amsterdam shields (2.1.1., I\_01\_02 D; 2.1.5., Layer I\_05\_01 D) and the Vienna tabletop (2.4.1., Layer I\_08\_03 B).

<sup>15</sup> The first example's foundation consistent of two different layers, first a coarse layer of darker appearance followed by a fine layer of lighter color. Due to the fact that the whole sample had to be tested by TMH-Py-GC/MS, unfortunately there was no chance for further analysis (2.9.1.). The second example's cross section presents one single ground layer consistent of laccol lacquer, perilla oil, starch, blood, protein, and soot (2.9.2.).

### Lacquer Layer Composition

Notable is that all analyzed lacquer layers seem to have a considerable amount of drying oil added (tallow tree<sup>16</sup>, tung, perilla or unspecified drying oil).

Pigments were either added to give a deeper black (charcoal or bone black), red (cinnabar<sup>17</sup>, red iron oxide, realgar, or mixtures of the latter two<sup>18</sup>) or yellow (orpiment) color to the individual lacquer layers. Beside the pure pigments also aluminum silicates, barite, gesso, gypsum, calcite or quartz were detected in some samples either as a natural component of the earth pigments or as fillers to the lacquer-pigment mix.

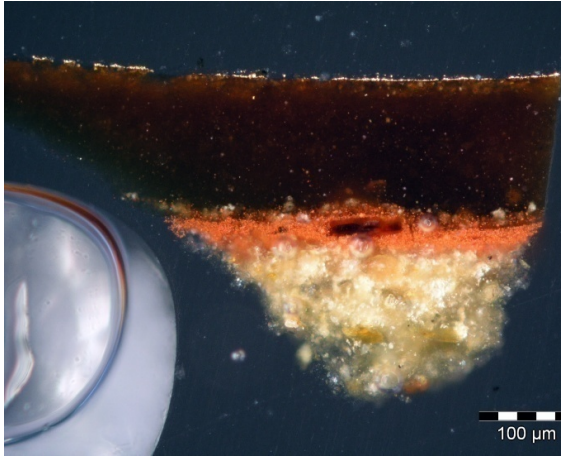
In several cases very thin either red or black pigmented layers appear in the cross-sections directly applied onto the foundation or the wooden surface. It seems that their purpose is to ensure a deep color of the whole coating which consists of only one or two lacquer layers. These layers mainly appear in areas of wood carvings. Not always was it possible to separate and test them individually. Generally, they consist of differing compositions that do contain lacquer or not. In Figure 162 is a cross-section of an area with gilded wood carvings of tray 2.5.2., and in Figure 163 the cross-section of gold leaf decoration on the black surface of tabletop 2.4.2.

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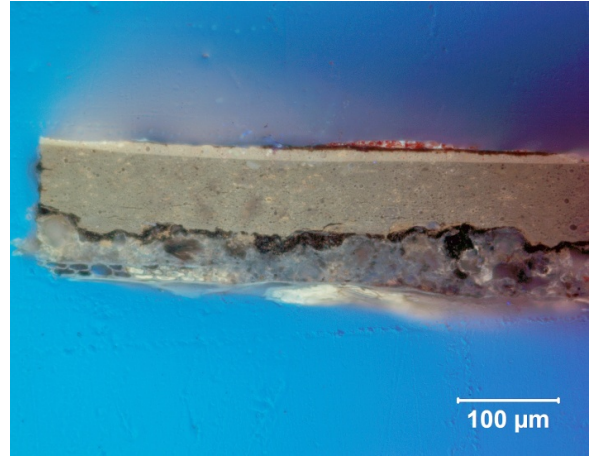
<sup>16</sup> Tallow tree oil is suggested to be present only in two objects. In the Sintra chest (2.2.2.) it is eventually present in the cinnabar red finish layer (I\_07\_01 D), and in the Lisbon tray (2.5.2.) it was detected in the sample of both lacquer layers (I\_11\_03 DE).

<sup>17</sup> In one case (2.2.3, Sample II\_01\_01) the cinnabar pigmented lacquer layer was also consistent of barite (Ba, S, O), which was probably added as filler.

<sup>18</sup> Chair 2.8.1., Sample no. II\_05\_02, SEM-EDX analysis detected that an arsenic pigment (As, S), such as orpiment (As<sub>2</sub>S<sub>3</sub>) or realgar (As<sub>4</sub>S<sub>4</sub>), has been mixed with red iron oxide (Fe, O). Only XRD analysis could clarify this by identifying the exact mineral structure.

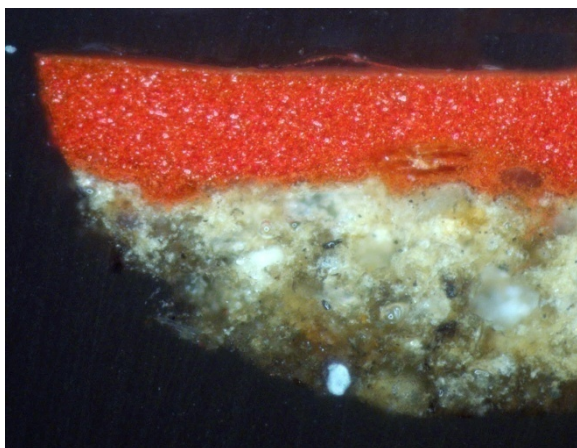


**Fig. 5** Cross-section with a thin red iron oxide pigmented layer, tray 2.5.2., sample I\_11\_02, VIS

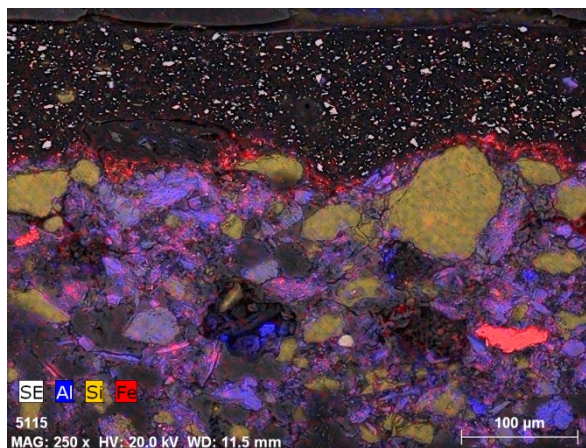


**Fig. 6** Cross-section with a thin charcoal pigmented layer, 2.4.2., sample II\_04\_03, UV

In the case of the red lacquered interiors of the chests, three of them consist of two red lacquer layers (2.2.1., 2.2.2., and 2.2.4.), while the first layer was pigmented with red iron oxide and the second and upper lacquer layer with the more expensive and brighter cinnabar. The red coating in the drawer' interior of a fourth chest (2.2.3.) is consistent of a very thin layer or traces of red iron oxide that only appeared visible under the electron microscope [Figs. 164, 165], followed by a cinnabar pigmented lacquer layer. Its thinness suggests it may rather derive from a grinding operation of the ground layer with brick powder, then having been applied as an individual layer. The organic composition of this layer could not be identified.



**Fig. 7** Cross section of the red lacquered interior of chest 2.2.3., sample II\_01\_01



**Fig. 8** EDS image of the same cross-section under the electron microscope with the detected iron containing layer

### ***3.2.3. Composition and Stratigraphies According to Applied Decorative Techniques***

Generally, the lacquer coatings of the examined Luso-Asian objects consist of similar compositions and cross-sections, which vary dependently on the decorated area and techniques applied. Here, a comprehensive and comparative description of all lacquer formulations is given with regard to the different lacquer decorations.

#### ***Gold Painting and Silver Decoration***

In some objects the areas with gilded Chinese motifs present a thin carbon black pigmented layer applied onto the foundation, as mentioned above, probably to ensure the deep shade of the coating without applying a number of consecutive layers. As shown in Appendix IV, this is for example the case of the rear sides of some shields (2.1.1., 2.1.4.), the three trays (2.5.1.-2.5.3.)<sup>19</sup>, and the oratory (2.6.1.)<sup>20</sup>, where only a single lacquer layer has been applied.

For gold decorations at least four different methods were used. Most of the gilded flora and fauna motifs were produced by affixing the metal foil or shell gold onto a bole layer

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<sup>19</sup> These layers are consistent of: drying oil, blood, starch, and charcoal (2.5.1.); or perilla oil, blood and charcoal (2.5.2.). For the tray from the private collection (2.5.3.) it was not possible to spate this layer and it was analyzed together with the lacquer layer above, but SEM-EDX analyses identified the black pigment as animal black due to the presence of calcium and phosphorus.

<sup>20</sup> Unknown composition pigmented with charcoal.



previously applied on the area meant to be gilded. In the majority of cases these bole layers have pigments added. For gilded decorations on black lacquer grounds either yellow (orpiment) or red pigments were used (red iron oxide or iron containing clays, realgar, or cinnabar). The same method was applied regarding the gold decor on red lacquer backgrounds (orpiment). Inner drawings and details (eyes, feathers, fur, or leaf veins) were added by needle drawing, in which fine lines were scratched into the gilded surface, exposing the coating underneath [Figs. 166, 167].



**Fig. 9 “Gilded” decoration in tray 2.5.1., seen in oblique light, showing the incised inner drawing of the bird and leaves**



**Fig. 10 Worn “gold” decoration in tray 2.5.1., exposing the red bole layer underneath**

Due to its distinctive appearance it was assumed the motifs of birds and peonies, present on the top surface of tray 2.5.1., were also made with gold leaf. They appeared to be of the same material as the carved and gilded borders. Surprisingly, SEM-EDX analyses detected the presence of silver leaf instead of gold leaf [Fig. 168]. There are several techniques for the patination of silver. D’Incarville mentioned that the Chinese used three types of gold: *ta-tchi* – ordinary gold, *tien-tchi* – pale gold, and *hium-tchi*<sup>21</sup> – which was made of silver leaf to which they gave a golden color by exposing it to sulfur vapor. D’Incarville also stated that *hium-tchi* was not much used, only at the edges of dishes and

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<sup>21</sup> Here the transcription of d’Incarville was used.

sometimes for unusual pale shades<sup>22</sup>. The exposure to reduced sulfur vapors was also a well-known technique among European gilders. During patination the color changes from a light-gold tone, through a middle-gold to dark-gold then copper, blue, green, brown, and finally black. Once the desired shade is reached, the surface is protected by an isolating layer, for instance a varnish such as glue or shellac, to prevent further reaction with atmospheric gases<sup>23</sup>. It has, however, been pointed out that the practical implementation of this process is difficult to manage, particularly in terms of achieving a uniform tint of the surface. An alternative method of producing a gold finish would be the application of a colored coating over the silver leaf, but such a layer is not visible in UV light. Yellow colored varnishes have for example been used for silver leaf gilding in Europe<sup>24</sup>. It was a mystery why the silver leaf appears to be gold leaf as there was no evidence either for the application of a yellow layer over the silver or a transparent sealing layer, either with the naked eye or in the cross-section; only a layer of wax is visible [Fig. 169]. However, neither in the cross-section, nor with the naked eye the presence of a yellow stained varnish layer covering the silver leaf could be observed. It also seems unlikely that an organic layer of this type would have survived over the centuries, especially with the silver leaf this worn-out. Unfortunately, it was not possible to solve this mystery of the remarkable gold appearance of these motifs produced with silver leaf. The question remains how the silver leaf, even in worn areas, still maintains its golden tint and which technique has been used for the silver to maintain its golden appearance<sup>25</sup>.

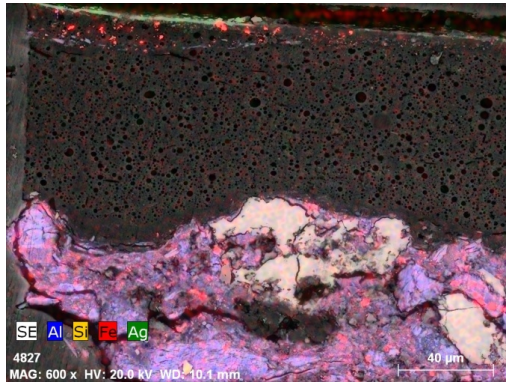
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<sup>22</sup> Sabin (1904, p.162).

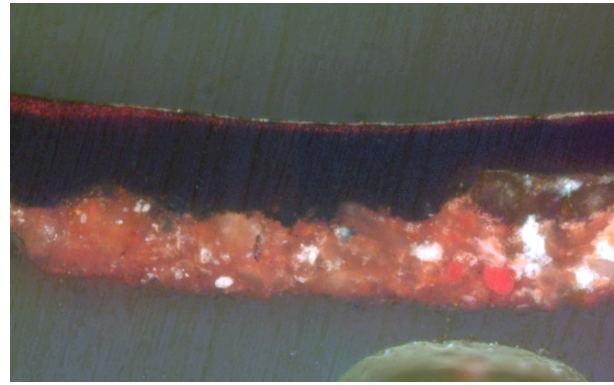
<sup>23</sup> Körber et al. (2016, pp. 76, 79).

<sup>24</sup> Kellner (1989, pp.133-35), Dias et al. (2015).

<sup>25</sup> Körber et al. (2016, p.79).



**Fig. 11** EDS image of a cross-section of the “gold decoration” of tray 2.5.1. under the electron microscope showing the detected silver leaf



**Fig. 12** Top surface, cross-section of the “gold decoration” of tray 2.5.1. with the layer of wax on top rendered visible under crossed polarizers

The same tray displays another technique using silver. On the now grayish undulated frieze along the rims’ exterior again silver has been used<sup>26</sup>. Over time, the silver has become tarnished through conversion to silver sulfide, which is why it had not been identified before. SEM-EDX analysis also detected chlorine in the silver corrosion products. The silver leaf was applied to a transparent, brownish lacquer layer [Figs. 170, 171].



**Fig. 13** Detail of decorative band on tray 2.5.1. with sulfized silver leaf



**Fig. 14** EDS image of the cross-section of sample I\_10\_01 from the same motif showing the silver leaf on top

<sup>26</sup> Körber et al. (2016).



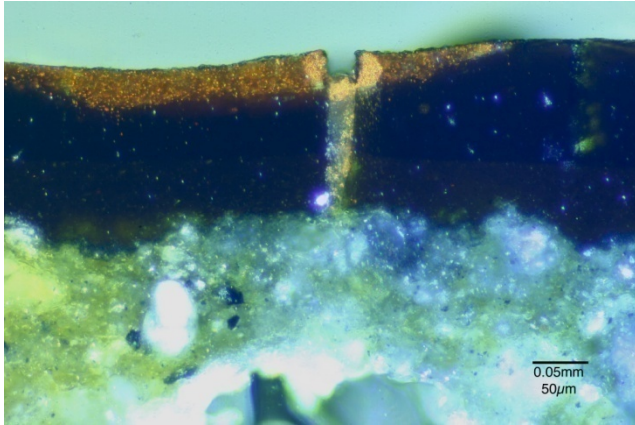
In a few objects also shell gold was used in combination to gold leaf to produce rocks and other formations. This can already be seen with the naked eye due to refraction of the luster, the generally matte appearance, and the characteristic graduated shading, which is only achievable using this technique (2.1.2., 2.2.1.)<sup>27</sup>.

In some cases, it was impossible to collect samples from all distinct gilt decorations of individual pieces. Thus, in some yet untested areas which have a duller appearance and where no mordant layer is identifiable with the naked eye, another technique of gold painting could have been used where a mixture of lacquer with pigments (such as orpiment) and shell gold were applied with a brush. Although so far this type of *miaojin* technique has not been identified by our analyses of the samples collected it is possible this technique might also have been used in some items.

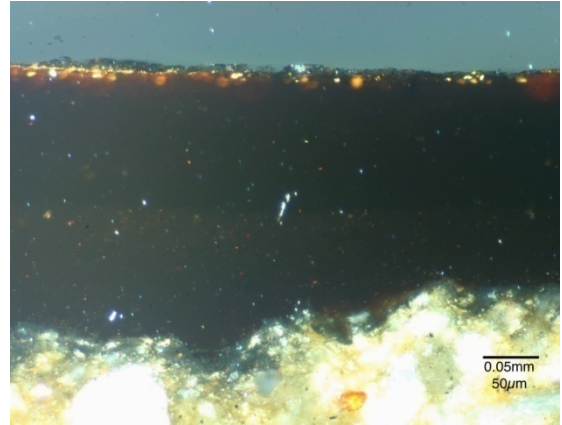
Notable is the use of mordant layers with distinct compositions when two different decorative techniques are present on the same object. As for example on the shield 2.1.1., the gold leaf of the motifs was attached to an orpiment pigmented lacquer layer, while the mordant layer applied to the incisions of the gilded background diaper pattern in *qiangjin* technique was pigmented with red iron oxide [Figs. 172, 173]. The same has been observed in the tray in 2.5.2., where the gold painting on the shell pieces was applied onto a mordant layer containing red iron oxide, while the gold leaf of the motifs was affixed to an orpiment pigmented bole. Probably different methods were used to create a contrast between the different gilded areas.

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<sup>27</sup> Not for all objects it was possible to sample the decorative layers in this particular area, including the composition of the bole layer (cups 2.9.1. and 2.9.2.) or whether gold-dust or shell gold produced of gold leaf has been used (chests 2.2.3. and 2.2.4.). In case of the mounted Chinese cups, definitely gold powder was applied (2.9.2).



**Fig. 15** Red pigmented mordant layer of *qiangjin* decoration on shield 2.1.1., sample I\_01\_03



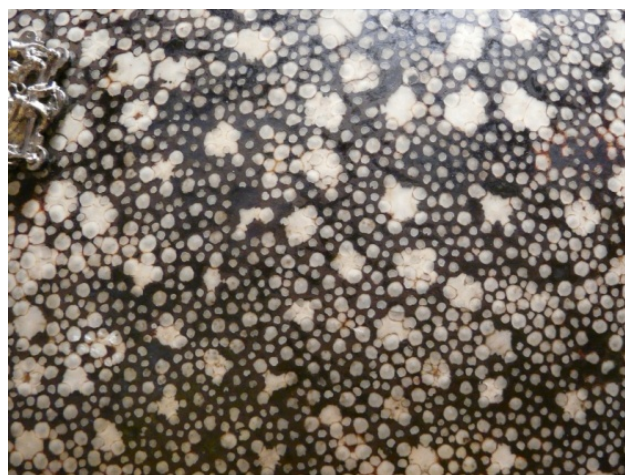
**Fig. 16** Orpiment pigmented bole layer of gilded motifs on shield 2.1.1., sample I\_01\_02

### Polychrome Oil Painting (Litharge)

Only one object among the whole group displays a non lacquer containing colored finishing layer. The top surface of the “Cardinal’s tabletop” (2.4.1.) has been coated with a blue oil paint, consistent of tung oil and indigo-stained lead monoxide, that was applied onto the black lacquer, surrounding the gold leaf motifs.

### Lacquered and Polished Rayskin

Although not tested again in the scope of this thesis the front side of the Vienna shield (2.1.2.) is covered with rayskin, which has been coated with urushi lacquer and polished (*samakawa nuri*) [Fig.174].



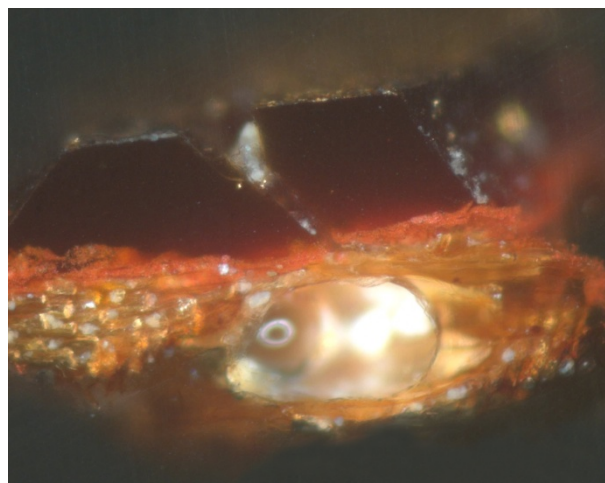
**Fig. 17** Detail of the lacquered and polished rayskin on shield 2.1.2.

### Gilded Wood Carvings

Generally, the coating in areas of wood carvings present a very simplified stratigraphy, consisting only of very few and thin layers. Mostly there is almost no foundation, or only traces of it, usually followed by a thin black or red pigmented layer<sup>28</sup>. For the majority of black pigmented layers, under the microscope the pigments clearly tested as being charcoal. The gold leaf in the carved areas was either attached to non-pigmented mordant layers<sup>29</sup> or red pigmented lacquer layers [Figs. 175, 176].



**Fig. 18 Oratory 2.6.1., gilded carved decoration**



**Fig. 19 Cross-section of the gilded carvings presenting a thin red layer directly applied onto the wood, followed by one lacquer layer and gold leaf**

### Nanban-Style Decorations with Gilded Motifs Combined with Mother-of-Pearl Inlay

This subgroup of mainly liturgical objects with the combination of mother-of-pearl inlay and motifs in gold leaf shows similarities with *nanban* lacquerware at first sight, but on closer examination differences in style and technique become apparent. *Nanban*-style decorations are present in 2.5.2., 2.5.3., 2.6.1., and 2.6.2. Japanese *nanban* ornamentations never use gold leaf, but instead employed *makie* and *nashiji* decoration, based on *kōdaiji*

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<sup>28</sup> Examined were only respective samples from chest 2.2.1., trays 2.5.1.-2.5.3., oratory 2.6.1., tabletop 2.4.2., and low-chair 2.8.1. It was not possible to sample gilded carved areas from chest 2.2.2., chest 2.2.4; tray 2.5.3., and oratory 2.6.2. The thin black pigmented layers are present in: 2.2.1., 2.2.3., 2.4.2., 2.5.1., and 2.8.1. Red pigmented layers were applied on the objects 2.5.2. and 2.6.1., cf. cross-sections in Appendix IV.

<sup>29</sup> 2.4.2. (Layers II\_04\_01 D and II\_04\_02 E), 2.6.1. (Layer II\_03\_01C), 2.8.1 (Layers II\_05\_01 E and II\_05\_01).

*makie* techniques (See Chapter 1.3.2.). As a result, *nanban* designs are depicted in three different tones, two of which feature dissimilar tints of metal powders, alongside the iridescent mother-of-pearl inlay. Such designs contrast to the homogeneous gold tone as on the majority of examined Luso-Asian artifacts. In all such decorated specimens the mother-of-pearl may derive from similar sources and used the same technique, in which very thin previously tailored pieces were glued to the wooden substrate. These were probably obtained by sanding, as several pieces present marks, or from the sanding of the entire surface after the the application of lacquer [Figs. 177, 178]. The shell pieces in the objects under scrutiny further are thicker than those paper-thin sheets extracted from previously boiled shells, referred to earlier in Chapter 1.3.2.



**Fig. 20** Detail of mother-of-pearl decoration in oratory 2.6.1.



**Fig. 21** Shell fragment of tray 2.5.2. with remnants of gilded lines and traces of grinding

In summary, one can say that a variety of decorations are present on the specimens. Some only use a single technique while others show a combination of decorative techniques, as for instance the Porto shield (2.1.1.) with flora-and-fauna motifs in gold leaf and a background diaper pattern of incised gilded lines, or the Vienna shield (2.1.2.) with motifs in gold leaf or shell gold and its lacquered rayskin covered front. The so-called Pope's trunk presents two methods of gold decoration using either leaf or shell gold to produce the gilded motifs on cinnabar lacquer and has additionally gilded carvings. Exemplary for another blend of decorations are the *nanban*-style ornamentations on two trays (2.5.2. and 2.5.3.) and the oratory (2.6.1.) (See Chapter 5.4.).

The following chapter summarizes and discusses the results of both formal classifications and technological investigations.



## **4. Distinct Origins and Distinct Journeys – Formal, Technical and Historical Hints Contextualized**

The reliability of the results compiled over the different stages of the research confidently offer clues. Yet while the diverse origins of individual pieces and the diversity group over all now seem more comprehensible, some questions remain unanswered and new ones that arise reveal a general issue even more complex than previously recognized: the majority of the pieces previously attributed to a wholly Chinese, Ryūkyūan or Japanese origin, actually combine craftsmanship and influences of multiple Asian and Luso-Asian roots, even when the lacquer ornamentation shares identical compositions, decorative techniques and motifs. Paradoxically, this combination of distinct, yet collective circumstances has rendered individual pieces as unique creations with their own specific histories.

### **4.1. Formal and Ornamental Characterization**

#### ***4.1.1. Wooden Structure and Carving Work***

The formal examinations and comparisons obtained in Chapters 2 and 3 revealed that the majority of the Luso-Asian specimens, and especially those eleven out of nineteen adorned with distinctive carving in low-relief, present wooden cores of tropical hardwood that suggest South Asian origins from production centers along the Indian coastline (Gujarat, Malabar, Coromandel, and Bengal), the coast of the Gulf of Bengal, or Ceylon (today's Sri Lanka).

A better understanding of these implications requires a close look at the wooden structures of these items – and the challenges of doing so. It needs to be stated that wood identification, especially of tropical hardwoods, is particularly perplexing, as it requires microscopic analysis of transverse, tangential and radial sections. In the case of objects nearly four centuries old, with surfaces almost entirely covered by lacquer, complete sampling is impossible because it would be too invasive.



Often those areas exposing the wooden core are not always big enough for macroscopic identification<sup>30</sup>. Additionally, many have been covered subsequently with additional varnishes or wax during restorations and repairs. Further, the weight of a wood alone does not allow for certain identification when a surface remains invisible<sup>31</sup>. Age and coating also make it impossible to verify the scents that characterize specific varieties<sup>32</sup>. Moreover, even among the tropical woods available on the Indian subcontinent and in Southeast Asia, there are a number that seem to be identical but have been shown to possess slight differences when observed under a microscope, as many genera are spread over very large areas, traversing even different continents. However, overall, results obtained from microscopic and macroscopic examination clearly show the use of South Asian tropical hardwood cores, in some cases specifically identifiable as teak. For Japanese *nanban* and Chinese lacquerware, the use of an expensive and heavy hardwood would be highly unusual and not correspond to Chinese or Japanese praxis, in which objects designed for such a coating typically utilize lighter and faster growing softwoods for the substrates<sup>33</sup>.

However, though the distinction between soft and hard wood is of significance, as records show that timber has been a commodity of transcontinental commerce in Asian waters long before the arrival of the Europeans, the identification of the type of wood substrate alone cannot provide attribution to a specific center of production and doing so has led to vague assumptions. Indeed, several objects with cores of carved tropical hardwood

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<sup>30</sup> As shown in the individual subchapters of the examined specimens in Chapter 2, this practice is widely spread among scholars studying these objects.

<sup>31</sup> Sometimes for example is mentioned that the wood is of a certain weight or that a certain scent can be perceived from the wood, reason enough to identify it as wild jack wood, camphor wood or sandalwood, which in turn would proof an East Indian, West Indian or a Chinese origin. The use of sandal wood could identically refer to the Indian subcontinent, where for instance artisans in Karnataka are specialized in sandal wood carving, cf. Reis (2015, p.191), to China or even to Southeast Asia. Additionally also in India soft wood was used, for instance for half-relief and low-relief carving of altar retable cedar and pine were employed in the northern region, cf. Reis (2015, p.192). See for example the chest (2.2.3.) with its different “wood identifications” and attributions.

<sup>32</sup> In the past wooden cores of a number of objects have been “identified” after their sent or weight, partly without even exposing the wood grain. Given the age-old objects are almost entirely covered with a lacquer coating it either turns an appropriate sampling impossible, only small areas of the wooden surface are visible, or they have already been treated with resins or waxes which likewise release certain scents. Sometimes, even if the wooden surface is visible it is not possible to identify the exact species macroscopically, due to the vast spread of similar tropical woods with similar properties.

<sup>33</sup> The same has been confirmed by Noshiro Shuichi in March 2017, who has analyzed the wood used for some *nanban* and Luso-Asian lacquer objects from Portuguese collections between September 2016 and February 2017 (3.2.2.).

have been misattributed to an entirely Chinese manufacture<sup>34</sup> yet present motifs typical of South Asia, such as the symmetrical vegetal carvings that differ totally from Chinese esthetic and artistic conventions. Meanwhile, in Ming China, tropical hardwood was highly prized for its beautiful grains, and after the relaxing of a trade ban with southern countries in 1567, it was frequently imported from Southeast Asia<sup>35</sup>, where it was generally employed to create wood-sighted furniture which exposes the characteristic grains (See Chapter 1.2.3.). It seems inconceivable, especially during the Ming period where the manufacture of furniture made of tropical woods became particularly popular, that furniture made from a so prized material would be additionally lacquered and used to answer the demand of foreign consumers, despite the Chinese-like motifs present in the lacquer decorations on these pieces that have led to such ascriptions. In short, due to issues of condition and the practical problems of rigorous identification of the wood that could be answered or suggested in only a few cases, this study focuses on the lacquer coatings.

Nevertheless, what can be said with certainty is that the wooden substrates of the examined Luso-Asian objects do not in the least seem to have been produced in China or Japan, where contemporary furniture displays totally different typologies, construction methods, wood types and design, and also in their thinner and lighter-weight boards of softwood, particularly in pieces that are lacquered. By contrast, the specimens typically possess European-style dovetail and groove joints, sometimes enhanced by iron nails – a carpentry method that in this rough execution corresponds neither to Chinese nor Japanese esthetic conventions and woodworking traditions<sup>36</sup>.

Based upon the function, the characteristics of the wooden body (timber-type, construction methods, wood joints, and metal hardware), and the presences of low-relief carvings, the objects of this group combine two aspects: on the one hand the wooden structures of many items correspond to South Asian woodworking traditions fused with European typologies; and on the other hand some small, portable types adapting contemporary southern European forms appear as indispensable equipment to overseas

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<sup>34</sup> As for example in the case of the chest described in Chapter 2.2.3., cf. Crespo (2015a, p.128; 2016d, pp.301-03).

<sup>35</sup> Evarts (1996, p.65).

<sup>36</sup> Cf. Wang (1986), Clunas (1988; 1996a), Evarts (1996).



Europeans in Asia in the late 16<sup>th</sup> and 17<sup>th</sup> centuries, and therefore could have been produced after models in various production centers<sup>37</sup>.

For example, there are numerous writing boxes of nearly identical dimensions (2.3.), equipped with a lockable lid, with or without drawers that are either visible and accessible in the front or hidden by a fall-front that could additionally serve as a blotting pad – yet which display different styles of low-relief wood carving<sup>38</sup>. These suggest origins in different production centers along the coastlines of India or the Gulf of Bengal, including the Kingdom of Pegu<sup>39</sup>. The distinct designs of the carvings, each of which follows a completely different formal language, refer to distinct traditions and cultural backgrounds, some clearly suggestive of Muslim origins. The different styles of carved decoration indicate that this type of small, portable furniture must have been irreplaceable for private and professional use among overseas European nobles, who ordered its manufacture using nearly identical models dispersed across the most widespread Portuguese strongholds. Due to the fact that these pieces generally are made from dense, heavy dark reddish-brown wood, likely wild jack wood (*Artocarpus hirsutus*), they have commonly been ascribed to Cochin, where huge plantations of that timber existed (See Chapter 1.2.2.). Yet trees of the *Artocarpus* genus are spread over a wide territory even within the Indian subcontinent. Unfortunately, the stylistic differences of the low-relief carvings have not yet been recognized. As a result, objects with distinct carvings have been grouped together and ascribed to the same location. In Table 6 are shown different wood carving styles that adorn the examined Luso-Asian items.



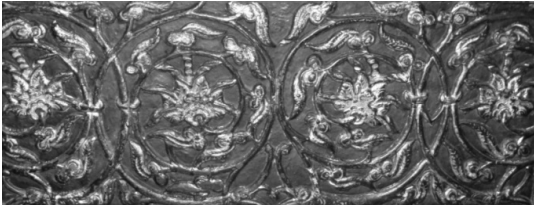
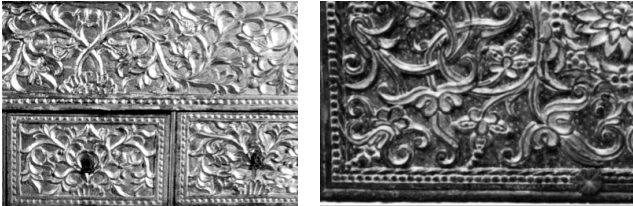

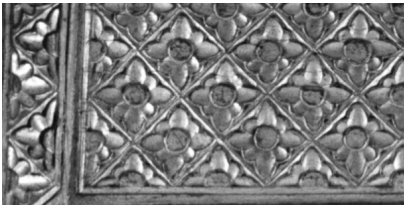
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<sup>37</sup> Included are here for example parade shields (2.1.), chests (2.2.), writing boxes (2.3.), folding tables (2.4.), and the liturgical utensils (2.6., 2.7.).

<sup>38</sup> As for instance the examples reunited and described by Ferrão (1990b, pp.154-171), those discussed by Carvalho (2001a; 2001b), or the writing boxes shown in Dias (2013, pp.90-99).

<sup>39</sup> Compare a depiction of three examples of writing boxes whose carving styles are of a clear distinct character in Crespo (2016a; 2017a).

**Tab. 4 Distinctive Examples of Wood Carving Styles on Luso-Asian Furniture**

Examples	Characteristics
	<p>Showing the droplet-shaped leaves (likely the Persian <i>boteh</i> (or <i>buta</i>) motif), curled branches and leaf tips, cornucopia, volutes and scrolls, all well pronounced with convex and concave elements</p>
	<p>Floral or figurative depictions composed of flatter and rounded elements, often also figuring scenes and themes from contemporary European prints.</p>
	<p>Intertwined circular scrolls which resemble either Burmese or Singhalese ornamentation</p>
	<p>Intertwined and twisted branches with more convex stems and leaves, emerging from a central spot, all framed by bands of diamonds, twisted robe or beading</p>
	<p>Intertwined and twisted vegetal scrolls and tendrils, composed of tube-shaped branches</p>
	<p>Surfaces filled with geometrically arranged stylized vegetal forms</p>

The group of objects under consideration, easily storable and transportable, illustrates well the production of small, sometimes foldable objects of furniture adapted to the use of Portuguese living in or circulating between overseas bases<sup>40</sup>. Of the nineteen specimens, eleven wooden substrates are adorned with low-relief woodcarvings that characteristically display a variety of dense, symmetrically intertwined motifs of naturalistic, stylized vegetal, floral, fruit, animal, bird, and mythical creatures, framed by bands of diamonds or twisted rope. Similar to many different decorative traditions yet distinctive in their own right, they present a number of different possibilities with respect to their origins. In subject and style, these link to the Indian subcontinent, where a rich tradition of stone and wood carving belong to the most sophisticated of crafts, passed down over millennia from generation to generation of woodcarvers who, like other professional groups, belonged to various castes. The specimens present carving styles that can be compared with carved wooden furnishings in Indo-Portuguese churches, and share motifs with traditions alive today, visible in carved architectural elements such as ceilings, windows, doors and columns for the ornamentation of homes, house altars, temples and religious sculpture<sup>41</sup>. Of the techniques, wood species and decorative schemes from region to region, those of Kerala, Gujarat, and above all the 16<sup>th</sup> and 17<sup>th</sup> century civil and religious architecture of today's state of Goa<sup>42</sup> stand out. Further, the Luso-Asian low-relief decoration is similar to architectonical carved elements existent in Indian civil architecture in the state of Goa<sup>43</sup>, along the coasts of Coromandel<sup>44</sup> and Bengal [Fig. 4], or in the subcontinent's Muslim north such as Gujarat<sup>45</sup>. The South Asian origin of the woodwork of several examples is further evidenced by similar extant unlacquered examples in India, Portugal and Southeast Asia<sup>46</sup>, and by comparison with carved decoration

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<sup>40</sup> Curvelo (2009, pp.35-36).

<sup>41</sup> Reis (2015, pp.190-91).

<sup>42</sup> For example the carved decoration of the tympanum of the sacristy' door in the Espírito Santo church in Margao shows intertwined branches in a similar style as present on some of the examined chests, cf. Pereira & Pal (2001, p.131; fig.8).

<sup>43</sup> The door of the Hindu temple Shri Damodar in Loliem, near Goa, for example, displays similar carvings of scrolls growing out of vases.

<sup>44</sup> Compare coeval textile decorations and carved furniture for the Dutch market of the 17<sup>th</sup> century.

<sup>45</sup> Pramar (2001) or Thakkar (2004).

<sup>46</sup> Pinto (2012).

on other furniture produced for the overseas Portuguese in India<sup>47</sup>, and carved furniture made for the Dutch or British in later periods across the coasts of Coromandel and Bengal, as well as Sri Lanka<sup>48</sup> (See Chapter 1.2.2.).

The Indian subcontinent was composed of people with multiple religious, regional and cultural backgrounds. The specimens' diverse decorative character might indicate either distinct origins or the likely participation of woodworking artisans and workshops of various traditions and cultures in the port-cities and trading posts along the many trade routes. Yet in the course of the progress of Portuguese trading and missionary activities in other locations, it is also conceivable that by copying models originally produced along the Indian coastline, a certain "Luso-Asian" taste developed, and that these decorative schemes might have evolved into new esthetic conventions that were copied, or that influenced production in other areas. However, bearing in mind the close interaction of merchants and missionaries in Portuguese strongholds and port-cities in India, Macau and Nagasaki towards the end of the 16<sup>th</sup> century, the craftsmen and artisans producing objects could have been of multicultural origin, influencing each other by merging traditions and concepts, thus creating a totally new style on its own. Further complications for attributions are the movement of artisans and craftsmen of one or another ethnic group into different areas – for example, Hindu Tamil communities resided simultaneously along the east coast of southern India, as well as on the island of Ceylon, with closely related artistic production<sup>49</sup>.

#### ***4.1.2. Luso-Asian Imagery - Origin, Transfer and Adoption of Decorative Motifs***

Generally, motifs and pattern which adorn the studied pieces, either in form of wood carvings or applied in lacquer technique, derive from various sources and religious backgrounds, which sometimes share the same ancient origins. On one hand they illustrate the fusion of distinct cultural traditions and artistic expressions, and on the other a syncretism of spiritual beliefs and religious symbolism. Since human recollection motifs derived from

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<sup>47</sup> See for instance Indo-Portuguese furniture extant in the region of Goa; a canapé or atrium bench in Pinto (2011a); or chairs depicted in Dias (2013, pp.215-216).

<sup>48</sup> For comparison and various examples cf. Silva (1966), Pereira & Pal (2001), Pinto (2003), Frias (2006), Carita (1995; 2009), Dias (2002; 2008a; 2009c; 2013), Reis (2009a; 2009b; 2012; 2016); and for comparisons with furniture produced in the Dutch East Indies in subsequent periods, cf. Van Gompel (2013).

<sup>49</sup> Exams performed on Ceylonese furniture produced for the Dutch market revealed, by the presence of Tamil script, that they were produced by Tamil Hindus, cf. Van Gompel (2013).

nature, as the sun, the moon, different plants and animals or natural phenomena became archetypal symbols. Thus, certain motifs or patterns were shared simultaneously by different, co-existing cultures<sup>50</sup>.

In this Chapter the shared visual representations, which carry distinct connotations in Catholic and Asian cultures, are looked at. Only a few Chinese motives are discussed individually, while the meaning of other motifs and combinations of the Chinese imagery contained in the Luso/Asian lacquer decorations can be consulted in Appendix II. In the manifold and partly overlapping decorative strategies on the carved wooden structures<sup>51</sup> of this group of objects, we can distinguish typical Hindu or Muslim Indian motifs that sometime combine with European elements. Many depicted animals, which originate to former pagan cultures with nature-based symbolism, have connotations in different ancient cultures and religious beliefs around the world, including the multi-cultural Indian subcontinent, Ming Chinese and Christian art. The same applies to plants, their flowers and fruits. The use of these shared motifs was of course of a certain favor in the Christian art produced overseas, as they carried symbolic meaning for both the missionaries and the peoples that should be converted.

### *European and Christian Symbols and Themes*

European inspired motifs and decorative patterns are either of profane or religious character, consisting of heraldic devices: noble coats-of-arms or decorative Renaissance or Mannerist themes or patterns; or Christian religious connotation. Diverse artisans reproduced Christian images that were brought from or ordered in Europe or that were distributed by contemporary European prints, prayer or pattern books<sup>52</sup>. Themes or ornamentations derive from European Renaissance or Mannerist print sources (e.g. Italian or Flemish) depicting typical ornaments and arabesque friezes, classical scenes from the Greek-Roman mythology to allegoric themes; scenes of Biblical lore and Christian iconography; themes related to the

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<sup>50</sup> Lopes (2011, pp.28-32).

<sup>51</sup> Thapa et al. (2007).

<sup>52</sup> Dias (2004, pp.264-266), Frias (2006, pp.48-49, 52), Bailey (2007, p.170). Among the book sources brought by the Jesuits were of course works about the Catholic religion and numerous kinds of liturgical books, the Latin grammar and among others Classical works from Homer, Horace, or Ovid, as well as treatises on European art and architecture, Frias (2006, p.49).

contemporary Portuguese and European history or literature, or even the presentation of Portuguese coat-of-arms. Numerous of the Luso-Asian lacquered shields (2.1.), for instance, display Portuguese noble heraldic devices, while several of the writing boxes, mentioned in Chapter 2.3., show varied of the just referred European themes.

Influences of contemporary European secular and religious architecture become especially apparent in the structures of oratories (2.6.) with architectural elements, typical of Renaissance and Mannerist decorations<sup>53</sup>. The carved decorations also present European influences in their symmetrically structured surfaces, which are filled with diverse types of scroll-work and arabesque pattern, composed of interwoven animal, vegetal and human elements. The diverse types of scroll-work simultaneously feature in the lacquer decorations, where they must have been copied from models handed out to the artisans. This is for instance manifest on the edge-framing friezes on the various shields (2.1.), and on the “Cardinal’s tabletop” (2.4.1.).

Adornments with Christian connotations include of course heraldic emblems and monograms of different religious orders and the Society of Jesus. An example of this is the Jesuit IHS monogram, present on the oratory (2.6.1.) and several lecterns (2.7.1.-2.7.5.), with the cross mounted above and three crucifixion nails within a circular aureole (symbol of the victorious Christ<sup>54</sup>), or a pierced heart by an arrow which is symbol of the order of St. Augustine (2.7.6.). Other Christian symbols are of course the dove (symbol of the Holy Spirit<sup>55</sup>), as well as grapevines, among other animals and plants, or the Eucharist symbol of the pelican feeding its youngster with its own blood. This motif refers to the self-sacrificing love of Christ, his sacrificial death and is symbol of charity<sup>56</sup>. The latter appears on diverse artworks used in religious contexts and is present on two of the studied pieces. On a tabletop (2.4.2.) only the pelican and its young are depicted, and in the so-called Pope’s trunk (2.2.1.)

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<sup>53</sup> These include: pediments and architraves, as well as pillars and pilasters, niches with conch shaped baldachins, and other vegetal decorations; Solomonic and Mannerist columns with ribbed shaft and different kinds of capitals. Often the *imoscapo* is ribbed or decorated with acanthus foliage, cf. Bailey (2007; 2009), Reis (2015), Lameira & Reis (2016).

<sup>54</sup> Mendonça (2010, p.96).

<sup>55</sup> Werness (2006, pp.143-144).

<sup>56</sup> It is derived from a legend already described in the 4<sup>th</sup> century’ *Physiologus*, a Greek compilation of legends and myths from Nature and early Christian connotations from an anonymous author, in Curley (2009, pp.9-10).

the pelican and its children are sitting in a nest on the Tree-of-Life, which again represents Christ<sup>57</sup>.

Further, and especially in religious artifacts and architecture produced in the Goa region, feature six- or eight-pointed stars (Star of Bethlehem) as painted onto the interior back of an oratory (2.6.2.), within the circular sunburst on a lectern (2.7.2.), or on a lecterns' (2.7.4.) upper front panel, alluding to heaven. Both sun and moon, which appear frequently on Catholic objects and church decorations in India, carry Christian symbolism. The sun, for example, is a symbol of immortality and resurrection, and the moon alludes to the figure of Mary as the universal mother and dispenser of grace<sup>58</sup>.

An important heraldic figure<sup>59</sup>, as well as a symbol of Christianity's imperial political status and ecclesiastical project, is the crowned double-headed eagle<sup>60</sup>. This motif probably derived from the ancient Near East with Sumerian and Assyrian origins in Mesopotamia (19<sup>th</sup> – 18<sup>th</sup> century BC), from where it spread as a symbol of power into diverse regions<sup>61</sup>. Crowned two-headed birds of prey adorn architecture and a multitude of artifacts of plenty kinds of material and craftsmanship manufactured in the vast netting of the Christian missions in the entire territory of *Portuguese India*, such as embroidered textiles from India and China [Fig. 179], and all kind of artworks and architecture produced in the Catholic world<sup>62</sup>. On furniture it is featured on numerous boxes and caskets manufactured on the Indian subcontinent or on the escutcheons applied to them [Fig. 180]. This motif became especially popular from the mid-17<sup>th</sup> century onward and was used by diverse religious orders and congregations. Of course, as a heraldic figure this could also refer to the Habsburg dynasty and to the period of the Union of Crowns between 1580 and 1640, but it seems more likely this figure has been used by the Catholics in general. Several lacquered writing boxes

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<sup>57</sup> Impelluso (2004, pp.307-08), Werness (2006, pp.323-24).

<sup>58</sup> Battistini (2005, pp.192-95).

<sup>59</sup> Generally, since the Middle Ages the double-headed eagle has been served as symbol of Empire and heraldic figure to many sovereigns and corporations including the Holy Roman Empire, the Germanic or Habsburg dynasties, Serbia, Russia or Turkey, among others, cf. Werness (2006, p.153).

<sup>60</sup> If this motif is not combined with a heraldic shield or other heraldic elements that could refer for example to the order of the Augustinians (See 2.7.4.), a crowned version seems to have been used abundantly in Christian contexts and by Catholics in general.

<sup>61</sup> Chariton (2011).

<sup>62</sup> Trindade (2010, pp.15-17), Serrão (2015a, pp.95-98).



manufactured on the Indian sub-continent and lacquered Luso-Asian examples, such as the writing box in the Asian Civilizations Museum (ACM) [Fig. 181], or a trunk with a domed lid in a private collection<sup>63</sup> [Fig. 182] feature these two-headed birds, either wood carved or in gold lacquer technique. In Hindu culture the double-headed mythical bird – *Gandaberunda* or *Berundato* – is a powerful symbol of royalty, strength and unity, similar to the double-headed eagle<sup>64</sup>. Carved in stone it is for example featured by a 16<sup>th</sup> century' stone carving in the Hindu Temple Rameshwara at Keladi, Karnataka [Fig. 183]. Comparing this Hindu version in Karnataka with the depiction of a double-headed flyer on the writing box's interior lid at the ACM in Singapore or on the trunk, the latter representation resembles exactly this Hindu creature.



**Fig. 22 Detail of an Indo-Portuguese bed spread showing a crowned, double-headed eagle. Private collection**



**Fig. 23 Escutcheon with double-headed bird on an Indo-Portuguese cabinet. Private collection**

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<sup>63</sup> Körber et. al (2011, Table 1, nos. 9, 14), Körber (2012b, p.320, Fig. III1a).

<sup>64</sup> Trindade (2010, pp.15-17), Serrão (2015a, pp.95-98).



**Fig. 24** Carved double-headed bird on lid interior of a writing-box. Now in the Asian Civilizations Museum, Singapore. © São Roque Antiquidades



**Fig. 25** Thitsi lacquered trunk with domed lid, lateral gold leaf decoration. Private collection



**Fig. 26** The Hindu mythical double-headed bird Gandaberunda, Gandaberunda Rameshwara Temple at Keladi, Karnataka. © <https://en.wikipedia.org/wiki/Gandaberunda>



### Shared Flora and Fauna Motifs, Mythical Creatures and Their Various Origins

Beside a plentitude of other flower representations, lotus flowers are a religious-cultural symbol in the respective arts of Hinduism, Buddhism, and Islam<sup>65</sup>. Simultaneously lotus blossoms are present on some pieces under scrutiny, either on chests or trays, as carved blossoms in bas-relief (2.2. or 2.5.), or in form of Chinese auspicious motifs in the lacquer decoration. In Egypt the lotus symbolized the fecundating principle of the waters of the Nile. From Egypt it passed to Persia and thence to India, with a wide representation in the Vedic religion<sup>66</sup>. In Hindu culture it symbolizes humidity, the Earth Goddess and the creative force on the surface of muddy waters<sup>67</sup>. As a Buddhist symbol it stands for purity. In both, Hindu and Buddhist religion deities are represented either floating or emerging of a lotus flower. This flower is also an attribute of several deities, especially Lakshmi – the god-mother of Buddha<sup>68</sup>. In Hindu art animals, mythical creatures and sacred flowers generally function as vehicles of deities, but can also appear depicted to form decorative friezes in temples or compose decorative pattern.

An example for typical combinations of decorative motifs derived from both artistic and religious traditions are for example the depiction of the Madonna emerging from a lotus flower base, just in the same way as Indian or Buddhist deities are depicted, or they seem to be standing on a crescent<sup>69</sup>.

A teardrop- or droplet-shaped motif with a curved upper end is present in several wood carvings and alludes to the Persian *boteh* motif (Kashmiri *buta*). Possibly this multicultural motif derives from the stylized floral spray and a cypress tree: a Zoroastrian symbol of life and eternity. The motif originates to the ancient Persian Sassanid dynasty (224-651 AD), and was a major pattern used to decorate royal regalia, crowns, and court garments, as well as textiles used in the Safavid dynasties of Persia (1501–1736). From there it had been

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<sup>65</sup> Silva (1966, p.350), William (1976, p.258), Sousa (1994, p.12), Eberhard (2004, pp.183-84), Welch (2008, p.27-30).

<sup>66</sup> Pinto (1994, p.46, foot note 44).

<sup>67</sup> Borges (1994, pp.75-76), Frias (2006, p.61).

<sup>68</sup> William (1976, p.258), Sousa (1994, p.12), Frias (2006, pp.60-61).

<sup>69</sup> See several figures compiled by Ferrão, in Távora (1983). Two 17th century examples of wooden sculptures of the Madonna in the Xavier Center for Historical Research's museum in Alto Porvorim, Goa, show exactly this phenomenon, cf. Borges (1994, p.86).

introduced to Kashmir in the 15<sup>th</sup> century, thus entering the Indian subcontinent, to become a popular motif under the Mughal King Akbar. In Hindustan it is also known as mango-motif<sup>70</sup>, and in the West it became particularly popular in the 18<sup>th</sup> and 19<sup>th</sup> centuries as Paisley design, following the introduction to the British textile production in the Scottish town Paisley.

Of similar shape is the Indian pine-cone motif, simultaneously of Persian origin, which for example commonly adorns carvings in Gujarati architecture<sup>71</sup>. The shape of carved flowers or leaves on some of the studied chests and writing boxes resemble these shapes (2.2., 2.3.1.).

Certain Hindu motifs were carried to other regions through the spread of Buddhism, from which they were adapted, as for example, the *makara*. This Hindu mythical creature (water- or sea-monster) is characterized by its crocodile-like lower body, paws and claws of a lion, and an elephant-like trunk<sup>72</sup>. The beasts depicted on the Indian low-chair (2.8.1.) seem to figure *makaras* [Fig. 148]. Its vehicle, the *makara*, is associated with the River-Goddess Ganga and additionally appears stone-carved in temple decorations, either presented from the side or as a grotesque face from the front. With the spread of Buddhism, it travelled via Cambodia and Tibet to China as a Buddhist symbol<sup>73</sup>, and with Chinese merchants it even travelled to Nagasaki where it appears as wooden architectural ornament on the Chinese Sofukuji Temple, built in 1629 by resident merchants from Fujian [Fig. 184]. Other nature symbols, mythical or hybrid creatures (*Garuda*, *Matsya*, *Tatayus*, and *Nagas* or *Nagini*) are depicted in Indian carvings and Indo-Portuguese furniture<sup>74</sup>.

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<sup>70</sup> *Mankolam*, the pleasing *boteh*- like design is modeled after a mango and associated with Lord Ganesha. Mangos are the sweetest of fruits, symbolizing auspiciousness and the happy fulfillment of legitimate worldly desires.

<sup>71</sup> Thakkar (2004, p.70).

<sup>72</sup> Pinto (1994, p.46), Lopes (2011, p.183).

<sup>73</sup> Cousens (1904), Welch (2008, p.136).

<sup>74</sup> Silva (1966), Raposo (1994), Pinto (1994, p.58), Beer (2004, p.70), Frias (2006, pp.61-62), Reis (2009b), Lopes (2011, p.152), Dias (2013).



Fig. 27 Detail with *makara*, Chinese Sofukuji Temple, Nagasaki

Differing in the exact species, trees in general are prevalent and popular motifs in the history of humankind. Common to all cultures and religious traditions they were considered a manifestation of divine presence, a symbol of life or Mother Earth, of the communication between heaven and earth, and of harvest fertility rites<sup>75</sup>. As a primitive symbol of creation and fertility, a tree or branch which grows symmetrically out of a vase between two water gushes with fishes has been a common motif in the arts of Mesopotamia, Assyria and Byzantium. Slight derivations, with the tree flanked by a pair of different animals other than fishes instead of the water gushes, appears used in different parts of Asia<sup>76</sup>. Also, in the Christian lore, the New and Old Testament, the sacred tree embodies a rich symbolism. In the Garden of Eden grow the Tree-of-Life, the Tree-of-Knowledge, or the Tree-of-Jesse – symbolizing Christ’s genealogy<sup>77</sup>.

The Tree-of-Life became a motif of cultural and religious syncretism owing to the fact that it carries symbolic meaning in different religions and is shared by multiple cultures. Likewise it is a theme which adorns many objects which were ordered by the Portuguese and Catholic Europeans in different Asian regions, adorning various types of furniture (cabinets, writing boxes, chests, boxes, tables, altar pieces and oratories), gold- and silversmith work

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<sup>75</sup> Be it the Oak tree of the Celts, the birch of the peoples of Siberia, the date-palm in Mesopotamia, the basswood of the Germanic peoples, the ash tree of the Scandinavian, the Olive tree in the Islamic world, or the Bodhi tree (*Ficus religiosa*) of Hindus and Buddhists or the *Kien-Mou* tree of Chinese cosmology, cf. Flood (1991/1992), Impelluso (2004, p.16), Battistini (2005, pp.248-251), Mendonça (2010, pp.91-92).

<sup>76</sup> Silva (1966, p.324), Reat (1975), Frias (2006, p.60).

<sup>77</sup> Mendonça (2010, p.92).

(sacred art, reliquaries), embroidered textiles of religious (liturgical vestments and altar frontals) or profane use (quilts and coverlets)<sup>78</sup>.

Also, symmetrical branches growing out of a vase to a blossom at the top are present on various objects with a Christian context. The latter could allude to another important motif with a long tradition in India (Jain, Buddhist and Hindu) – the *purna ghata* or *purna khalasa* – or the Vase-of-Plenty. This motif is deeply rooted in the Indian culture and ceremony. It stands for the most mysterious life-forces revealed as creation and is a popular decorative design of beauty and auspiciousness, mainly adorning sculptures but also used in painting<sup>79</sup>. It appears carved in low-relief for example on the door of the oratory 2.6.1., as well as on the oratory at the MNAA in Lisbon or the ones in Madrid and in a Lisbon private collection (exemplified in Chapter 2.6.)<sup>80</sup>. This motif simultaneously features on carved altar retable in Indian Catholic churches, as for instance in the main retable of the church *Nossa Senhora da Piedade* in Divar [Figs. 185, 186].

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<sup>78</sup> Mendonça (2010, p.92).

<sup>79</sup> Agrawala (1985), Pinto (1994, p.48), Lopes (2011, p.173).

<sup>80</sup> Additionally this motif adorns for example two mid-17th century coverlets housed in the MNAA in Lisbon (inv. nos. 1750 tec and 3418 tec), in Pinto (1994, p.58).



**Fig. 28** Main altar in the church of Our Lady of Mercy, Divar, c. 1600, © Reis (2016, pp.106-107)



**Fig. 29** Detail with carved symmetrically intertwined branches growing out of a vase at the column base

As mentioned earlier, some Hindu motifs have been taken over to the Buddhist imagery. Further, animals such as deer, lions, and other symbols are associated with Buddha. The bodhi tree (*Ficus religiosa*), under which Buddha gained enlightenment, is one of the earliest Buddhist symbols and the stylized leaf shape is a frequent ornament in Indian art<sup>81</sup>.

The Islamic inspired ornaments often found on inlaid furniture manufactured in the regions of the Mughal Kingdom feature symmetrically composed vegetal decoration and arabesque scroll-work, sometimes with human figures and animals set in between or flanking a tree, as well as hunting scenes. Carved decorations feature repetitive or lined up geometric elements, symmetrical arabesques and scrolls, which can be compared with stone carvings on Persian, Mughal, and Muslim architecture. The detail from the Umayyad Mosque in Damascus in Syria [Fig. 187] is exemplified here as it presents a comparatively similar formal language compared to some Luso-Asian low-relief carvings, present on writing boxes and chests. Especially in Muslim-Indian decorations appear cocks, peacocks and parrots<sup>82</sup>, flanking the Tree-of-Life<sup>83</sup> or other vegetal motifs<sup>84</sup>.

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<sup>81</sup> Welch (2008, pp.240-41).

<sup>82</sup> Thakkar (2004, pp.56-59).

<sup>83</sup> Reat (1975).

<sup>84</sup> Werness (2006, pp.319-21).





**Fig. 30 Arabesque stone relief with entangled vegetal forms, Umayyad Mosque, Damascus. ©**  
<https://en.wikipedia.org/wiki/Arabesque>

#### Auspicious Motifs in the Luso-Asian Lacquer Decorations

Beside European heraldic devices and decorative pattern, the lacquer decorations follow a totally distinctive ornamental language featuring typical motifs of the traditional Ming Chinese decorative repertoire, which are carriers of auspicious or spiritual concepts. Derived from flora (peonies, lotuses, bamboo, chrysanthemums, pine trees), fauna (including for example magpies, peacocks among other birds, ducks, hares, deer, butterflies or dragonflies), mythical creatures (phoenixes), or auspicious combinations like “lotuses and jumping carps”, “squirrels in grapevines” or “magpies on plum tree branches”, such motifs convey symbolic meaning or message based on homophones or puns, inherent in the make-up of the Chinese language and script (Appendix II).

From formal observation of these lacquer motifs alone, for instance on the “Cardinal’s tabletop” (2.4.1.), the Pope’s trunk (2.2.1.) or the interior of the lid of the chest in the National Palace of Sintra (2.2.2.), the only argument against Chinese manufacture is how the ornamentation crowds the surfaces. This type of density reminiscent of *horror vacui* can not be observed on contemporary Chinese lacquerware using comparable techniques but is common to all the lacquered Luso-Asian items examined. Moreover, the so-called Indo-Portuguese and Japanese *nanban* furniture and works of art share these characteristics. This is unsurprising given that foreigners, who, as they explored the Asian shoreline over the course

of the previous century, formed distinct tastes in exotic objects, commissioned all such works. This led to the emergence of completely new styles.

Also motifs from Chinese imagery coincide with Christian iconography. Depictions of hares, eagles, deer, the snake, the lion, the squirrel or the phoenix are carrying hidden meaning in various cultures and religious beliefs<sup>85</sup>. In Christian lore the hare, a symbol of fertility, lust and sensual pleasure, is an attribute to the Virgin Mary<sup>86</sup>. An eagle symbolizes power, victory and pride, and is therefore a heraldic emblem of many sovereigns<sup>87</sup>. The depiction of deer represents the soul yearning for God, goodness, and prudence<sup>88</sup>. While in Christian art the squirrel stands for evil, greed, avarice, or infidelity, but can as well symbolize Divine Providence or diligence<sup>89</sup>; in Chinese art they have a completely different signification. Literally meaning “pine-tree-rat” they express the wish for a long life when depicted in combination with grapevines. In Christian lore the latter refers to the Eucharist, is an attribute of Christ, symbolizes the blood of Christ’s passion and at the same time the Tree-of-Life<sup>90</sup> (2.1.1., 2.1.3., 2.1.4., 2.4.1.), while in Chinese imagery it is a symbol of fertility<sup>91</sup>.

Often among the Chinese auspicious designs, trees like the cypress, fruits like pomegranate, plum or cherry, and several flowers also have a Christian symbolic meaning and are used as attributes in Christian iconography. While in Chinese art the pomegranate represents fecundity and offspring<sup>92</sup>, in Christian lore it symbolizes the fullness of Jesus’ suffering and resurrection, when depicted in the hands of the Christ child, or to Madonna’s chastity when depicted in her hands<sup>93</sup>, along with many other interpretations. Even the cherry, another typical motif in Chinese art, symbolizes the Passion of Christ and its red color alludes to the blood of Jesus on the cross. The plum is considered a symbol of Christian fidelity and

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<sup>85</sup> Impelluso (2004), Werness (2006), Curley (2009).

<sup>86</sup> Impelluso (2004, pp.238-41).

<sup>87</sup> Impelluso (2004, pp.293-95).

<sup>88</sup> Impelluso (2004, pp.244-46).

<sup>89</sup> Impelluso (2004, pp.234-37), Werness (2006, p.390).

<sup>90</sup> Impelluso (2004, pp.32-37).

<sup>91</sup> Welch (2008, pp.40, 53), Osselt (2011, pp.184-85).

<sup>92</sup> Welch (2008, pp.57-58).

<sup>93</sup> Impelluso (2004, pp.145-48).

can carry different meanings dependently on the color<sup>94</sup>, while in Chinese art the fruit together with the flowers symbolizes the Five Happinesses, as well as the dawning of spring. Though, in the Luso-Asian lacquer decorations flowering plum tree branches frequently appear together with pairs of magpies, indicating the “arrival of happiness or good fortune”<sup>95</sup>. It seems to be no coincidence these double-meaning icons appear particularly on items destined for religious use (2.5., 2.6., and 2.7.).

Also, the peacock carries symbolic meaning in Christian art, where it symbolizes spiritual rebirth and resurrection, derived from the belief that the bird loses its feathers in autumn and grows them back in spring. Due to its many eyes it is a symbol of God’s omniscience but was also associated with negative connotations such as pride and arrogance<sup>96</sup>. In Chinese art this bird is associated with the goddess *Guānyīn*<sup>97</sup>.

In India the peacock is a frequent motif of both Hindu and Muslim art. It is a universal solar symbol, linked positively with beauty, glory, immortality, and wisdom. The many eyes symbolize the “all-seeing” sun linked to eternal and vital cycles of nature. Peacock motifs adorn architecture, for instance above portals or in the friezes of temples and are depicted in paintings<sup>98</sup>. It is a vehicle of several Hindu deities, such as Scanda-Karrikeya, Brahma, Lakshmi, Kama, Sarasvati. Its symbolism moved westwards towards Babylonia, Persia, Asia Minor, reaching Greece by the classical period, and eastwards where it became popular in China and Japan. In Persian art the peacock is associated with royalty and in the Islam, it symbolizes the universe, the dual aspects of light, as well as the full moon and the mid-day sun<sup>99</sup>. In Chinese imagery it stands for rank and wealth, and with its tail feathers spread it transmits the message: “significant fortune is awaiting you”<sup>100</sup>.

Perhaps the most notable example of this transferential symbiosis can be discerned in the coopting of a quintessential Chinese motif, the *feng huang*, with the European phoenix.

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<sup>94</sup> Impelluso (2004, pp.165-66).

<sup>95</sup> Eberhard (2004, pp.74-75), Welch (2008, pp.38-39, 77), Osselt (2011, pp.188-89).

<sup>96</sup> Impelluso (2004, pp.309-12), Werness (2006, pp.319-21).

<sup>97</sup> Welch (2008, p.78-79).

<sup>98</sup> Welch (2008, p.79).

<sup>99</sup> Werness (2006, pp.319-320).

<sup>100</sup> Welch (2008, pp.78-79), See Appendix II.

Mentioned in texts as far back as the second millennium BC in China, this mythical bird intricately entwines with Daoism's complex cosmology linked especially to rulership rather than rebirth<sup>101</sup>. In Europe, the mythical phoenix originates in an early Christian legend written in the 4th century, as a symbol of Jesus Christ and charity because of his ability to kill and then to re-establish himself<sup>102</sup>. Like the Persian *simurgh*, which is associated with it, the phoenix which resurrects after burning from its own ashes has its origin in Greek mythology and symbolizes spiritual immortality and rebirth<sup>103</sup>.

The decorative friezes shared by the Luso-Asian objects and shown in Table 7 also appear on some items produced for domestic use in China, including porcelain, embroidered textiles or lacquerware. The majority of Chinese lacquerware with gold embellishment displays decorative borders of single or double lines (Tab. 7; A). The spiral, among the oldest of decorative motifs, appears frequently on prehistoric stone and ceramics, in the early high cultures in Egypt, Crete, China, and many others around the globe. Slight variations of the decorative bands composed of consecutive spirals (Tab. 7; B) appear on Chinese porcelain of the Ming dynasty and earlier periods<sup>104</sup>. Interestingly similar friezes can be seen on metalwork<sup>105</sup> and in paintings<sup>106</sup> in Muslim India during this period. This could reflect both the influence of Chinese art on that of Persia and its echo on the Indian subcontinent's north across the long history of Indian-Chinese trade relations, extending to the exchange of goods and influx of Chinese products into these regions contemporaneously with Luso-Asian trade.

Additionally, the studied Luso-Asian items show other decorative friezes composed of wavy lines with volutes or stylized flowers (Tab. 7; C, D). The gold leaf decorated 16<sup>th</sup> century Chinese tea canister mentioned in Chapter 1.3.2. [Fig. 13], unites three of the decorative border types observed on the examined objects (Tab. 7; A, B, C). However, these

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<sup>101</sup> Welch (2008, pp.78-79), Osselt (2011, pp.196-97).

<sup>102</sup> Curley (2009, pp.13-14).

<sup>103</sup> Curley (2009, pp.13-14), Mendonça (2010, p.96).




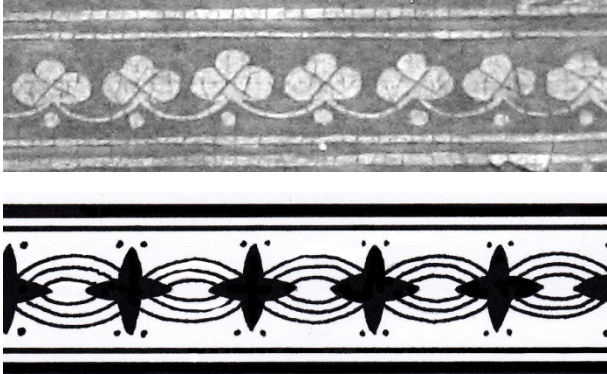

<sup>104</sup> Matos (2000a, pp.5,7,12; 2000b, p.68).

<sup>105</sup> A very similar decorative band of consecutive spirals adorns a saddle-axe with an inscription "made in Lahore", V&A London, Cf. Melikian-Chirvani (1979, p.132).

<sup>106</sup> Cf. a page from a *Devi Mahatmya* series, c. 1565–75, in Goswamy (2004, p.56).

same manifold friezes and decorative pattern are present on both religious and profane objects, strongly indicating that they come from the same context.

**Tab. 5 Frequent Variations of Decorative Borders on Luso-Asian Lacquer Decorations**

Type	Decorative Bands	Description
A		Simple or double lines
B		Band with consecutive spirals, either loose or interlinked; with dots or connecting lines
C		Wavy band with spirals/ volutes, within single-line borders
D		Bands of interlinked three- or four- leaves and dots, within double-line borders
E		Undulated band with alternating lotus and chrysanthemum flowers, within single or double-line borders

Many of the motifs and symbolic groupings are present equally on contemporary Chinese porcelain purchased by southern Europeans<sup>107</sup> and on various Chinese, Sino-Portuguese or Sino-Hispanic fabrics and embroidered liturgical textiles used by missionaries<sup>108</sup>. Moreover, the same components appear in decorative programs of other media in the context of Portuguese presence in southern China, for example in the mural painting program of the Chapel of *Nossa Senhora da Guia* (Our Lady of Guidance) in Macau<sup>109</sup>, where Christian symbols and European heraldic devices, appear alongside and mingled with motifs clearly demonstrating Chinese features. The presence of European or Christian elements within a decorative scheme that is Chinese over-all, points to the work of Chinese artists, and indeed, the inverted representation of the so frequently represented monogram of the name of Jesus (IHS) in the soffit' decoration of the pulpit's arch suggests that no European artist has been involved<sup>110</sup>. Indeed, throughout the whole territory called *Portuguese India*, especially from the end of the 16<sup>th</sup> century onward, whether port-cities along the Indian Ocean or in Macau, a notable blending can be observed in the confluence of decorative and symbolic elements to be seen in a variety of buildings and artworks produced in a Christian context. Other material evidence of the participation of Chinese artisans and confluence of Chinese and Christian iconography became manifest in the facade of Macau's Mater Dei church, completed in 1640, which is characterized by a decorative grammar combining European-Jesuit architecture with overseas-Jesuit, Indo-Portuguese and Chinese decorative elements<sup>111</sup>.

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<sup>107</sup> Cf. Macintosh (1994), Matos (1996; 2000a; 2000b), Osselt (2011), Matos & Kerr (2016), Krahe (2016).

<sup>108</sup> Watt & Wardwell (1997) or Ferreira (2007; 2011; 2012). As examples with adornments of clearly similar decorative motifs can be viewed two embroidered textiles, a door cloth and a curtain, from Jesuit processions housed in the Museu de São Roque in Lisbon (Inv. nos. MT 185 and MT 186), cf. Silva (1993a, pp.78-79, 88), Morna (2010, pp.152-54) and Ferreira (2013).

<sup>109</sup> For the description of the decorative program, its details and the history of the chapel, cf. Lampreia (2014).

<sup>110</sup> A similar reverted "IHS" monogram on an Indo-Portuguese lectern, cf. Körber (2015b, p.222), or upside down displayed coat-of-arms of noblemen or the Portuguese royal arms appear frequently on artworks commissioned by the Portuguese or on Christian art produced in Portuguese India, such as it happened to diverse pieces of Chinese porcelain commissioned through unofficial relations in Malacca or along the southern Chinese coast between the 1520s and 1550s. For various examples of artifacts with misinterpreted models, cf. Matos (1996; 2000a; 2000b), Carvalho (2000; 2016), Loureiro (2000b).

<sup>111</sup> Cf. Silva (2000a, pp.87-88), Curvelo (2007a, pp.351-371), Bailey (2009, pp.229-230), Lopes (2011, pp.292-298).

The Jesuits tailored a policy of Evangelization in Asia to the individual host cultures they wished to convert. Quickly adapting to the completely different conditions encountered in these areas, its missionaries took advantage of compatible imagery and conventions already present, a policy that might have facilitated their rapid progress in the conversion of local people. Motifs entrenched in Chinese symbolism, styled and understood by East Asian craftsmen according to their own conventions, created exotic renderings of a wholly different symbolic vocabulary. Possibly the Catholic purchasers of the artifacts also commissioned certain decorative schemes and motifs. Neuwirth already suggested in 1997 and 1998 that some of the motifs on Luso-Asian items simultaneously carry Christian symbolic meaning<sup>112</sup>. The ambiguous symbolism present on a plentitude of artifacts and religious architecture appear as material evidence of the Jesuits and Catholic orders direct influence when commissioning these objects.

## **4.2. Integration of Material Analysis Results**

The results obtained from the analyses of the lacquer samples were compared with historic references in accounts on Chinese lacquer art, introduced in Chapter 1.3.2. All these sources offer indications to the materials and techniques present on the nuclear group of items studied.

### ***4.2.1. Materials and Compositions Identified***

In relation to the lacquer sap present on almost all of the objects, and as illustrated in Chapter 1.3., laccol lacquer has been widely used not only in Indochina, which is commonly associated with it, but also in Southern China. This is evidenced by various studies on Chinese export lacquerware from subsequent centuries that identified laccol lacquer, sometimes in combination with urushi lacquer for finishing layers<sup>113</sup>. Analyses performed on Cantonese export lacquer samples dating to the 18<sup>th</sup> and 19<sup>th</sup> centuries, and studied in depth by Petisca, again identified laccol lacquer, in addition to some urushi lacquer in the outermost

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<sup>112</sup> Cf. Neuwirth (1997; 1998). In his articles Neuwirth was more focused in establishing a link between possible Old Testament symbolism and the New Christians in East Asia, simultaneously noticing the motifs, shared by the Christians and the Chinese.

<sup>113</sup> Cf. Piert-Borgers (2000a), Petisca et al. (2011; 2016), Schellmann (2012), Auffret et al. (2014), Schilling et al. (2016), Heginbotham et al. (2016).



layers<sup>114</sup>. Other studies of Chinese export wares of the same period show similar results. Both lacquer types were detected on objects in the studied group, although urushi appears only in the finishing layers of a few of them. Another study at the Getty Conservation Institute that included French furniture with incorporated Chinese export lacquer panels and an 18<sup>th</sup> century inkstand, Ryūkyūan or Chinese, both in the J. Paul Getty Museum, also detected laccol lacquer<sup>115</sup>. The same laccol-based lacquer has been identified in a study performed on six lacquer objects with gold leaf decoration in the collection of the Urasoe Art Museum in Okinawa, Japan, which are attributed to a Ryūkyūan manufacture. In two items – a 16<sup>th</sup> or 17<sup>th</sup> century red lacquered plate and a 17<sup>th</sup> or 18<sup>th</sup> century black and red lacquered box – laccol lacquer was used<sup>116</sup>. Unfortunately, this study did not identify any further ingredients that might allow for more detailed comparison. Conversely, analyses performed on the so-called Ryūkyū bowl (2.9.1.) from the Ambras collection in Innsbruck, Austria, revealed an urushi coating. These results illustrate that laccol lacquer was used in Chinese lacquerware and possibly as well on objects produced in the Ryūkyū Islands, and was by no means limited to Vietnamese lacquer art. However, lacquer analyses, including knowledge of existing species and subspecies and their analytical identification, is still developing. The international exchange promoted by the Getty Conservation Institute's research and teaching program, as well as collaborative research conducted in Japan and many other places might bring more clear results in the near future.

In relation to the presence of Southeast Asian thitsi lacquer in a few lacquer compositions, this only illustrates the degree of networking at that time, and how cheaper materials were employed to support these productions for foreign demand. Excluded here is the Amsterdam shield (2.1.5.), which has a Southeast Asian coating of typical layer sequence and lacquer composition. As it was stated earlier, lacquer sap from Southeast Asia was imported by the Japanese and used on Japanese *nanban* lacquerware (See Chapters 1.3.1. and

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<sup>114</sup> The same methodology applied to the study of the Luso-Asian lacquer samples has been applied to the study of the Cantonese lacquer samples at the LJF-DGPC. In both cases drying oils were not detected in the ground layers, cf. Petisca et al. (2011). Further investigations on Cantonese lacquerware produced for American clients using the same analytical procedure (THM-Py-GC-MS) as in this present study also confirmed the presence of drying oil and blood in the composition of ground layers; cf. Petisca et al. (2016), Matsen et al. (2017).

<sup>115</sup> Schilling et al. (2014), Heginbotham et al. (2016).

<sup>116</sup> Cf. Lu et al. (2007).

1.3.2.). The presence of thitsi sap in Chinese lacquers further indicates that probably Chinese merchants also acquired the cheaper lacquer from Southeast Asia. 17<sup>th</sup> century records (*dagregister*) kept by the Dutch factory in Japan reveal that beside the VOC, Chinese merchants also traded with Southeast Asian thitsi sap<sup>117</sup>.

Although the materials identified, as well as the structure and composition of ground and lacquer layers, differ a great deal from those described by Huang Cheng in the second half of the 16<sup>th</sup> century, Yang Ming in his comments of 1625 already mentions the differences in quality of contemporary lacquerware. As Yang noted (Part II, Chapter 17, Entry 175):

*“(...) the body, the foundation and intermediate layers must be strong as they constitute a lacquerware’s bones and flesh (...)”*<sup>118</sup>.

According to the *Xiushi lù*, the wooden core was first sealed with lacquer to which a cloth layer was attached, followed by coarse, medium, and fine layers of ground. An intermediate lacquer coating was then applied to the ground, followed by a raw lacquer layer and an intermediate coating of processed lacquer. The finish coating applied on top frequently consisted of more than one lacquer layer<sup>119</sup>. Thus, the whole structure comprised a minimum of ten different layers, which contrasts to the simple layer structure observed on the examined specimens. Huang further states that powdered porcelain or horn was the best material to add to lacquer sap to form foundation layers. Second-rate materials included bone and clam shell powders, while ground brick, unfired clay, or whetstone powder were cited as inferior materials. Contrasting to the Luso-Asian coatings the structure of the ground was described as comprising of three layers, each with a distinct composition. The powdered additives were sieved and sorted by particle size into coarse, medium and fine for inclusion in these three layers. In 1625 Yang added the following (Part II, Chapter 17, entry 180):

*“(...) nowadays petty craftsmen use unbaked clay and charcoal powder mixed with thick paste [starch paste], pig’s blood, lotus root starch paste, or glue to build foundation*

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<sup>117</sup> Among the goods for sale by Chinese junks arriving to Nagasaki was also Burmese, Cambodian and Siamese thitsi lacquer, as well as Chinese raw lacquer, cf. Heginbotham & Schilling (2011, p.99).

<sup>118</sup> Wang (2012).

<sup>119</sup> Wang (2012).

*layers. How could this practice make wares durable? A better material in use is a paste of powder mixed with cooked tung oil (...)*<sup>120</sup>.

Analysis of the ground layers show that they correspond to these inferior versions and their compositions indicate that they are of Chinese origin.

For his part, Fr. d'Incarville described techniques used at the Imperial workshop in Beijing one and a half to two centuries later. He stated that the core was prepared by brushing the surface with an aqueous solution of gum mixed with chalk. Next, a layer of paper or silk was glued onto the surface with pure lacquer. The ground consisted of a light coat of sieved brick dust, tung oil, and pig's blood (previously prepared with lime water), followed by a blend of lacquer and a type of earth<sup>121</sup>. Despite the mixture for the ground, the layer sequence described by d'Incarville is more consistent with the analyses of the Cantonese export lacquer samples analyzed by Petisca mentioned earlier, which identified a mixture of different iron-containing clays, other silicates and minerals in a protein-containing binder in the majority of ground layers. Only three of 12 objects had lacquer-containing ground layers that comprised two layers and an intermediate layer of organic fibers<sup>122</sup>. Other analyses of Chinese export lacquerware from the 18<sup>th</sup> and 19<sup>th</sup> centuries also identified drying oils in the ground layers<sup>123</sup>, while the ground layer of the so-called Ryūkyū bowl or the Chinese cups with metal mounts mentioned above were lacquer based.

As described by d'Incarville<sup>124</sup>, foundation layers of less expensive pieces contained pig's blood<sup>125</sup>. Investigations of the proteinaceous materials found in the ground layers confirmed the presence of blood in most cases (Chapter 3.2.2.). Frequently detected in

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<sup>120</sup> Wang (2012).

<sup>121</sup> D'Incarville (1904, pp.155-58).

<sup>122</sup> Petisca et al. (2011).

<sup>123</sup> Schellmann (2012).

<sup>124</sup> D'Incarville (1904, p.155), Breidenstein (2000, p.565).

<sup>125</sup> The use of pig's blood in the foundation is thought to have been "invented" by Ryūkyūans in the beginning of the 18th century, cf. Kamakura (1972, p.370), although this practice is already known for Chinese lacquerware of previous centuries. Tokugawa did only find pig's blood in the foundation of 19th and 20th century pieces among the whole group of Ryūkyūan objects he has examined. However, there is a description from an English man of the technique applied to cheaper wares using a paste of pig's blood and rice starch used in the Kingdom of Chūzan dating to 1708, in Kopplin (2002b, p.76).

Cantonese export lacquerware of the 18<sup>th</sup> and 19<sup>th</sup> centuries<sup>126</sup>, methods employing animal blood is a Chinese praxis with a tradition of more than 2000 years utilized for a variety of purposes, including the formation of ground layers<sup>127</sup>, as it was cheaper and thought to make the lacquer stronger. Reference to the Chinese use of pig's blood, oil and the application of paper to flatten the surface and provide a stable, even ground for the lacquer layers appears in the Italian Jesuit Fr. Filippo Bonnani's 18<sup>th</sup> century treatise. Various conservators also confirmed the use of intermediate layers of fiber between two foundation layers.

The addition of several organic compounds to lacquer layers for different purposes has already been identified and is referenced in the consulted sources. In particular, drying oils have been found in numerous lacquers applied to Chinese objects<sup>128</sup>. The *Xiushi lù* stated that the addition of tung oil improved the color of all types of lacquer except black, and that it might also improve the curing properties of the sap<sup>129</sup>. Tung oil appears in various mentions as used for an assortment of purposes in the lacquer art. D'Incarville mentioned that up to half of a lacquer mixture might be made up of tung oil or Chinese tea oil, depending on its purpose<sup>130</sup>. A number of other drying oils were used in Chinese lacquer art, including those suggested in this study: tung, perilla, linseed, and tallow tree oil. Recipes with mixtures of different types also were described in various references or have been detected in lacquer formulations<sup>131</sup>.

Generally, a distinction is discernable between the inner and underside or the front and back of an object, as these were not meant to be of the highest quality. Under- or rear sides usually have fewer layers and are not polished to the same high degree of perfection. This practice particularly points to Chinese artisans<sup>132</sup>, although in the scope of manufacture

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<sup>126</sup> Webb (2000), Breidenstein (2000, pp.564-65), Moore (2011, pp.191-92), Petisca et al. (2011; 2016), Schellmann (2012); Miklin-Kniefacz (1999), Miklin-Kniefacz et al. (2016).

<sup>127</sup> Bonnani (2009, p.23), Miklin-Kniefacz et al. (2016).

<sup>128</sup> Petisca (2011), Moore (2011, p.192), Schellmann (2012), Heginbotham et al. (2016).

<sup>129</sup> Garner (1979, p.21); Frick, P. (2015-2017). Discussions on techniques and materials mentioned in the *Xiushi lù*. [e-mail].

<sup>130</sup> Sabin (1904, p.149).

<sup>131</sup> Mills & White (1994, p.36), Daniels & Menzies (1996, p.36), Schilling et al. (2014), Chang & Schilling (2016).

<sup>132</sup> Lee (1972, p.24).

for foreign clients also Japanese craftsmen did simplify their techniques as well. Bonnani's 18<sup>th</sup> century treatise further notes the letters of Fr. Ludovic le Compte, who states that for ordinary tables and chairs only two or three coats of lacquer are applied, and that for finer things a solid base of paper, fabric, chalk and other pulverized materials, is glued onto the wood to attach the lacquer that is applied in successive layers<sup>133</sup>. The same method was also observed on the various studied objects, such as the shields (2.1.1., 2.1.3. or 2.1.4.) where the rear sides of some specimens only present a single layer of lacquer over the foundation.

The question arises whether the lacquer coatings on Luso-Asian objects those to which Huang are referred when he mentioned compositions employed by “petty craftsmen”, and whether these were also the faster, simpler methods used for everyday domestic objects in various Chinese production centers and along the southern coast. It also suggests that the compositional features displayed by this nuclear group of lacquered items destined for southern Europeans and missionaries in the 16<sup>th</sup> and 17<sup>th</sup> centuries – faster hardening materials, and fewer individual layers – anticipate hasty production methods relied upon in the 18<sup>th</sup> and 19<sup>th</sup> centuries to reduce price and increase availability of wares exported to Europe and the United States of America<sup>134</sup>.

#### ***4.2.2. Ornamental Techniques Identified***

##### *Gold Decorations*

Three different techniques of gold decoration are identifiable on the pieces under scrutiny— *miaojin*, applied gold leaf or shell gold, and *qiangjin*.

The contemporary modern sources consulted made no specific mention of an exclusive application of gold leaf in Chinese lacquer art. Rather, the late 16<sup>th</sup> century *Xiushi lù* with its additional early 17<sup>th</sup> century comments describe different types of gold decoration in combination with various other decorative techniques. Western commentary in relation to Chinese gilded lacquerware frequently refers to “gold painting” or “gold lacquer” as *miaojin* without specifying the form of gold used or the method of its application. This is supported

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<sup>133</sup> Chou (1999/2000, p.33), Bonnani (2009, p.24).

<sup>134</sup> Webb (2000), Petisca et al. (2011; 2016).

by the fact that few extant objects displaying exclusively gold leaf decoration date to this period.

The technique of gold painting using gold leaf is considered typical of 16<sup>th</sup> and 17<sup>th</sup> century Ryūkyūan lacquerware, with the earliest such pieces thought to date from the 15th century. Interestingly, some objects considered of Ryūkyūan origin share with Luso-Asian lacquerware decorative elements, including ornamental bands. A twelve-sided cinnabar lacquered footed tray with gold leaf decoration, belonging to the Tokugawa Foundation and housed in the Tokugawa Art Museum in Nagoya, Japan (Inv. no. seizo-saiki 27; H: 19 cm, Ø 42.2 cm), to which we shall return later, is attributed a Ryūkyūan manufacture by Japanese scholars. It is embellished with a triplet of decorative bands identical to those frequently present on the examples studied [Figs. 188, 189].



**Fig. 31 Footed tray. © Tokugawa Art Museum**



**Fig. 32 Footed tray, detail of gold leaf decoration and several decorative bands**

Generally, nearly transparent lacquer mixed with gold powder or shell gold and applied by brush is called “gold painting” (*miaojin*). Gilded motifs also could be created with gold leaf or shell gold applied with cotton to an area previously coated with a mordant layer, the latter offering the possibility of shading within a motif similar to the Japanese *makie* technique. When writing about “painting in gold”, d’Incarville mentions only shell gold<sup>135</sup>.

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<sup>135</sup> Sabin (1904, p.164).

The *Xiushi lù* refers to the same material as *nijin* or “mud gold”<sup>136</sup> and includes it among a variety of materials used for gilded decoration. In addition, the *Xiushi lù* describes techniques such as “gold lacquer”, “gilded lacquer”, “lacquer decorated with gold dust” or “gold painting”, and diverse combinations with other techniques without differentiating the exact type of gold used. Only once (Part II, Entry 82) does it mention the use of gold foil, and this is in the context of a technique called “gold lacquer”:

*“(…) Lacquer with gold foil; the most beautiful ones are without repaired, corrected spots; Gold lacquer produced with shell gold does not have a high gloss. For newly produced objects the bole layer should be of a yellow color; older pieces are of high quality if they are based on black lacquer (…)”<sup>137</sup>*

Of the technique described as “lacquerware with decoration in relief and gold painting” (Part II, Entry 108), in addition to application of *miaojin* onto areas lacquered brown, red or black, the *Xiushi lù* also refers to inner drawing within gilded elements as consisting of incised or painted golden lines. This type of embellishment is described as more attractive than simple “gold painting”<sup>138</sup>. With a few exceptions<sup>139</sup>, the ornamentation on many of the studied objects presents such incisions on the motifs in gold leaf, produced with a pointed tool, a needle or stylus.

Another technique known to be of Chinese origin mentioned in the *Xiushi lù* (Part II, Entry 131, incised and gilded lines) and introduced into the Kingdom of Ryūkyū, the *qiangjin* technique appears on two shields, one from Porto (2.1.1.) and another kept in the Armeria Reale in Turin<sup>140</sup>.

*“(…) In this technique, depressions are scribed in the varnish layer and lined with gold-leaf; the ground is usually red or black lacquered; the depressions should be incised or engraved without interruption (…)”*

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<sup>136</sup> Arakawa (1996, p.199); Frick, P. (2015-2017). Discussions on techniques and materials mentioned in the *Xiushi lù*. [e-mail].

<sup>137</sup> My translation from Patricia Frick’s translation from the Chinese original into German, Frick, P. (2015-2017). Discussions on techniques and materials mentioned in the *Xiushi lù*. [e-mail].

<sup>138</sup> Frick, P. (2015-2017). Discussions on techniques and materials mentioned in the *Xiushi lù*. [e-mail].

<sup>139</sup> The following items present gold leaf decoration without needle drawing: 2.5.2., 2.6.2., 2.9.2.

<sup>140</sup> See Table 2.1., no. 8. This same shield is depicted in Körber (2015, p.220).



The shields share a background decoration of incised gold lines forming a diaper pattern resembling gold brocade. This same technique appears in Entry 158, “Decor with an incised and gold-filled brocade background and one of the following techniques”, which in addition to combinations with mother-of-pearl inlay, colored lacquer painting, also mentions relief or strong relief gold painting (similar to the Japanese *takamakie*). This same pattern also appears on a two-tiered, lobed food container in the Urasoe Art Museum (Inv. no. 105)<sup>141</sup>, Urasoe, Okinawa, and on the frame of a Chinese table screen dating to the late 16<sup>th</sup> or early 17<sup>th</sup> century, housed in the Hermitage Museum (Inv. no. LN – 67ab) in St. Petersburg<sup>142</sup>. The only difference is that both have been painted in *miaojin* technique instead of being incised.

Only a few similar 16<sup>th</sup> century gold leaf decorated Chinese lacquerware, including the table screen and the earlier mentioned tea canister [Fig. 13], were discovered in the scope of this study. Other extant Ming dynasty items with gold leaf decoration are in museums, as for example the Linden Museum Stuttgart in Germany<sup>143</sup>. Harry Garner states that apart from some wardrobes from the *Wanli* period, many less important objects with designs in gold leaf might have been made for everyday use<sup>144</sup>. He argues the possibility that the gold leaf technique applied to lacquerware (seen on Luso-Asian objects) might have derived from a method of decorating porcelain, as mentioned earlier in Chapter 1.3.2.<sup>145</sup> However, the entries in the *Xiushi lù* offer enough evidence for the co-existence of these techniques. Furthermore, if Chinese techniques were introduced to the Ryūkyū Kingdom through the intensive exchange with traders and craftsmen from the province of Fujian, and gold leaf decorations became particularly popular, this also means that the use of gold leaf must have been popular at this time (and earlier) in southern China.

Gold leaf and stained silver leaf were used in China in addition to other forms of gold, but there is no mention of objects using exclusively gold leaf for gilded decorations. Moreover, few objects survive from the period that exhibit this type of decoration. This lack

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<sup>141</sup> Tokugawa& Maeda (1995, p.94), Körber (2013, pp.27-28).

<sup>142</sup> Menshikova (1996).

<sup>143</sup> Brandt (1988, cat. nos. 81, 92, 101 and 102).

<sup>144</sup> Garner (1979, p.202).

<sup>145</sup> Garner (1979, p. 203).

of objects, combined with the fact that similar gold leaf decorations are present on contemporary objects attributed to a Ryūkyūan origin, led initially to the suggestion that the decorations on Luso-Asian objects may have been produced in the Ryūkyū Kingdom<sup>146</sup>.

Gold decoration, whether produced from leaf or powder, is adhered by means of a mordant or bole layer. With respect to this, Fr. d’Incarville reports that when lacquer was employed as a mordant, more than half was composed of tung oil<sup>147</sup>. This formula also served for mixing colors, made more fluid by adding previously treated camphor. In some of the analyzed layers, camphor was detected too, most probably functioning as a plasticizer<sup>148</sup>. Further, he states that for gilding, the lacquer mixture often included orpiment in the mordant layer, but where brighter color gold was desired, vermilion was substituted<sup>149</sup>. These pigments also appear in the studied objects, including additionally red iron oxide, which was probably cheaper.

Only one object among the examined items presented silver leaf instead of gold leaf: The tray in Lisbon (2.5.1.) displays the use of silver twice, on the top surface and inlaid into an undulated frieze on the exterior of the rims. The *Xiushi lù* reports that various types of silver were used for manifold techniques, and for less important areas on lacquerware as well as for cheaper works. In Part II, Entry 92 on “Lacquer adorned with gold dust”, silver dust is quoted to achieve the same results as gold dust:

*“(…) The gold dust may be of great finesse, or coarse-grained; It may be densely or sparingly distributed; The background is dark or light. The motifs such as clouds, mountains, etc. can be obtained with the gold dust that has been scattered. The same effects can be achieved with silver dust (…)”*

And further are mentioned lacquerware with metal inlays of various types in Part II, Entry 105, “Lacquer with inlays of gold and silver”:

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<sup>146</sup> Frade & Körber (2011), Körber et al. (2011), Körber (2011/12; 2013; 2015).

<sup>147</sup> D’Incarville (1904, pp.151-52).

<sup>148</sup> Heginbotham et al. (2016, p.35).

<sup>149</sup> D’Incarville (1904, pp.161-63).

*“(...) Gold and silver are inserted as smaller particles, flakes and wires; Sometimes copper and tin are used instead of gold and silver; But these metals turn black fast and are not good quality (...)”*

Fr. d’Incarville referred to the use of stained silver leaf (“*hium-tchi*”)<sup>150</sup> as a substitute gold, however in the specific case of the tray the exact technique for how the silver was stained and how it remained of golden color could not be verified within this study, as both naked eye and cross-section reveal only a layer of wax with no evidence of either application of a yellow layer over the silver or a transparent sealing layer<sup>151</sup>. Of incised silver (*qiangyin*), Harry Garner states that this used to be attached to a mordant layer of lacquer mixed with lead white and that this technique was probably not satisfactory, because of the rapid tarnishing of the silver. Very few examples seem to have survived<sup>152</sup>. Although the decoration is inlaid rather than incised, the condition of this frieze illustrates the same type of degradation.

In a few pieces of the group under study and on several additional examined liturgical implements (mainly lecterns, 2.7.4., 2.7.4., 2.7.6); shell gold was applied in combination with other techniques showing in some specimens a greater approximation to Japanese *nanban* decorations, as will be highlighted further in Chapter 5.

#### *Mother-of-Pearl Inlay*

Examination of the items inlaid with mother-of-pearl makes clear that similar if not the same shell sources were used. In all those objects with still-extant shell, the pieces were very thin and iridescent, conforming to the “soft mother-of-pearl” inlay technique. Losses in some specimens verified that mother-of-pearl was glued to the wooden core before the lacquer was applied. Some lost shell on tray 2.5.2. had been replaced and retouched, but on both trays (2.5.2., 2.5.3.), as well as on an oratory (2.6.1.), the shell fragments retain traces of gilded outlines, and present inner details painted in gold.

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<sup>150</sup> D’Incarville (1904, p.162). The Chinese terms could not be identified and d’Incaville’s terms were used here.

<sup>151</sup> This case is described in detail in Körber et al. (2016).

<sup>152</sup> Garner (1979, p.157).

Beside this nucleus of specimens, the same outlining and linear painting of details on shell fragments or traces of the same are present on a wider group of artifacts, all destined for liturgical purposes (2.5., 2.6., 2.7.).

Artisans in China, and after its introduction in the Ryūkyū Kingdom, used this technique of thin shell inlay, though according to historical documentation in the latter probably only in the second half of the 17<sup>th</sup> century (1.3.2.). However, decorations combining gold leaf decoration (structured with needle drawing) and mother-of-pearl inlay appear in several mentions in Part II, Sections 12-14 of the *Xiushi lù*, among a variety of mingling with other techniques such as oil painting, lacquer painting, incised and gilded lines, or golden outlines of the shell pieces. In Part II, Entry 143, the *Xiushi lù* quotes the technique of “gold painting and mother-of-pearl inlay”. Yang additionally comments that inlaid mother-of-pearl pieces are outlined in gold, just as observed on studied (5.2.2., 5.2.3., 2.6.1.) and related objects (See the lecterns described in Chapter 2.7.). In another comment Yang describes fields decorated with “gold painting” outlined in black, and fields decorated with gold dust or mother-of-pearl inlay outlined in gold (Part II, Entry 138). Further mention of golden outlines appears in the entry “decoration with mother-of-pearl and outlines in gold” (Part II, Entry 135).

### *Litharge Oil Painting*

The decoration of lacquerware with a mixture of drying oil and lead monoxide<sup>153</sup>, generally known as litharge painting, enabled production of “white lacquer”, and by adding to it other pigments a wider range of colors than the lacquer sap itself. A technique employed in the Ryūkyū Kingdom; it was first typical of 16<sup>th</sup> century Chinese lacquerware. In Part II, Entry 97 of the Chinese treatise, the technique is mentioned as *miaoyou*, while entries 16 and 81 of Part II state that tung oil, almost colorless, is suitable for mixing all sort of colors. Indigo, detected on the tabletop in Vienna (2.8.1.) was part of the Chinese palette of pigments and stains, having the ability to stain lacquer sap green when combined with orpiment. As father d’Incarville reported, true indigo used at the imperial workshops in Beijing originated in the southern Chinese provinces<sup>154</sup>.

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<sup>153</sup> *hufen*, cf. Chang & Schilling (2016, pp.39-40).

<sup>154</sup> D’Incarville (1904, p.234).

### 4.3. Discussion of Individual Pieces and Object Groups – Multiple Origins

The whole group can roughly be divided into secular and religious categories, both characterized by a complex convergence of physical and stylistic traits, patronage questions, locals of manufacture in or near Portuguese settlements on the Indian subcontinent and in the *Portuguese State of India*, and ultimate destination, in Asia or Europe. Their typologies are manifold, sometimes adapting European or autochthonous Asian prototypes, or are the fruit of mixed influences. The multiplicity reflects the overseas-Europeans growing need for suitable objects as well as a developed taste for the exotic among those who lived and acted in Asia, which extended to the ruling classes and wealthy humanists at home. The individuals who likely ordered or purchased them must have been as manifold as the objects themselves; however, they were undoubtedly part of the more affluent section of the population.

In extant 16<sup>th</sup> and 17<sup>th</sup> century everyday objects, indispensable both in Portugal and among overseas-Portuguese, assorted ornamentation, construction methods, components and levels of quality point in most cases without doubt to South Asian carpenters and woodworkers. The group under consideration consists of small-sized portable furniture, the majority resembling or adapting European prototypes: a variety of case furniture (cabinets, chests, writing chests or writing boxes), foldable tabletops and oratories. Exceptions are the Indian low-chair and the East Asian lacquer cups.

While secular items supported the private and professional lives of overseas-Europeans in 16<sup>th</sup> and 17<sup>th</sup> century Asia, religious utensils were employed in the progressing Catholic missions. These pieces reached Europe either as diplomatic presents and exotic collectables, as in case of the four items listed in 16<sup>th</sup> and early 17<sup>th</sup> century Habsburg *Kunstammer* inventories in central Europe (2.1.2., 2.2.1., 2.8.1., 2.9.1.); were used as personal everyday equipment or show-pieces of wealthy merchants or noblemen in *Portuguese India*; or were created in the scope of the Catholic overseas missions.

The four *Kunstammer* pieces, documented in inventories between 1596 and 1611, allow us to pinpoint an approximate date of manufacture and to set a marker for that of related objects. The so-called Ryūkyū-cup (2.9.1.) of the collection of Archduke Ferdinand II of Tyrol at Schloss Ambras in Austria, and the two lacquered Chinese cups (2.9.2.), which

additionally received metal mounts to enhance their preciousness, must have been considered remarkable and novel examples of Asian tableware.

The Ambras shield, now housed in Vienna (2.1.2.), adds yet another peculiarity, in that the ornamentation of its front and rear sides originated in different locations. The use of rayskin, especially on arms, is typical for Japan, as is the technique of its additional lacquering and polishing (*samekawa nuri*). Japanese characters extant in the uncovered rectangle on the shield's rear also point to a Japanese contribution in its making, while the rear sides' lacquer coating and gilded motifs indicate a Chinese origin. Its splendid decoration using rayskin, the presence of Japanese script and finally its belonging to a famous Habsburg *Kunstkammer* all do indicate that it results from a specific individual commission destined for a high-class individual. This shield appears as a genuine Luso-Asian creation, which in its entirety represents the extension and diversity of Habsburg Portuguese Asia.

The so-called “Cardinal's tabletop”, we can assume it may have been a royal commission, suggested by its Habsburg provenance and conformity with the description of a tabletop listed on a shipping manifest of pieces ordered by Queen D. Catarina of Austria in 1562 and 1564 (2.4.1.). In its case an entirely Chinese manufacture is conceivable. Formal and material analyses revealed several facts that point to Chinese craftsmanship, as for example: its more sophisticated frame-and-panel construction<sup>155</sup>, compared to the other examples made of simple wood boards (2.8.2.); the subsequently mounted brass hinges; as well as the richly and dense lacquer decoration combined with the indigo-dyed oil-litharge painting; and the definitely Chinese techniques and materials. Belonging to a group of portable and indispensable everyday objects, likewise used in Portugal and overseas, these tabletops could have been copied by varied carpenters and woodworkers in most parts of the *Portuguese State of India*<sup>156</sup>. Contemporary documents and archival evidence argue circumstantially for Chinese provenance, and moreover, production specifically for a royal recipient: the receipt of various similar Chinese foldable and richly gold decorated tabletops by the Portuguese queen; its proven storage in the library of Archduke Ferdinand II of Tyrol

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<sup>155</sup> Additional analyses of the wood support and the structure via X-ray analyses (use of bamboo or wooden dowels?) would certainly offer further insights for a better consideration.

<sup>156</sup> The different methods of construction and make-ups of existing examples do point to different locations of manufacture and levels of quality.

at Schloss Ambras, and further, that similar tabletops were distributed by the queen to other royal collectors, relatives, or European courts.

The opulent Pope's Trunk, now in Vienna with its provenance in the old imperial possessions (2.2.1.), might have reached the Catholic Habsburgs as a gift<sup>157</sup>. Its rich low-relief exterior carving and Eucharistic symbol on its lid's interior' central rosette, referring to the sacrificial death of Christ and sun burst as a symbol of the victorious Christ, point to it having been carved and lacquered on behalf of a specific devout individual for chapel ritual or private use, or that it was commissioned by or destined for a member of a religious order, or some other use in a Christian context.

A similar abundance appears on the chest in the National Palace in Sintra (2.2.2.), although because certain elements of the lid's interior decoration are incomplete – be it oranges or the inner drawing of leaf veins or dots – it looks to have been executed under time pressure. Both chests, among many other examples in private and museum collections and those circulating on the antiques market, as well as the chest's lid in the collection of the Millennium BCP Foundation (mentioned in Chapter 2.2.), present traces of lacquer on their iron hinges<sup>158</sup> [Figs. 50, 55, 61, 62].

Generally, the production methods in China or Japan mounted metal hardware only after finishing the lacquer process, leaving the surfaces completely sealed. These are clear indications that these artifacts originally were not intended to be so-treated at all, emphasizing the hypothesis that the lacquering occurred in a different location from the manufacture of their wooden bodies. By the time the studied chests received their Asian lacquer coating, they were completely assembled with the hinges affixed. Additionally, several examples whose escutcheons are missing display the bare wood surface, as for example the Pope's trunk (2.2.1) and a cabinet originally from Spain and now housed in a

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<sup>157</sup> Another example of exotic presents to Catholics in Europe might be the oratory housed in the royal Augustinian Monasterio de la Encarnacion in Madrid, mentioned in 2.6.1.

<sup>158</sup> Beside the chests numerous other items such as writing boxes or coffer equally present metal fittings which originally have been coated with lacquer, for example the writing box formerly owned by São Roque Antiquidades and now housed in the ACM in Singapore, (referred to in Chapter 2.3.), or a trunk from a private collection in Porto, cf. Körber et al. (2011, pp.3, Fig.4) or Körber (2012b, pp.320, Fig.III1b).

museum in Remiremont, France<sup>159</sup> [Figs. 190-193]. It is thought that this cabinet reached Remiremont through Joseph-Antoine Vatot (1769-1830), who between 1808 and 1812 served in Spain as a Napoleonic officer<sup>160</sup>. However, the Remiremont cabinet is made from soft wood and, on the undersides of its drawers and in the uncoated compartments, it displays *kanji* characters meaning “big”, “big left second”, or “first left one”, specifying the intended locations of the respective drawers<sup>161</sup>. In the case that this piece was produced entirely in southern China, it strongly indicates the adaptation of fast production of lower quality to enable rapid responds to the new client’s orders.

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<sup>159</sup> In the Musée Municipal Charles Friry in Remiremont, there is housed a portable cabinet (Inv. no. 1093; 35.5 x 46.5 cm x 35.5 cm) which is especially important to mention as it shares various properties, including decorative techniques and motifs with the pieces under scrutiny. A carrying handle is attached to each side of the body. Its front is divided into four parts vertically and three parts of equal sizes horizontally, where eight drawers and a compartment with fall flap are arranged. In the upper section there is one large drawer over the entire width; while underneath the resting seven smaller drawers are arranged around the fall flap in the height of two drawers. Each of the compartments is lockable and equipped with an escutcheon in the shape of a double-headed eagle, of which the one of the fall flap in the center is missing. There the wooden surface is exposed, and it is clearly visible that the lacquer has been applied while the escutcheon was already mounted. Further, its black lacquer surface is densely filled with motifs in gold leaf and mother-of-pearl inlay on the front, the top- and corpus sides, while the rear side displays a decoration with two magpies flying among flowering plum branches in gold leaf, inner details drawn with a needle or stylus, and mother-of-pearl. It also displays the frieze frequently present on the items studied on its corpus sides’ front edges (Tab. 7; C).

<sup>160</sup> Thanks to Geneviève Lacambre for establishing a contact to the museum curator Aurlélien Vacheret, to whom I am thankful for the information and for providing all the images.

<sup>161</sup> For the explanation of the signification of the *kanji* characters I thank Julie Chang.





**Fig. 33** Front of the Remiremont cabinet, with missing central escutcheon. © Aurlélien Vacharet



**Fig. 34** Remiremont cabinet's rear side decoration. © Aurlélien Vacharet



**Fig. 35** Escutcheon in the form of a double-headed eagle, edged by lacquer. © Aurlélien Vacharet



**Fig. 36** Softwood structure exposed by missing escutcheon. © Aurlélien Vacharet

A purely Chinese origin for these two chests, in Vienna and Sintra (2.2.1. and 2.2.2.), seems excludable from the nature of the carpentry itself and also because they do not conform to thousands of years of Chinese and East Asian craftsmanship, in which the entire furniture surface is lacquered before application of any metal hardware because durability is attained only when surfaces are completely sealed to avoid the support exposure to environmental fluctuations. Also, the shape of metal hardware used are European and not common to Chinese woodcraft.

An interesting subgroup consists of wood-and-leather shields destined for use by noblemen and their servants<sup>162</sup>. For pageants and feast-day parades in Renaissance Europe, high-ranking individuals revived the wearing of antique military dress and armor, including display of weapons, for their high symbolic value related to the rituals and exercises of power. This included the use of outdated round wood-and-leather parade shields painted with classical scenes (See 2.1.). The use of lavishly decorated arms and armor was of similar importance to Asian counterpart rulers in the vast network of the Portuguese Asian Empire. Particularly on the Indian subcontinent, fruitful exchange among the Mughal, Deccan, Gujarat courts and Portuguese noblemen created a common practice where the demand for such extravagant, individual objects for display arose, so that such shields were probably much used among Portuguese noblemen. The group of nearly twenty-five known examples illustrates a merging of these compatible rituals. The presence of European coats-of-arms on some examples suggests that expatriate officials or noblemen in *Portuguese India* must have ordered locally made shields for their own use or to equip their personal servants or guards. Examination of various examples revealed the interesting fact that some were clearly provided with coat-of-arms (knights' helmets, mantling, and heraldic shields) executed in lacquer technique only in outlines, to be filled by future owners with their individual heraldic details and tinctures. Additionally, except for a few specimens, the brackets for the forearm and the handgrip were subsequently affixed. Although the objects themselves were probably not that expensive, the glamour of an extravagant Asian lacquer decoration on the Renaissance symbolic shields must have added an extra impression to the overseas-Portuguese as cosmopolitans with access to exoticism of that kind. Such visual evocation of the Portuguese maritime trading network's far-flung relations must have left an added impression on Asian rulers.

Several Japanese *nanban* screens depict figures dressed in Luso-Asian fashion holding these characteristic shields, some of which are clearly black with gilt decoration<sup>163</sup>.

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<sup>162</sup> This is exemplified by the existence of two identically decorated shields, where a shield from the Wallace Collection London seems to derive from the same order as another housed in the Livrustkammaren in Stockholm. As both display the same coat-of-arms and are identically decorated these might result from a group order destined to equip personal servants of a nobleman active in the Portuguese *Estado da India*, cf. Chapter 2.1., Tab. 2., nos. 1 and 2.

<sup>163</sup> As for examples figured in the *nanban* screens attributed to Kanō Naizen in the Museu Nacional de Arte Antiga (Inv. nos. 1640 and 1641), cf. Curvelo (2015, pp.100-13) or Körber (2013, p.49); Museu do Oriente,

Some are the darker completed or barefoot servants of the captains, others likely noblemen or officials, similarly dressed and sitting on chairs or walking protected by parasols. Portuguese using round shields also are depicted in the already-mentioned tortoiseshell cabinet with “daily life scenes” of Portuguese settlers in India<sup>164</sup>. The shield from Amsterdam (2.1.5.) is particularly interesting as it presents two figures in Portuguese fashion of which one carries a shield. All these depictions and the number of surviving examples evidence the significance of the parade objects among overseas-Portuguese noblemen active in Asia. Indian rulers’ continuance of this Portuguese-inspired custom of using lacquered shields is suggested by the huge numbers of Indian hide shields, brought to Japan to receive a lacquer coating by the Dutch VOC in the following decades and centuries, serving as diplomatic gifts and precious goods for local Indian rulers<sup>165</sup>.

The differences in size, structure, metal hardware and lacquer tradition, as seen in Table 2, suggest that the manufacture of these shields did not occur in only one single location. Decoration and documentation show that in all likelihood, round shields made in various parts of Asia were also shipped to Lisbon (See Chapter 2.1.). It seems obvious the Dutch VOC practice of sending huge amounts of shields from India to Japan was inspired by the overseas-Portuguese use of such lacquered shields.

The carved low-chair (2.8.1.), exemplifies a type native to the Indian subcontinent and originally reserved for deities and high-ranking individuals. Its owner could have acquired it while travelling within *Portuguese India*. At some point it received an Asian lacquer embellishment with gold decoration. This could have been simply an exotic souvenir of its journey along the routes between different bases or of its services in *Portuguese India* (or perhaps it was sent intentionally to receive such a coating). Similar carved chairs have been observed that are decorated in turn with Southeast Asian thitsi lacquer and gilding (See Chapter 2.8.), indicating that the wood- and lacquer work might be of distinct origins. Further, low-chairs with similar carvings were among the furniture destined for the Dutch

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Lisboa (Inv. FO/0633) featuring smaller shields with arabesque pattern; the pair of *nanban* screens from the Kobe City Museum, in Curvelo (2015, pp.115-23); or another pair of screens from a private collection, as well as a pair in the Namban Bunkakan Osaka, cf. Curvelo (2015, pp.125-33, 135-145).

<sup>164</sup> See the depiction on drawer no. 6<sup>o</sup> left corpus side in Dias (2002, p.127).

<sup>165</sup> Impey & Jörg (2005, pp.192-194, 252, 254, 257), Körber (2011; 2013; 2015).

market along the Coast of Coromandel (Tamil Nadu, Andhra Pradesh) and on Ceylon in the following centuries<sup>166</sup>, underscoring a South Asian origin for this type of furniture.

Contrasting to the shields and other furniture typologies, the three lacquer cups are typical of coeval East Asian tableware. The so-called Ryūkyū-cup (2.9.1.) of Archduke Ferdinand II of Tyrol's collection and the two lacquered Chinese cups (2.9.2.) must have been considered remarkable and novel examples of Asian tableware.

The other category of objects, with possibly the largest group of purchasers, is related to the religious orders, the Society of Jesus, and possibly private Christians. In the markets that developed in centers of European presence, the growing need for religious imagery and devotional objects to promote the spread of the faith led artisans to adapt local characteristics to clients' formal religious requirements. In particular, the Jesuit' policy of acculturation and accommodation led to new heterogeneous and characteristic forms, manifesting in a fusion of imagery and decorative concepts. Such objects are identifiable through typology, such as an oratory or lectern; by monastic provenance, as in the case of lacquered trays; or by motifs in carved or lacquer decoration (See Chapter 4.2.1.). Their variety documents the progress of the Catholic mission and its network in Asia, in particular India, Japan and China. Exemplified are three carved and lacquered trays of monastic provenance; two oratories (2.6.1. and 2.6.2.), which illustrate the confluence of Christian and Indian arts paired with a Chinese *nanban*-style lacquer ornamentation, representative for a large group of similar examples (2.6.); and the related mass book lecterns introduced in Chapter 2.7.

As illustrated by the diversity of the specimens, individual make-ups and peculiarities appear as unique creations, illustrating that each item has its own particular history and journey, resulting from very distinct circumstances, conditions and backgrounds. In view of the participation of various individuals and groups in the overseas ventures, the manifold trading exchanges on various routes, the high percentage of private activity with possible unregistered and untraceable shipments of private cargo (*liberties*, see Chapter 1.1.), and the journeys of individual artifacts all the way to Europe are hard to trace nowadays in most cases. Apart from diplomatic gifts to European sovereigns, many objects may have reached

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<sup>166</sup> Terven-de Loos (1985), Veenendaal (1985), and Van Gompel (2013).

Europe as private souvenirs and possession that were passed down, while others may have been transferred to Europe in the course of the last centuries.

The misleading use of the term lacquer has shown that not all objects described as “lacquered” in the travelogues or accounts left by travelers or chroniclers were coated with Asian lacquer, but had most probably a shellac coating, especially what refers to objects produced on the Indian subcontinent (See Chapter 1.3.). Geographical attributions are further complicated as the origin of objects is often confused, due to their classification as “Indian” or “from India”, which could also refer to the whole *Portuguese State of India*, comprising the entire Portuguese Asian network. This may have been responsible for the fact that, in northern European Renaissance collections, many objects of far Eastern origin were tabbed as “Indian” such as in case of the lacquer bowl (2.9.1.).

In turn, other inventories meticulously elaborated by appraisers of the inquisition in Lisbon, for instance, were far more precise, such as in the case of the goods left behind by fleeing Jews or estate inventories elaborated after the death of ex-captains or humanists<sup>167</sup>. These contemporary lists of household stuff and furniture offer a relevant insight into the goods that belonged to wealthy individuals in Lisbon. Although the lack of precise descriptions may not allow for exact identifications, these inventories reflect that a huge quantity of Asian merchandise and artifacts were carried to Portugal, with regard to the examined group, though, rather occasionally than *en masse*.

In the following chapter the different lines of research are discussed and contextualized.

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<sup>167</sup> Crespo (2015a).



## 5. The Journey of Lacquer Decorations

What can we draw from our formal and technical observations? As a Ryūkyūan origin for the lacquer decorations has been suggested again and again, and remains a question, we should return once more to this ancient island kingdom.

### 5.1. On a Questionable Ryūkyūan Origin

As discussed previously (Chapters 2.5., 2.6., 2.7.), assumptions made by Arakawa and Tokugawa have attributed items, especially those adorned with the combined techniques of gold leaf decoration and mother-of-pearl inlay, to the former Kingdom of Ryūkyū. However, to identify Ryūkyūan origins based upon style and technique is complicated and vague. Firstly, the use of gold leaf decoration on primarily red lacquer grounds, as present on the so-called “Ryūkyū bowl” (2.9.1.) and the four chests (2.2.), also was common in the kingdom, just as in Ming China from where several lacquer techniques had been introduced. Second is the international character of Ryūkyūan trade already observed and noted by Tomé Pires<sup>168</sup>. Scholars such as Boxer or Kamakura have shown that most of the merchandise exchanged by the kingdom’s traders, a miscellany ranging from luxury items, to basic foodstuffs, raw materials, and livestock, was mainly of Japanese, Korean, Chinese and Southeast Asian origin. Moreover, although continuous interest in the Ryūkyū Islands as a fabled and obscure kingdom of unimaginable wealth features in different Portuguese records throughout the entire 16<sup>th</sup> century (Appendix I), the Portuguese probably had no direct contact through either official channels or, the religious orders who were doubtless important purchasers of exactly this sub-group of the objects studied. Subsequently in the 17<sup>th</sup> and 18<sup>th</sup> centuries the Ryūkyūans continue to appear vaguely in documents of the Dutch and other Europeans. In short, all of these narratives about the kingdom and records of attempted exchanges or visits seem to derive from hearsay or random occasional encounter rather than from actual, formal contacts and commodity exchange.

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<sup>168</sup> Tomé Pires mentioned that what comes from the *Léquios* is brought by them from Japan (swords, copper, gold and lacquerware); whereas silk, musk, porcelain, and damask come from China, cf. Boxer (1993, pp.11-12).



Linguistics also obscure the true origins of objects conventionally identified with this kingdom. Various recounts mention Ryūkyūan traders as carrying rich merchandise, including fans, and gold and silver boxes. Earlier, it was shown that the Portuguese term *Léquios* or *Ilhas Léquias* likely derived from the Chinese *Liu Kiu*, and that the similar Portuguese term *leque* was applied to describe fans traded by these merchants in Malacca and Canton. However, it is true that large quantities of other fans, not of Ryūkyūan provenance, also were traded by them and constituted tributary gifts from diverse Southeast Asian tributary partners (See Chapter 1.3.). From the mentions and descriptions of Ryūkyūan trade alone one cannot conclude that specific lacquer decorations of the studied artifacts were applied in this island kingdom.

Finally, the combined features of the objects themselves suggest the complexity of intra-trade relationships within the region. It is important to keep in mind that along with Luso-Asian lacquer coatings, and some lacquer decorations only questionably Ryūkyūan, a number of these furniture pieces have structures that suggest south Asian origin. Given the lack of anecdotal or documentary evidence of either direct contacts between the religious orders (based in the East Asian region, namely Macau and Nagasaki) and representatives of the Kingdom of Ryūkyū, or the presence of missionaries on these islands, this raises the question that if these lacquer coatings were applied by Ryūkyūan artisans, how in the world and over which contacts and routes, would such a transport have been possible? Keeping in mind, that Ryūkyūan merchants conducted an enterprise strictly regulated by their own royalty and also controlled by the Chinese authorities, such contacts seem unlikely. But when we consider that Ryūkyūan junks launched from many Asian ports, several of which were part of the Portuguese network, it seems possible that a commission to carry merchandise of various origins occasionally could have been placed directly with or through Chinese intermediaries. Yet in relation to the items under scrutiny in the scope of this thesis and given the absence of official intercourse between Portuguese merchants and Catholic missionaries, this is probably not the case.

In addition, the question of whether certain decorative techniques were already established in Ryūkyū at the end of the 16<sup>th</sup> century, and details of their evolution in the following centuries remain open for lack of reliable evidence (See Chapter 1.3.2.).

However, the attribution of lacquer objects to a likely Ryūkyūan origin (pioneered in compilations by Garner, Arakawa and Tokugawa<sup>169</sup>) might have also included objects that were more likely Chinese. While the Ryūkyū Kingdom undoubtedly offers important contributions to our understanding of Asian decorative arts, including lacquerware, the fact that both southern China and the Ryūkyū Islands, generally share the same shapes, motifs, materials and techniques<sup>170</sup> suggests that in recent decades, and in the scope of the restoration of cultural identity, a Ryūkyūan provenance for some objects has probably too hastily been assumed. With certain exceptions such as the presence of specific characteristics or patterns like the crest of the Ryūkyūan royal family or the presence of seals which point to the royal family as the owner – a Chinese fan, or the old Chinese character for “heaven” (*ten*) among others<sup>171</sup> – the distinction between the two lacquer arts is extremely difficult.

A recent travel to Japan<sup>172</sup>, including a visit to Okinawa’s main island, made possible the examination of many objects ascribed a 16<sup>th</sup> or 17<sup>th</sup> century Ryūkyūan origin. Included was also the earlier mentioned cinnabar lacquered twelve-sided footed tray in the Tokugawa Art Museum in Nagoya (See Chapter 4.3.2.). Its gold leaf decoration on a cinnabar ground features the same type of decorative bands present on the examined Luso-Asian pieces (Tab. 7; A, B, C), illustrating the challenges to accurate identification [Figs. 188, 189]. Arakawa and Tokugawa about 40 years ago attributed a Ryūkyūan manufacture and various publications identified this piece as a typical Ryūkyūan creation<sup>173</sup>. The gold motifs of squirrel-like beasts, magpies and other birds, and stylized lotus flowers along the sides are in a similar style as on the Luso-Asian items. Additionally, there appears surface design of gilded dots equivalent to several Luso-Asian examples (See 2.2.1., 2.2.2., and 2.3.1.). The

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<sup>169</sup> The two Japanese researchers, Arakawa and Tokugawa, for example, devoted themselves to the study of lacquer art and in particular the rediscovery of the Ryūkyū own peculiarities. They discovered and purchased a number of objects that belong today to the Urasoe Art Museum and the Okinawa Prefectural Museum, among others, or acquired related objects with typical embellishments in gold leaf, incised gold lines and shell inlay techniques, to which they attributed a Ryūkyūan origin.

<sup>170</sup> Garner (1979), Kopplin (2002b, pp.75-76), Watt (1991; 2008).

<sup>171</sup> Arakawa & Tokugawa (1977, pp.viii-x, 62-65), Tokugawa (1989, p.vii), Kopplin (2003a, p.76), Watt (1991, p.332), Miyasato (2017).

<sup>172</sup> The possibility to examine various important objects in Japanese museums in March 2017 is due to the invitation of Kobayashi Koji to whom I am very grateful.

<sup>173</sup> Arakawa & Tokugawa (1977, pp.88-90, Pl. 23, Fig.15), Garner (1979, pp.203,208, Figs.155,156), Bourne (1984, p.230), Arakawa (1989, p.187), Sōsei & Kanemasa (1989, Pl.12), Tokugawa (1989, p.vi), Tokugawa Art Museum (1997, p.110), Körber (2011/2012, p.61; 2013, p.53; 2015b, p.221).

center of the tray's top displays a peony blossom, which Tokugawa pointed out as a crest frequently present on early Ryūkyūan lacquerware. However, this type of peony motif is popular in decorative arts<sup>174</sup> and architecture<sup>175</sup>, being common already in 14<sup>th</sup> century China. Nonetheless, its provenance and dating are not proven, and nowadays the curators of the Tokugawa Museum in Nagoya think it is rather a Chinese work, which might have entered the Tokugawa possessions as a diplomatic gift<sup>176</sup>.

Similarly, two boxes decorated with gold and litharge oil painting are housed in the same museum in Nagoya, one for writing paper or documents (Inv. no. Tebako 2), and the other for a book (Inv. no. Tebako 23). They were formerly listed in the estate inventory of the Owari branch of the Tokugawa family in the year of Tokugawa Ieyasu's death in 1616, and although they have been ascribed to a Ryūkyūan manufacture earlier<sup>177</sup> they are now rather classified as Chinese artifacts. Both have litharge oil-painted surfaces additionally decorated with gold leaf and powder. The book box' lid's interior displays the same type of stylized Chinese flower so frequently present inside drawers and chests of the studied nucleus (as for example the chests 2.2.3. and 2.2.4.) [Fig. 194]. It is present on the above-mentioned twelve-sided footed tray, as well as on the rear side of the Jesuit' lectern examined by Arakawa<sup>178</sup> and described in Chapter 2.7.1., to which we will later return. The document box exterior top displays individuals in Han-Chinese garb in a palace scene and motifs of hares, squirrels, pine tree, and bamboo along the sides, in the same make-up as those present on the Luso-Asian items. Again, there appears the just mentioned surface design of gilded dots [Fig. 195]. In terms of lacquer decoration, the earlier discussed cinnabar lacquered footed tray in Nagoya bears the greatest stylistic consistency with the investigated chests and so-called Ryūkyū bowl (2.9.1.).

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<sup>174</sup> For example an 18<sup>th</sup> century red lacquered Chinese tea pot with gold and silver decoration is adorned with a similar peony blossom in gold and silver on a red lacquer ground, cf. Galerie Tiago, Paris. [http://www.carrerivegauche.com/en/gallery-tiago#/slide-10-field\\_images-277](http://www.carrerivegauche.com/en/gallery-tiago#/slide-10-field_images-277), April 2015.

<sup>175</sup> Watt (1991, p.331).

<sup>176</sup> Examination of the pedestal at the Tokugawa Art Museum in Nagoya with Kobayashi Koji, Christine Guth and Tina Hagelskamp on March 6<sup>th</sup> 2017 and discussion with the curator Yoshikawa Miho.

<sup>177</sup> Arakawa (1989, pp.154, 203).

<sup>178</sup> Arakawa (1989, pp.201-203; 1996, pp.208-10).



**Fig. 37 “Chinese flower” in the interior of the lid of the book box**



**Fig. 38 Detail with two hares and bees on the sides of the lid of the document box**

Consequently, the resemblance of decorative elements and techniques present on the objects studied to those of acknowledged Ryūkyūan works does not mitigate the difficulty of identifying or distinguishing some of them as identifiably Ryūkyūan ware. Further, it seems that information from the study on Ryūkyūan lacquerware production in exactly the era of our interest, 1550-1650, offers neither approved dating nor sufficient numbers of confirmed, dated examples with similar decoration, to permit ascribing them to a given period, especially given the lack of safe evidence of Portuguese-Ryūkyūan interaction and trading contacts that would have allowed the transport of small-sized furniture and religious utensils. As this has resulted in rather vague data and attributions<sup>179</sup>, we shall focus on accepted realities: the known interactions with southern European merchants and Catholic missionaries in Macau and Kyūshū; the activities of the missionaries themselves, of which especially the Jesuits' ventures and operations stand out; and the existing trade contacts between Goa, the Luso-Asian community of Macau and the nearby southern Chinese key-trading center Canton. I would argue all this makes it much more likely these pieces were lacquered in southern China.

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<sup>179</sup> During the stay in Okinawa in March 2017 it was possible to see many different lacquer collections and to talk to curators. It was remarkable how uncertain the curators are today in terms of dating and attribution.

In view of these uncertainties, let us now recall the red lacquered and gold leaf decorated bowl in the collection of Archduke Ferdinand II of Tyrol (2.9.1.), described as an “East-Indian bowl of red earth”. Recalling the circumstances and criteria behind its identification, the question arises whether it is of Ryūkyūan provenance, or more likely was made and purchased in southern China. In the latter region, Macau from the mid-16<sup>th</sup> century onward had served as a trading base, run by a merchant’s elite, and the strategic center of the Christian mission in Asia, with a strong presence of the Society of Jesus and its varied institutions. Macau was linked through the Pearl River to the rich market of nearby Canton, with its very long tradition as a Chinese foreign trade center<sup>180</sup>. Southern Chinese merchants frequented both.

Given the Renaissance *Kunstammer*’ provenance, the bowl probably arrived to Ambras as an exotic type of tableware and diplomatic gift, or as a souvenir for the Habsburgs, and was handed over by a personal agent connected to the vast Portuguese Asian trade network.

Attempts to classify its lacquer coating with regard to possible places of origin and their respective lacquer arts rests upon only vague assumptions that prove closely interwoven, especially in the 16<sup>th</sup> century. On the one hand, we have the often-repeated assumption that its gold leaf decoration is typical of the technique then practiced on the Ryūkyū Islands<sup>181</sup>, making it the earliest specimen of Ryūkyūan lacquerware to have reached the European continent. But on the other hand, entries referring to the same technique appear in contemporary Chinese treatises on the craft, including Huang’s comments from the early 17th century. Lacquer production in China was an exceedingly ancient tradition, with different centers with distinct specializations throughout the empire. In addition, established trading partnerships already existed along the southern Chinese coast, and from the establishment of Macau onward, official channels linked with the other main centers of the Portuguese commercial empire in Asia – Goa, Canton and Nagasaki. While only a few contemporary Chinese examples of gold leaf decorated lacquer ware are extant, 16<sup>th</sup> century Chinese porcelain gold leaf technique was admired by several other kingdoms and heavily exported

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<sup>180</sup> Chang (1969), Cheong (1997, pp.1-5), Perkins (1999, p.194), Petisca (2010, p.76), Hsia (2013, p.14).

<sup>181</sup> I myself may have contributed to this assumption with several publications as for example Körber (2013; 2014).

(See Chapter 1.3.2.). So, if the bowl was bought in southern China, does it represent a characteristic style of local lacquerware of that time? And might its technique be the one Garner mentioned when stating that the same technique applied to porcelain probably also had been employed on lacquerware? In view of the mentions in the *Xiushi lù* concerning different qualities of materials used in the foundations (See Chapter 4.3.1.), and despite a foundation agglutinated with true lacquer, its coating consists of only a few layers and the partly smeared gold decoration suggests hasty execution, indicating that it is more of an ordinary object of daily use<sup>182</sup> [Fig. 155].

## 5.2. Southern China: Macau, Canton, and the Link to Nagasaki

Several facts strongly link this type of lacquer decoration, materials and techniques, on a varied group of specimens in appropriate quantity, to centers along China's southern coast, particularly to the cross-cultural activities of Macau. Like port-cities such as Manila or pre-*bafuku* Nagasaki, it became home to a growing multi-cultural population and arena of intense and versatile commercial ventures, a center of clandestine partnerships of Portuguese and southern Chinese merchants scattered in the provinces of Guangdong, Fujian and Zhejiang, and from the mid 16<sup>th</sup> century onward Portuguese noblemen and merchants were allowed to settle, soon becoming the center of a lucrative triangle trade (Indonesian pepper, for Chinese silk, for Japanese silver...). Shortly after, the Jesuits turned this port-city into a major strategic center for the Christian mission in both China and Japan, which after the violent end of the Japanese mission and the escaped Japanese, became a playground where elements of Chinese and Japanese culture stimulated and supplemented each other. Japan and China also shared a thousand-year-old tradition in which lacquer embellished objects for everyday use, and above all, adorned religious sculpture and sacred spaces. This confluence of cultures, artistic traditions, philosophical conventions and religious beliefs turned Macau into an ideal breeding ground where Christian European, Chinese and Japanese influences merged.

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<sup>182</sup> According to the bibliography no lathe has been used in China (See Chapter 1.2.3.), thus questionable is the turned wooden structure of the so-called Ryūkyū cup. Or is the multi-cultural composition of traders of diverse origins in southern Chinese port-cities responsible for the introduction of the lathe? Was it produced elsewhere and just lacquered in southern China?

How did these objects travel? There are numerous possibilities. Closely linked yet distinct groups interacted on the existing sea routes, including Chinese private traders, Portuguese and Luso-Asian merchants, and a vast network of Catholic missionaries. The Society of Jesus and religious orders, based in Macau with access to Canton and Kyūshū, facilitated exchange through their growing demand for liturgical objects and imagery in their work to spread the Christian cult throughout the Portuguese Asian network and beyond (e.g. mainland China). As will be shown later, numerous extant objects of probable Goan manufacture also illustrate this complex intermingling, some discovered in the most remote regions. Several types of goods and utensils including vestments, host boxes (pyxis), and mass book lecterns were ordered from Goa, or bought in China to serve in the Japanese mission, such as the six large and small missal stands, among other things ordered by Fr. Alexandre Valignano in 1604<sup>183</sup>. Moreover, it is not only conceivable but also quite possible for individuals to have brought with them or commissioned religious objects as personal belongings as they traveled between the missions<sup>184</sup>. Franciscan Fr. André Coutinho for example, who was the first priest ordained in China and spent 38 years in Asia including Manila, Canton and Macau (where in 1556 he engaged in the founding of a Franciscan presence in that port-city), endowed three outstanding, lavishly decorated silverworks – a reliquary-oratory, a pax, and a mass book lectern – to the Convento do Carmo in Vidigueira. These three pieces are now housed in the Lisbon's Museu Nacional de Arte Antiga (Inv. nos. 99 Our, 98 Our, 100 Our)<sup>185</sup>. Technical analyses together with minute examinations in the scope of its conservation and documental research rather evidenced mixed influences and a probable Chinese manufacture<sup>186</sup>. Silver surfaces are adorned with similar vegetal and animal designs, as for example deer and squirrels in grapevine, alike to those on the lacquered items under consideration. Outstanding is the simultaneous presence of symbols of the Society of Jesus, on one side, and of the mendicant Franciscans, on the other. They are important examples of syncretism on various levels, combining Chinese auspicious motifs with Franciscan and Jesuit imagery. Dating to about 1580, these three silver pieces confirm the

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<sup>183</sup> Penalva (2011, pp.33-35).

<sup>184</sup> The examples with Christian connotation could have been either personal processions, in the case of the tabletop (2.4.2.), or were actively employed in missionary activities such as the oratories (2.6.1. and 2.6.2.).

<sup>185</sup> Silva (1996a, pp.186-89), Neuwirth (1997), Penalva (2011).

<sup>186</sup> Crespo (2014, p.153), Penalva (2016).

existence of artisans manufacturing artifacts on behalf of the Catholic religious in southern China or by southern Chinese artisans.

It seems likely, therefore, that also portable wooden liturgical objects were shipped from Goa to Macau or brought by missionaries, to be lacquered in China in nearby Canton or some other southern city that had such production. Jesuit missionaries who penetrated further into the Middle Kingdom, founded missions in Zhaoqing, Chaozhou and Nanxiong in the province of Guangdong<sup>187</sup>. Curiously, Chaozhou, near Canton, was an important center for gold leaf decoration on lacquerware in the 1950s. Though, centuries after the period under consideration, it is conceivable that this specialization derived from long tradition<sup>188</sup>. Many extant objects, mainly passed down on the Iberian Peninsula, may have found their way to Europe either as: intra-missionary gifts and private possessions; in the course of the expulsion of the Society of Jesus in the 18<sup>th</sup> century; during the 19<sup>th</sup> century' dissolution of religious orders in Portugal and its overseas empire, which led to religious artistic heritage being dispersed<sup>189</sup>; or via the international art market<sup>190</sup>.

One also should consider the evolution of the Portuguese expansion in Asia. This started with the establishment of numerous settlements and factories along the Indian coastline with Goa as the political, religious, strategic and administrative hub. Goa rapidly evolved into the first principal production center and market place for artifacts, luxury goods and also religious items, followed by a number of other South Asian locations. It seems highly likely that the Jesuits and various Catholic orders exploited the resources of these established industries, with multi-cultural craftsmen specialized in the production of Christian devotional items, as their missions spread further east. The extensive trading activities of the Portuguese in the South China Sea, their presence in Macau with access to the biannual fairs in Canton, as well as frequent exchanges with other South and Southeast Asian Portuguese bases and their Luso-Asian mercantile networks, provided ample circumstances in which lacquered objects could have been commissioned.

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<sup>187</sup> Curvelo (2007a, pp.354-355), Krahl (2007, pp.236-37).

<sup>188</sup> Chang, J. (2015). Conversation on gold leaf decoration in southern China. [email]

<sup>189</sup> Silva (2000a).

<sup>190</sup> It is interesting to note that some of the *nanban*-style decorated liturgical items were bought "back" to Japan as genuine *nanban* creations in the 1980s and 1990s.



Macau, which still houses a significant heritage of Christian art (architecture, sculpture, ivory images, paintings, liturgical embroidered cloth and silverware) has already been suggested as the source and stopover of a variety of artifacts including lacquered pieces<sup>191</sup>. Yet the situation is far from clear. As we know, the *Seminary of Painters* founded by Giovanni Niccolò on the Japanese island of Kyūshū moved to Macau in 1614, to continue teaching European painting techniques and Christian pictographic conventions to Chinese and Japanese students. Its presence should have ensured access to devotional implements along with the transfer of knowledge, technology, and the Christian stylistic education of the converts<sup>192</sup>. Yet accounts of European visitors to Macau seem to suggest no artistic production at its early stage. For instance, in his 1638' description of the port-city, the Italian Marco D'Avalo negated any production by reporting that all merchandise for the voyages to Japan was brought from Canton, acquired at the two annual fairs held there for this purpose. The same was observed by the British traveler Peter Mundy (See Chapter 1.2.3.).

As illustrated in Chapter 2, the works under consideration are unique creations, their individual make-ups and peculiarities illustrating a particularized history and journey originating in distinct circumstances, conditions and backgrounds. In addition to the previously discussed group of lacquered shields, multiple other specimens involve craftsmanship of distinct geographical origins, their very make-up manifesting the circulation of artifacts. Several, of South Asian, possibly Goan manufacture, reside in other parts of the vast network of the former *Portuguese State of India*, including sacred images of wood and ivory, gold- and silver- work, textiles and liturgical furniture. A polychrome open oratory or shrine (71 x 40 x 25 cm) housing a matching polychrome carved wooden Virgin Mary with the Child still stands at the main altar of the Church of Mercy (*Igreja da Misericórdia*) in Pantai Besar Larantuka on the Indonesian island of Flores<sup>193</sup>. Another, with a crucifix of carved polychrome wood, exists in Wureh on Indonesia's island of Adonara<sup>194</sup> [Figs. 196, 197]. Both wooden cases, of similar architectonic design, are embellished with the same

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<sup>191</sup> Silva (2000a), Matos (2000b), Carvalho (2000; 2013), Curvelo (2007a; 2007b).

<sup>192</sup> Krahl (2007, p.235), Curvelo (2007a, pp.371-403), Bailey (2004; 2007; 2009, pp.227, 229).

<sup>193</sup> Both the wooden oratory structure with a column flanked niche and the sculpture are today colorful repainted, adapted to the contemporary local taste, cf. Pinto (2012, p.35).

<sup>194</sup> Formerly adorned with a dome on top this example still preserves signs of a complex structure and its former interior decoration with a starry sky and a radiated oval, cf. Pinto (2012, pp.53-54).

carvings present on several Indo-Portuguese oratories and the lacquered specimens. More pertinent for this study are those of Indo-Portuguese wooden structure adorned with Japanese *nanban* lacquer ornamentation.



**Fig. 39 Polychrome oratory with Madonna, Flores Island. © Pinto (2012, 35)**



**Fig. 40 Shrine with crucifix, Adonara Island. © Pinto (2012, p.53)**

### 5.3. Goan Carved Structures with *Nanban* Lacquer Adornment

That devotional objects, among many other supplies, were ordered or exchanged among missions of Portuguese Asia is proven by historic records or extant pieces with the same properties. A Japanese private collection possesses an oratory<sup>195</sup> (67.5 x 27.5 x 13 cm), originally for a statue, adorned with *nanban* lacquer motifs but a wooden core with carving and other properties identical to Indo-Portuguese examples<sup>196</sup> in Portuguese collections (See Chapter 2.6.) [Fig. 198]. This unusual oratory reached Japan by the maritime routes linking Goa, Macau and Nagasaki.

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<sup>195</sup>This oratory is probably the same mentioned by Pinto as having been sent to Japan and which formerly belonged to the collection of J. Horta Correia in Lisbon, cf. Pinto (1983a; 1990, pp.56-58), or Canavaro et al. (1990, p.63) and Christie's London (1986). For other mentions or descriptions, cf. Impey & Jörg (2005, pp.190, fig. 456) and Canepa (2009, pp.285-286).

<sup>196</sup> Noteworthy are here its triptych structure with architectural elements adorned with floral carvings, in particular the niche flanked by two pilasters with their *imoscapo* decorated with a carved Vase-of-Plenty motif, hidden by two folding doors, and with a pediment and cornice below.



Fig. 41 *Nanban* lacquered Indo-Portuguese oratory. © Impey & Jörg (2005, p.190)

Another exceptional object exhibiting similar characteristics is a bed, until the late 19<sup>th</sup> century in Goa and now in a Portuguese private collection<sup>197</sup> [Figs. 199, 200]. Likewise adorned with a *nanban* motif, this type of furniture was not used in Japan, nor is there any report on its manufacture. Records mention beds and loungers at Portuguese bases in India, and a production in Canton<sup>198</sup>.

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<sup>197</sup> Curvelo (2010b; 2013c, p.76), Westen & Curvelo (2013, pp.134, cat. no.49).

<sup>198</sup> Among the goods loaded at Macau were “golden beds”, which were most probably produced in and shipped from Canton, cf. Loureiro (2007, p.218). Gaspar da Cruz observed in Canton different kinds of furniture as well as “bedsteads among diverse kinds of chairs, gilt boxes, platters and baskets, writing desks and tables as well gilt as with silver”, cf. Boxer (1953, p.125). The Flemish Jacobus van de Koutere mentioned as being shipped from Macau to Malacca also beds, gilded beds and chairs, among large quantities of silk and other merchandise, cf. Crespo (2015a, p.122). Mentions of beds, bedsteads and cots, appear in inventories of wealthy individuals residing in Lisbon, as for example cots and beds from China (*leitos da China*), gilded or gold and black, are mentioned among the goods listed in the inventory for the division of estate of Fernando de Noronha (c. 1540-1608), cf. Crespo (2016a, p.117).

Although also of a contemporary Portuguese shape<sup>199</sup>, yet its wood construction points strikingly to the Indian subcontinent: the cubic corner blocks that receive the rails supporting the slats, the turned columns with finials that originally supported a canopy, are similarly present in the Indian low chair (2.8.1.). Simultaneously objects of *Portuguese India* and Japan, the heterogeneousness of the oratory and the bed reflect how far flung was the predilection for *nanban* lacquer, and thus the maritime network's intricacy. They prove once more the notion that objects included multiple locations of manufacture is no rarity.



Fig. 42 *Nanban* lacquered bed. © Curvelo (2010, p.156)



Fig. 43 Detail of decorated corner block and foot. © Curvelo (2010, p.156)

#### 5.4. Chinese *Nanban*-Style Decorations Using Motifs in Gold Leaf Combined with Mother-of-Pearl Inlay

Despite from the distinct ornamentation and decorative techniques present on *nanban* lacquerware, as mentioned earlier, analyses of these Japanese coatings revealed compositions with urushi (or thitsi lacquer) and, moreover, that ground layers were based on very

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<sup>199</sup> See a 17<sup>th</sup> century Portuguese example with a tropical hardwood structure that presents Indian influences with similar corner blocks in Pinto (1979, pp.32, 49).

distinctive compositions<sup>200</sup> (See Chapter 1.3.2.). Japanese *nanban* lacquered pieces display different stratigraphies and formulations easy to distinguish from the Luso-Asian objects with similar decorative programs.

At least four specimens of the nuclear group under study (2.5.2., 2.5.3., 2.6.1., 2.6.2.) are Luso-Asian works alluding to Japanese *nanban* lacquerware. Called here *nanban*-style, these decorations display Chinese auspicious motifs composed of, tree and flowering branches with birds and other animals, executed in a *nanban*-characteristic combination of mother-of-pearl inlay and gold decoration. These patterns are present particularly on objects related to the Christian religion and to the propagating missionaries, all above the Jesuits. They appear also on a wider group of related Luso-Asian items that have been studied earlier or that have come to light in the scope of this investigation, mostly lacquered trays, lecterns and oratories (See Chapter 4.2.2.).

Formerly passed down in Portugal, the lectern now in the Namban Bunkakan in Osaka (2.7.1.) displays wood carvings similar to those present on the lacquered trays (2.5.)<sup>201</sup>. Carved quarter blossoms in each corner and a central Jesuit' IHS monogram in bas-relief adorn the upper part of the book rest. All its surfaces are adorned with characteristic *nanban*-style lacquer decoration of Chinese auspicious motifs and typical decorative borders (Tab. 7; B) executed in gold leaf and mother-of-pearl inlay. The lettering and its carved decoration suggest its wooden structure was perhaps produced in India or by a craftsman of Hindustan origin, and that it has been lacquered and decorated in southern China to serve in the mission there.

However, the assembly of the two previously mentioned oratories raises further questions about their attribution. The first, in the Real Monasterio de la Encarnación in Madrid (2.6.1.), is an example in exceptional condition among many other *nanban*-style decorated lacquer objects. It is conceivable that this Augustinian convent (1611-1616), founded to house predominately wealthy and noble women by Queen Margarida of Austria,

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<sup>200</sup> Curvelo (2010b), Frade (2011), Miklin-Kniefazc & Miklin (2013, May), Pandozy et al. (2014).

<sup>201</sup> Arakawa sees, in his chapter from 1989, in this particular lectern the influences of both the European circulation in Asia on one hand and on the other hand the impact of *nanban* lacquerware on the Ryūkyūan lacquers, cf. Arakawa (1989, pp.201-03). However, this influence might have rather been transferred to the island kingdom through its intensive contacts with maritime China and Japan, as well as via Japanese *nanban* lacquerware and Chinese lacquerware inspired by the latter.



wife of Felipe III (1584-1611), owes its exotic liturgical implements and reliquaries to the close relationship with her personal representative in Asia, Ferdinand Cron<sup>202</sup>. Possibly Cron acquired these items in Japan and Macau as gifts or on the Queen's behalf [Figs. 116-118]. This oratory originally was classified as *nanban* lacquer, although a Luso-Indian origin also has been considered<sup>203</sup>. The other example, in a private collection in Lisbon (2.6.1.), from its architectural structure and carved decoration must originally have looked very similar to the oratory in Madrid [Figs. 120, 121]. The doors' fronts show traces of the same kind of lacquer ornamentation. Most exceptional about both oratories are their structures and the absence of metal hinges fixing the doors to the sides. Instead the doors are crafted from a single piece of wood with wooden hinges that insert into the protruding top and bottom panels. This is very typical of Chinese carpentry, for example as present in Ming corner-round cabinets<sup>204</sup> or in a *nanban*-style retablo referred to later in this chapter. The presence of such doors on these oratories is astounding and raises the question of whether such construction was practiced on the Indian subcontinent in a region where originally very little furniture was used. Furthermore, I am not aware of contemporary Portuguese furniture with such doors. For example, the doors of the earlier-discussed larger *nanban*-decorated oratory of south Asian wooden structure are hinged by metal hinges (See Chapter 5.3.).

Clearly alluding to Chinese carpentry, the wooden hinges present other questions: Some scholars suggest that *nanban*-style lacquered oratories could have been produced in Cochin, where a colony of Macanese merchants existed in the second half of the 16<sup>th</sup> century<sup>205</sup> (See Chapter 1.1.3.). If this were the case, this community would have had to include craftsmen and artisans, who would have brought all their supplies. Considering the network and correspondence between India and Europe, notice of their presence should fast have reached Europe, leading to direct commissions of lacquered artifacts there. Yet there are no records, nor mentions of such production in Cochin, thus ruling it out as a possible origin. Macau seems a more likely place where such artifacts could have been commissioned and perhaps produced, but it probably did not yet house workshops specializing in the

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<sup>202</sup> Jordan Gschwend & Tudela (2001, p.34).

<sup>203</sup> Kawamura (2003, p.112; 2013, pp.42-44), Dias (2008b, p.106).

<sup>204</sup> See the description of the construction method applied to corner-round cabinets in Wang (1986, pp.30-31).

<sup>205</sup> John (1998), Dias (2002; 2013), Serrão (2014b).

manufacture of such Christian utensils as observed and recorded by several European travelers (See Chapter 1.2.3.). More likely it seems these items were ordered in the scope of new missions founded in southern China, in the vicinity of Macau. But the nearby city of Canton, for instance, already had a long history as a center of foreign trade, as well as of the production of both lacquered and luxury furniture (See Chapter 1.1.). Having in mind the above-mentioned oratory in Madrid (2.6.1.), that its wood-hinged doors were assembled with the Vase-of-Plenty motif erroneously turned upside down, questions occur in relation to the circumstances of its assemblage.

An alternative is that these objects were made according to models used in India. Were models from Goa copied by Chinese craftsmen? Or, if a Luso-Asian production of Christian art did artisans of multiple origins collaborate, in which Portuguese, Indian or Luso-Asian half-caste artisans execute the carving and Chinese craftsmen assembled the individual parts after lacquering? That would explain how such distinct esthetic conventions of craftsmanship and style merged into heterogeneous creations. It follows that all these creations thus reflect a multi-cultural artisanal production of Christian art. And such a scenario was, of course, to be found in the southern Chinese peninsula of Macau.

The dearth of historic records on commissioning or manufacture of these objects, or of detailed inventory descriptions that would provide more reliable identification, renders difficult to discern where, how and by whom they were purchased or created. To convert locals the missions needed religious imagery, utensils, and devotional articles. Imports from Europe of small and portable liturgical objects could not keep up as mission numbers and impregnations grew eastward into new territories. Consequently, production of these clearly religious items increasingly must have taken place in a location geographically closer to where they would be used.

Several oratories with south Asian carved structures, as well as the Jesuit lectern now in the Namban Bunkakan, present Chinese lacquer coatings in *nanban*-style. Some possibly traveled as a missionary's personal equipment. Others undoubtedly specially ordered for the missions in China and Japan, their mingled features reveal the far-flung trade route-based network that linked the missions, which enabled the circulation of liturgical objects, imagery, religious and scientific writings, and all sorts of other goods and supplies. Their mix of embellishments, borrowed from a thousand years' old connection to sacred places and

traditions, made Christian spirituality comprehensible and welcoming to converts. A similar adaptation characterizes the equipment in churches in the Goa region, and of course liturgical *nanban* lacquerware produced in Momoyama and Edo-era Japan. But also, such esthetics reflected the trade route-generated cosmopolitanism of its purchasers, the majority Jesuits. It becomes most apparent in such pieces that the intermingling of cultural, spiritual, artistic and craft forms of expression, in consequence to processes of accommodation and acculturation on various levels, totally ignored proscriptions determined in the scope of the Papal Council of Trent in Europe, which interdicted any depiction of profane motifs (See Chapter 1.1.2.).

Many such religious objects of exotic manufacture reached churches and convents on the Iberian Peninsula during the 17<sup>th</sup> century. Indian and Chinese textiles (frontals, chasuble, vestments), liturgical silverwork, Chinese porcelain, lacquered lecterns or oratories and reliquaries belonged or still belong to different ecclesiastical centers throughout Portugal and Spain, either commissioned by them or sent as presents from brotherhoods in Asia. In the Jesuit church of São Roque in Lisbon, for instance, survive several examples of Christian art created in Asia<sup>206</sup>. Also, the brotherhood of Nossa Senhora da Ajuda in Lisbon received in 1607 a gilded mass book lectern from China, among other presents, including Indian cloth and two small porcelain vessels for the service of mass<sup>207</sup>. This mention indicates nothing of the actual make-up of the lectern but is evidence that exotically decorated liturgical utensils were sent to Catholic institutions in Iberia at that time.

Indubitably a complex aggregation of individual circumstances in the 16<sup>th</sup> and 17<sup>th</sup> centuries, and the course of the progress of Catholic evangelization and commercial endeavor, offered ideal conditions for all kinds of comingling on cultural, human, religious, and last but not least, artistic levels. In particular this blending becomes even more apparent with respect to cult objects presenting decorations that ignore contemporary Papal restrictions (Council of Trent) and instead embraced a confluence of religious beliefs from both Catholic doctrine and indigenous culture. In this way, artifacts helped to underpin these localized spiritual beliefs, by offering a visual expression that suited both missionaries and converts.

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<sup>206</sup> Morna (2010), Silva (2000a).

<sup>207</sup> Silva (1993a, p.18).



Most of the artifacts studied in this work show surfaces that are filled only with a dense gold leaf decoration. However, as will be shown in the next chapter, the subgroup of *nanban*-style decorated religious objects may help to reveal the circumstances of how and where the lacquered ornaments may have been applied to the remnant pieces of profane character which share the same formal and technical characteristics.

## **5.5. *Nanban* Influences and Stylistic Evolution of Chinese Lacquer Decorations: Nagasaki, Macau and Canton**

As previously noted<sup>208</sup>, it appears that the decorative grammar of these undoubtedly religious objects was influenced by artifacts initially produced in response to requests by the Jesuits and southern Europeans on Japanese soil, for portable religious implements - the liturgical *nanban* lacquers. Decoration on *nanban* lacquer adapted contemporary Japanese *kōdaiji*-style motifs of autumn grasses, common flowers, trees, and animals, combining these elements with densely grouped decorative bands uncommon to Japanese objects (See Chapters 1.2.4. and 1.3.2.), while Chinese *nanban*-style lacquerware used traditional Chinese techniques and motifs, adapting these native features to the Jesuit taste and preference.

The similarities in the decorations of the Luso-Asian specimens out of the studied group are striking, as all share the same Chinese technical and stylistic characteristics – secular and liturgical items. The religious related pieces, however, do indeed fall out of line in manifesting stylistic influences of *nanban* lacquerware. The analysis performed reveals that the examined Asian lacquer decorations are technically and stylistically consistent with Chinese artistic traditions and imagery. Characteristic for the *nanban*-style embellished religious items are auspicious flora and fauna motifs, and their depiction in gold leaf or gold powder additionally textured by needle drawing, as well as the inlay of thin shell fragments lined in gold – all techniques and ornamentations already mentioned in the 16<sup>th</sup> century Chinese treatise *Xiushi lù* and Yang's early 17<sup>th</sup> century' comments. It therefore seems conceivable that such items mimic Japanese Christian *nanban* artifacts. Given that the missions in India, China and Japan were interlinked, and having in mind the back and forth correspondence and transfer of goods, it is quite conceivable that members of religious orders

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<sup>208</sup> Frade & Körber (2011), Körber et al. (2016), Körber (2017).

intentionally commissioned such decorations, and moreover that both purchasers and executing artisans influenced the final products and were responsible for the evolution of style and its technical implementation.

Where was the base where these transfers and exchanges could happen, if not in Macau? The most important center of Christianity in late 16<sup>th</sup> century Asia, it simultaneously was an entrepôts for diverse trading routes. With this huge network in mind, can we assume that from the end of the 16<sup>th</sup> century onward when *nanban* lacquerware was produced in greatest numbers, many *nanban* objects, passed through or arrived in Macau, to be employed in religious settings, used as personal equipment or shipped elsewhere from there? As yet no extant records prove this, but in the future documents could come to light that may offer more detailed information about how and where such objects were commissioned, manufactured or transported, for instance in the extensive correspondence left by the Jesuits. Regarding the artifacts under consideration, it seems that Macau's communication with Goa, Canton and Nagasaki is of special interest.

At the moment, however, the whole group of Luso-Asian lacquered pieces seems to manifest material evidence of tangled circumstances, especially those items with a clear reference to Christianization and link to the Jesuits. However, when observing technical and stylistic details on the Luso-Asian *nanban*-style lacquers of Chinese manufacture and the comparison with a wider group of related religious objects that share similar decorations, slight stylistic and technological differences become apparent among this subgroup of religious items, probably indicating an evolution of style and perhaps also distinct time frames these creations originate to.

In one group of objects, including the above-mentioned lectern ( 2.7.1.) and two oratories, as well as the additionally studied two trays (2.5.2., 2.5.3.) and oratory (2.6.1.), ornamentation consisting of purely Chinese motifs and borders alongside Christian symbols, all exclusively depicted in gold (mainly gold leaf or occasionally shell gold) combined with mother-of-pearl.

Objects of another group illustrate the mimicking of a second decorative feature typical of *nanban* works, in which gold *hiramakie* and silver *nashiji* chromatically differentiate leaves and flowers (See Chapter 1.3.2.). In this latter group, to which one of the examined oratories (2.6.2.) belongs, both the decorative scheme itself and its technical

implementation show a gradually increasing approximation of Japanese models, with foliage depicted in two different shades, gold leaf decor and red lacquer, abstaining from mother-of-pearl inlay completely.

Other specimens, such as the lectern housed in the Santa Casa cathedral in Loreto (2.7.4.), seem a further step in adapting *nanban* style. The decorative program differs from the above-mentioned, while the techniques, combining gold ornamentation with red lacquer and mother-of-pearl inlay, approximate even more those of *nanban* works. This lectern is to my knowledge the only example displaying the IHS monogram on a red lacquer ground, within a central circle surrounded by the typical aureole, amidst two birds, bamboo, grasses, and flowering shrubs. The branches and foliage are executed in a Chinese approximation of flat *makie* using shell gold, combined with mother-of-pearl inlay and red lacquer to depict the leaves or flowers. Additionally, a Chinese version of *nashiji* decoration – irregular gold flakes of larger dimension dispersed over a lacquer ground – appears on areas of orange-red. The eight-pointed stars that surround the Jesuit emblem, generally references to the Star of Bethlehem, are nestled among clouds – specific, typical Chinese elements that differ considerably from Japanese models [Figs. 201, 202].



Fig. 44 Lectern 2.7.4., detail of eight-pointed stars and Chinese clouds with hash-like signs



Fig. 45 Lectern 2.7.4., detail of Chinese *nashiji*-style decoration. © Kobayashi Koji

An outstanding retable (51 × 37 x 6 cm)<sup>209</sup>, formerly among the possessions of a Spanish castle and recently sold at auction, bears a structure and lacquer decoration most helpful to better recognize the evolution of this “*nanban*-style style” of mixed manufacture produced under Catholic patronage in China [Figs. 203, 204].



Fig. 46 *Nanban*-style Chinese lacquered retable. © AR-PAB



Fig. 47 *Nanban*-style Chinese lacquered retable open to display its *pieta*. © AR-PAB

Its shape derives from the *nanban* retable produced in Japan<sup>210</sup> to house the religious oil paintings typically modeled after European devotional scenes of the Virgin Mary with the Child or scenes of Christ’s life, produced on wood panels, canvas, brass or copper sheet in Giovanni Niccolò’s *Seminary of Painters* (See Chapter 1.2.4.). This retable still houses its painting, a *Pietà* on brass recorded in the auction catalogue as possibly inspired by a work of the Iberian artist Luis de Morales of Badajoz (1509-1586), who specialized in devotional

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<sup>209</sup> Kapandji Morhange Paris, *Collection d’un palais en Espagne et a divers – Iere partie – Vente de prestige*, March 10<sup>th</sup> 2017, Lot 3. I thank Walter Borgers from Köln (Germany) for informing me about this auction and important specimen.

(<http://www.kapandji-morhange.com/html/fiche.jsp?id=6837230&np=&lng=fr&npp=150&ordre=&aff=&r=>)

<sup>210</sup> The rectangular cases, usually of little depth, were destined to enclose and protect religious oil paintings behind two folding doors, a straight upper finish or pediments of varying shapes (scalloped, bow-shaped, triangular or derived from Japanese Shinto or Buddhist forms) and equipped with a metal suspension ring at the upper end, intended for hanging the retable, and other hardware of engraved gilded copper such as door hinges. Beside the oil painting in the interior, all surfaces are adorned with versatile *nanban* lacquer decorations. These suspendable retable were produced either to be used by the missionaries, and thus were portable, or functioned as private altars.



themes. The retable's doors, shaped to fit snugly beneath its ornately depressed arched pediment, share their configuration with a *nanban* retable now in the Kyūshū National Museum (Inv. no. H5)<sup>211</sup> [Fig. 205]. The latter is ornamented entirely with *nanban* decoration and displays the engraved gilt copper fittings and door hinges typical of Japanese pieces. But the doors on the example introduced here are wood-hinged; dowel-like terminals on the doors' rims insert into the protruding top and bottom panels, to form pivot mortises. As with the previously mentioned rectangular carved oratories that display such doors, this practice totally corresponds to Chinese furniture making. Further, the oil painted *Pietà* sits in a perfectly fitted wooden mortise-and-tenon frame of very dense blackened wood, with corner joints that again correspond to Chinese construction methods [Fig. 206, 207].



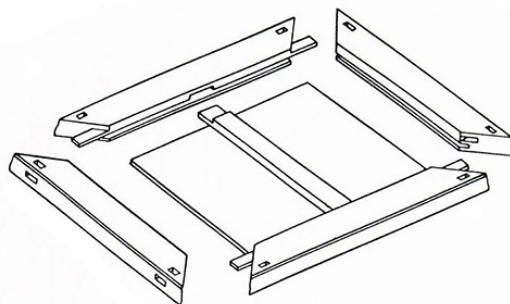
**Fig. 48 *Nanban* retable of identical shape at the Kyūshū National Museum in Fukuoka.**

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<sup>211</sup> The same example was published in Impey & Jörg (2005, pp.79, fig. 118), and sold by Sotheby's London (November 12<sup>th</sup> 1985, Lot 52).



**Fig. 49** The oil painting frame of the *Nanban*-style lacquered retable

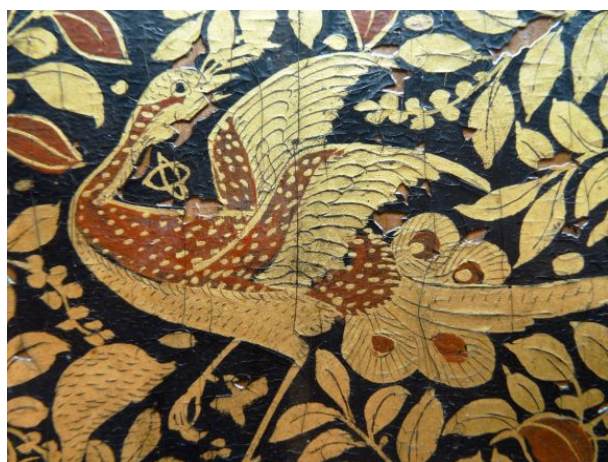


**Fig. 50** Chinese mitered, mortise-and-tenon frame structure. © Wang (1986, p.35)

In short, this example replicates a Japanese shape using construction methods and lacquer garnish clearly of Chinese origin<sup>212</sup>. The foliage decoration eschews mother-of-pearl inlay in favor of gold leaf and distinct shades of red lacquer (probably pigmented with red iron oxide). The doors feature within a double-line border (Tab. 7; A) an entirely Chinese scheme of densely filled flowering branches and fauna. On their exteriors long-tailed birds flit among trees sprouting from the bottom. In the interior, a central pair of peacocks, three flying magpies and a pair of long-tailed squirrel-like beasts on left pairs with a central pair of phoenixes, three magpies and a pair of hares on the right. The door interiors also display interesting yet undecipherable cross-shaped signs. These are the first I have seen on lacquered Luso-Asian items [Figs. 208, 209]. It may relate to Christianity and possible hidden codes that emerged in East Asia. In the center of the pediment, visible when the doors are open, is a dove – symbol of the Holy Ghost – surrounded by six-pointed stars. Elements of the carved pediment are gilded, while also two decorative bands are placed there, two overlapping wavy lines, and on the underside of the pediments top a wave border with spirals (Tab. 7; C). Altogether, this retable is key as a clear manifestation of the interaction of two newly evolved artistic fusion styles – the Christian Chinese and the Christian Japanese. Both emerged in the end of the 16<sup>th</sup> and beginning 17<sup>th</sup> century within the realm of Christianization in East Asia, and somewhat merged from the reciprocity inherent to individual processes of religious inculturation and syncretism.

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<sup>212</sup> The construction method of this retable presents Chinese characteristics and differs from the one applied to *nanban* retable, which is illustrated in Abreu (2008, p.57).



**Fig. 51** *Nanban*-style Chinese lacquered retable,  
detail with unidentifiable signs



**Fig. 52** *Nanban*-style Chinese lacquered retable,  
detail with unidentifiable signs

As proposed earlier, indigenous material culture and religious imagery have been not only tolerated, but also even taken advantage of, by the missionaries. This policy of accommodation, developed by the Jesuits, facilitated the conversion of unbelievers. In this way the blending of the two fusion-styles under the umbrella of Christianization led to a still further evolution and new decorative blending of Chinese and Japanese art, beliefs and artistic traditions. As will be shown later in this analysis, alongside other developments this process appears to culminate in a unique style of Chinese export lacquerware produced in the 18<sup>th</sup> and 19<sup>th</sup> centuries.

It seems more than obvious that European religious clients, and especially the Jesuits who were the main purchasers of *nanban* lacquerware, were responsible for these decorations on Chinese Christian artifacts, which they most probably commissioned intentionally. But further questions arise in connection with the actual craftsmen executing these designs. Were multi-cultural artisans involved and thus also responsible for the confluence of artistic styles and techniques, and did the already circulating Christian Japanese *nanban* lacquered artifacts serve as models? Is the degree of intermingling of Macau's population, and the presence of various Japanese refugees and students, reflected by the increasing perfection in adapting Japanese designs and techniques?

Again, a closer look into the objects may help to better understand what may have happened. Based on the diverse group of mass book lecterns dating to the late 16<sup>th</sup> and 17<sup>th</sup> centuries various stages of evolution become apparent. Contrary to Jesuit pieces with *nanban*-style decorations, the lectern from a private collection in Lisbon (2.7.6.) with the



emblem of the order of the Augustinians<sup>213</sup> is ornamented exclusively with gold leaf and shell gold to produce a contrasting effect. Excepting the European origin of the insignia, its decorative elements are without exception of a typically Chinese character.

Yet another cluster of lacquered liturgical furniture combines mother-of-pearl inlay with ornamentation of solely shell gold. Only a few specimens extant in Portuguese private and museum collections likely originate in subsequent periods, due to their approximation of the Japanese style and technique. This is additionally indicated by changes in the shape that the IHS insignia of the Society of Jesus underwent in the course of the 16<sup>th</sup> and 17<sup>th</sup> centuries, observable on Jesuit architecture, print media and liturgical objects<sup>214</sup> – either a simpler version with straight-shaped letters and enclosed cross, or with curved or segmented letters and cross, within a or oval circular aureole. But, the different ways of lettering seem to be an unreliable source for dating, given that decorations were copied from print sources or models, and that in the transition from the 16<sup>th</sup> to the 17<sup>th</sup> century both variants seem to have been in use [Fig. 210].



**Fig. 53 IHS monogram on the extant facade of the Mater Dei church, Macau. © Clement Onn**

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<sup>213</sup> The Order of St. Augustine did missionary activities in China between 1577 and 1712, including Macau.

<sup>214</sup> While examining a large group of about 40 *nanban* lacquered lecterns, Kobayashi observed the transformation of the decorative motifs and execution of decoration techniques present in the lacquer coating and on the metal fittings, the shape of the IHS insignia, and the form of the polylobed arches in the lectern's lower section cf. Kobayashi (2016).



However, examples with curved and segmented letters of the monogram framed by beading, and within an oval aureole, appear more baroque in style and must date to a later period. A remarkable example of this group is another lectern that perhaps belonged to the Jesuit College (Colégio-Universidade do Espírito Santo) in Évora (2.7.5.). It presents numerous *nanban* elements, such as the *karakusa* scroll along the lateral edges and the *karahana* flower enclosed in the background pattern (*hanabishi*) and used in the outer frieze, a motif of Chinese origin frequently found in Japanese art and occasionally present on Japanese *nanban* lacquerware [Figs. 23, 24]. Additionally, the oval medallions, the style and lettering of the Jesuit insignia, the background pattern and the decoration on the rear side, all indicate a later date for this example. This is a salient specimen. On one hand numerous, *nanban*-specific decorative elements are present, but on the other, the technical implementation does not manifest Japanese techniques or materials. It is perhaps the product of Japanese hands or guidance, or its lacquering involved Chinese craftsmen already well trained in mimicking the *nanban* models [Fig. 211].



**Fig. 54** *Karakusa* scroll on the lateral edges of the lectern 2.7.5.

The three examples – the carved lectern of tropical hardwood in Osaka, the lectern in Loreto and the example from Évora – all Jesuit commissions, seem to represent different stages in the production of religious implements in southern China, in which some items were brought from India, and some might have been copied and produced on site, all to be lacquered according to their ecclesiastical function, and decorated with motifs of both Chinese and Christian origin in *nanban*-style [Fig. 212].



**Fig. 55 The lecterns from Osaka (2.7.1.), Loreto (2.7.4.), and Évora (2.7.5.) ordered from left to right, according to proposed chronology**

Generally, these technical and stylistic differences seem to hint at variant chronological origins, as for example the period before the first Japanese edicts against Christians; during and after the expulsion of missionaries and merchants and the closure of the country to Catholic Europeans, after which numerous refugees of diverse origins fled to Macau and access to Japanese *nanban* lacquerware ceased.

The Japanese lacquer workers, *makie-ya*, responsible for the creation of the “exotic” lustrous and appealing lacquerware to order for Catholic Europeans definitely included at least a few converts to the Christian faith. Several Dutch documents (letters and diaries) mention *makie-ya* with non-Japanese names, for example, a craftsman referred to as “Luisdonno” (Mr. Luis), who clearly received a Christian Iberian name after baptism. At least a few like him might have been among the converts, clergymen and missionaries who saved their lives by fleeing to Macau<sup>215</sup>. While until now there has not come to my attention any documentary evidence of lacquer production in Macau or of collaboration between Japanese and Chinese lacquer craftsmen, the China and Japan missions there were deeply entwined. Discerning an increasing presence of Japanese *nanban* elements and techniques in the decorative schemes present on the artifacts, it seems that we are standing before objects whose gradual adaptation echoed the progress and evolution of Jesuit’ and Christian activities in East Asia in general, and in relation to the Japan mission, its failure as well.

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<sup>215</sup> Impey & Jörg (2005, p.243), Nagashima (2008, pp.36-37).

While Chinese commodities from the everyday to the sought after, including several types of furniture, were shipped from the region's principal marketplace of nearby Canton, early 17<sup>th</sup> century descriptions profile Macau as primarily a trade center (See Chapter 1.2.3.). As a hub within a vast strategic commercial network, its multi-cultural social and economic interactions created the ideal stage for the fusion of artistic styles that led to these unique creations. Though no documentary evidence remains, Macau's Jesuit community demand for liturgical furniture meant that *nanban* lacquerware undoubtedly passed through, conceivably to impact the art commissioned and produced at Niccolò's *Seminary of Painters* or other institution in the same way that religious lacquerware in this style inspired the creation of parallel designs in southern China. Also, to be considered are the similar supports for religious paintings, retable and other devotional objects likely ordered from local or nearby artisans and craftsmen connected to the Luso-Asian trading network.

Carvalho suggests that Jesuits in Macau and Japan imported numerous art objects and supplies for their missionary work, and also invested in their local production as in the case of the foundation of the Jesuit painting seminary. This, he connotes, simultaneously turned them into exporters of Christian artistic goods, reflected by the presence of the Jesuit's insignia in numerous lacquered objects<sup>216</sup>.

But where had the lacquer been applied? Canton, which lies deeper in the mouth of the Pearl River, shares with the Yangtze Valley cities of Yangzhou and Suzhou a long history as a center of furniture making. During the 16<sup>th</sup> century, when a domestic luxury market developed in Ming China, it was an important source of luxury furniture. This included production of lacquered pieces<sup>217</sup>. Artistic production in Canton, including that of lacquerware and lacquered furniture, was also observed by the Portuguese Dominican friar Gaspar da Cruz in 1556 (See Chapter 1.2.3.).

From the mid-18<sup>th</sup> century into the latter 19<sup>th</sup>, Canton was the only center that the Qing government allowed commercial relations with foreigners. Its great variety of merchandize, sought after by Europeans and Americans as the *China Trade*, included lacquered screens and furniture. In contrast to Luso-Asian pieces, and beside those

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<sup>216</sup> Carvalho (2013, p.41).

<sup>217</sup> Clunas (1988, pp.66, 68; 1991), Zeng (1997, p.155).

ornamented with colored lacquer sap or oil paint, these lacquerwares are chiefly characterized by decoration of gold leaf and powder, alloys with silver and possibly other metals ornamenting black or occasionally red lacquer backgrounds<sup>218</sup>. A stylistic and technical mirroring of Japanese *hiramakie*, outwardly this seems to have responded to the European gusto for Japanese lacquerware. Indeed, Auffret et al suggests that the export lacquerware manufactured in Canton in the 18<sup>th</sup> and 19<sup>th</sup> centuries demonstrates the ability of Chinese craftsmen to mimic the Japanese sprinkled gold decorations in response to the shortage of *makie* lacquers resulting from the partial closure of Japan from 1639 onward<sup>219</sup>. But it also points to the fact that Chinese artisans were already trained in the imitation of Japanese techniques.

As early as the Muromachi period (1333-1573), the luxury items Japan presented to the Ming court of the 16<sup>th</sup> and 17<sup>th</sup> century included a considerable amount of fine gold and silver *makie* ware<sup>220</sup>. Middle Kingdom emperors and literati alike prized and collected *yang-qi* (foreign or Japanese lacquer), for whom it played the same significant role in the crafting of self identity as it did for collecting aristocrats and wealthy Europeans of that day<sup>221</sup>. Arakawa, for example, stated that the *makie* technique has been transmitted to a Chinese craftsman who has been sent to Japan to learn it already during the Xuande era (1426-1436)<sup>222</sup>. Also d’Incarville mentions the term *yang-qi* in his 1760’ descriptions<sup>223</sup>.

Several Qing dynasty accounts of import of Japanese *makie* lacquer indicate the continuation of this appreciation, as did the Emperor Yongzheng’s (1722-1735) order to the Imperial workshop to imitate a Japanese *makie* box from his collection<sup>224</sup>. The taste led 16<sup>th</sup> century Chinese artisans to devise a slightly varying version of the technique – although

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<sup>218</sup> For historical and technical details on the export lacquerware produced in Canton, cf. Crossman (1972, pp.168-187); Miklin-Kniefazc (1999), Breidenstein (2000), Curvelo et al. (2004), Nagashima (2008, p.32), Petisca et al. (2010; 2011; 2016, forthcoming), Hidaka (2011), Auffret et al. (2014), Matsen et al. (2017), Mogensen et al. (2017).

<sup>219</sup> Petisca (2010).

<sup>220</sup> Nagashima (2008, p.32), Kleutghen (2017, p.189).

<sup>221</sup> Clunas (1996a, pp.21-24).

<sup>222</sup> Arakawa (1996, p.201).

<sup>223</sup> D’Incarville (1904, p.151).

<sup>224</sup> Clunas (1987, p.82), Nagashima (2008, p.32), Petisca (2010, p.84), Chang & Schilling (2016, p.42).

without the same degree of perfection<sup>225</sup>. In it, powdered gold leaf (*nijin*) or silver alloys are not sprinkled but applied to the lacquered surface with a piece of silk or cotton drenched with metal dust, removing the excess after polymerization. Described in the 16<sup>th</sup> century *Xiushi lù*, the Chinese method was based on shell gold, rather than the very fine Japanese *keshifun* powder. However it confirms that gold powder in form of shell gold had been used before, as well as gold and silver dust (although we do not know how this was produced), a fact testified by earlier pieces of domestic Chinese lacquerware with a gold decor applied in varying shades, among which is a tray produced in Canton in 1595<sup>226</sup> [Fig. 213].



**Fig. 56 Signed and dated tray with carved *guri* lacquer and ornamentation in gold leaf and powder on black ground. Canton, 1595. © Kopplin (1998, p.83)**

As early as 1625, Yang demonstrated the close link between the Japanese paragons and their Chinese adaptations, commenting in Part II, Entry 137, on motifs in gold powder with golden outlines as a specialty present on some Japanese works. D’Incarville’s description of the use of shell gold nevertheless coincides with the Emperor Yongzheng’s favor of Japanese lacquerware with *makie* and *nashiji* decorations, which in this particular case must have been of high quality and not comparable to *nanban* lacquerware.

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<sup>225</sup> Clunas (1996, p.24), Hidaka (2011).

<sup>226</sup> For example two Wan-li period (1573-1619) objects in the Lackmuseum Münster, Germany, display decorations using gold powder to produce different shades within the same area, an effect which is not achievable by applying gold leaf or painting with a mixture of gold and nearly transparent lacquer, a tray (1595) and a paper box (around 1600), cf. Kopplin (1998, pp.82-85).

This predilection of Chinese emperors (Kangxi, Yongzheng, and Qianlong) and literati, together with the increasing gusto for elaborate gold and silver powder decorated lacquerware on the part of the European presence in the empire's south in the 16<sup>th</sup> and 17<sup>th</sup> centuries, must have been the spur for the production and trade of export wares developed in Canton in the 18<sup>th</sup> and 19<sup>th</sup> centuries. Though executed in Chinese *makie*-style technique on black, and occasionally red lacquer, in style these pieces strongly incline toward Japanese works with gold and silver decoration – access to authentic examples being restricted, to Europeans other than the Dutch, from 1639 onward and thus likely very expensive to purchase.

Finally, the Chinese *makie*-style likely owed much to the direct interaction between Chinese and Japanese lacquer artists. Chinese merchants were still allowed to trade in Nagasaki, where they resided in the Chinese quarter<sup>227</sup>. Also, continuous use of several Chinese temples by Fujianese merchants and immigrants in that port-city, such as the Zen Buddhist Sufukuji temple constructed in 1647, testifies to the century-long Chinese presence [Fig. 214]. Though the shortage of *makie*-decorated lacquer probably did not impact the merchants personally, the dearth of *nanban* lacquered liturgical implements resulting from Japan's Christianity ban likely led European missionaries and refugees in or nearby Macau and Canton to order similar pieces from local artisans. The taste thus could have progressed to craftsmen in the southern province of Guangdong, where, as suggested by various scholars, the above-mentioned documentary evidence, and extant 16<sup>th</sup> century Chinese lacquerware bearing their own version of *hiramakie* ornament, appreciation of Japanese esthetic techniques using sprinkled metal powders was nothing new.

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<sup>227</sup> Nagasaki City Board of Education (2012).





**Fig. 57 Sufukuji Temple Gate, 1637, Nagasaki**

The same influence can be observed in the European style furniture developed in Canton exclusively for European and American clients of the so-called *China Trade*. After the closing of Japan in 1639 left a strictly regulated access solely to the Dutch VOC and Chinese merchants, the Cantonese lacquer workshops responded demand for the contrast-rich gold and silver decorated lacquer objects<sup>228</sup>.

In this evolution of lacquer production destined for foreign clients and adapted to their taste and orders, the works under consideration seem to occupy a vanguard role. They were doubtlessly among the first Chinese lacquered objects to reach Europe (ordered by Europeans), and obviously the first whose manufacturing process had been customized using simplified procedures in order to enable rapid production for European clients. The streamlined manufacturing processes appear as characteristic conditions showing delimitation, and a lack of adherence of foundation layers or between these and the lacquer layers. Considering these objects apart from shared materials and techniques, differences in quality become evident when compared individually – either lacquer- or oil-protein based foundation layers, the number of distinct lacquer layers, the choice of a more precious pigment, or combinations of different decoration techniques and their execution. All these data offer information, or raise questions, on the nature of the purchasers, purpose and use of the pieces and timeframes in which individual objects might have been produced.

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<sup>228</sup> Petisca (2010).

A circa 1720's black and red lacquered European-style chair, acquired by the Fundação da Casa de Bragança at Christie's London in 2006 and now housed in the Ducal Palace of Vila Viçosa (nº inv. PDVV 6889), depicts within a central field of its backrest a landscape with architecture along a shoreline<sup>229</sup>. Among them stands a European-style building, its rooftop cross identifying it as a church, clearly indicates the chair's destination for a Christian consumer. The chair is decorated all over with gold and silver, emulating Japanese *makie* in a way that already shows the same characteristics of the lacquerware produced in Canton for export. An identical example exists in the Danish Nationalhistoriske Museum in the Frederiksborg Palace<sup>230</sup> and a similar chair, one of a set previously in the Castle of Warrick and now housed in the V&A in London (FE.116&A-1978), is thought to have been produced in Canton around 1730 [Figs. 215, 216].

Fig. 58 Chinese lacquered European chair in Vila Viçosa. © PDVV



Fig. 59 Chinese lacquered European chair. ©  
V&A

<sup>229</sup> Many thanks for providing the information and image of this chair to Maria de Jesus Monge (Museu-Biblioteca da Casa de Bragança, Vila Viçosa).

<sup>230</sup> Of an English style and of Cantonese manufacture, these chairs were part of Danish imports shipped to Denmark in 1735 or 1737; cf. Carvalho (2001d, p.48).



To me it seems most conceivable that the nuclear group of lacquered Luso-Asian pieces under study, including shields, furniture and liturgical implements, received their coatings in and nearby Canton, or along the southern shoreline. Macanese merchants had access to the two annual fairs held there and shipped many lacquered goods from there to Macau. Apart from numerous Chinese lacquered merchandize recorded in contemporary ship cargo inventories, or observed by Europeans, the Luso-Asian objects were doubtless the first to be embellished with this “very fair varnish” exclusively on behalf of southern European and Catholic clients. In my opinion, and based on historical conjuncture, as well as stylistic and technical comparison, these lacquered items can be considered as precursor, if not prerequisite, to Cantonese export lacquerware.

The different styles observed on liturgical utensils, and in particular on the missal stands, show a gradual approximation to a style with a notable convergence of southern Chinese and Japanese technical and visual traditions that became particularly characteristic for Canton export lacquerware<sup>231</sup>. And, although no documentary evidence yet offers proof, perhaps in following periods, from the later 17<sup>th</sup> century onward, lacquer workshops might have been set up in the scope of the Jesuit activities in Macau as well, allowing the participation of Chinese and Japanese artisans and thus the merging of their lacquer practices adapted to the European taste.

## **5.6. Lacquer of Mixed Origins: Formulations and Decorations**

The analysis performed over the course of this study made readily apparent that the different aspects of lacquer decoration exhibited by the coatings of a number of items embodied the complex realities of European presence in Asia. Within the nuclear group, the formulations of some specimens combine elements of two different lacquer traditions. The Viennese shield was already noted as uniting Japanese and Chinese decoration on its two sides. Two unusual and fascinating objects that display Chinese lacquer ornamentation, the Amsterdam shield (2.1.5.) and an earlier mentioned writing box from a private collection in Lisbon (2.3.1.), both also bear base coverings of a Southeast Asian lacquer technique, thus illustrating the feasibility that decoration might have been applied in times and places

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<sup>231</sup> Cf. Hidaka (2011b), Petisca et al. (2011).

different from place of origin. The shield seems to have been coated with a plain black lacquer, identifiable by either stratigraphy or material composition to traditions of the ancient Burmese and Siamese kingdoms from along the Gulf of Bengal's coastline, perhaps Siam or Pegu. But ancient Burmese and Siamese lacquerware never used decorative methods in which the gold leaf is affixed to a pigmented lacquer layer (See Chapter 1.3.2.). Clearly Chinese in execution, such composition, technique and style of ornamentation indicate application later in time in eastern Asia. In short, procedure and materials, as well as the make-up of the decoration, clearly evidence that the shield's base coating and its decoration originate in different traditions. The writing box, similar to the rear side of the Viennese shield (2.1.2.), has been lacquered twice, but in this case entirely. As mentioned earlier in Chapter 1.3.2., these carved and lacquered writing boxes (2.3.) exclusively present Southeast Asian thitsi lacquer coatings and gold leaf decoration in a style typical for the ancient kingdoms of today's Myanmar and Thailand. Examination revealed still visible beneath the rich Chinese decoration on its exterior black lacquer and interior red lacquer grounds, a complete extant Southeast Asian style lacquer covering and its negative technique gold leaf decoration (Burmese *shwei zawa*, Thai *lai rod nam*) [Figs. 25-29], conforming with every other example with Southeast Asian lacquer decoration previously studied at the LJF-DGPC in Lisbon. While the Viennese shield hints at a special commission and intentional embellishment with different exotic techniques, these two artifacts were probably travelling with their owners within the Portuguese territories in Asia.

## 5.7. Interregional and Global Influences in the Decorative Arts

Lacquer arts developed in the diverse regions along the Asian coastline had been influencing each other long before the Portuguese presence, those of the Chinese likely the most noticeable and wide spread, especially among the Ming tribute partners. Since the Han dynasty (207 BC - 220 AD) the growing Silk Road network of terrestrial and maritime routes had connected East Asia (China, Korea and Japan) with Europe and many cultures in between. Besides silk, much other merchandise was traded, so that natural interchange occurred on many levels including religious and of course, artistic<sup>232</sup>. Territorial conflict and

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<sup>232</sup> Here are for example mentioned the Christian paintings of the Dunhuang Caves, for more on this see Lopes (2011, p.57).

invasion such as the expansion of the Mongol Empire, which extended as far as North Africa, and on a smaller level, the exchange of diplomatic or tributary gifts among different Asian rulers, also helped spread forms of Chinese art and culture.

These tributaries maintained their trade and exchange, to influence local decorative arts during the period of Portuguese domination between 1550 and 1650 and beyond. As already observed, appreciation for the lacquerware of “the other” was high even in times of totally interrupted communication<sup>233</sup>. Accumulated influences, in particular Chinese and Japanese, are manifest in the culture and extant arts and architecture from the Ryūkyū Kingdom, the major intermediary among far-flung territories until its displacement by the Portuguese.

In turn, religious and secular *nanban* lacquerware, inarguably circulating among missions and markets beyond Japan, possibly influenced lacquer crafts in China, and those of the Ryūkyū Kingdom. The islanders’ strong connection with China’s southern provinces of Fujian and Guangdong and with Japan might further have influenced the autochthonous style of their lacquer production. There, in the late 17<sup>th</sup> and 18<sup>th</sup> centuries, decoration combining shell inlay with gold leaf became popular, although these pieces incorporate an additional technique of a black lacquer background with sprinkled crushed shell fragments (*maki gai*<sup>234</sup>), and show a higher degree of perfection than the items under consideration. Exemplary are small quadratic or rectangular lidded boxes. One specimen now in the Urasoe Art Museum<sup>235</sup>, in Okinawa, inlaid with mother-of-pearl and bearing a gold leaf motif of grape vines and squirrels, is thought to date to the 16<sup>th</sup> or 17<sup>th</sup> century<sup>236</sup> [Figs. 18, 19.]. Three others identically decorated formerly belonged to Heinrich von Siebold (1852-1908), second son of the renowned Bavarian Japan traveler Philipp Franz von Siebold (1796-1866), who

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<sup>233</sup> Even in the periods of maritime bans and interruptions of official relations, goods continued to be exchanged through Chinese private merchants, smugglers and Japanese pirates along the Southeastern port of Ningpo, cf. Chang (1969), Kleutghen (2017, pp.189-90).

<sup>234</sup> Arakawa (1989, p.185).

<sup>235</sup> Many thanks to Miyasato Masako, director of the Urasoe Art Museum, and curator Kinjo Satoko for enabling a close examination of several objects, among them this so-called “Chinese box”.

<sup>236</sup> Tokugawa & Maeda (1995, p.31).

donated much of his collection to the predecessor of today's Weltmuseum in Vienna, Austria<sup>237</sup> [Figs. 217-219].



**Fig. 60 Box (Inv. no. VO\_34758). © Weltmuseum Wien**

**Fig. 61 Writing box (Inv. no. VO\_34759). © Weltmuseum Wien**

**Fig. 62 Tiered box (Inv. no. VO\_34762). © Weltmuseum Wien**

Objects that present manifold influences and possibly multiple origins are nothing new. Many, exemplified by those specific to this study, can no longer be easily labeled or assigned fixed categories. Whether forms, typologies, techniques or decorations of hybrid productions, they typify all the developments of artifacts originating within the age of European expansion in general. This extends beyond those specific to Asia. The spread into more distant regions, as for example the Spanish stronghold of Manila in the Philippines (1570), and the exchange between trading posts in Asia and those of Central and South America (e.g. New Spain and Brazil) via the transcontinental routes, led to further comingling and adaptation of techniques and styles, creating other “new” art forms. Exemplary are Mexican mother-of-pearl works (*enconchados*) that manifest influences of Japanese *nanban* lacquer that arrived in New Spain via Manila, varnished furniture imitating Chinese and Japanese lacquerware, and painted portable screens inspired by Japanese *byōbu*<sup>238</sup>. Further, the presence in Manila of overseas Chinese led to production of textiles and ivory carvings that can easily be confused with mainland Chinese works<sup>239</sup>. Recent

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<sup>237</sup> My acknowledgements to Conservator Christiane Jordan (Weltmuseum Vienna) for providing the information and photographs of the examples.

<sup>238</sup> Curvelo (2007a, pp.478-493, Figs.37-46), Moreno (2013), Ruiz (2008; 2015; 2017).

<sup>239</sup> Bailey (2009, p.229), Curvelo & Bastos (2001, pp.428-429), Ferreira (2012, pp.118-119), Chong (2016b).

investigations coupled with technical analyses have led to additional findings, as in the case of three liturgical silver objects of the Treasure of Vidigueira housed in the MNAA in Lisbon (referred to earlier in Chapter 5.2.). Thus, some artifacts that had been confidently ascribed to a certain origin, type, technique or style should now be re-evaluated.

In this, these objects bear evidence to a natural pattern in which circulation of people, missionaries and artisans produced artistic comingling and confluence on an interregional, and indeed even a global level. In Europe, novel forms and exotic embellishments observed in artifacts of distant origins naturally reverberated with local craftsmen, who merged their features with familiar arts and forms of expression, leading over centuries to entirely new creations<sup>240</sup>. In Europe, Japanese and Chinese lacquerware gave rise to a growing aristocratic predilection for such lavishly decorated surfaces, a fashion that culminated in the 18<sup>th</sup> century. The costly and time-consuming voyages to Canton or Nagasaki (VOC) to sate the demand for certain objects and exotic adornments led to commissions to European craftsman and court-artisans to attempt analogs. Dubbed “*chinoiserie*” or “japanning”, these employed various resins in spirit and oil varnishes to mimic Asian lacquer’s unique glossy surfaces. Many pattern books and treatises with recipes and certain styles of decoration were created during the 17<sup>th</sup> and 18<sup>th</sup> centuries, often by Jesuits and other missionaries (See Chapter 1.3.1.).

In Portugal for example these echoes additionally appear in multiple other decorative arts, such as jewelry, embroideries, or in the case of Chinese inspirations in *azulejo* production of the 17<sup>th</sup> and 18<sup>th</sup> centuries<sup>241</sup>. In a parallel phenomenon, Indian carvings and Chinese textiles produced in territories under Dutch or British rule followed the taste of their purchasers, later to be adapted at home. The three first decades of the 18<sup>th</sup> century, especially important for Jesuit evangelization in China, included artistic activities and exchanges. Frenchman Charles Belleville (1656-1739), among those who worked for the emperor in Beijing, later painted the sacristy ceiling of the Jesuit seminary Belém de Cachoeira in Brasil

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<sup>240</sup> As for example illustrated in the catalogue of the exhibition “Asia in Amsterdam - The culture of luxury in the Golden Age” at the Rijksmuseum in Amsterdam, The Netherlands, and at the Peabody Essex Museum in Salem, Massachusetts, USA, cf. Corrigan et al. (2016).

<sup>241</sup> For a very rich illustration on this see the following contributions to the catalogue “The Exotic is never at home?”, Curvelo (2013a) and Ferreira (2013).

in a Chinese style and richly decorated with peonies, chrysanthemums and lotus flowers<sup>242</sup>, featuring a decorative band of consecutive spirals surrounding a central medallion, very close to the Type B (Table 7) present on the Luso-Asian specimens.

Finally, the escape of European Christians, Chinese and Japanese converts from the Japanese Islands to Macau and Spanish-governed Manila led to the merging of Chinese and Japanese technical and stylistic artistic conventions into new art forms – as for instance, a late 17<sup>th</sup> or early 18<sup>th</sup> century’ paper screen, one of a pair now in the MNAA in Lisbon (Inv. no. 1568). Its front, with scenes of the 1640’s battles for the restoration of the Portuguese autonomy from Spain, testifies to its production on the order of Portuguese aristocrats. Yet the screen’s materials and techniques include Chinese and Japanese, and thus testify to the continuity of working Japanese artisans outside the Japanese archipelago<sup>243</sup>. Other examples equally attest in their construction or decoration to the co-existence of Chinese and Japanese conventions<sup>244</sup>.

## 5.8. Classifying the Unclassifiable

The objects of this study embody much of the stimulating impact of the European presence in the late 16<sup>th</sup> and early 17<sup>th</sup> centuries, during which Portuguese and other European expansions into Asia led – culturally, philosophically, economically, scientifically, and artistically – to manifold processes of confluence, acculturation, assimilation and religious interculturalisation. In particular, the Christianity propagated by the Jesuits cultivated a policy of tolerance toward local customs, habits and beliefs, enabling their integration into Christian rituals and festivities, and thus transforming them<sup>245</sup>. The decorative arts, so intimately intertwined with religion, comprise an important arena of creativity profoundly transformed by this process both in motifs and techniques, leading to new forms of cultural osmosis. For instance, in regions along the Indian coastline, hybrid artifacts emerged that manifest convergent characteristics of both cultural spheres and their religious arts (Christian and Hindu, or Christian and Muslim). This interplay, which led to artistic phenomena

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<sup>242</sup> For an image of this decoration see Bailey (2009, pp.231, Fig.15).

<sup>243</sup> Curvelo (2007a, Part III, Chapter 1, Fig. 24), Figueira et al. (2011).

<sup>244</sup> Curvelo (2007a, pp.393-400; 2015b), Morais et al. (2016).

<sup>245</sup> Pina (2001), Bailey (2007; 2009), Curvelo (2007a), Lopes (2011), Carvalho (2013; 2016), Onn (2016).

characterized by hybridity, ultimately, evolved into a characteristic heterogeneity not always easy to classify at first sight.

This process is demonstrated by the group of Luso-Asian items under investigation, which are rather characterized by their heterogeneity than by hybridism, excepting the East Asian lacquer cups (2.9.1. and 2.9.2.). Those with Chinese lacquer coatings reflect process of convergence by manifold cultural influences that had already occurred over the progressive expansion of Portuguese and Luso-Asian merchants and European missionaries across Asia. Liturgical and other religious artifacts adorned with Chinese *nanban*-style lacquer decorations reflect, on the one hand, the slowly increasing success of the Christian mission in China and on the other, the consequences of its failure in Japan.

Unlike mass productions precisely designed for export to the West's general, largely anonymous clientele, the random interplay of conditions, influences and origins of these Luso-Asian items thwarts the natural urge to assign fixed categories to their object groups and subgroups. In some cases, combining structures alluding to south Asian manufacture with Hindustan ornamentation; European and Catholic influences in decoration, shape or typology; and Chinese lacquer coatings with an ornamentation that conveys promising messages, they rather are to be understood as products of serendipitous encounter among cultures and the confluence of artistic expressions. As with the early commissions of personalized porcelain pieces, these are the fruits of occasional, individual and small group orders (for example the two identically decorated parade shields in London and Stockholm, 2.1.4.). Their uniqueness in design and decoration stems from each individual item meeting the needs for private use of someone living and working in or traveling throughout *Portuguese India* or being connected to the Catholic missions. These were occasionally to be brought back to Europe as rare and exotic gifts to rulers and religious institutions<sup>246</sup> – or, as personal equipment or souvenirs of returning officials or travelers. Yet as in the example of the hanging retable that appeared recently on the art market (5.5.), these lacquer decorations are not limited to south Asian wooden structures. Reflecting the course of time and expansion

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<sup>246</sup> As in case of the specimens that entered Habsburg Renaissance collections as exotic or diplomatic gifts, it might be the case that the manufacture or lacquering of specific objects has been ordered to be sent to Europe, but these were rather special and individual orders and not yet resulting from an organized export production.

in the Christian mission in East Asia, the same type of decoration appears on a replica of typical Japanese Christian typology presumably produced in China.

How shall we label or name these objects? In which drawers or boxes shall we put them, if they seem not to fit in any of those already established? Several other scholars have broached this problem in studying the typology of objects sharing certain characteristics within the fusions that occurred in the applied arts that emerged from the Portuguese presence in Asia. In case of the lacquered religious objects, the term “Jesuit lacquers” has for example been applied by Pinto<sup>247</sup>. Yet although the Jesuits in many cases were responsible for these commissions, testified by the presence of their insignia on numerous objects, they were not the only ones. “Liturgical” or “Catholic lacquers” might be applicable, but only to a reduced number of objects, such as the many Luso-Asian oratories, retable and lecterns. Moreover, many objects of secular use share identical characteristics in terms of lacquer adornment. It seems highly conceivable to me that these secular objects were created in the same context, parallel to the liturgical and possibly commissioned by religious, merchants, nobles or other persons circulating, acting or residing in Macau and southern China. Rather than the term “export lacquer”, “lacquerware for Catholic Europeans” or “foreign commissions” may apply. Everything indicates that Luso-Asian examples like these discussed here were not among the various mentions of lacquered and gilded furniture from China, at least not as a commodity, maybe as private possession, commission or gift.

More likely, such artifacts with southern Asian carving work were brought or ordered from Goa, especially the liturgical utensils. Never planned for export to Europe, but for some exceptions already named, these were destined for use by overseas-Portuguese (officials, settlers, and merchants) and their partners – missionaries, active in the new territories that stretched from the African Coast to Japan. They are rather to be seen as foreign or Catholic European purchases. This also implies that their mixed decorations reflect adaption to foreign tastes or commission by Europeans – single specimens finished with Asian lacquer likely resulting from individual orders. These particular pieces of easy transportable furniture and parade shields constitute just another exemplary phenomenon within the different syncretic

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<sup>247</sup> Cf. Canavarro et al. (1990, p.40), Pinto (1990, p.56).



Luso-Asian art forms, of which each was subject to different transformations. Both liturgical and secular items continue to fit under the umbrella of Luso-Asian art.

Of course, in view of the numerous extant Asian lacquered pieces of diverse origins, including those sent via Manila to New Spain or those that furnished European palaces, these creations have sparked a fashion for such decoration. Production rapidly turned organized to meet the demand of Europeans in Asia, and royal houses, aristocrats and collectors in Europe. First this was doubtlessly the case with the *nanban* production in Japan, which then needed to be substituted in southern China. In addition to the studied lacquer coatings of Luso-Asian objects, which present formulations with different lacquer types (See Chapter 3.2.2.), this pattern is also reflected by the Japanese import of the cheaper thitsi lacquer from Siam (See Chapter 1.3.1.), and its use in numerous *nanban* lacquer coatings, either in the lower lacquer layers, or, in the case of the *nanban* lacquered bed as a finishing layer<sup>248</sup>.

*Nanban* lacquer art similarly seems to have evolved from the religious orders' demand for Christian art and commissions of noblemen – European and converted Japanese. Its decoration evolved over time, becoming densely loaded with geometric pattern and diverse friezes of contrasting mother-of-pearl inlay, conforming to observations by Kobayashi in his examination of a group of forty-six lecterns. A further stylistic and technical change in Japanese export lacquer production occurred in the transition from the Catholic European clientele to that of the Dutch VOC.

These exchanges of culture and mutual influence through trade, territorial conflict and wars of hegemony were the natural consequences of human interaction as old as humanity itself. The Asian continent had always been marked by the intertwining influences of its manifold cultures and ethnicities over the sequences of varied historical events. The European maritime expansion into Asia of course impacted on different levels in the two continental regions. In Asia it profoundly influenced local arts and crafts through the commission of furniture and daily life objects adapted to European customs, and finally through the emergence of a new taste. In parallel, the Luso-Asian manufactured goods

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<sup>248</sup> Cf. Honda et al. (2010), Curvelo (2010b; 2013c, p.76), Heginbotham & Schilling (2011), Miklin-Kniefazc & Miklin (2013, May), Westen & Curvelo (2013, pp.134, cat. no. 49), Ma et al. (2014). We actually do not know when exactly these imports started. Did the Japanese acquire it previous to the VOC trade through other channels? Was the Luso-Asian merchants network involved?

arriving into the hands of European royalty and aristocratic houses sparked a new taste for the “exotic”. In subsequent centuries responsible for the creation of organized export lacquer productions, more immediately, it echoed across styles, tastes and of course in the arts and crafts practiced in Europe itself.

However, the Asian lacquer coatings, illustrated by all the specimens investigated, most probably formed the basis for organized manufacture of lacquer products intended for export to Europe and North America in the subsequent 18<sup>th</sup> and 19<sup>th</sup> centuries. That this happened in Canton emphasizes that this region was well prepared for development as the site; objects produced there reflecting the city’s role as China’s foreign trade hub during the Qing dynasty: the influence of Japanese lacquer art, and the adaptation of styles and techniques to customer taste, seem to be consequences of both the already existing predilection for such decoration by the Chinese and the targeted commissions for certain motifs by European individuals and religious orders in the 16<sup>th</sup> and 17<sup>th</sup> century.

For these objects, Jorge Flores’ much-cited statement applies: “(...) *In the objects we read the Portuguese Asia, as much or more than in the documents (...)*”<sup>249</sup>. Nevertheless, I would like to add, this investigation proves that identification solely based on external appearance often leads to inaccuracies due to vague assumptions unsupported by fact. Indeed, it is these objects’ place at the indisputable intersection of cultural and artistic exchange, and various circulations in maritime Asia of the 16<sup>th</sup> and 17<sup>th</sup> centuries that insists upon meticulous examination as a fundamental prerequisite for deciphering them. However, what we can conclude from this investigation is that these artifacts clearly result from the cross-cultural exchange and interaction, the manifold circulations of people (individuals and groups), commodities, artifacts and artisans, concepts, vogues etc.; and the Catholic missions, which were important catalysts of these journeys, promoted by the southern European’ presence in maritime Asia in the 16<sup>th</sup> and 17<sup>th</sup> centuries. This thesis, however, freely accepts that artifacts may exist in which one cannot read everything by means of construction and decoration. Given the complex, entangled historical conjuncture, and in view of the exact circumstances behind the creation of individual objects, we may not yet or perhaps never will be able to answer all the questions with certainty.

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<sup>249</sup> My translation of the original: “(...) *nos objectos se lê o Oriente português, tanto ou mais que nos documentos (...)*”, in Flores (1998, p.51).



## 6. Final Considerations

These nineteen unique pieces and related objects, as a group and singly, characterize the heterogeneity of Luso-Asian lacquered articles. They perfectly illustrate the complex circulation that determined materials, motifs, techniques and structures. In order to provide a global view and a perspective wide enough to encompass and decipher these artifacts, this cross-disciplinary research accessed a broad range of specialists comprising various geographical, historical, cultural, artistic, analytical and technical fields, and considered inter-regional, inter-continental, inter- and trans-cultural encounters and exchanges. The results of this combined formal, material and historical-cultural approach emphasize that understanding these pieces inextricably weds contemporary theory and practice to appearance and materiality, politics and history, and finally artistic, technological and stylistic development.

This thesis contributes some new facts, observations and questions to the current discussion regarding origins and classification, as well as to the fields of collecting, art historiography and museology. It confirms that to study objects solely on a formal basis, torn from political, historical, and cultural contexts, is both difficult and can be misleading, because neither a single example nor a group of the same type seems to lead to broadly applicable conclusions. Further, identification based on historical reference or inventory entry, which lack any precise description, are inadequate to conclude a secure geographical origin. To investigate a larger group of different typologies and to compare them with related items reveals commonalities but also differences in construction, carving styles, geographical and cultural origin. This praxis also made it possible to discern stylistic and technical evolutions over time, such as in the growing influence of devotional *nanban* objects upon liturgical articles used in the course of the Catholic mission into mainland China.

On the separate topic of international study on Asian lacquer, the artifacts under consideration were among the first purposefully lacquered to the order of Europeans in the late 16<sup>th</sup> and 17<sup>th</sup> centuries; they carry not only important information about contemporary methods applied to respond the foreign demand, but also on the formulations and techniques used in southern China at that time. The new findings and new questions of this thesis add more clarity regarding technical and stylistic developments and mutual influences within this Asian craft. Eventually this will be reflected in the reception, classification, handling, and

preservation of lacquered Asian artifacts in global collections, and possibly also in art historiography.

This multi-disciplinary investigation went beyond the material particulars that the objects themselves presented, to seek out the underlying issues that their physical appearance manifested. This led to certain questions, the answers to which opened doors to paths to other lines of research. This approach is, of course, contained by practical limitations of access, linguistic and cultural barriers. Apart from published scientific research on Chinese lacquerware, for example, entree to investigations conducted in mainland China was not possible to obtain.

Hopefully, other scholars, interlinking results of new investigations, will open other doors in the future. I am most curious about future contributions to this field, which will expand upon this foundation. An important additional enquiry about this object group would include wood identification on a broader scale, a project limited in this study due to the invasiveness of sampling and other conservation issues. Further, a comprehensive study and comparison of carving styles on the Indian subcontinent and in regions in South and Southeast Asia that were visited by the European and Luso-Asian merchants and missionaries – as applied to everyday, religious objects, furnishings or architectural elements in public and religious spaces – would certainly provide more material for comparison and with respect to the origins of single items' structures.

This thesis hopefully also will contribute to the field of conservation of such artifacts. As has been shown throughout, several Chinese *nanban*-style lacquered objects in Portuguese and international museums, ecclesiastical and private collections, and in the hands of dealers remain assigned to Japanese *nanban* production. Rapid assignment can lead to far-reaching consequences. For example, in order to increase market value or to improve appearance, many of the Luso-Asian objects that are privately owned or circulating on the international antique market are often subjected to "beautification measures". Not infrequently, elements are added that originally were not present, or were removed or over-painted, regardless of which information is thereby eliminated or misrepresented. Such practices not only falsify the objects themselves, but also obscure an individual item's specific story. The new insights offered by this research and its technological investigation can help to counter these often

premature classifications based not on facts or in-depth research, but on presumption, entrenched ideas and fragile argumentation.

This richly heterogeneous group of objects illustrates, along with other recently reexamined Luso-Asian esthetic productions, another phenomenon among creations of the Portuguese and Catholic presence in Asia: where concrete knowledge is otherwise scarce, their features are documents of historical significance and the intercultural interaction. They preserve in meticulous detail valuable information on the manifold circulations that occurred throughout the vast network of the *Portuguese Estate of India* in the 16<sup>th</sup> and 17<sup>th</sup> centuries. Therefore, they suggest the need for a reevaluation of accepted categories and classifications, taking into account the historical-political conjuncture as well as cultural, technical and stylistic influences.

Recent years have witnessed ongoing growth in studies that deal with the Portuguese and northern European expansion in Asia and its material culture. These have begun to shake up long-established assumptions. This thesis should be seen as one of this series, offering new insights that will, hopefully, find their way into the world of museums and art history. It aims to alert art historians, curators, collectors, antiquarians, and conservators to the fact that a basic re-examination – including material analysis – can refine how we identify and contextualize such artifacts and develop appropriate treatments.





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*Fig. 81 Writing box with interior drawer, fall front and blotting pad. Private collection*

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*Fig. 217 Box (Inv. no. VO\_34758). © Weltmuseum Wien*

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