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Painting Practice in the Philippines

Two Institutionalised Practices and Their Materials and Techniques

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Introduction

Oil painting practice, with its origins in western Europe, spread to the Philippines during an era of religious conversion, colonialism, global trade and exchange. While it goes without saying that Filipino painters were exposed to ‘Western’ oil painting practice from the eighteenth century, the degree to which it was ‘transferred’ to an Asian context is worthy of further exploration. These issues have been examined in art historical terms by John Clark, Patrick Flores and Santiago Pilar, but limited research has been undertaken from the perspective of art conservation and materials evidence, which can be used to broaden the areas of discussion.

This paper focuses on the materials and techniques of two oil painting practices introduced to the Philippines—the first case study examines 1850s Filipino missionary art from the island of Bohol, and the second investigates early twentieth-century paintings in the JB Vargas Collection of the University of the Philippines.

Case study one investigates five wood panel paintings executed in 1859 under the direction of the Augustine missionaries at the Immaculate Conception Parish of Baclayon on the island of Bohol. Two works titled Ascension of the Lord and Pentecost are by anonymous artists, and the remaining three bear the inscription ‘Liberato Gachalian lo pinto pr. Manda del MRP Antonio Ubeda Año 1859’ (‘Liberato Gachalian painted this as commissioned by Very Reverend Father Antonio Ubeda year 1859’). They depict three of the four ‘Doctors of the Church’: San Gregorio Magno, San Ambrosio and San Geronimo Maximo; missing is San Jerone. All works were commissioned by the parish between 7 March and 13 April 1859, as recorded in the Baclayon Parish’s Libro de Cargo y Data 1856–1909 (Book of Income and Accounts 1856–1909), and have remained there since their creation.

The second case study shifts to early twentieth-century Manila, then a cosmopolitan city with ready access to global ideas and materials. Sixty-two oil paintings were examined and, unlike the works in the first case study, were mainly secular in their subject matter. The majority of works are by artists connected to the University of the Philippines School of Fine Arts (UPSFA), then the art academy in the Philippines. According to Luciano Santiago, the early twentieth-century works in the JB Vargas Collection ‘reads like the who’s who in the history of art in the Philippines’, and one could consider it to represent oil painting practice in the Philippines during this time frame.

The key objective is to review the material evidence in view of the artistic discourses that informed each practice, whether they were Western, indigenous or Chinese in origin, or something other than these. The supply of materials and production processes in the Philippines is also another area of investigation that allows us to assess the material options available to artists and why certain products and their artistic conventions were adopted, while others were not. This provides a line of inquiry for consideration of whether the emerging artistic discourses in the Philippines followed a fixed trajectory derived from Western artistic practices, or whether they represent a multitude of overlapping influences.

Technical Examination and Analytical Results

The wood panel paintings and twentieth-century works were studied between 1998–2003 and 2003–05 respectively. The results are surmised in table 1 for the panel paintings and table 2 for the twentieth-century paintings.

Case Study One: 1850s Panel Paintings from the Island of Bohol

Art historians such as Flores, Pilar and Jose highlight the multitude of artistic discourses that influenced the evolution of Filipino painting
practice.⁷ In Bohol, Pilar suggests that the 1859 Filipino panel paintings emerged from a Chinese artist known as the ‘Guanyin Master’ who may have trained in Manila; Liberato Gachalian, the artist of three of the panels in this study, is thought to be his descendant.⁹ In such a remote location, their artistic practice emulated much earlier pictorial models than those current in Manila or in western Europe in the 1850s. The Bohol panel paintings therefore most likely emerged from the guild system established in Manila by the Chinese and mestizos (mixed native Filipino or indio and Chinese or Spanish parentage) in 1685 and 1741. These local artists had developed painting skills under the Spanish missionaries.¹⁰ According to Pilar, the missionaries were chiefly concerned with the iconography, leaving the technical details up to the Chinese and mestizo practitioners, thus giving them a certain degree of autonomy in their artistic practice.¹¹

Jose, Pilar and Zobel propose that Chinese materials, particularly pigments, were used in the early stages of Filipino painting practice.¹² Archival church documents obtained by Jose dating from 1838 to 1896 record the source of the materials, including lead white, green and blue from Europe, lead white from Siam, carmest and oil from China and linseed oil.¹³ Given the origins of linseed oil from the common flax plant (linum usitatissimum), it was most likely obtained from Europe. The likely origin of ‘libra de carmest’, known as cochineal and derived from the coccus cacti insect, is South America, suggesting that the galleon trade from Mexico supplied art materials for Filipino paintings.¹⁴ The oil from China was likely to be tung or perilla oil, both drying oils necessary to form hardened paint films.¹⁵ More direct evidence on the supply of materials in Bohol is recorded in the Baclayon Parish’s Libro de Cargo y Data 1856–1909, where the extant paintings are housed. Materials include molave wood at a considerable cost, suggesting it was used for an important purpose; pigments (vermilion, lead white, paint verde, red lead, lime, gesso);¹⁶; lime;¹⁷; resin from the Balao tree (Dipterocarpus gracilis)¹⁸; and skin and glue.¹⁹ It is likely that Chinese pigments were used given the trade activities of the Chinese, as well as their direct involvement in artistic practice in the Philippines.²⁰

Another issue to consider is that materials indigenous to the Philippines may have been used in painting practice. Table 1 lists the use of local Kedondong wood for the panel support, calcium carbonate and gesso from Dauis—historical literature states there was no shortage of these in the Philippines. The resins ‘Manila elemi’ and ‘Manila copal’ are found in the Philippines and were used in Western practice.²² In spite of their local availability, however, neither were identified in the examined panels.²¹ Coconut oil is also listed and Jose, Santiago and Flores suggest that it may have been used in painting practice.²³ However, this is very unlikely given that coconut is a saturated oil with limited capacity to form dried, even paint films.²⁴ It is more likely that drying oils were imported, confirmed by the fact that tropical plants contain large proportions of non-drying oils and fats.²⁶

The panel paintings’ method of construction is unique and not reported in the art treatises of the Golden Age in Spain that influenced panel painting production in the Philippines.²⁷ The panels are comprised of joins filled with rolled Asian paper, beeswax and chalk. The source of the paint media, identified as walnut oil, is likely to be Europe, as one would expect considering the limited availability of unsaturated drying oils in tropical countries. No resins were identified to show that indigenous materials and knowledge of resins were incorporated into painting practice. Some of the identified pigments correlated with the geological deposits from the region, including calcium carbonate and calcium sulphate.

Others such as vermilion and lead white corresponded with the archival church records, indicating that their source was either Europe, Siam or China. The remaining pigments identified that were not found in the Philippines include realgar, orpiment, gamboge and natural ultramarine. The former two are thought to have Chinese origins. Gamboge is likely to be from Siam where there is a major supply and, as noted earlier, church records document the supply of pigments from there.²⁸ Of interest is the use of natural ultramarine; a highly significant but expensive pigment in Western painting practice whose cultural value was transferred to the Philippines. Furthermore, there appears to be a lack of imported ‘Artists Colourman’ materials employed in the 1850s panels, even though by then such companies were operating on a global scale, such as Reeves from 1766.²⁹ It is likely that material availability and the technical skills of the Chinese that were passed on to the indios facilitated the assimilation of panel painting practice in Bohol.

**Case Study Two: Early Twentieth-century Oil Paintings**

The early twentieth-century paintings in the Philippines were closely connected to the UPSFA, which was established in 1908.³⁰ The curriculum can be divided into two stages. The first
Table 1: Analytical and Technical Examination Results of the Panel Paintings, Immaculate Conception Parish, Baclayon, Bohol

<table>
<thead>
<tr>
<th>Painting/s</th>
<th>Method Utilised</th>
<th>Material Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown artist, <em>Ascension</em>, c. 1859, L. Gachalian, <em>San Geronimo Maximo</em>, 1859</td>
<td>Undertaken by Dr J Illic, Forestry and Wood Division, Commonwealth Science and Industry Research Organization¹</td>
<td>Wood: <em>Kedondong</em> (<em>Canarium asperum</em> from the Burseraceae family) or <em>Pagasahingin</em> in Tagalog</td>
</tr>
<tr>
<td>All works</td>
<td>Technical visual examination</td>
<td>Wood construction: Panels 17.5–32 cm wide, simple lap join, 3–5 cm dowels between panels. Gaps filled with rolled paper, brown material and white filler. This may be a standard technique in the Philippines according to Mr Jun Concepcion, Paintings Conservator, National Museum, Philippines</td>
</tr>
<tr>
<td><em>Ascension</em> and <em>San Geronimo Maximo</em></td>
<td>Fibre: PLM, -ve Herzberg tests, -ve phloroglucinol test² Protein: +ve test to Amido Black AB3 Pigment: PLM &amp; irregular sized pigment Brown substance with FTIR White filling material: PLM &amp; micro-chemical tests³</td>
<td>Wood filler: A composite cotton and bast (possibly <em>kigo</em> of Japanese practice). Construction suggests hand-made paper with a heavy use of size, possibly gelatine. Surface covered with vermilion (<em>HgS</em>), possibly cinnabar. Filling material is beeswax and calcium carbonate</td>
</tr>
<tr>
<td>All five works</td>
<td>Protein: -ve to Amido Black AB3 Brown substance with FTIR (doublet at 2917 cm⁻¹ and 2848 cm⁻¹, and peaks at 1735.5 cm⁻¹ and 1175.92 cm⁻¹, showing beeswax) and GC-MS (alternate fatty acid ester with hydrocarbon compound peaks, beeswax?)</td>
<td>Paint Stratigraphy: Complex, varied structure. No protein size layer indicated. First layer in direct contact with the wood panel is either beeswax or calcium carbonate. For the Gachalian works there is an irregular paint layer structure of alternate transparent and opaque layers of paint of varying thickness. The other two works use singular opaque layers with some beeswax. Paint layers are generally thin and well bound, composed of few pigment types</td>
</tr>
<tr>
<td><em>Ascension</em> and <em>San Geronimo Maximo</em></td>
<td>SEM</td>
<td>Paint surface: Cracks resemble slow drying damage rather than mechanical cracks. Implies paint is cohesive, dimensionally stable and well adhered</td>
</tr>
<tr>
<td>All five works</td>
<td>GC-MS: no methyl abietate or methyl dehydroabietate ions.</td>
<td>Resins not identified</td>
</tr>
<tr>
<td>All five works besides Gachalian, <em>San Ambrosio</em>, 1859</td>
<td>Media: +ve Sudan Black⁵ GCMS: P/S ratio of 2.457</td>
<td>The peaks and P/S ratio correspond either to pure walnut oil or a combination of poppy and linseed oil. Unlike to be the latter due to supply limitations in the Philippines</td>
</tr>
<tr>
<td>All five works besides Gachalian, <em>San Ambrosio</em>, 1859</td>
<td>PLM SEM EDS: HgMa line, SKa line detected @ 800 x</td>
<td>Vermilion (<em>HgS</em>) or Cinnabar (<em>HgS</em>)</td>
</tr>
<tr>
<td>All five works besides Gachalian, <em>San Ambrosio</em>, 1859</td>
<td>SEM EDS: Pb line, Oka line detected @ 800 x Raman: very strong peak @ 545cm⁻¹, weak peak @ 387cm⁻¹ and 307cm⁻¹ PLM: green birefringence at x-polar</td>
<td>Red lead (<em>PbO₂</em>)</td>
</tr>
</tbody>
</table>
emulated Escuela Superior de Pintura, Grabado y Escultura, which was the former art academy in the Philippines, modelled on the Academia de Bellas Artes de San Fernando in Madrid. The director was Rafael Enriquez (1850–1927; see figure 1) and, given his Madrid academic background, it is likely that his teachings included the traditional methods of preparing a canvas and artists mixing their own paints. The second stage of the curriculum occurred from the 1920s when commercial arts subjects were introduced and the art instructors encouraged genre painting. During this period, the most influential teacher was Fernando Amorsolo (1892–1972), who taught his method of preparing a canvas to his young colleague Dominador Castañeda (1904–1967) and the UPSFA janitor Lucio Rualo; the latter supplied primed stretched canvases to students and artists. Interviews with Florencio B Concepcion and Teresita Duldulao, students of UPSFA in the 1950s, reveal that a canvas made from flour or sugar sacks was required for painting lessons, stretched over a custom-built lap join strainer with a thin ground layer of gaw gaw (rice flour starch). A final white layer of household paint, likely to contain lead white, was also applied. Given that the curriculum at UPSFA remained unchanged up until the 1950s, and considering Fernando Amorsolo’s long association with the school and his technical influence, it is possible that the above method of preparing canvas supports was the standard for graduate artists of UPSFA.

<table>
<thead>
<tr>
<th>Painting/s</th>
<th>Method Utilised</th>
<th>Material Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascension and Pentecost</td>
<td>PLM: isotropic, low relief, RI&gt;1.66 SEM-EDS: all elemental lines for (Na₈(Al₆Si₆O₂₄)Sn) Raman: Very strong peak @ 548 cm⁻¹</td>
<td>Natural ultramarine blue (Na₈(Al₆Si₆O₂₄)Sn)</td>
</tr>
<tr>
<td>Ascension and Pentecost</td>
<td>SEM-EDS: AsLa line, SKa line Raman: very strong peak at 351 cm⁻¹, a strong peak at 306 cm⁻¹, a medium peak at 287 cm⁻¹ and a weak peak at 378 cm⁻¹</td>
<td>Orpiment (As₂S₃)/Realgar (AsS₃)</td>
</tr>
<tr>
<td>Ascension and Pentecost</td>
<td>Raman: peaks at 1595 cm⁻¹, 1615 cm⁻¹, 1463 cm⁻¹, 1336 cm⁻¹, 1204 cm⁻¹, 1189 cm⁻¹ and 1163 cm⁻¹ PLM: regular pebble like clusters, isotropic, low relief, RI &lt;1.66, no cleavage or pleochroism</td>
<td>Gofun (CaCO₃)</td>
</tr>
<tr>
<td>All five works besides Gachalian, San Ambrosio, 1859</td>
<td>Micro-chemical tests confirmed Pb, CaCO₃ PLM: small rounded, RI&gt;1.6, parallel extinction</td>
<td>Lead white (2PbCO₃·Pb(OH)₂)</td>
</tr>
<tr>
<td>All five works besides Gachalian, San Ambrosio, 1859</td>
<td>PLM: translucent, low relief, symmetrical extinction, highly birefringent</td>
<td>CaCO₃</td>
</tr>
<tr>
<td>San Geronimo Maximo and San Gregorio Magno</td>
<td>PLM: Small but RI does not match, indigo but shape is not needle-like, azurite but pleochroism not visible</td>
<td>Blue not identified</td>
</tr>
<tr>
<td>San Geronimo Maximo and San Gregorio Magno</td>
<td>PLM: anisotropic, oblique extinction, high birefringence, high cleavage and elongated shape</td>
<td>Gofun (CaCO₃)</td>
</tr>
</tbody>
</table>

Materiality across Cultures

The source of materials for the early twentieth-century works is evidenced by artists supply stamps, technical examination and the art suppliers in operation. Of the works examined, 16 per cent were marked with ‘Artists Colourman’ stamps, including:

- three from Lefranc (French), two of which were double-stamped with the Filipino suppliers El Arte and La Paleta de Plata
- one from Devoe & Reynolds, Weber & Co.
- one from Grumbacher (American)
- two from George Rowney (English)
- one generic artist’s board notated in English (either an American or English company)
- an El82-stamped stretcher (Filipino)
- one illegible circular stamp marked ‘pilipinas’.

Of interest is El82, the earliest known art supplier in the Philippines, founded by the Chinese mestizo Roman Ongpin in 1882. The stretcher itself is clearly imported, as is evident from the pinewood that is not indigenous to the Philippines and the tongue and groove join that was not practised in the Philippines. The illegible circular stamp is from 1904 and is linked to a Filipino supplier, possibly El82, then the only known art supply company in operation. Interestingly, the only other two Filipino artists supply stamps, El Arte and La Paleta de Plata, were established by Alfonso Ongpin (1885–1975) and Constancio Ongpin, respectively. They were both descendants of Roman Ongpin and initially part of the El82 business. Alfonso Ongpin was also the first known restorer in the Philippines, having restored Simon Flores y de la Rosa’s Primeras Letras 1890 (see figure 2). A supporter of many artists, he was likely to have shared his materials and techniques expertise with them. According to Concepcion, another supplier, Go Soc, was a hardware shop where art students would purchase their whiting for sculpture and their priming layers. By 1947, Go Soc’s advertisement in the Manila telephone directory included the supply of Devoe & Reynolds ‘artists colour and materials’, highlighting that American artists’ paints and supports were available in the Philippines. Later, around the 1940s, one of the employees of Go Soc went on to establish Enriquez Art Supply, which would become an important supplier in the Philippines. Finally, all of these listed suppliers in the Philippines were located in the Binondo area, historically known for its commercial and artistic activity and the Chinese mestizo community.
Table 2: Results of Technical Examination and Materials Analysis of the Early Twentieth-century Paintings from the JB Vargas Collection

<table>
<thead>
<tr>
<th>Category</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>42%, 27 solid supports</strong></td>
<td>17 canvas attached to solid support</td>
</tr>
<tr>
<td>10 solid supports</td>
<td></td>
</tr>
<tr>
<td>2 tropical wood panels</td>
<td>5 commercial canvas boards</td>
</tr>
<tr>
<td>8 artists board</td>
<td>2 canvas on wood (tropical)</td>
</tr>
<tr>
<td></td>
<td>10 canvas on pulp board</td>
</tr>
<tr>
<td><strong>58%, 37 flexible canvas supports</strong></td>
<td></td>
</tr>
<tr>
<td>20% tropical wood</td>
<td>6% or 4 lap butt join</td>
</tr>
<tr>
<td>(13 works)</td>
<td>1% or 1 simple butt corner join</td>
</tr>
<tr>
<td>smaller profile than stretchers</td>
<td>12% or 8 simple mitre</td>
</tr>
<tr>
<td>10% pine (7 works)</td>
<td>7% or 5 pine strainers with consistent construction methods suggesting imported strainers</td>
</tr>
<tr>
<td></td>
<td>1 stamped with imported ‘Artists Colourman’</td>
</tr>
<tr>
<td></td>
<td>2 roughly constructed, re-use of pine wood?</td>
</tr>
<tr>
<td><strong>25% stretchers</strong></td>
<td>‘Keyed’ tongue and groove corner join, bevelled edge, typical of ‘Artists Colourman’ stretchers</td>
</tr>
<tr>
<td>(16 works)</td>
<td></td>
</tr>
<tr>
<td>larger profile than stretchers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16% or 8 ‘keyed’, dovetailed tongue and groove corner join, bevelled edge. Keys secured with a nail</td>
</tr>
<tr>
<td>21% tropical wood (14 works)</td>
<td>Remaining 3 with no keys, tongue and groove, one with no chamfer</td>
</tr>
</tbody>
</table>

**Of 37 flexible supports**

- **16% linen** (6 works). Artists mainly from the late nineteenth, early twentieth century
  - All plain, closed weave
  - Average thread count, 17.2 x 16.5 per 10 cm, less than cotton
  - 2 on original pine stretchers, appear to be imported
  - 1 on original stretcher, appears to be a local stretcher

- **78% cotton** (29 works)
  - Of these, 82% are plain weave and 17% twill
  - Some with spaces between threads: poorer quality material?
  - Average thread count, 20.5 warp x 18.6 weft per 10 cm, more than linen
  - 58% on original stretchers, appear locally made
  - 41% on original stretchers (31% with tropical woods by Fernando Amorsolo)

- **16% bast** (6 works)
  - Smallest thread count of 13.4 x 14.2 per 10 cm
  - 2 stretchers, 2 stretchers

**Size layer: 6 works tested for protein to indicate a glue size**

- 5 works positive to AB2 (all internationally trained artists)
- 1 negative to AB2 (Amorsolo)

**Starch layers: Fernando Amorsolo works tested**

- Of 12 of his examined works, 7 were positively tagged using potassium iodide, suggesting a flour paste ground

**Grey coloured grounds**

- 10 works all from the Philippines, most with a glossy appearance indicating oil-based (4 F Amorsolo, 2 P Amorsolo, Dominador Casteneda, Irineo Miranda, Aladin Gallardo, Romeo Enriquez)

**Method of application**

- 58 vehicular, glossy and rich, low pigment to high media content
- 5 chalky and dry, high pigment to low media content. Few with dry paint layers to coincide with the influencing Impressionists techniques
- Layers do not appear to be built up according to academic practices

Per cent calculations are given for Table 2 due to the number of examined works

Identified by a hand-held ultraviolet (UV) lamp and the use of UV light reflectography of cross-section
Table 3: Suppliers List and Experiment Details

<table>
<thead>
<tr>
<th>Wood identification at CSIRO:</th>
<th>Thin whittlings from larger splinters prepared and examined at 10× and 400× magnification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLM:</td>
<td>Meltmount Material (refractive index of 1.66): Cat. 24160, Cargille Labs, Cedar Grove, NJ 07009 USA. Pigment particles prepared in Meltmount were viewed at 63× to 400× magnifications under plane and crossed polarised light</td>
</tr>
</tbody>
</table>
| Fibre identification:         | Phluoroglucinal (lignin identification)
|                               | Herzberg stain (rag, groundwood, chemical pulp identification) |
| Cross-sections:               | Polyester embedding Resin 480 and MEKP activator from Boatsheath Resin and Service Polysters |
| Staining techniques:          | Saturated Sudan Black (oil identification) in 3:2 ethanol: water (Sigma cat. No. S0395) |
|                               | Amido Black AB2 (protein identification): 1 g Amidoschwartz 10B Merck, 450 ml acetic acid, 0.1M aqueous sodium acetate solution, 100 ml glycerin
|                               | Amido Black AB3 (gelatin id), glycerin, deionised water (Amidoschwartz 10B Merck)
|                               | Starch iodine, permanganate iodide test: 2.6 g potassium iodide, 5 ml water and then 0.13g iodine
|                               | Rhodamine B (oil identification)
| Stereo microscope and PLM:    | Olympus BX-51 TRF |
| Raman spectroscopy:           | A Renishaw 2000 Raman Spectroscopy Microscope with a 780nm Diode laser with a CCD detector for 2-D Raman imaging and Raman spectroscopy. Resulting Raman peaks were compared against a known Raman spectroscopic library, Bell and Clark, 'Raman Spectroscopic Library of Natural and Synthetic Pigments (pre-1850 AD)'
| SEM-EDS:                      | A JEOL JSM-5900 scanning electron microscope with energy dispersive spectrometer using a back-scattered electron (BSE) detector, an X-ray energy dispersive spectrometer (EDS) and a cathodoluminescence (CL) detector. Samples were mounted on a glass slide and imaged at 100× to 800× magnifications
| GC-MS:                        | A Hewlett Packard 5890 gas chromatograph fitted with Hewlett Packard 5970 mass selective detector. A Hewlett Packard Ultra 2 column (5% phenyl/95% methyl silicone) was used and data was processed on a Hewlett Packard G1034C using Chemstation software. Samples prepared using Meth-Prep II
| FTIR:                         | A Perkin Elmer FTIR Spectrometer Spectrum 2000 used attenuated total reflection (ATR) with a germanium crystal. The sample was crushed and rolled onto a potassium bromide plate. The Biomedical Sciences Laboratory at the University of Canberra undertook GC-MS and FTIR

1 Odegaard et al., p. 156.
2 Martin, pp. 63–7.
3 Odegaard et al., p. 128.
4 Wolbers, p. 177.

Discussion

The sixty-two works examined from the JB Vargas Collection highlight distinct categories of material usage and practice. The artists who went on to train abroad in European art academies at the turn of the twentieth century, mainly the Academia de Bellas Artes de San Fernando in Madrid, tended to use imported linen canvas (some of it primed) either on imported stretchers or locally constructed strainers. They appear to show a strong preference for imported ‘Artists Colourman’ materials. This is what Clark may phrase as a perfect transfer of skills. This category of works coincides with Manila’s Escuela Superior de Pintura, Grabado y Escultura as it was modelled on the Madrid academy, employing its curriculum and appointing only Spanish-trained professors.

From the 1920s, Filipino artists had a long history of oil painting practice and local art training. They largely used cotton supports likely to be from a proprietary supplier, with custom-made priming layers and auxiliary supports. It is proposed that by then, artists had become technically proficient, allowing them to modify materials and techniques
according to their circumstances. Fernando Amorsolo was most influential in this regard, advising on how to prepare a canvas and even constructing his own stretchers in the Philippines (see table 2).

## Conclusion

From a materials and techniques perspective, the results at first show that multiple sources are more apparent in the earlier panel paintings than for the early twentieth-century paintings. There are many factors, including the mediators of the artistic discourses, being the Spanish missionaries; Bohol’s isolated location; the Chinese practitioners; and limited trade and access to European art materials. All are relevant and it is likely that these circumstances provided panel painting practice with the flexibility and autonomy to incorporate influences from various sources. However, the use of natural ultramarine was still incorporated, obviously remaining an important directive from the Spanish missionaries.

Some fifty years later, the materials evidence for the twentieth-century paintings shows that the earlier works in the JB Vargas Collection are closely aligned to European practices. But later, from the 1920s, a unique practice developed at the UPSFA in regard to the local construction of auxiliary and canvas supports and their preparation with rice starch under the influence of Amorsolo, who ensured that readily available materials were adapted and employed. For artists, choice and availability were the determining factors in the types of materials and techniques utilised in these two case studies of Filipino oil paintings.

Overall, the identified materials, artistic discourses and art material supply in the Philippines highlight a range of influences that informed the two case studies. Neither practice directly followed a Western, Chinese or indigenous artistic model but instead selected specific elements according to its own needs.

### NOTES

4. Ibid., p. 9.
5. Research from 2003–05 was supported by an Australian Research Grant and collaborating partners included the National Art Gallery Malaysia; the JB Vargas Museum at the University of the Philippines, supported by the Australian Embassy in Manila; and the National Gallery of Fine Arts in Bangkok, supported by the Australian Embassy in Bangkok.
6. Information was collated on a Filemaker Pro 3.5v2 and forms the basis of the results. Table 3 outlines data on the suppliers and experimental methodologies.
11. Ibid., p. 63.
15. Ibid., pp. 48, 72.
17. Ibid., November–December 1858, July–August 1858.
18. Ibid., February 1857.
19. Ibid., November–December 1858.
20. Ibid., July–August 1858.
22. Gettens and Stout, pp. 21, 34.
598 Materiality across Cultures


33 ibid.


