

## 20 Recent Studies on Sri Lankan Mural Painting Technology

---

*B. D. Nandadeva*

**ABSTRACT** Materials and techniques of the three schools of mural painting of Sri Lanka belonging to Late Historical period 2 (1750–1900) were studied. Samples of supports, grounds, primers, paints, and coatings from six randomly selected sites were examined using optical microscopy, scanning electron microscopy (SEM), x-ray spectrometry by energy dispersive microanalysis, x-ray powder diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), ultraviolet-visible absorption spectroscopy, thin-layer chromatography (TLC), and pyrolysis gas chromatography-mass spectrometry (Py-GC-MS). It was found that paintings of all three schools belong to the tempera technique. They were done on a clay and sand ground sometimes mixed with plant fibers and followed by the application of a white primer. Huntite, clay, barium sulfate, lead white, gypsum, calcite, and lithopone were identified as primers or as the white pigment. Cinnabar or dry-process vermilion, orpiment, Prussian blue, manganese blue, and soot were identified as pigments. Binding media were characterized as gums, drying oils, resins, and emulsions of these three types of material.