### Introduction and aim

Lacquer, the natural latex produced by some indigenous trees of the Anacardiaceae family in Asia, has been used for centuries as a utilitarian material, as well as for decorative vessels, lacquer paintings, and surface finishes on religious statues.

The aim of this work is to contribute to the current knowledge of lacquer in its regional context in the relatively less explored Myanmar (Gluta usitata) and Cambodia (Gluta laccafera). These tithiol-based lacquers were studied to help distinguish the raw materials with respect to their provenance, and to determine if lacquer samples could be traced back to their original geographical source, tree species, or associated workshop.

### Harvesting the lacquer

The difference in harvesting methods

Myanmar, Shan State
- a) heart-shape incision - an example of a newly made cut.
- b) old incision showing black lacquer that has polymerized on the tree and in a bamboo vessel

Cambodia
- a) V-shape incisions
- b) metal semi-round tool used for the incision
- c) bamboo vessel inserted into tree - used for collecting the lacquer

### The samples

- 4 samples of unadulterated latex were collected directly from trees - Myanmar (2) and Cambodia (2).
- 10 samples of lacquer from workshops in Bagan and Minkaba, Myanmar were collected.
  - some were described as having an additive, or a variety of additives, mixed in to extend ‘fluidity’ or to act as a ‘filler’.
  - 2 reference samples of ashed rice husk were collected (Cambodia and Myanmar).

### Results

#### The tree species and tithiol

Myanmar
- The production of lacquerware is an important cottage industry in Myanmar, and this region is regarded as one of the region’s oldest timber forest products. The latex is collected from the lacquer tree (G. usitata) and has a phenolic/catechol compound profile for this tithiol lacquer.

Cambodia
- The latex from G. laccafera is noted as used for lacquerware and paintings in Cambodia. It has a similar phenolic/catechol compound profile as a tithiol lacquer (harvested from G. usitata). It was originally called ‘moréacol’ after the name of the lacquer (moréa) from this tree species (1).

Both latexes are off-white when they exit the tree, but within minutes begin to turn dark brown/red to black.

#### The samples

- All of the samples were composed of tithiol.

### References