

Reports Submitted to FAMSI: Frances F. Berdan

The Technology of Ancient Mesoamerican Mosaics: An Experimental Investigation of Alternative Super Glues

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Figure 1. *Bletia purpurea*, a terrestrial orchid.



Figure 2. *Laelia autumnalis*, an epiphytic orchid.



Figure 3. Copal in the Tepoztlán market.



Figure 4. Native beeswax.



Figure 5. Bursera (copal) tree in the Jardín Etnobotánico, Cuernavaca.



Figure 6. Cutting Bletia orchid bulbs with obsidian knife.



Figure 7. Cut orchid pseudobulbs.



Figure 8. Orchid pieces drying in the sun.



Figure 9. Jeff Sahagún pulverizing dried bulbs in a *molcajete*.

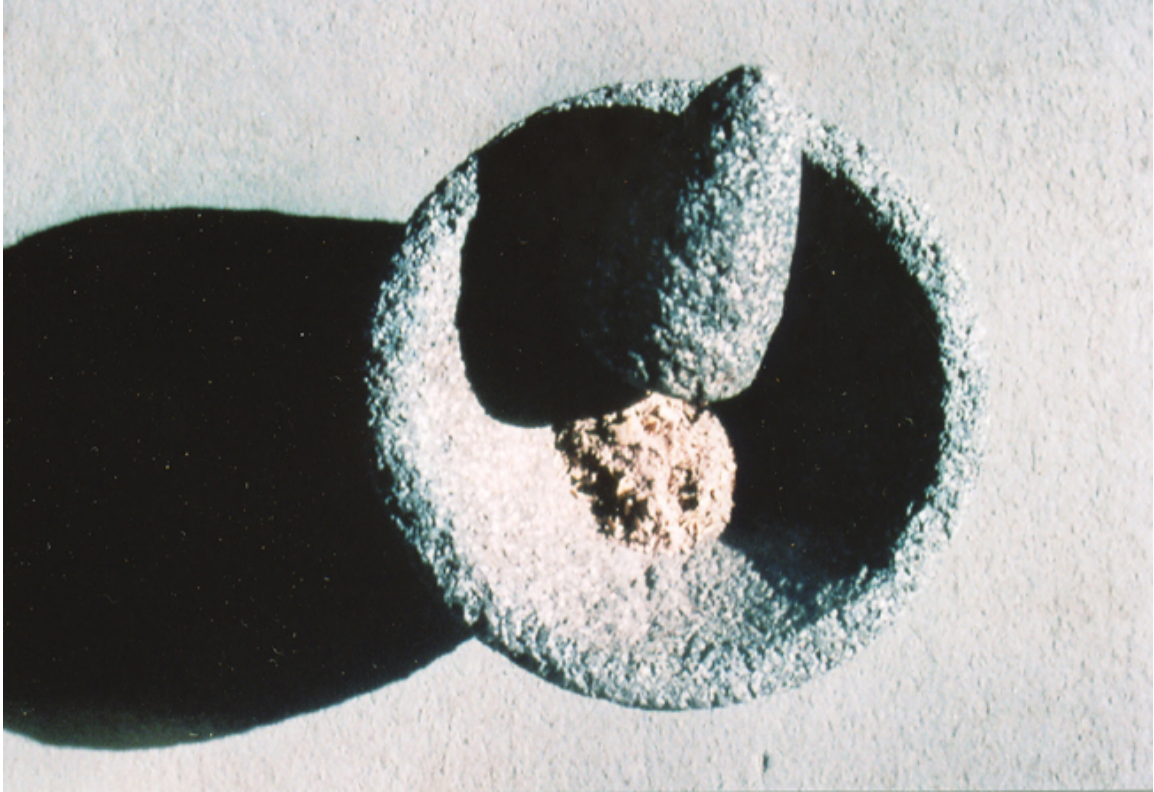


Figure 10. Ground pseudobulbs.



Figure 11. Ed Stark sieves orchid powder while Jeff Sahagún records data.



Figure 12. Bill Duncan producing orchid gum from powders.



Figure 13. Feathers attached to *amatl* with *Stanhopea hernandezii* gum.

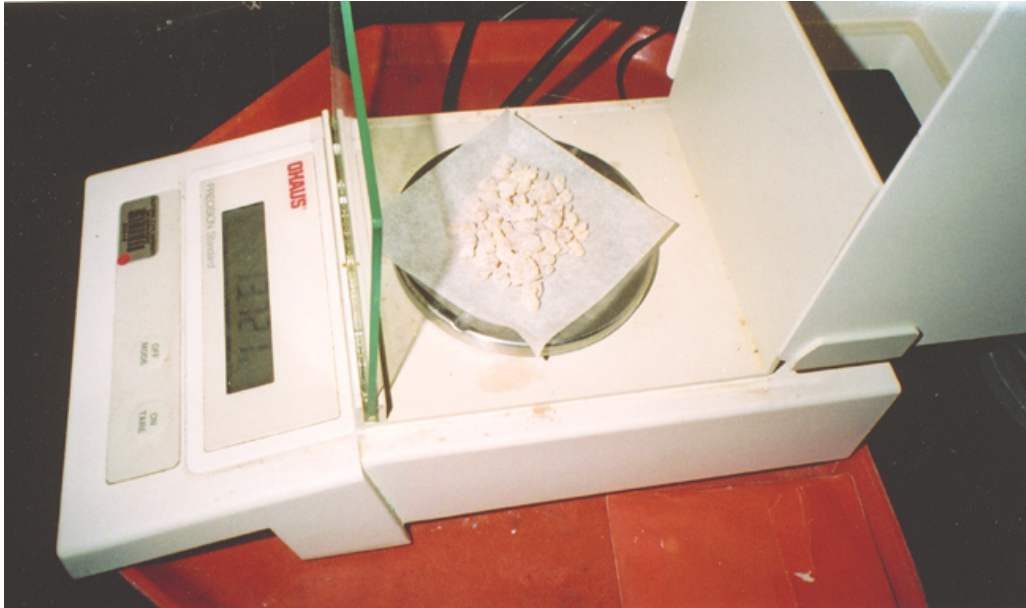


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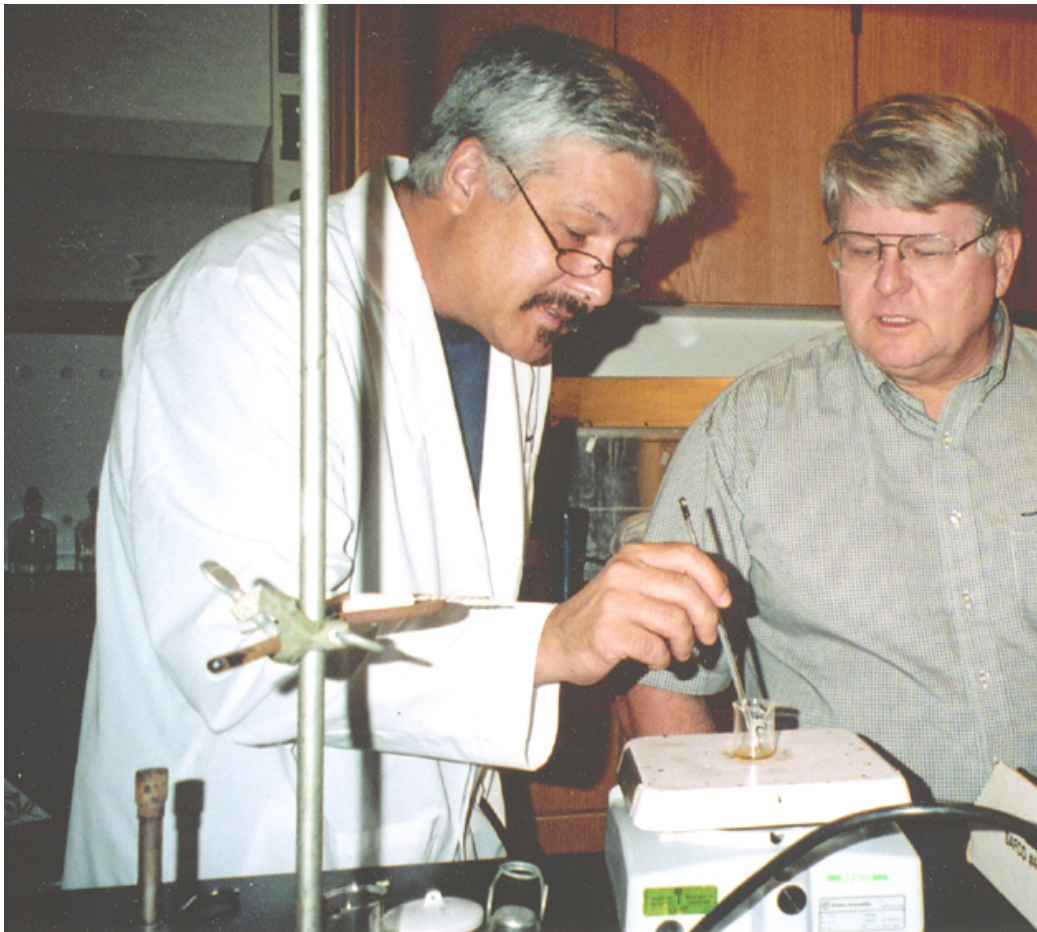


Figure 15. Jeff Sahagun and David Maynard cook up copal into a strong adhesive.



Figure 16. Jadeite affixed to *Cedrela odorata* wood with a copal-beeswax adhesive.



Figure 17. Jeremy Coltman preparing the Mecmesin force gauge.

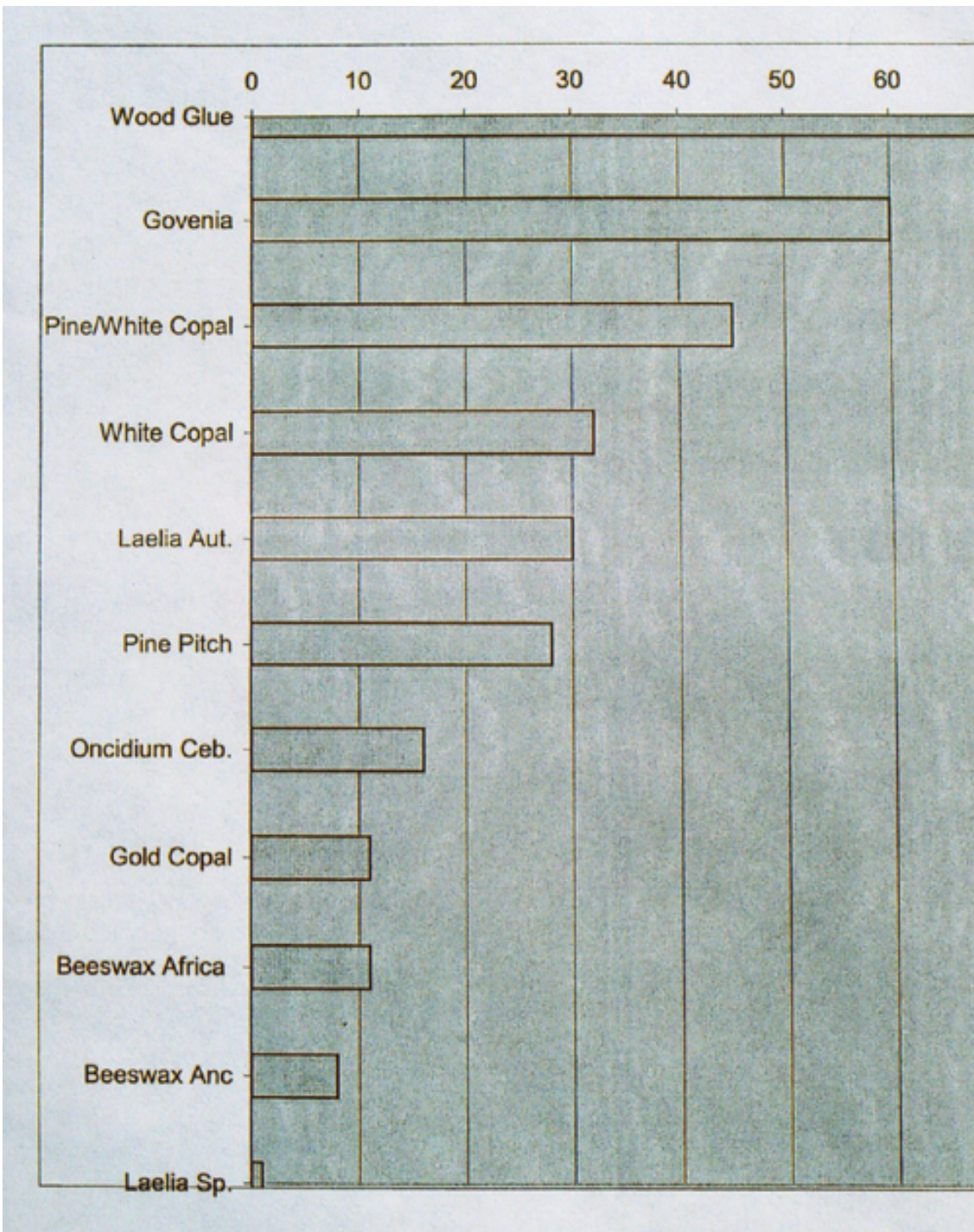


Figure 18. Relative strengths of orchid gums, resins, and beeswax.

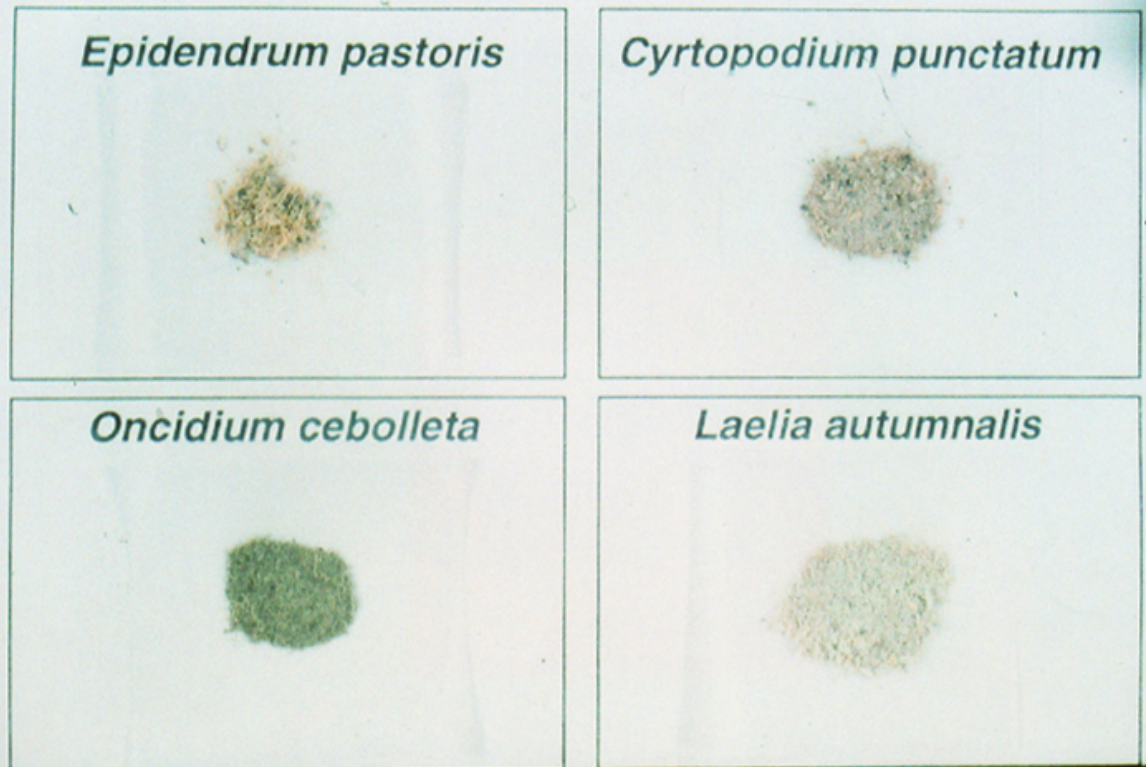


Figure 19. Powders from different gum-producing orchid specie.



Figure 20. Mini-feather mosaic, using *Stanhopea hernandezii* gum.