



## 13 Repair Techniques

In the course of the twenty years Rosa spent restoring the Glen Echo Park carousel, her techniques for making repairs evolved considerably. New products came on the market and she discovered better ways of solving problems. The problems she faced included reinforcing spongy wood, tightening loose limbs, rebuilding damaged areas, replacing missing pieces, correcting faulty repairs, and re-attaching original pieces.

For the animals and panels Rosa repaired in the 1980s, the adhesive products she used were Elmer's White Glue and Franklin's Titebond. If additional supports and fillers were needed, she used basswood shims. These methods worked well, and she was able to close seams, repair nicks, and fix broken joints on the animals and replace missing pieces of Upson board on the panels. For smoothing out the surface after repairing damage, she used LePage Polyfilla cellulose filler or gesso.

In the early 1990s Rosa became acquainted with the West System line of epoxy glues, and found it to have two significant advantages for the art conservator: It is reversible with heat and it saves the original wood. In particular, if she were using new wood to replace a missing piece on a carousel animal, such as part of the mane or part of the hoof, she would have to remove some of the original wood to make a clean fit between the original wood and the new wood. Using epoxy, however, she can build up an area and replace only what is missing. She does not need to remove any original wood. When the proper fillers have been added to the epoxy, it becomes malleable. She can carve it, rasp it, and sand it.

A lot of companies make epoxy. What Rosa found particularly satisfying about West System was their customer support. She was able to get very good technical advice.