

# Kits, Bits, and Finish

*Start from scratch or invest in a kit? The choice is yours.*

**N**ot quite ready to start a build-a-boat project from scratch? Chesapeake Light Craft has refined stitch-and-glue boatbuilding by offering complete ready-to-assemble kits. Each kit includes computer-cut plywood components, hardware, and all the other bits and pieces needed. The company is a one-stop source for plans, wood, resin, paint, tools, and technical advice. For the first time, boatbuilder CLC's support is as much a source of learning as it is materials.

CLC's well-illustrated step-by-step guides, plus classes for those interested in a hands-on learning experience, help novices quickly acquire key boatbuilding skills. At a recent Annapolis Boat Show, a CLC staffer quickly and efficiently assembled one of their multi-chine *Passagemaker* dinghies while attendees looked on. He demonstrated how to bend in the pre-cut panels, clamp them in place, and then secure them with drilled leads for the copper wire stitching that was twisted tight with a simple pair of pliers.

By alternating from side to side, he kept the hull from twisting out of shape, and once the wired seams had been filleted with a thick epoxy paste that was spread smooth with a tongue depressor, the geometry of the multiple strakes added considerable stiffness to the pram.

In addition to pre-cut wood and clear instructions, CLC kits include the small hardware items that can be time-consuming to find or fabricate. Kits are more costly than buying plans and materials on your own, but the time savings derived from getting pre-cut pieces can be worth the extra investment.

## OTHER OPTIONS

Strip planking or lapstrake (clinker) construction is another building technique that is worth considering. It involves first building a jig or frame like structure over which each plank or strake will be bent into shape and fastened or epoxy glued. The jig can be used numerous times, and when multiple hulls are to be built, such

an approach makes even more sense. One of the values of this approach to boatbuilding is that it allows for a hull shape with a more rounded bilge. The downside is that the approach incorporates many more pieces, requiring additional time in order to maintain quality control in the fabrication process.

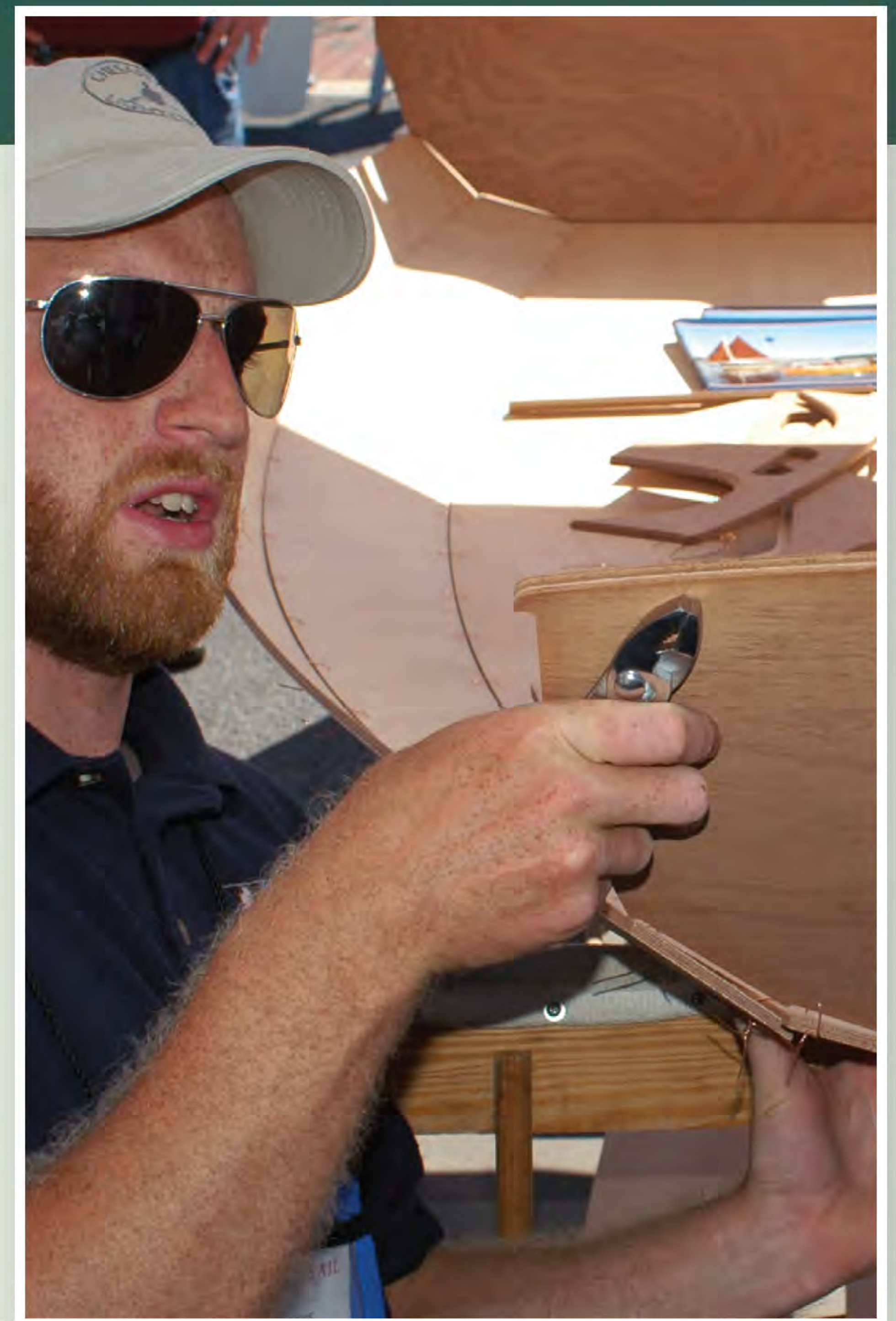
One of the most interesting approaches is found in the renaissance of wooden river craft such as the boats built by The Adirondack Guide Boat Co., a team of gifted boatbuilders who have worked to keep the legacy of J. Henry Rushton and Dwight Grant alive. Their guide boats can be rowed, paddled, or sailed, and the modern renditions of these century-plus-old craft are truly works of art. Not surprisingly, their price tag is commensurate with the workmanship.

Fortunately, the crew at Adirondack Guide Boats also recognizes the kit builders market and offers a \$3,500 DIY alternative to their \$15,000 15-footer. They also recognize the attributes of modern materials and offer a line of wood-trimmed molded fiberglass/Kevlar versions of their popular designs.

Regardless of the approach chosen, the amateur boatbuilder will learn the golden rules of epoxy bonding:

- Careful attention to detail trumps sanding rock-hard epoxy.
- Mating surfaces should be clean, dry and well sanded.
- Take a chemistry lab approach to measuring and mixing epoxy.
- Protect eyes and hands, and leave no exposed skin.
- Coat both surfaces and use a bonding filler not a fairing filler for filleting the seams.
- Clamp, screw, stitch (tighten until an even bead of epoxy appears).
- Do not over squeeze the joint (too little epoxy adds up to a weak joint)
- Scrape off and wipe up excess epoxy (saves much sanding of cured epoxy).
- Mix smaller batches of epoxy for greater control.

Varnishing FRP-covered plywood re-



*Precut strakes on a Chesapeake Light Craft are stitched together for bonding.*

quires special attention. Extra care needs to be taken to keep gravity from having its way with excess resin.

A handy technique is to apply a carefully squeegeed laminating coat of epoxy resin, and after it has hardened and been scuffed with 80-grit sandpaper, apply a "fill" coat, taking care to keep it well spread and distributed evenly. When cured, the entire surface is sanded (80-120-150 grits) being careful not to cut the fiberglass cloth. If the cloth is damaged, it should be spot repaired with epoxy resin.

After the sanding is complete, it's time for several coats of varnish with good UV protection.

The bottom line is that epoxy is a miraculous adhesive and a superb laminating resin, but it's extremely vulnerable to UV degradation and on clear finishes, a spar varnish or polyurethane with good UV protection is essential.

## CONTACTS

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