Build Your Own Cane Rod:

By Ted Knott

A good source for the Right Stuff
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PART ONE

How to get started, tools, and resources

Despite the affordability and performance of modern graphite rod, many fly fishers still prefer the action and feel of bamboo. A growing number are beginning to take this one step further by building their own. At first glance, this might seem a formidable task, but there are plenty of resources out there to help you along the way. In this first of a two-part series, Ted Knott, an experienced bamboo rod maker, describes the process of making your own rod. We're well aware that it's impossible to deal adequately with this subject within the confines of a magazine, but Ted's intent is to provide a general overview of what is involved. For those of you who get hooked, he supplements this with a list of sources for detailed information and hands-on assistance. Ed.

SOURCES

When I made my first bamboo rod nearly twenty-five years ago there was very little published material about how to make one. In contrast, today there are at least four current how-to books, several videos, and a wealth of internet sites, all devoted exclusively to bamboo rod making.

Books

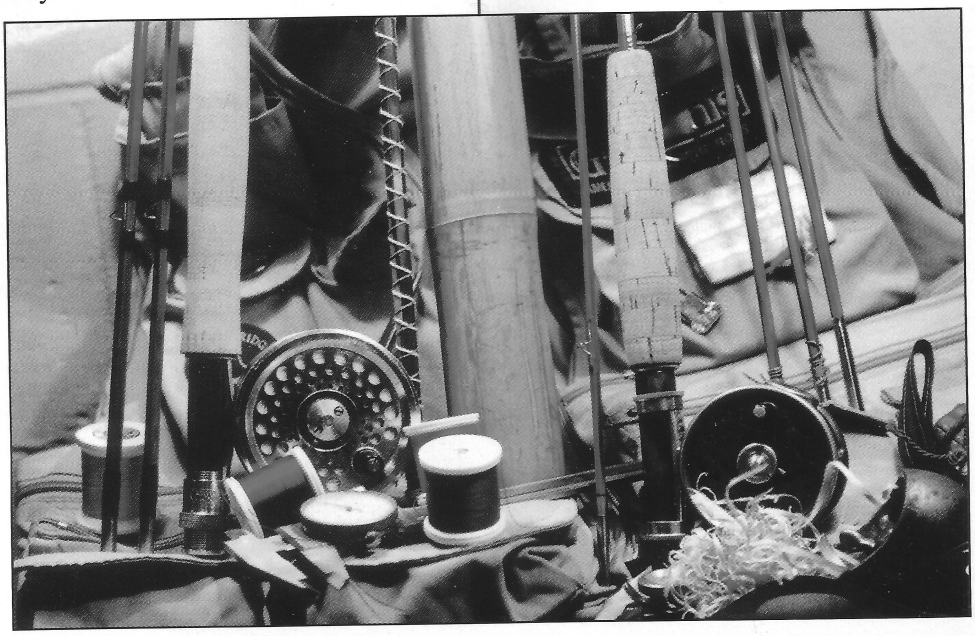
Two of the best books are Wayne Cattenach's ***Hand Crafting Bamboo Rods***, and George Maurer's ***Fundamentals of Building a Bamboo Fly Rod***. Maurer's book evolved from the classes in rod making that he conducts and is very straight-forward and easy to follow. Cattentach's book is more detailed. For example, there is a good section on making your own metal planing forms. The book also comes with a floppy disk program for calculating rod tapers. Get both if you can. Get Cattentach's book if you can afford only one.

The Internet

There are two internet sites that have a wealth of information, including subscription to the ***Rodmakers List***, a site primarily for beginner rod makers. Chris Bogart's ***Shanandoa Rods*** site is *www.canerod.com/* and has links to just about anything you want to know about rod making. The other site that you should look at is ***The Ultimate Bamboo Fly Rod Library*** at *www.artistree.com/SplitCaneLibrary/*.

THE RIGHT STUFF – AND HOW TO TREAT IT

Only one specie of bamboo has proved suitable for fly rods and it is imported from China by several American importers. The stalks from which rods are made are known as "culms". I usually buy a bale of twenty at a time from the Charles Demarest Co. in New Jersey. They come in 12-foot lengths between 1 3/4" to 2 1/2" in diameter. I recommend the larger diameter as it gives you a little more leeway when splitting into strips and usually has thicker walls and denser inner fibres. Demarest will also sell one or two culms and cut them into six-foot lengths for shipping.



The first thing to do when you receive the culm is put in a drying split. Don't worry about existing splits. It's normal for bamboo to crack or split in a few places as it dries. I usually split the culm in half, then tape the two halves together for storage. If the bamboo has a greenish tinge, it needs to age a few months. If it's summer, put it out in the sun for a few days. The bamboo may have a few water stains or growers slash marks. At a later stage in the rod making most of these will be scraped off. Don't worry about these for now.

The other thing that you might want to do at this point, is flame and heat-treat the culm with a propane torch. Experiment with the torch on the butt area to see the effect. The surface may look quite black and scorched, but when the chalky outer surface is scraped away, the underlying power fibres will be golden brown. Some rod makers use only the flaming to heat treat the culm. Others, myself included, do a second heat-treat in an oven just before finish-planing the strips. Heat treating drives off moisture and oils, hardens and shrinks the bamboo, and increases its stiffness and resiliency.

Gatherings

Excellent sources of first hand information are rod makers gatherings. Here is a chance to rub shoulders with other rod makers, share tapers, ask questions, and try other rods. Of interest to Canadians are Gatherings held at Fergus, Ontario (spring of 2001); at Roscoe, New York (first weekend after Labour Day, 2000); and at Corbett Lake, British Columbia (late April, 2002)

Bamboo Culm . . . not a tool, but the first thing you need.
Planing Form . . . for shaping precise, tapered strips.
Stanley 9 1/2, or Stanley G12-020 Block Plane
Sharpening Stones or Sharpening System for sharpening the plane blades.
Binding Device . . . for binding glued up strips under pressure.
Heat Source . . . for warming and straightening the bamboo strips.

ESSENTIAL TOOLS

If you already work with wood, you probably have most of the tools needed to make a bamboo rod. I'm listing here only the tools that are not generally available. For example I'm not going to list items like sandpaper, scraper blades, files, varnish, etc. which are widely available in hardware stores. There are five essential, specialised tools which you'll need to get started.

The Planing Form

The planing form determines the finished dimensions of the rod, its taper, action, and line weight. The form must be precise, accurate, and adjustable for different tapers. In use, the individual strips are planed until the plane blade drags on the metal surface and no longer removes any shavings. Each of the six strips will then be exactly alike.

It's possible to make your own metal planing form, and Cattenach's book gives a good description on how to do it. However, most beginners are advised to buy a ready-made form, to ensure that they will have a good tool to start with. Commercially available forms range from around $400 to $1000. The best value of these is made by the Canadian company "Legends". These are available from Grindstone Anglers in Waterdown, Ontario (phone 905-689-0880). Because commercial forms are a relatively major expense, you might want to share with an interested fishing partner or, perhaps, persuade your local club to buy for loan to members.

Block Plane

The block plane of choice for most rodmakers is the Stanley 9 1/2 or Stanley G12-020. Both have a 25 degree blade angle, and a 30 degree cutting angle, for a total of 55 degrees between the cutting edge of the blade and the base of the plane. A secondary 10 degree angle is often honed onto the blade edge, increasing this to 65 degrees. These angles minimize the tendency to lift node fibres. Most rodmakers replace the factory blade with an extra-hard, extra-keen "Hock" blade (Lee Valley Tools).

Both plane and blade need to be "tuned" Both the Maurer and Cattenach books describe this well. Personally, I use a piece of plate glass with strips of #400, #600, #1000 and #1500 abrasive paper glued to its surface. This is used dry to flatten the plane's bottom and to sharpen the blade.

Depth Gauge

A depth gauge is needed to set the planing form accurately. A 1" range dial indicator with base and 60 degree point can be bought for less than $50 at tool supply houses. The dial indicator needs to be "zeroed", so that "V" groove depth can be read directly off the dial. The reference books describe this in detail.

Heat Source

A heat source is required to warm and straighten the bamboo strips before any planing is done. Later, the heat source will be used to remove any minor kinks that remain after gluing. For my early rods, I used the kitchen stove element to warm the node areas. I would hold the node near the edge of the element and move it back and forth to get uniform heating. These days I use an electric heat gun of the sort used remove paint. You have the right temperature when the surface is hot enough to make you want to say "Ouch!" when you touch it.

THE AUTHOR WITH ONE OF HIS CREATIONS

Binding Device

A binding device is used to spiral wrap cotton cord under pressure around the six splines of the rod blank when gluing. Mine is based on the binder shown in the Wise Fisherman's Encyclopedia, published in the early 1950's, and is made of plywood, a "V" groove pulley, and a few bolts. Cattenach and Maurer show several variations of this device. Most rod makers build their own. You can also bind the sections by hand, as I did with my first few rods. It's messy, but it works.

Making a bamboo rod, like many crafts, might seem very complicated at first glance. But don't let this daunt you. Take your time. Look at it as a one year project—take one step at a time, and you'll find that you'll come to enjoy the process as much as the product.

At this point I've explained the stuff you need to get started. In Part Two (coming in the Winter, 2000 issue) I'll take you through each step in the construction process, from splitting the culm to the final varnishing.