

Bamboo Rodmaking for Beginners – The Free Report

You've responded to our advertisement offering a report which summarizes the methods, tools, and materials, as well as various educational resources, which are available to the budding rodmaker. This report details the items you'll need, where to get them, basic procedural outlines, and more than a few comments by the guys behind Peak Bamboo. Please take the time to read the entire report at least once. We'll help you make a traditional fishing rod using a natural, sustainable material: Tonkin Cane.

IF YOU DO NOT HAVE THE TIME OR PATIENCE TO READ THIS, YOU DO NOT HAVE THE TIME OR PATIENCE TO MAKE A BAMBOO ROD.

Hi! We're Russ Gooding & Matt West, two fellows who are variously involved in four bamboo-oriented rodmaking companies: Peak Bamboo, Golden Witch Tech., Inc., Arcane Component Works, & West Bamboo. There's a third fellow lurking here who some might recognize, so we gladly tip our hat in the direction of Frank Armbruster. Back in the day, nearly two decades ago, Matt answered Frank's classified ad which offered aspiring bamboo rodmakers a FREE REPORT on The Art and Craft of Bamboo Rodmaking. All you needed to do was send Frank an "SASE plus two unused stamps." Matt read the report, bought a planing form, and started making rods. Eventually he picked up some supplies from another young rodmaker, Russ Gooding, who was starting to sell components alongside finished tackle through his company, Golden Witch. Times have changed. You can still get a paper copy of our report for the toll of one SASE and three unused stamps, but you may have found it more convenient to simply download this report as a PDF off one of our company websites. No matter how you accessed this report, thank you! And thanks to Frank for his impetus and the guidance his report offered as we created our own interpretation of what is indubitably his mark upon the rodmaking world.

Russ, as a retailer in the bamboo industry, gets a lot of novice emails asking about bamboo rodmaking tools and materials and he agreed with Matt that the businesses needed an easy-to-dispense crash course in bamboo rodmaking. Matt still had Frank's mimeographed pages in a filing cabinet – they were words worth keeping. Matt admonished Russ: On our version of the 10 page report, I STRONGLY ADVISE you, Tolstoy, to pattern it after what Frank did, possibly even making it shorter. So that's what you've got in your hands, a minimally wordy stepping stone geared toward novice rodmakers. As Frank observed in his original rodmaking overview, "This report is for beginners."

You'll Need These Things:

I. Sources of Information: Books, DVDs, advice, & suchlike.

II. Hand Tools: Some specialized, some common – most are simple.

III. Fixtures: Frank's term for the planing forms, associated gauges, and specialized rodmaking tools.

IV. Materials: Bamboo, cork, ferrules, guides, glue, varnish, plus other components and consumables.

V. Space & Time: A workbench & a little room to wiggle your rod, plus time to learn and work.

VI. Procedure: A viable sequence of steps to move from raw bamboo to the finished bamboo rod.

The six sections of our report describe and expand upon the list of items, and the know-how, that you'll need. Each section notes sources for stuff that may be hard to locate. It also includes some of our personal prejudices, opinions, and preferences. By the way, we feel so strongly that Frank Armbruster's original report, on which ours is closely modelled, is worth preserving both for its own information and as a historical document, that we've also posted scans of Matt's copy as a Ramble on the Golden Witch website.

I. Sources of Information

A. Reference Books:

1. A Master's Guide to Building a Bamboo Fly Rod, by Everett Garrison & Hoagy B. Carmichael. Still

considered “The Bible” among rodmakers. You can live without it, but you don’t want to.

2. **The Angler’s Bamboo, by Luis Marden.** The definitive work on our *sine qua non*: Tonkin.
3. **Classic Rods and Rodmakers,** by Martin J. Keane. A classic reference and a fun read.
4. **Handcrafting a Graphite Fly Rod,** by L.A. Garcia. Huh? Yes. The best basic rod crafting reference for wrapping guides, and other assembly procedures once you’ve made your rod blank.
5. **Handcrafting Bamboo Fly Rods,** by Wayne Cattanach. One of the detailed treatises which made bamboo rodmaking accessible, and one of the earliest of the ‘modern’ rodmaking books.
6. **Fundamentals of Building a Bamboo Fly-Rod,** by George E. Maurer & Bernard P. Elser. One of the two books Russ considers indispensable for novice bamboo rodmakers.
7. **The Lovely Reed: An Enthusiast’s Guide to Building Bamboo Fly Rods,** by Jack Howell. The second book Russ considers indispensable, and the only book, so far, written with a hat tip towards the methods taught by Daryll L. Whitehead. Matt’s pick if you only buy one book. Great taper collection!
8. **Workbenches from Design & Theory to Construction & Use; Revised Edition.** By Christopher Schwarz. If you’re in a hurry for an affordable yet stout bench, build the “Knockdown Nicholson” in chapter six. A rodmaker can skip the hold-down holes, the crochet, and the planing stop. You just need the sturdy table.

Et Cetera. There are another two dozen or so wonderful books on the subject of bamboo rodmaking and bamboo rod restoration and this short list is a slight to none. Search Amazon. Search ABE (American Book Exchange). Many of the works on bamboo rods are out of print, yet readily available on the used market. Frank noted that you should read one or two, but that as you progress you’ll want to read them all. Every teaching maker adds their twist to the many steps in the rodmaking process. You’ll quickly discover there are several ways to skin every cat you meet; your task is to get through each step once, then once again, experimenting until you find a method for each step that suits your tool set and your mindset. It is a fallacy that there is a single ‘right’ way to make rods.

B. Periodicals

1. **The Planing Form.** Still number one on the list, but under the new editorial direction of Ron Barch’s protégé, Kirk Brumels, who can be reached at www.clamriverclassics.com. Devoted to bamboo, a respected newsletter with hundreds of contributors over the years. Our group of companies supports TPF with advertising and Russ has contributed as a writer.
2. **RodMaker Magazine.** Tom Kirkman, Editor. A great, full-scale magazine which tackles the entirety of custom rodmaking, including bamboo. Our companies support RodMaker Magazine with advertising. Russ has contributed numerous articles over the years, many on the subject of crafting bamboo rods, all of which are available on disc through www.rodmakermagazine.com.
3. **Art of Angling Journal.** Paul Schmookler, Editor. This award winning journal is now defunct, but well worth discovering just for the articles on bamboo rodmakers. The Premier issue (Winter 2001) featured the influential maker, Daryll L. Whitehead. A subsequent issue had an article which focused on Russ Gooding’s rod work.
4. **Hunting & Fishing Collectibles Magazine.** Stan Van Etten, Editor. This publication is also defunct, but you can still order back-issues through the website at www.hfcollectibles.com. Russ wrote occasionally for H&FC on the subject of bamboo rod restoration.

C. DVDs

1. **Making Bamboo Blanks.*** Written by, and featuring, Russ Gooding. This DVD will teach you tips and techniques that are sure to improve your blank quality!
2. **Finishing Bamboo Rods.*** Written by, and featuring, Russ Gooding. This DVD will teach you how to fit the components and finish the rod with an artisan’s eye for detail!

3. Making The Hand Crafted Bamboo Rod. * A documentary featuring Lyle Hand and produced by Sid Strong, who is also a rodmaker.

4. Creating the Garrison Fly Rod. A film by Hoagy B. Carmichael.

5. Digger: Portrait of a Bamboo Fly Rod Maker. A film by Stonykill Films.

6. Handcrafting Bamboo Fly Rods. A film by Wayne Cattanach.

7. Trout Grass.* A documentary produced by, and featuring, The Bamboo Broker, the late Andy Royer. Cover and DVD art by Peak Bamboo's Matt West. Written & narrated by David James Duncan (Read his book "The River Why?" – an absolute hoot!).

8. The Graphite Fly Rod – How to Build a Modern Classic.* Written by, and featuring, Russ Gooding. If you're making a bamboo rod up from a ferruled blank, this detailed DVD will benefit you because there is a lot of overlap between traditional rodmaking and graphite or glass rodbuilding.

9. A River Runs Through It. Robert Redford's adaption of Norman Maclean's classic tale.

This is a fairly comprehensive list as there are not too many bamboo-oriented DVDs (or VHS tapes) available. * Titles with an asterisk are available at www.goldenwitch.com .

D. Internet Sites

1. Golden Witch Technologies, Inc. www.goldenwitch.com . Featuring Peak Bamboo, Arcane Components, plus tools, components, and raw materials sourced from around the world. Reel seats, grips, cork rings, winding checks, hook tenders, silk threads, agate and agatine strippers, snake guides, tiptops, vintage guides, rod sacks, rod tubes, and much, much more. GW also features lots of educational materials, including several DVDs and our Rambles...most, but not all of which, are Russ spouting off on this or that rodmaking subject: guides, attribution, varnishing, adhesives, etc.

2. Peak Bamboo. www.peakbamboo.com . The world's finest bamboo for rodmaking. Beginner's Packs and Sample Packs available at discount. Three grades. Single sticks, ten packs, graded bales. Rodmakers' Maps. A Rod Gathering Map. Educational Resources. Peak Bamboo is retailed through Golden Witch.

3. Genuine Bellinger. www.genuinebellinger.com . These folks have the big tools you'll need, most importantly the planing form, but also binders, bevelers, components, and more.

4. Tom Morgan Rodsmiths. www.troutrods.com/handmill.html . The Morgan Hand Mill offers an alternate path to making bamboo rods of all configurations. It's a well-respected tool.

5. Whitefish Press. www.whitefishpress.com . When you think you've read everything on bamboo rods and are ready to tackle the details of the craft's history, this small press will astound you with the depth and breadth of its offerings. Find your comfy chair, and pour a glass of...

Ladies & gentlemen, this short list doesn't even ripple the surface of the oceanic depths comprised of the bamboo-oriented firms which abound on the internet. Dive in and you'll uncover troves of data and sources.

E. Instructors

Check out Peak Bamboo's Instructor Map for more details as they become available.

1. Bill Oyster. www.oysterbamboo.com/bamboo-fly-rods-classes.html . Bill and his team teach vast numbers of new makers every year.

2. Doug Hall. www.bamboorodmaker.com . Doug is another prolific U.S. instructor.

3. George Deagle. George recently started teaching classes in Canada. Contact info: Telephone: (250) 285-3599 (home), or (250) 842-8725 (mobile); E-mail is nilkitkwa@telus.net .

If you're a *bona fide* rodmaking instructor, please get us your contact info and we'll gladly help students to locate your classes.

II. Hand Tools. You need tools, protection, and know-how.

A. Hand Plane, specifically a block plane. A vintage Stanley 9-1/2 or 9-1/4 is great, when outfitted with a new Hock iron. The new Stanley 9-1/2 will serve. If you want to start collecting fine tools, you'll want the Lie-Nielsen 60-1/2 Adjustable Mouth Block Plane. Lee Valley & Veritas also offer Standard and Low Angle Block Planes which have a great reputation. Russ and Matt use vintage Stanley 9-1/4 and L-N 60-1/2 planes; both have their charm. Read up, and learn to fettle your sole, especially on vintage planes.

B. The Usual Workshop Tools. A Mallet, froe (splitting knife), saw, files, scrapers, bench vise, alcohol lamp, etc. And sharpening stones. We prefer water stones. Keep those plane irons scary sharp!

C. Protection. Frank advises gloves or finger protectors (cots). In our litigious society, we'll also suggest that you protect your hands. But we'll admit we don't because we like to be in touch, directly, with our material and our tools. Bamboo is sharp and it can be splintery. If you fail to take proper precautions, you will bleed. We feel blood is compulsory. You can live if you're short a few drops of blood, but you can't see if you put out your eyes, so we'll urge you to wear safety glasses.

D. Know-how. Know-how is different from information. It's the practical, practiced side of learning a new skill. You must get dirty. Stop thinking and start doing. Split a culm, file a node flat, plane out a triangle. Get the basic tools. Read a book or two. Watch a DVD or two. Then the following Saturday morning go out in your shop space and use tools. Take your new experiences back to your info sources and re-read and re-watch. Go back to your shop again. You'll be amazed how things start to click! The intimidating becomes the familiar becomes the old hat, one step at a time. We think you can become handy with hand tools, if you have a mindset geared toward learning through new experiences.

III. Fixtures & Gauges.

Hobbyist rodmakers have been making bamboo rods regularly since Garrison's book first emerged in the 1970's. This means that there are plenty of used tools available if you ask around on the internet or at your nearest Trout Unlimited meeting or rodmakers' gathering.

A. Planing Form. As Frank notes, this is the key piece of equipment. Using plans and instructions in some of the books noted above, you can make your own. Most new makers buy or borrow a planing form. If you're buying, we suggest the forms made by Genuine Bellinger as noted above. To set the form, you'll need a depth gauge; Golden Witch sells one that was designed by Daryll L. Whitehead.

B. Roughing & Intermediate Forms. The Roughing Form allows you to get the initial 60° angle on a more or less square piece of split bamboo. The books have plans. Golden Witch also sells a finely made Roughing Form, with illustrated instructions. The Intermediate Form establishes the second 60° angle.

C. Glue Binder. There are many plans in the books and in back-issues of The Planing Form newsletter; several off-the-shelf models are available as well. This tool spins a tight spiral of cotton thread down the freshly glued blank to keep the planed strips nestled snugly together while the adhesive cures. Matt hasn't used a glue binder for years and counts a binder as optional.

D. Oven. You must heat treat your bamboo, either in the round as an un-split culm, or after splitting, or after rough planing but before you taper the triangles. The books detail ovens you can make. Golden Witch offers a bamboo specific torch that Russ prefers for heat treating and for adding color.

E. Dip Tank. Many makers rely on a dip tank, easily made at home, to apply an even layer of varnish on the rod

after the guides are installed and the guide wraps are varnished. A dip tank is not necessary, as the blank can be varnished by hand prior to wrapping the guides in place. Russ prefers a dip tank. Matt got his start hand rubbing blanks with tung oil.

F. Drying Cabinet. You need a dust-proof place to hang your curing rod sections after you've varnished them. The drying cabinet is best made from a cast-off kitchen pantry cabinet which has had the shelves removed, and small hook-eyes installed in the "ceiling" of the cabinet. Or use an empty closet.

IV. Materials.

A. Bamboo. Peak Bamboo keeps thousands of culms in stock for prompt shipment. Peak includes coupons for discounted components sold through Golden Witch. Peak's higher grade culms, A & A+, also include fun extras like stickers and hang tags for your finished rods.

B. Grips & Cork Rings. Arcane Component Works offers fine quality loose rings and a number of traditional pre-formed grip designs, plus the unusual, and very hexy, Hexagrip®. Available through Golden Witch.

C. Silk Thread. Golden Witch offers a lovely array of silk diameters and colors by firms such as Pearsall's, Tire, YLI, Kimono, & Tiara. As an aside, you do want to wrap the guides on your bamboo rod with silk, not nylon. For detailed instructions on varnishing silk wraps, check out the Golden Witch Ramble on *Transparent & Translucent Wraps*.

D. Reel Seats, Ferrules, Winding Checks. Golden Witch has a large selection of finely wrought components. Don't skimp on ferrules – you'll want to use a reputable brand, such as CSE or Arcane Component Works because ferruling is the most challenging step of adding and fitting components to your bamboo blank. The good fit and finish of quality ferrules greatly eases the challenges of mounting and lapping the ferrules. The Golden Witch Ramble on *Ferrule Advice* is worth reading.

E. Guides & Tips. Golden Witch offers snake guides and tips in bright chrome, black, TiCH (the most durable), gold, and bronze. There's a guide Ramble, too, titled *Just a Few Guide Notes...* Russ personally crafts the agate and agatine stripping guides sold by Golden Witch.

V. Space & Time. The continuum within which craftsmanship is learnt and executed.

A. Space.

A. The Bench. The typical planing form is 72" long, so you need a workbench of at least equal length. The other bench requirement is that the beast be sturdy. If your flimsy bench rocks every time you move forward with your handplane, energy is wasted and planing becomes a burden, rather than a dance. Same thing when you're pressing and filing nodes using a heavy vise and a coarse file: you need your effort to translate into the workpiece, not into rocking your bench. Christopher Schwarz has written the book on benches – several, actually – so hunt down his books if you need to pause to make a strong bench. Lee Valley & Veritas offers sturdy, cast iron legs which make strong bench bases.

B. The Room. You could make rods in a 6' long closet equipped with a bench, but you don't want to. You're not likely to have a shop space with 10' ceilings, but it would be best if your room is at least 8' x 10' square, with a 6' x 2' bench up against one wall. Lighting is critical. Daylight is nice, but inconstant. Overhead lighting from several sources helps to eliminate shadows and allows you to work with a high level of attention to detail. The garage or basement can be co-opted for rod work, but aim to seal off your work space so you can control temperature, humidity, and dust.

C. Time The concept and passing of which will shortly fade peacefully into the background...

A master rodmaker might invest over a hundred hours making an aesthetically stupendous rod for a discerning collector, but a sufficient rod - functional, fishable, durable, and handsome – can be made in approximately 50 hours. For any one rod, however, that's a discontinuous week of labor, punctuated by curing times. In other words, even if you're making rods full time, no single rod is occupying all your time in a given week. For the novice, this simply means you are given every opportunity to complete discrete steps, then you may take time to pause while you study up for the next step in the process. A devoted hobbyist rodmaker, someone Frank would have considered "compulsive," can complete a rod every two or three weeks working only weekends and evenings. Ten rods into your career as a rodmaker and you'll start shifting your focus from the basics of 'how-to' to the details of rod tapers, flawless craftsmanship, and the nuances of aesthetics which define each makers' rods. After you've made a rod or two, one good way to keep making progress is to offer rods to friends and family for just the cost of components – and let them pick their taper & parts while you keep challenging yourself.

VI. Procedure

So far we've followed Frank's outline pretty closely, but in theme more than in detail. Now we're getting into the nitty gritty, and Frank nailed this stuff. We're tipping our hat by following him step by step, with only modest revisions. This is NOT the how-to book Russ & Matt will write someday. It's Frank's work, with our tweaks; if you care about differentiating his words from ours, you can compare his original report to ours pretty easily as we've kept his numbered steps through-out. Mechanically, rodmaking is a largely subtractive process, carving the elements of a very delicate rod from a quite massive bamboo pole. Conceptually speaking, though, rodmaking is an additive process as makers glean tips and techniques from each other synchronically and diachronically. Attribution is critical – Russ wrote a long Ramble on this subject. That's why we keep repeating Frank's name. Interestingly, Matt categorized all the stuff Russ writes as "Ramblings" when Matt created the Golden Witch website...that word, ramblings, is taken directly from Frank Armbruster's original FREE REPORT and it's one of the many debts we owe to Frank. And without further ado, here are the procedural steps:

1. Secure some references. Subscribe to The Planing Form. Get on the internet.
2. Read and watch everything you can. Lurk on rodmaking forums. Learn.
3. Decide if bamboo rodmaking is a challenge you're ready to undertake. You know you want to.
4. Start buying stuff, and/or building stuff. Order bamboo, cork, silk thread, ferrules, reel seat, and guides...you might want to put off ordering the winding check and tiptops until after the blank is complete since these must be snugly fit to the blank. Decide if you want to build or buy the planing form, roughing form, binder, oven (or torch), and so forth. As a worthy side note, "stuff" is a venerable technical term denoting previously delineated materials and tools, the use of which dates back at least as far as Joseph Moxon's seventeenth century work, "Mechanick Exercises," i.e., it's not a modern form of linguistic laziness or slothful recalcitrance in the face of daunting particularity. This sort of obsessive detail sends Matt, deathgrip upon his blood-red Scottish editorial dirk, through the roof, even if these details are historically fascinating. This helps to explain why I'm "Tolstoy" and he's "The Scot."
5. Wait for your bamboo to arrive. Shameless plug: if you buy Peak Bamboo, your Thank You package will arrive by Priority Mail, typically before the bamboo arrives by Ground UPS. The Thank You package has coupons for discounts on Golden Witch's two bamboo DVDs, a site-wide GW coupon good on tools, components, and other raw materials, a coupon for a discount on Arcane Component Works components ...and the coupons get bigger, better, and more varied the more sticks of bamboo you buy. We include a set of vintage guides with a rod taper and some rodmaking notes. If you order A or A+ cane, you'll also receive a hangtag & rod decal with each culm ordered. Everyone gets a few nice stickers for your car or rod tubes, too!
6. Locate your space. Find your rod shop. Buy or build your sturdy bench. Make or buy your fixtures.
7. Gather your hand tools. Russ notes that when he was apprenticed under Daryll Whitehead, he bought necessary tools as he went along from step to step, which helped with budgeting. You need an oven or torch to heat treat the bamboo, then a froe & mallet to split the bamboo. Before long, get that sturdy bench, a heavy vise, an alcohol lamp, and a coarse file which are needed to prep the nodes. Tool by tool, step by step, you conquer each small challenge.

Excluding the tools, it's worth bearing in mind that for every \$300.00 or so you invest in one rod for materials and components, you're making a rod that might sell for \$1000.00 or far, far more. Time is your biggest investment, and it's time well spent.

8. When the bamboo arrives, impart a drying split. This is a single split running the full length of the culm (or the full length of each section of the culm). Start your split in a "flaw"...a leaf node, a bug hole, a watermark. Imparting one drying split minimizes the number of random check splits that will develop while the bamboo continues to dry and acclimate to your shop's humidity levels.
9. Wait for the bamboo to dry, if it's green. While it's drying, learn to sharpen your plane iron. Keep making your fixtures and gathering tools. FYI – haunt antique malls for affordable, functional tools!
10. While you're waiting, select a rod taper that you'd like to make. The taper chart tells you the cross-sectional dimension at each 5" location (contemporary) or 6" (pre-contemporary) location on the blank (measured flat-to-flat, as opposed to corner-to-corner), which is plenty accurate for you to duplicate the basic parameters of any traditional rod. Matt and Russ each provide a favorite at the end of this report.
11. While you're waiting, set your planing form using the taper chart.
12. Split the culm (heat treat FIRST if using a torch!) according to the instructions in your primary reference. Be careful! Twist the froe or knife, don't push. Split out six strips for the butt and twelve for the two tips – plus as many sound spares (no bug holes, no leaf nodes) as you can manage from each section of the culm. Stagger the nodes and trim the strips per your reference. Don't trim the spares as you don't know where they'll be needed within your node staggering pattern.
13. Carefully file the nodes flat on the enamel side. You may prefer to heat, press, and then file the nodes flat. There are different schools of thought on this process, so follow your preferred reference.
14. Put a strip in the Rouging Form and establish the first 60° angle on the strip.
15. Using an Intermediate Form (or the larger, butt side, of your planing form) and establish a second 60° angle...and as you plane you'll find that the third 60° angle establishes itself to form, in cross-section, an equilateral triangle with NO taper over the length of the strip and large enough for one tip section.
16. Make at least eleven more strips like this first one. You need only twelve strips for the two tips (only rough out a spare if you've bugged up a good strip). These strips are not tapered, but are equilateral in cross-section over their length and ready for the final planing form. Sharpen your plane iron again. We prefer to sharpen after every six strips during rough planing.
17. Using the same method, make six larger strips for the butt section. Sharpen again.
18. Using the information in your resource, you may heat treat the untapered strips now. Skip this step if you heated treated your culm in the round with a torch prior to splitting.
19. Put one of the small strips into the groove – previously set – of the adjustable planing form.
20. Hold the strip down and start planing it to fit the groove. Turn the strip in the form frequently so that you plane each pith side equally. DO NOT plane any material off of the enamel side (the valuable power fibers lay directly below the enamel and will be exposed later in the process). Take very light cuts with your plane. Plane each strip down until it fits precisely in the groove along its entire length. After the strip fits into the groove of the form perfectly, we'll call it a spline. Sharpen your iron.
21. Make at least eleven more tip-section splines just like the first one.
22. Use masking tape to temporarily bind the splines – enamel side out – into a hexagonal rod blank. Put the tape pieces somewhere OTHER than at your five-inch planing form station marks.
23. Use a micrometer or caliper to verify that you're at, or slightly over, the spec at each 5" station. Remember, the glue

will bulk up the blank diameter just a hair, then you'll remove just a hair when you scrape and sand off the enamel. Don't stress – it's normal to be plus or minus a thousandth or two, and this is your first ever bamboo rod. Do not sweat miniscule details. Get a rod made. Make another.

24. Turn your planing form over. Re-adjust it for the butt section dimensions. Make six splines for the butt of the rod. Sharpen often – maybe after every spline is complete if you're becoming obsessive.
25. Tape up the butt strips and check their specs. Now, you've got the butt and two tip sections taped up, enamel side out. Use a sharp razor blade and cut down one of the seams between splines so that the splines "unroll" and are backed by the tape, creating a group of six side-by-side triangles which lay, enamel side down, on the bench.
26. Spread on the glue. Roll the strips back up into a hexagon.
27. Tape the hexagonal rod sections again, quickly, between the previous bits of tape.
28. Remove and throw away the tape used in the first round, i.e., the tape you slit before glue-up.
29. Run each section through the binder. [If you were wise and read this report through, you'll know you should have already practiced using your binder on unglued, taped up, blank sections, or on scraps of blanks from old rods, or even on dowels from the hardware store. You don't want to learn to use your binder while adhesive is curing on your first set of real blanks.] As you come to each circle of tape, remove it so that only the glue binding cord is holding the blanks together. This is messy! The string tightens the splines together and glue oozes out of the seams, but that's as it should be. Run the section through the binder in the opposite direction, so you have two criss-cross layers of binding cord on each section, which evens out the tension on the curing blank. Remove as much glue squeeze-out as you can before it cures. Straighten out the sections as best you can. Follow your reference. Clean your binder! It may be worth noting again that Matt performs this step without a binder. Clean your hands!
30. Hang the rod sections up to cure. While you're waiting for the sections to cure, go back and re-read your references and start planning (and planing) your next blank.
31. Tell your spouse that you just saved a minimum of eight hundred bucks!
32. If you're not married, walk up to a stranger and tell him/her that you've just saved eight hundred bucks! Walk away slowly, but with dignity and pride.
33. After the sections have cured, file and/or scrape off the residual squeeze-out as well as the enamel. You want to expose those beautiful powerfibers, but keep the faces of the hexagon flat and don't cut deeply into the powerfibers. Now "spine" the sections – check references for instruction.
34. Cut the sections to length and install the ferrules. Re-read our Ramble on *Ferrule Advice* and work through your references before installing and lapping ferrules. You don't need a lathe, but it's an awfully nice tool to have at this stage.
35. We strongly diverge from Frank's process at this point. Now is the time to make a grip from the cork rings you bought. Ream out your grip to fit the blank.
36. Install your grip and reel seat next, being sure that the mortise on your reel seat aligns with one flat on the rod, because your guides will all run down this flat. Remember, you located the spine previously.
37. Install a winding check if you choose, then wrap on the hook tender and the guides. Add the tiptops, too. We agree with Frank: wrap with silk. Varnish and cure the wraps.
38. Dip finish your rod, following your reference closely. For all varnishing steps, less is more. Use multiple thin coats, not thick coats, to achieve a sufficient finish. Thick coats will wrinkle.
39. Go Fish! Yes, it's a game. Have fun. Repeat often. It's a better life.

Summary and Conclusion (and other ramblings)

Frank's conclusion is worth reading, but we won't repeat it here. Instead, a few words on craftsmanship are in order. David Pye, a design professor at London's Royal College of Art, wrote a book titled, "The Nature and Art of Workmanship." His most critical insight is that creative work exists on a continuum between the 'workmanship of risk' and the 'workmanship of certainty.' The risky end of this scale is occupied entirely by freehand work, e.g., carving a bird with no jigs. The certainty end of the scale, today, would be occupied by robotic production and utter, inhuman, uniformity of output. Artisanal rodmakers inhabit a respectable middle ground. We need hand skills, coordination, care, and an eye for aesthetics and quality. We also rely, heavily, on jigs and fixtures to achieve the precisely angled, precisely tapered strips of bamboo which are joined to create the hexagonal rod. The more a maker automates the process, say with bevelers, the more they nudge their way into the workmanship of certainty, and there is room in rodmaking for light production operations. But, thankfully, there remains room for intentional risk and one-off rods. Some will judge your first rod, and subsequent rods, by how well it casts. Others will judge each rod based on how nearly invisible your glue joints are, or how few gaps they find in your silk guide wraps. We hope you'll judge your every rod by how much you enjoyed the process of making it, as much as on other elements such as function and high level craftsmanship.

Two Big Hearted Tapers *Recommendations for your first rod*

7613 LT

Length/Pieces:	7' 6" 2pc
Ferrule Size:	13/64
Line Size/Wt.:	5

Inch	Butt	Tip
0	.360	.204
5	.350	.196
10	.334	.178
15	.288	.168
20	.278	.153
25	.266	.138
30	.248	.120
35	.232	.102
40	.214	.088
45	.208	.066

Guide Spacing

Measuring from the tip of this 90" rod

Inch	Guide
0	Tip top
5	1/0
10.25	1/0
15.825	1
21.825	1
28.375	1
35.25	2
43	2
51.75**	3
61	Stripper #10

Russ Says:

This is a Lyle Dickerson taper at heart, and he must receive credit for taper.

His taper can be found in various references as the Dickerson 7613 (and there are at least two versions of this taper in circulation, which demonstrates that even a great maker is willing to continue experimenting with rod action). After making some blanks and rods to the original specs, I felt the rod was a bit overpowered for some of our smaller PA streams, so I knocked it down just a hair to create the 7613 LT version. Lyle's taper is perfect for heavier flies and windier conditions; the LT version presented here is better suited for smaller flies and calmer days. This is a great taper for beginners because it is so flexible in terms of application. It has the power to cast small bass and panfish flies at greater distances on large warmwater rivers like the Susquehanna, yet the accuracy and delicacy to settle a tiny trico just where you need it placed on a meandering trout stream. While not the perfect rod for either situation, it is adaptable enough to make your first bamboo rod your go-to rod in the months and years after you make it. Both Lyle's original taper and the lighter, LT version should eventually merit space on your rod rack!

**The forward foot of this snake guide should abut the tabs of the female ferrule on the butt section of the rod; don't worry if the measurement is off by a fraction of an inch.

501 E

Length/Pieces:	7' 0" 2pc
Ferrule Size:	13/64
Line Size/Wt.:	4

Inch	Butt	Tip
0	.290	.184
5	.282	.177
10	.254	.165
15	.241	.153
20	.228	.141
25	.215	.128
30	.203	.114
35	.190	.099
40	.187	.079
42	.184	.063

Guide Spacing

Measuring from the tip of this 84" rod

Inch	Guide
0	Tip top
4.5	1/0
9.75	1/0
15.75	1
22.375	1
29.125	1
36.375	2
44**	2
51	3
59	Stripper #10

** Below ferrule

Matt Says:

This is an Everett Garrison Taper, and the one Frank Armbruster named as a "good beginner's rod," so it's the first rod I ever made. It was also, incidentally, the first decent bamboo rod I ever cast, so I vividly remember the day I first took it out on the Little Red River to test it. Magical. I don't study the science of tapers, and I don't know about parabolas - I just know what I like, and this is a slow, smooth caster that epitomizes—to me—the feel of a classic bamboo fly rod. It planed out easily and to this day is still my favorite taper for calm days and small streams.