
The Lovely Bamboo

by Phil Kosmas

Bamboo bicycles? Say what?
What's that got to do with fishing rods?
Now that I have your attention . . .

Recently, I took the time to contact and introduce myself via email to Craig Calfee, of Calfee Design, who is based in California. Craig's story is an interesting one that evolved from a unique vision and concept to build custom bicycles made of bamboo.

He soon put his dream into action by assembling a company of craftsmen who now design and manufacture them. I learned about Craig from a fascinating television documentary showcasing his work which aired several months ago.

In my email, I explained to Craig that I make custom split-bamboo rods and how I wished to discuss ideas which raised some interesting questions and thoughts pertaining to the physical properties of bamboo as a natural material, with how it relates to both bikes and fishing rods. As a result of several communications with Craig, the common parallels we both seem to share and have come to expect in use of the bamboo products that we create are relatively simple, with factors being strength, flex characteristics and vibration dampening as topics of most importance.

Craig explained to me that in his fabrication process, a solid, un-split stalk of tempered bamboo is used to build the entire frame of the bicycle. In custom rod making, the thick outer walls of a tempered, hand-split bamboo stalk or "culm" containing the highest power fiber density is used to hand plane six splines into a rod blank. Craig informed me in his email that, "There isn't a particular bamboo species that we especially like. It should be known for good strength, in whole cane form and available in a wide variety of diameters and wall thicknesses."

I went on describing to Craig that Tonkin cane (*Arundinaria amabilis*) is most often the bamboo of choice in the rod

maker's realm, to which he commented by saying, "I tried Tonkin awhile back and found that it split too easily. It appears to be the strongest of the bamboo specie though, and it would be very interesting (for bicycles) if the splitting problem were solved. It has been suggested to try and make the bicycle frame tubing in six sections, like the fly rods. But that sounds like too much work! We already have too much labor in the wrapping, sanding and finishing of the joints. But I might try it one day, just for "fun", he added.

Bamboo in its many forms is a strong, super flexible material and its "power fibers" are what give a fly rod the classic action, personality and magical feel it is widely known for. The solid, six-sided construction of the power fibers, melded with the cross-section of a fine taper, afford the rod blank precision casting along with superior strength and durability. Bamboo is unique also in that it is strong in both tension and compression as well.

Vibration dampening, you ask? Well, when talking about bamboo bicycles, it makes a great deal of sense. Understandably, it is normal occurrence in the laws of physics for a product (in this case a bicycle frame) designed mostly of a natural, fibrous material (as compared to hollow steel or rigid metal composites found in a standard bike, etc.) to compress a bit, move and flow with the rider acting as a secondary "shock absorber" to cushion bumps and depressions in its path. Hence, vibrations will be dampened making the ride more comfortable as well.

The same principle holds truth in bamboo fishing rods. But for the vast majority of anglers, the use of simple terminology like vibration dampening when describing a fishing rod is almost forbidden to us!

Well, sort of, but not entirely without a bit of explanation. Most would say that they "want to feel the transfer of energy" in a

fishing rod and would have nothing to do with any type of "dampening" effect that would disallow or detract from one's ability to detect the strike of a fish. Makes sense, right? In many of the same ways that the bamboo bicycle frame will absorb some of the rough, bumpy ride and such - so too will a split-bamboo fly rod.

For instance, (in trout fishing with dry fly patterns) the subtle action of the bamboo tip section and natural "flex" of the power fibers within provide not only for a more delicate presentation of the fly to gently wisp a stream's surface, it also acts chiefly to protect fine diameter tippets from breakage or by inadvertently snapping-off a fly at the hook set. In my humble opinion, the translation of vibration dampening in a fly rod simply means accurate fly placement or shock absorbing characteristics.

The mere conclusion of such words tends only to be an afterthought to which the flycaster doesn't usually dwell upon, until we actually hook a fish. For a number of reasons, fly casting can at times be errant or unpredictable, and while reacting to rising trout, and "hook sets" aren't always things of beauty, we can thank the bamboo for helping to perfect that.

Does vibration dampening have a negative or adverse effect on the rod's overall feel or sensitivity? I can't seem to find a reason as to why it would.

I am impressed by the intriguing characteristics of bamboo. As an enduring natural resource and how quickly it grows and thrives in specific geographical regions, for its tensile strength (which incidentally is stronger than steel), and for its many uses and importance to mankind.

Furniture, flooring, construction and building applications, food sources, bicycles and fishing rods to name just a few - bamboo truly is a resilient, universal product of nature with endless possibilities.

***Editors note -**

State-of-the-art building material at one time in rod building history, Bamboo has been largely superceded by modern composites over the last half century. However, we often overlook the fact that Bamboo can do some things that modern composites can't.

I've saw Bamboo fly rods bend in ways that would have destroyed a graphite blank instantly. Bamboo has twice the compressive strength of concrete - roughly equal to steel, and will last for many generations, if cared for.

For the last decade or so, graphite blank manufacturers are using a type of resin to bind the fibers that is much better than what was used prior. It could last a lifetime too, at least in theory, if properly cared for. But since it hasn't been around long enough for anyone to know for sure, will our Great-Grandchildren be fishing with our custom graphite rods?

Time will tell, but we do know this - Bamboo will definitely stand the test of time. It also has a "nostalgic" aura about it that modern composites don't. Try a Bamboo blank on your next build. You just might fall in love as I have.



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