

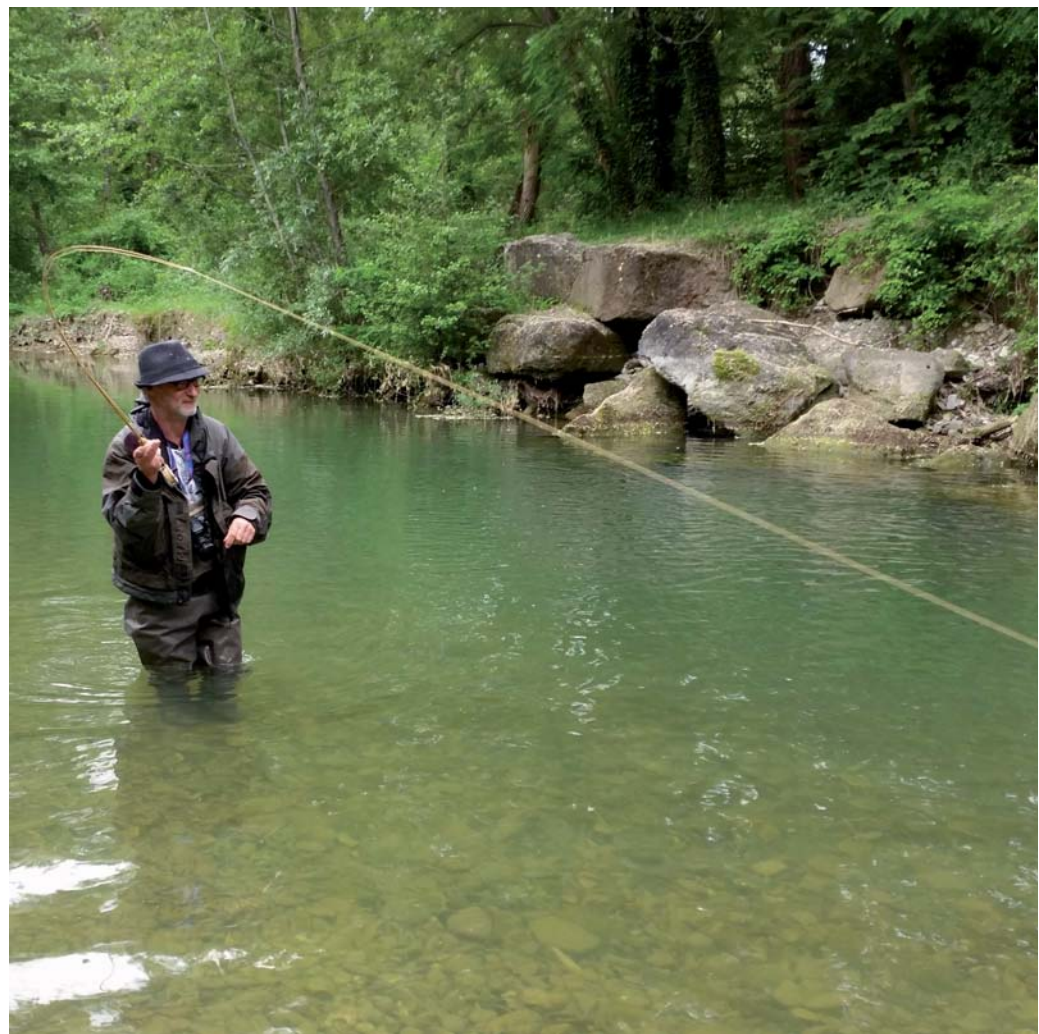


BAMBOO JOURNAL

IBRA ONLINE NEWSLETTER



Year 7
Issue 13
July 2014



ITALIAN BAMBOO RODMAKERS ASSOCIATION

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**Bamboo Journal issue 13 - July 2014**

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Photo on page 2:	The prizes in the raffle at the IBRA
Photo on page 72:	The Scalcoggia River - Italy



AMARCORD

As you know, this year we held the tenth gathering of the Italian Bamboo Rod Makers.

And as you know, after nine years as president, I have decided to hand it over.

IBRA is a relatively recent association, born in 2005 but since its foundation, so many things have happened that I can hardly believe it is only 9 years old.

Let me tell you briefly how our association was born and how it has evolved: perhaps not everyone knows, the new members and numerous Italian and foreign readers might be interested.

Besides, I like remembering with you: let me have my little "Amarcord"!

In Italy, we have a fly-fishing forum called Italian Pages of Fly Fishing - PIPAM.

It is a site dedicated to fly fishing in a broad sense, where until a certain date there was not a single thread dedicated to bamboo.

In Italy, bamboo fishing rods were considered tools of the past substituted by modern synthetic materials, at the most good enough to be hung on the wall of the living room as a souvenir of days gone by. Actually, there were some excellent makers, but news did not circulate and the art of construction was wrapped in mystery.

At a certain point, in about 2003, in the Pipam forum, Giovanni Nese - Jo to his friends - started talking about the construction of bamboo rods explaining the various passages with eagerness, patience and precision.

That is how I and other readers started building, overcoming many difficulties, above all in finding the equipment and the materials: but you know, enthusiasm is the main ingredient for the success of any enterprise.

I kept with other rod makers on the forum that had started building and we exchanged information, shared success and supported each other in inevitable moments of disappointment.

A lovely show was planned for the 16 January 2005 at Salsomaggiore dedicated to fly-fishing.

Here is part of an email sent to Marco Giardina and Alberto Poratelli

"I have been thinking of a meeting of bamboo rod makers for a while, one like they have in the USA, where in many states they have annual or biannual "gatherings" for builders, collectors, aficionados or just plain curious people.

I think they are important moments for our passion: at once we can see and try many tapers, which we would otherwise never come to know about, we can see the work of others and perhaps get ideas to improve our own, compare ideas, techniques and solutions with others, etc.

I was thinking we could organise it for the beginning of spring.

We could hold our first meeting to discuss the basis of the project at Salso on 16 January.

What do you think?

Gabriele"

Hence, I went to Salsomaggiore where I met Alberto Poratelli who hosted my first two rods on his stall and Ghost, Albano Barbiani, who unfortunately is no longer with us. I also met Walter Rumi and Marco Boretti, who were exhibiting their creations.

Here are some parts of the message I sent Marco Orlando Giardina after Salsomaggiore.

"Dear Marco, here are some observations and some gossip about the show in Salsomaggiore.

First, I am sure you have realized from the interventions on the forum that I am not the only one that notices that there is considerable interest in it: it almost seemed the news of the day. Perhaps we are really facing a rebirth.

We must take advantage of next week; I hope my work (the other one) will give me a breather. (top secret gossip follows)"

We started working on the basis of the first Italian gathering and through the Pipam forum, we announced the gathering:

With Otrebla and Ghost, whom I met at Salsomaggiore, and with Mog through emails we have started building the base for the gathering of the "bamboo rodmakers": the first one in Italy and in Europe, I think.

There are many things to define (almost all of them) but let us start with the anticipations and if possible to count ourselves.

Venue: Sansepolcro (AR) area Tail water Tevere

duration two days

Date 14-15 May

We are convinced that for all of us, fun aside, it will be a very important opportunity to grow (in rod making, of course!).

Just think: trying tens of different tapers, see tens of finished rods, give and receive information, ideas and experiences, see how others have resolved the various problems which still "haunt" us and then making new friends that share our passions: all this condensed in two days!

We would also like the meeting to be an opportunity for those who want to approach rod making, but do not know where to start.

In fact, on Mog's suggestion, we are considering the possibility of having a "Beginner session" dedicated to those who wish to start by giving them the information and basic techniques, with practical tests in real time.

We all know how difficult it was and how much time we spent looking for information, the necessary material and tools and only with the help of other rod makers that had started before us could we begin to build our rods.

I could mention many but, certainly, I could not mention all of them and I do not want to hurt anyone: all those who have helped us through a forum, writing articles, or directly, with passion and competence (and humility that often accompanies people of value) they contributed to letting us build our first bamboo rod.

In the end, it is a way to returning the favour in a small way.

For the lovers and users of bamboo it will be a type of "therapeutic bath" in the world of 'Arundinaria Amabilis, but we think it will be interesting also for those you want to understand why there is so much fervour over this wonderful natural material.

We needed a place to hold our gathering and with Alberto, we identified the TW Tevere where we knew there was a very active Fly Fishing Club Altotevere led by Mauro Raspini: I wrote to Luca Castellani and the Club literally swung its doors wide open for us, starting a pleasant collaboration, which remains unaltered today.

We decided to build a rod to give as a prize of a raffle and give the proceeds to charity, an initiative that became an IBRA tradition.

Barbiani, Boretti, Giardina, Gori, Poratelli and Savli, a Slovenian rod maker that participated in the forum, built the Gathering Rod together.

The time flew by while we were busy with the organisation and the first gathering was a real success.

Not only builders participated, but also many anglers curious to try a bamboo rod for the first time and many were surprised to find tools in their hands that could perform and be used in fishing.

The experience was very gratifying, other anglers decided to try the bamboo adventure, on the forum, the threads and interventions on bamboo started multiplying: hence, the stone had been thrown in the pond and something was starting to move.

We felt that what we had managed to build had to continue and grow and so we thought of founding an association with the objective of spreading the art of building bamboo rods and their use.

The founding members would be the rod makers that had participated in the construction of the Gathering Rod.

We prepared the statue, the deed and on the 25 July 2005, IBRA was born.

Since then the road has been a rapid and compelling sequence of events crowned with success.

Some of the main milestones.

September 2005 participation to the WTO with the beautiful bamboo only day, another traditional IBRA event:

May 2006 2° Italian gathering, the first organised by IBRA

November 2006 1° rod making course, the feather in IBRA's cap

May 2008 1° European Gathering

June 2008 recognition "Angler of the year associations section" of the Italian Fly Fishing School SIM

November 2008 1° issue of the Bamboo Journal

Events, shows and initiatives repeated and widened in the course of the next years until today, which have allowed us to meet many Italian and foreign rod makers, to share their experiences, to see and touch their work, activating and nurturing a growth process in all of us and the results of which can be appreciated tangibly by seeing the rods exhibited at our last shows.

All these things would not have happened without IBRA.

Approaching the end of my mandate, with the Directive Council I have begun to reflect on the future of IBRA.

The project is undoubtedly valid and will keep faith to the principles that have characterised it since its birth: sharing and harmony.

In our association there are not first class and second class members, only members that started building first and that make their knowledge and experience available to those who want to embark on this path: if they want, they can safely follow in the footsteps of those who have gone before them and then take their own rod in this fascinating adventure.

IBRA is also made of people who dedicate a lot of their time to organise and manage the association.

Above all, to plan its future.

For all this, ideas and new energies are needed: it is unthinkable to rely on the same few people forever.

Thus, the demand has arisen to involve other members in the various institutional and organisational duties so that, after having created the Association, we can assure its future.

That is why we have decided to open the Directive Council to other members and thus next to Poratelli, Borriero and Giuliani who represent the experience and continuity, two new councillors have joined, Davide Fiorani and Silvano Sanna who will bring innovation and new strength.

Certainly, in my decisions a little tiredness played its part, because the commitment is not small.

It was however above all the desire to verify if after 9 years we have built together something destined to last.

I am certain that the new Council will do its best and IBRA will see many long years of success.

Now let us look at the new Bamboo Journal.

The issue opens with the article by Jeff and Casimira Wagner who returned to visit us after having participated in one of our first gatherings, in 2006.

Jeff e Casimira wittingly tell their experience at the gathering and in other places they visited during their trip to Italy.

This is followed by an enjoyable article by Stefano Eugeni who writes about his approach to the world of rod making.

Then Stefano Ferri and Andrea Ferranti illustrate their methods for preparing the ferrules.

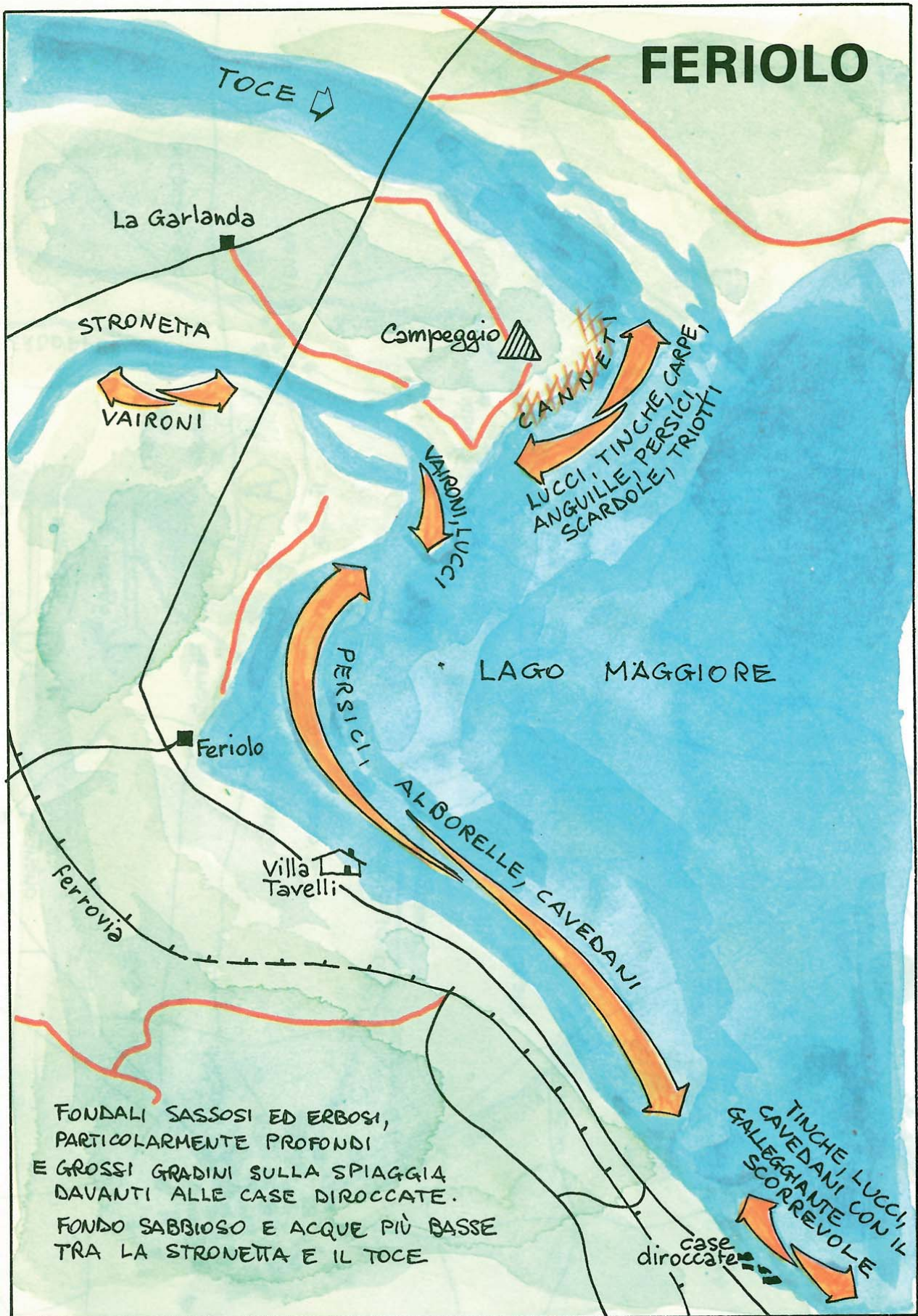
Maurizio Cardamone introduces his research and experience in the various methods of painting the rods and offers interesting ideas.

Marzio Giglio presents the first chapter on the work he introduced at the IBRA gathering 2014: to say that it is a revised version of an old constructive technique with the name of "Former Beam Method" is limiting, because Marzio has perfected an incredible series of techniques and tools.

I hope you enjoy reading it

Gabriele Gori





OUR EPIC ITALY TRIP/IBRA 2014



by Jeff and Casimira Wagner

Our trip began with flying into Florence, where we picked up our rental car and drove to Siena. When we visited in 2006, Siena was one of our favorite places in Italy. We thought it best to stay in one place to avoid feeling unsettled, and that way we could take day trips by car or bus to other places. It was a good plan as we found the buses and trains to run like clockwork.

Siena is a wonderful hilltop medieval town, large enough to be cosmopolitan and possess a wealth of attractions but small enough to be safe, clean and friendly. It has a fantastic neighborhood feel and is easily walkable. In fact, most of the city is accessible only by foot for non-residents, or by taxi with a special permit to drive the narrow streets. We stayed at Hotel Porta Romana, just outside the Roman gate. It was amazing. It did not suck to wake up to this view out of our window:





Hotel Porta Romana



Piazza Del Campo, Duomo in Background



It was just a short walk to the town center, the Piazza del Campo, which has to be one of the greatest public spaces anywhere in the world. The municipal buildings were built in 1340(!), and inside is a great museum and tour through some of the original rooms which includes some incredible frescos. I'll never get over being amazed that in Europe, old buildings like this remain and are venerated; here, anything old we tear down and lose our past.



Siena, Piazza Del Campo, Site of Municipality Government

We revisited the wonderful Duomo and took in some new things we didn't get to see before. One day, it just happened that the historic 1,000 Miglia came thru....more Bugattis and Mercedes and Alfa Romeos and other cars of the era than you could shake a stick at.

Every meal was incredible, and our favorite place was Trattoria 46, who took wonderful care of us. OMG, the food.... One day we took the bus to Florence to visit Pitti Palace, which we didn't get to see on our previous visit. Tons of art...Too bad we didn't have time to tour the gardens. Next time?

Our last big outing prior to the rodmaker's event was to go to Milan to see an opera at La Scala. We took the bus to Florence, then the high-speed rail to Milan. Why don't we have high-speed rail in the USA? It's an amazing thing to be going 180 MPH through the gorgeous Italian countryside and arrive right near town center. Can't speak highly enough about the train and the rail employees, they were extremely helpful.

La Scala, frankly, was a bit of a disappointment. Not the opera (Elektra) itself...although it would have been nice to see an Italian Opera instead of a German one..after all, we were in Italy!! The performers-singers and orchestra- were amazing. But the venue itself was quite plain and more than a bit thread-bare. I guess I was expecting something like the opera house in Bayreuth, but I was still glad we went and will never forget it.

We went back to Siena the way we came, and off we went in our rental VW for the drive to Sansepolcro for the IBRA gathering. An hour and a half or so, and about 2 dozen crazy roundabouts later, we arrived just in time to get settled and join the Thursday evening welcoming feast. Meeting with the organizers, we noted how 8 years after our previous attendance, some of us had less hair, while there were more swelled butts for others :)

The event is held at Podere Violino, which is gorgeous in it's own right, and the chef and staff were fantastic. This was the 10th IBRA gathering, and draws rodmakers from all over Europe.



Podere Violino



Ok, so what can I say about the Italians and Italy and this event to describe what's giving me the huge *hit eating grin I'm wearing while I type this? The people just have a certain classiness/style/panache/joie de vivre and appreciating eye for the small, beautiful details that I think is unique and wonderful.

Fabulous 5 course meals, white tablecloths, fine Chianti at a rodmaker's gathering? What planet am I on? And that's just lunch! For dinner, they get really serious! After dinner, we drifted happily off to sleep to the joyous sounds of late night revelers, who by then had got into the grappa.....



Friday was bamboo only day on Tail Water Tevere. The club that leases the water mandates that for this one day, all anglers must fish with cane rods. What a splendid idea! Arrive and don't have a cane rod? No problem, one will be graciously given to you to try. No better way to gain converts to cane!

I was converted, too! Our airline wanted an extra \$200 each way for an extra bag, so I arrived at the event empty handed in terms of reel, flies and waders.. I was shown a rack of rods and picked one up that felt just right, and also set up with reel and waders. My guide for the day was Daniele Giannoni, and off we went to fish. Daniele got me rigged up and into fish and it didn't escape my notice that he insisted I fish all of the best lies.

My Intrepid Guide, Daniele Giannoni



At one point I was taking a break sitting on the bank and admiring my loaner rod and Daniele's casting, wondering who made the gorgeous and functional tool I was so graciously invited to fish and had performed so well for me. I took a few pics of it, intending to try to track down the maker later.



Daniele on the Tail Water Tevere

We took a break for a wonderful streamside lunch, and back to the water we went until cocktail hour and dinner time. On the way back to the event I asked my Daniele how he got into building rods and he casually mentioned the rod I had been fishing all day was his! Ha! That was the icing on the cake.

Lunch!



While enjoying my lunch I noticed this gorgeous and innovative rod and reel by Argeo Babbi:



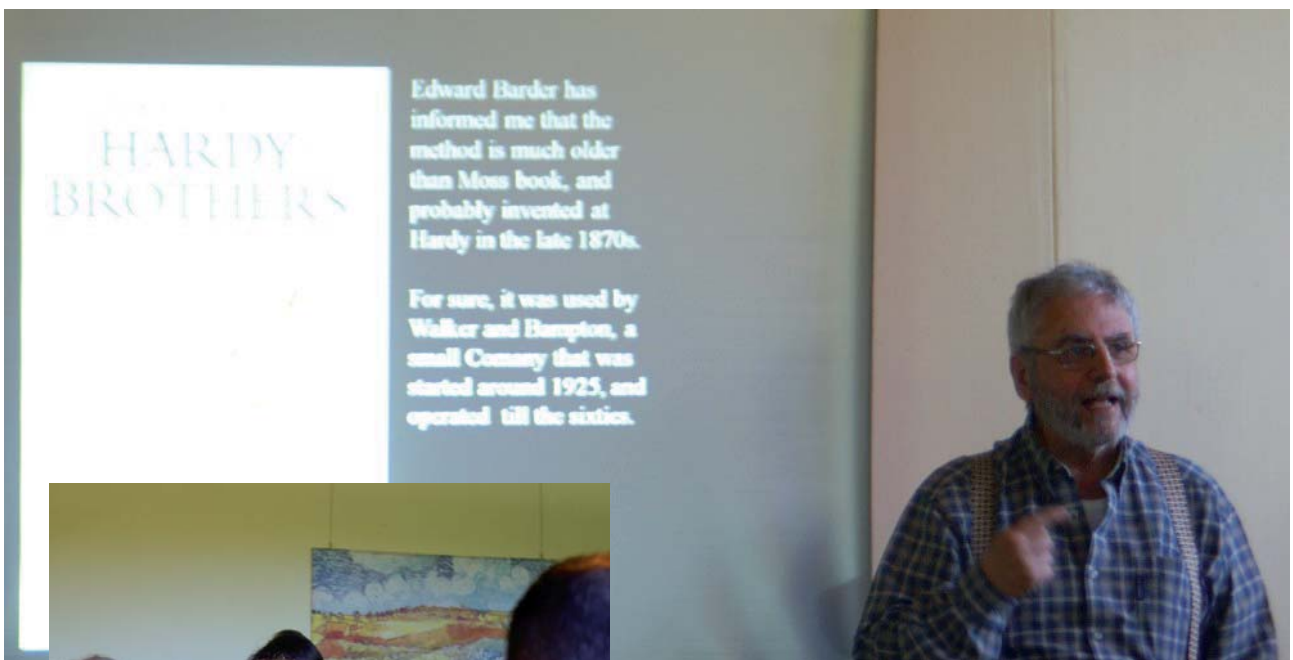
Cocktail Hour!

Saturday was a day of programs and presentations. IBRA President and all-around great guy Gabriele Gori opened the event and presented on the results and conclusions of his heat treating experiments

Longtime IBRA President Gabriele Gori



Marzio Giglio presented on the theory and demonstration of an old and little-known method of making cane rods using a wooden beam former.



Marzio Giglio explains the Beam Former Method



Marzio Demonstrates the Method



Marco Giardina presented on wood morphology, taxonomy and choices and finishes for reel seat spacers.

Franco Francucci presented on varnishing with epoxy glue and strip preparation for diamond rods.



Marco Giardina

Throughout the next two days, rodmakers displayed their wares in the exhibition hall, and on Sunday everyone was out casting rods until lunch time. Following was an IBRA meeting and dedication of IBRA corner, a small and inviting room at Podere Violino dedicated to the craft with beautiful showcases made by member Luciano Oltolini.



Below are some pics from the exhibition hall and event. Please excuse the quality of the pics, which doesn't do the rodwork justice, and also beg forgiveness for not getting pics of everyone's work.



*A Beautiful Spread of Rods
by Alberto Poratelli*



*The Always Smiling Luciano
Oltolini, With His Hand-
Crafted Agate Stripping
Guides (l.oltolini@alice.it)*



The Gorgeous Flaming Technique of Rodmaker Moreno Borriero (Special thanks for translating for us!!)



Hollow Built, Bamboo Ferruled Spey Rod by Davide Fiorani



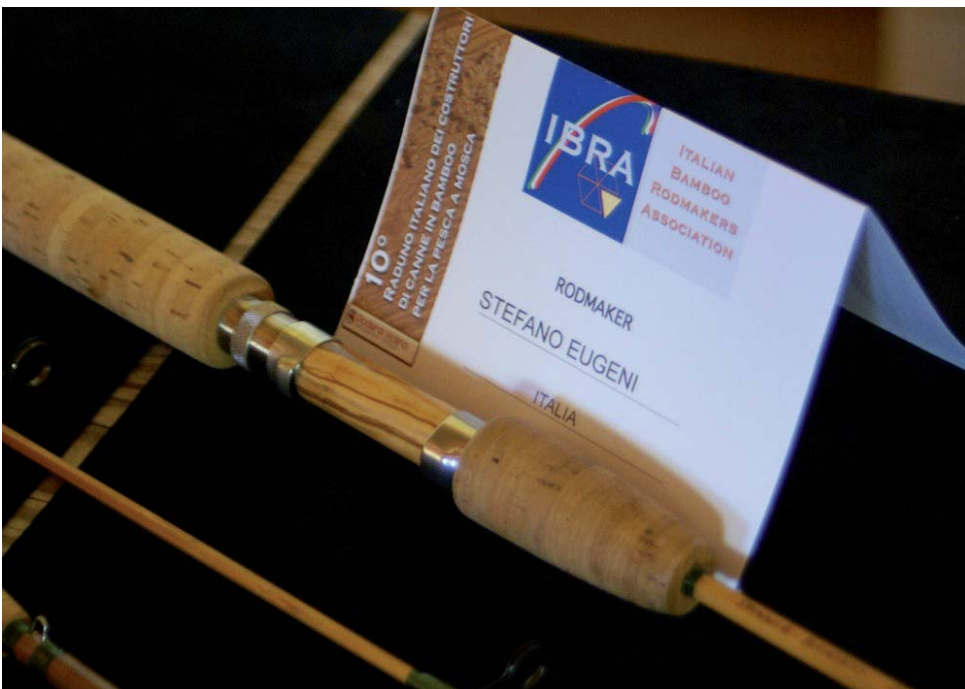
A Fantastic Lineup of Rods by Marco Giardina



*A Sweet Penta
by Davide Fiorani*



*Hollow Triangular Rods
by Tapani Salmi, Finland*



*And Baitcasters, too!
Stefano Eugeni's work!*



Casimira with the Very Talented Filippo Turetta



Silk Line Maker and Fly Tier Extraordaire Terenzio w/Myself



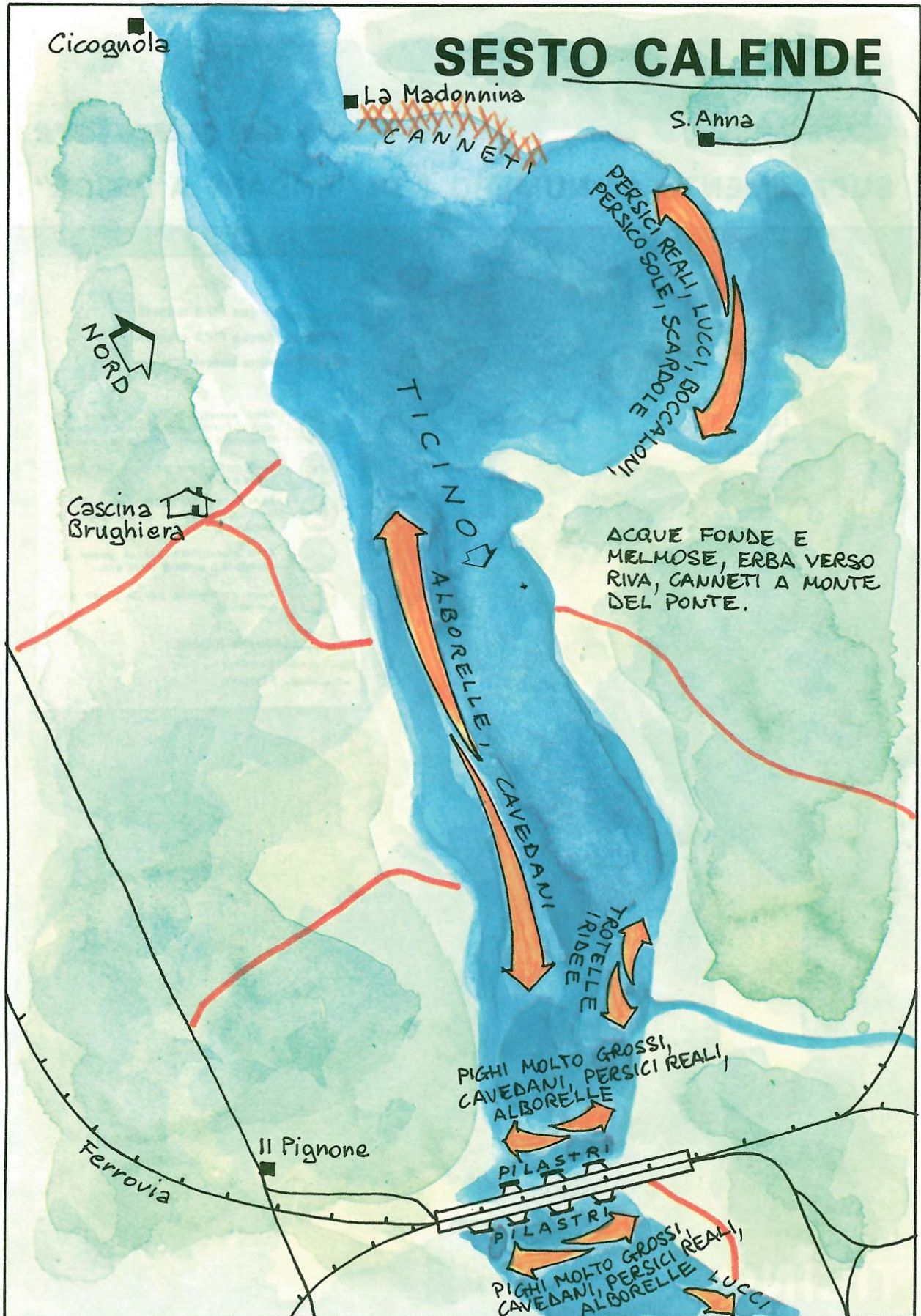
IBRA 2014

Casimira and I would like to thank everyone at IBRA for being such generous and gracious hosts, and special thanks to President Gabriele Gori, Alberto Poratelli, Moreno Borriero, Massimo Giuliani and Marco Giardina.

We had the time of our lives! Finally, one last thanks to the beautiful Rossella, who brought me espresso with a smile (unlike those dour ladies in Milano) and took such good care of us.

Ah, Italy.....





THIS IS HOW I APPROACHED BAMBOO

by Stefano Eugeni



I approached the building of bamboo rods thanks to my daughter: one day she drew a wooden fishing rod with a piece of wool with a goldfish dangling from it and asked me, "Do you like it Daddy?" "Why don't you make me one?" That is what I did.

From that moment, it has become a real hobby that occupies my days more and more and from which I have difficulty separating myself.

I started with researches on the Internet, getting information on the material and equipment to use.

Surfing on the Internet I met an association of bamboo rod makers, IBRA, which reunites famous builders all over Europe. Thus, I started building all the necessary equipment for the construction: it took me about four months for the planing form, following the design of Gabriele Gori, president of IBRA.

Once the planing form was finished, I had to find the bamboo. Not knowing where to buy it, I went along the banks of the river Tronto, where I found my first culms.

I dedicated the first rod to my daughter and called it Little Devil because it is her nickname; the second one I dedicated to my son and called it Empty Pumpkin, because that is the name my daughter wanted to call her brother.



I read that in May there was a meeting of all the IBRA members and I phoned Moreno Borriero to ask if I could participate and show my two rods. He invited me to the gathering and asked if I wanted to join IBRA, which I did very enthusiastically.

In this world I have met distinguished builders eager to give me the information which was unknown to me, wonderful people that have spreading knowledge as their motto and first in line I put Marco Orlando Giardina, MOG, who with his historical experience enchants you with his lessons, I owe a particular thanks to Alberto Poratelli, who with his culture, experience and patience has offered me precious advice on the construction.

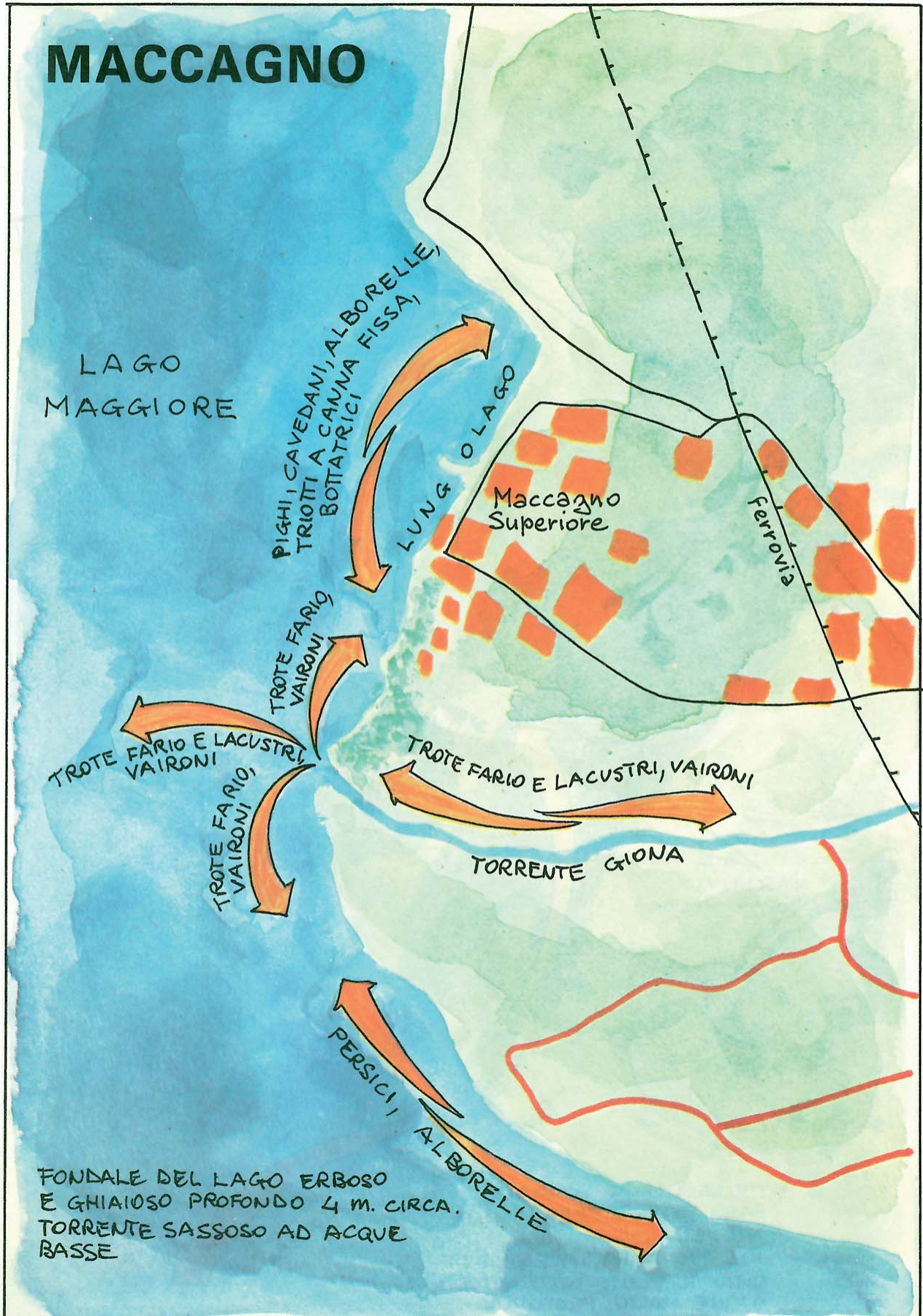
It has been many years that I have been following IBRA in national and European gatherings, participating with enthusiasm and bringing home a suitcase of useful information, so much that I have reached that point that I make them in personal sizes. My laboratory, if I can call it that, has remained the same with simple self-made equipment. Yes, I said personal sizes because I have tried to adapt them to my way of fishing in an attempt to correct my casting errors. I would like to end my tale by underlining the fact that it is not an evaluation of the quality of the rods, but only to let you know how I approached this fantastic world of bamboo.

One last thank you goes to my wife who put up with my late night awakenings, during which I would ask her opinion on sizes or other, receiving a simple reply *"sleep, we will talk about it in the morning"*.

Stefano Eugeni

Zuccavuota (Empty Pumpkin)





This is how I do it

by S. Ferri e A. Ferranti

This time it will be “This is how we do it” because from a discussion with my friend Stefano Ferri several considerations arose. We are speaking about ferrules.

I wanted to propose a condensation of two articles, but it seemed too complicated.

Therefore, we present them as we exchanged them and reread each other’s.

You will surely notice the difference in approach: Stefano is a perfectionist, meticulous and very precise. Instead, I like to get to the point and I try to overcome problems with efficiency and speed.

Otherwise, I would not have been able to plane 120 rods!

STEFANO FERRI

I start the article with a question: do you, building friends more or less expert, mount the ferrules as they are, from the factory, or do you make some modifications? I make some small modifications on all the components and the ferrules are no exception.

Nothing of what you read is mandatory, but, if you think about it carefully, you must have seen a series of rods exhibited and preferred one to another without really knowing why.

What makes the difference is not always obvious, indeed sometimes it is partially hidden or anyway, so in balance and in harmony with the general mounting that it does not “shout” its presence, but it is a particular, which can be perceived. The ferrules must not be simple metal junction tubes that we buy and mount, but a fundamental part of the rod that can be improved both aesthetically, as well as practically. If we want to go beyond the plain mounting of mechanical parts and we wish to further personalise our “creature” we proceed as follows: let us stick to the classic, so imagine a serrated ferrule with the cuts in the edges of the entry hole of the wood.



These cuts create 6 scales that correspond to the sides of our hexagon. If they are mounted as they are when they leave the factory, after some casts, on the tying in the point of contact between the wood and metal there is that annoying and ugly crack in the paint that is actually only anaesthetic, but which can be avoided or better, lessened. Furthermore, in the wrapping phase the thread finds a step when it comes into contact with the metal and this drives the more meticulous builders crazy... What to do? First we cut the sharp edges of the scales with a nail trim so that when the work is done they will have a point making the ferrule look like a crown and then, with the help of a lathe make the thickness of these points even thinner, this will reduce the contact of the metal with the wood in the final part to a minimum and there will be no difficulty in wrapping the thread of the tying, which will pass from the wood to the metal with continuity. Naturally, the rodmaker will cut the scales uniformly so that the "crown" of the ferrule, if it is tied transparent will be pleasant to see, it will give the impression of order and a job well done, which it is, in fact



Once the external part of the ferrule has been treated, we will need to deal with the housing hole of the rough piece and here there are 2 cases.

1) New ferrule: the nickel silver oxidises very easily and forms a patina, which is sometimes invisible and could compromise the gluing. Furthermore the ferrules are machined and are normally greasy and we do not know if they are cleaned with some detergent, so we will do it with warm water and soap and then alcohol that is a strong degreaser

2) Vintage ferrule... 9 times out of ten the inside of the housings for the rough piece is as black as carbon monoxide and this must definitely be removed. I built a small tool that I use with the Dremel and it is only a nail for wood without the head and I engraved a cut in it about 10mm long. In this cut, I insert a small piece of sandpaper and by slipping it into the holes, it takes away the oxide. Obviously, I use very fine sandpaper 600 or 800 so as not to compromise the diameter of the ferrule.



While in the hole that houses the male I always use very fine steel wool in the place of sandpaper or an ear bud soaked in body shop polish that removes the oxide. The last thing I do is flatten the scales with a pair of tweezers because they will come into contact with the sides of the hexagon that are flat.

After having washed everything with water and soap, we are ready for the mounting.

I add that at this point some with a screwdriver or something with a point make small grooves in the housing holes of the rough piece to create more grip with the glue.

I confess that I have never done it, but it sounds like a good idea.

Now we can mount. Once the glue has dried, I use the steel wool and then the polish with a paper towel on the ferrule, rotating the rough piece on my legs, this way I remove the sharp edges of the machining and I shine the ferrule.

I repeat they are small things that in my opinion make the difference; a little like Formula 1, where all the constructors have reaches a certain standard, so to achieve a good result they play on the particulars

Have fun

ANDREA FERRANTI

Some days ago, a rod maker friend ask me to show him how I mount ferrules.

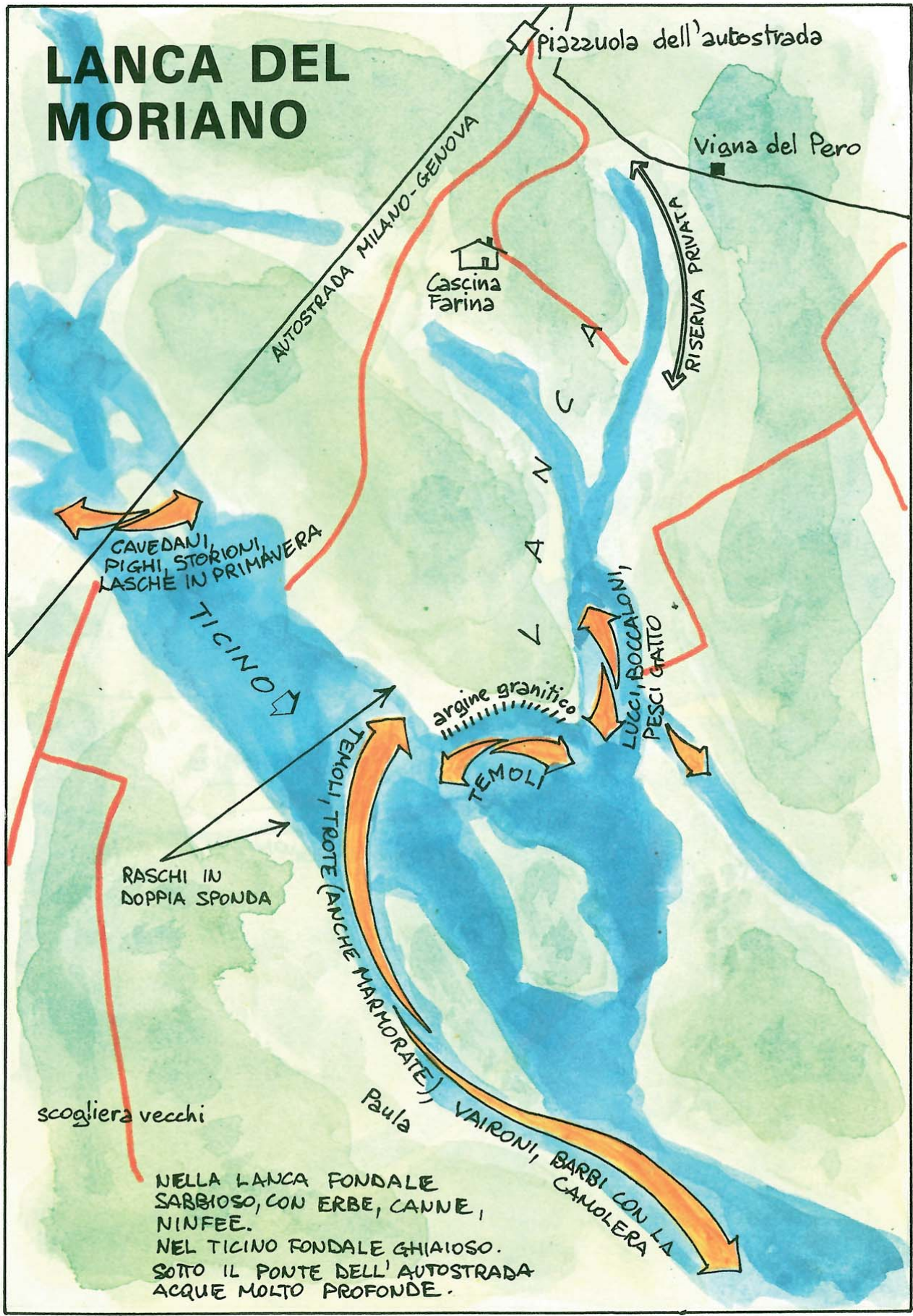
On principle, I always try to mount the ferrule on the upper limit of the scale. I will explain further: if we have a largeness of 0,193 inches between sides, doctrine indicated to multiply by 64 and so we have a value of 12,352. I have no doubts in choosing a ferrule of 13/64. The reason is that in my small experience I have broken various rods and coincidentally always at the ferrule junction. Why? Because I thought the ferrule had to be invisible in the junction rod/nickel silver. Very beautiful aesthetically, but dangerous from a toughness point of view.

However, in this way I had the problem of the step when tying the junction and it would happen that the tying was very visible and therefore the passage between metal and wood very ugly.

What could I do? To mount the ferrule, I use a small wood later to work the wood. A machine, for me, almost indispensable for precision jobs. With the lathe, the alignment between butt and tip is definitely easier. Thus, I mount the butt on the lathe I bring it to the right diameter with sandpaper. Then I glue with two component epoxy glue and wait for it to set. Once it is ready, I put the piece back in the lathe and I work it with a small, flat file to uniform the passage between the ferrule and the wood. I then finish it with steel wool to give the whole a total linearity. Tying the ferrule now will be easier and aesthetically more pleasing.

To bring the male ferrule to precise measure I use the lathe again after having placed the male ferrule on a stick that is the right size. Be careful, because it is easy to surpass the "right" size with the lathe and ruining the piece. I use very fine sandpaper (800/1000) and I stop very often to wet the male with paper soaked in water to lower its temperature.

I repeat the passages of the female and I achieve the same results to have an optimal wooden ferrule that does not leave steps that are difficult to overcome.



HOW DO I FINISH THE BAMBOO ROD?

(the poor-man dip tube)

by M. Cardamone



Spar varnish and polyurethane varnishes

Spar varnish, or simply Varnish, indicates a product suitable for the finishing of wood with aesthetic objectives (typically to give it a shine and enhance the grain), but above all, to protect it from humidity, bad weather, a saline atmosphere, etc. It normally consists of a drying oil, a resin and a thinner or solvent, and it does not contain any pigments.

The functioning mechanism of the varnish, very briefly, is the following (with all due respect for the experts): the solvent keeps the mixture of oil and resin in suspension until the varnish is spread on the wood. When the solvent evaporates, the heavy polyunsaturated greases in the oil oxidise combining with the resin giving origin to a finishing film of variable hardness and flexibility, which seals the pores of the wood and protects it from external agents.

Besides the basic components of the varnish we can also find additives that add anti-UV properties (that preserve the original colour of the wood in time avoiding yellowing or opacity of the layer of varnish) and additives that improve the application of the product or thickeners to limit the running of the varnish when it is applied on vertical surfaces.

The drying oils are usually of natural origin (flaxseed oil, Tung oil, walnut oil). The resin was once of vegetable origin, more or less fossilized or polymerised (amber, copal, shellac, dammar, pine resin, etc.), but nowadays the resin is often of synthetic origin (acrylic, vinyl, polyester, phenolic, epoxy, polyurethane). The solvent was typically the essence of turpentine, today efficiently substituted with white spirit.

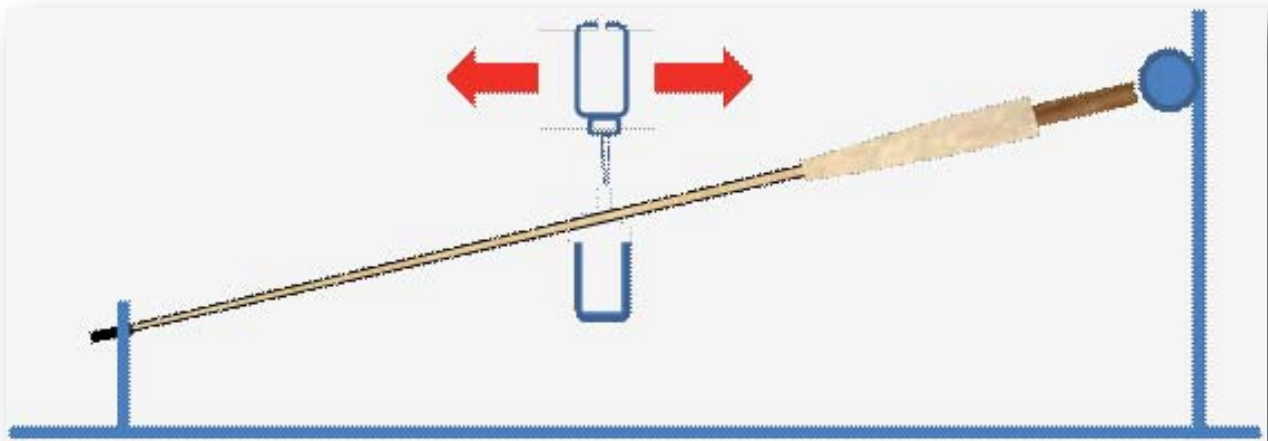
The composition in oils, resins and additives is formulated to obtain the maximum shine in the finishing (but there are also varnishes with a matt finish), avoid yellowing, whitening or opacity, they enhance the colour of the wood, besides preserving the elasticity of the film in time, keeping it free from cracks or peeling.

For example, the famous Spinnaker Gold (Cache) is classified as “mixture of resins and solvents, with additives”, while the Spinnaker Red is a polyurethane. The former should give the maximum in shine and flexibility, in addition to the characteristic of not needing sanding between one layer and the next. The latter produces a harder and resistant surface and it has a slightly wider range of application temperatures.

Various methods of varnishing

After a long desk study on the various Internet forums and some personal experiments (the first of which was a decent varnishing with a “Number One” brush), I have matured the conviction that the method that can guarantee a constant level of finishing is the dip tube one.

The only serious alternative to the dip tube seems to be the so-called “turkey baster” (a pipette widely used in the USA to aspire the juices of the turkey from the bottom of the pan and pour them over the meat). This tool is used to “drizzle” the varnish on the tip of the rod, rotating and inclined towards the bottom. The varnish drips in a spiral on the blank into a container, where it is collected with the pipette and poured from the top again. The process lasts until the whole piece is homogeneously covered with the varnish. At this point, we can debate on the optimal angle to hold the rod.



In fact, this method can be subdivided into two sub-methods: low angle and high angle. The supporters of “low angle” suggest about 10-15 degrees of inclination on the workbench. Here the varnish is poured by moving the blaster (which can consist of a plastic container with a pipette and a little hole on the bottom to close with a finger to regulate the flow) from the top part to the bottom part of the piece in rotation. The varnish does not pour far down the piece, but directly under it, where it is collected in a small cup held in the left hand.

In the high angle method (as quoted many times in the T&T YouTube video), the rod is held at an angle very close to vertical (60-70 degrees). The procedure is the same, but here the pouring component of the varnish has a substantial importance. The bottom end of the piece is held in rotation in a container where the excess is collected.

For the two different methods the ideal viscosity of the varnish is different and must be found by experimenting according to the product you are using. Some add additives to the varnish that increase the running on the wood, e.g. Penetrol, because with the “high angle” method it is necessary to reach the varnishing of the entire pole rapidly so that the correct redistribution of the varnish can begin under the effect of the rotation. The speed of the rotation is similar to that of a spit-roaster.

It would also seem reasonable that the density/viscosity of the varnish were at least sufficient to keep the drop on the rod until it reaches the container where the final part (typically the ferrule) rests.

If the varnish were more diluted, that is less viscose, the inclination would need to be increased to avoid that it leaks from the entire piece (as occurs in the “low angle” method) instead of remaining on the rough piece until it reaches the collecting container.

The advantage of this method (both versions) is definitely related to the simplicity of the device and to the fact that you can use reduced quantities of varnish, thus fresh at every application.

The device needs to be kept in rotation for a while (at least an hour?) before hanging the piece, sheltered from dust, to finally dry.



The brush method is not really considered for a professional finishing (even if in reality some famous rod makers still varnish their very valuable rods with a brush). This method is classified among the functional finishings (waterproofing and protection of the bamboo) but of little aesthetic value. Here we find Tru-Oil, Gorilla Glue, various waxes, Paraloid or other waterproofing products for wood (the latter usually used as “wipe-ons”, which is applied with a swab, a rag or even the fingers). These finishings are normally carried out before the tying, which will then be treated separately.

“Last but not least” there is obviously the spray varnish, but I think here we need a lot of experience and dexterity. Besides, of course, specific and potentially expensive equipment (good quality compressor, spray gun). In spray-varnishing the interaction between dilution, characteristics of the nozzle used, the air pressure and rotation of the rough piece requires a lot of experience (that I do not have).

The method that allows you to achieve a consistent professional result without specific dexterity is the dip tube method. You use a vertical tube full of varnish in which the rod is dipped completely (after having protected the ferrule and handle with adhesive paper) and pulled out of the liquid very slowly (about 5 cm/min, with pauses right under the rings). The slowness gives the varnish time to pour uniformly on the rough piece leaving a layer of homogeneous thickness and without lines or irregularities. I also think that the meniscus effect on the free surface gives an active contribution to the result by effect of the superficial tension. The risks, common to almost all methods of varnishing, are the small bubbles of air, the dust and the particles of various dirt.

Thus, all is well, except for two “small” problems. First: the availability of a certain height to the ceiling (a little more than double the maximum length of the piece to varnish, so 260cm for two-piece rods max ft.) and above all, for those who do not have a large production of rods, the quantity of varnish needed. With a tube 4-5 cm in diameter, often an aluminium rod tube, you need approximately two litres of varnish.

A “cheap” device for dip tube varnishing

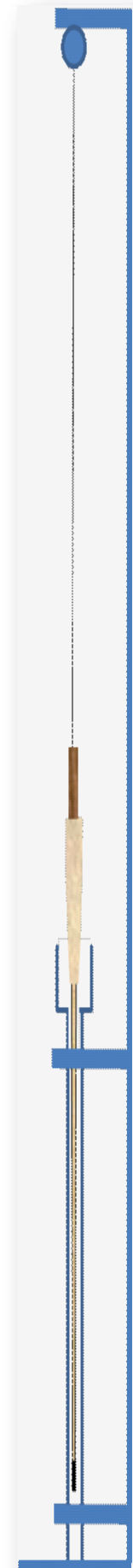
The first of the two problems, for those who have their laboratory in the basement or in a garage, is resolved by digging a well in the floor ((method discussed by Alberto Poratelli in an old article) or reserving a corner of the living room for this purpose (for habitability reasons you should exceed the necessary height there). Both solutions may require a nerve-racking and potentially expensive deal with your better half. Now, I have a very limited production, so I opted for the second approach, mitigating more serious problems (for the living room and the cost of the deal) with an easily removable installation, in fact it is portable.

Instead, I faced the problem of the large quantity of varnish by building a device different from the usual one, consisting of a tube with double the diameter. The maximum diameter of the pieces to varnish, at the stripping guide on the butt sections, is about 17-19 mm (for two-piece rods up to 8 ft. in length). I this designed a tube of only 21mm in diameter inside, joined at the top to another piece of tube with a larger diameter (about 50 mm). This kind of tube must be 125 cm high in total, of which about 116 cm of the reduced diameter and 9 cm of the larger diameter and it will allow you to varnish up to 8 ft. in two pieces. This device requires only ½ litre of varnish.

I found many images on the Internet of the same constructive concept, but I pushed it to the extreme with regards to “saving” varnish and the portability of the device, which I can store in the laboratory in the long periods of disuse and easily put it to work in the living room when I need it.

The “cup” in the top part of the tube is a fundamental characteristic because it performs two different functions: first, it creates an expansion tank where the level of the varnish can vary a little during the dipping and removing of the piece (that has a considerable volume compared to the total capacity of the tube). Second, it allows the piece to be perfectly centred in the meniscus of the liquid during the exit and away from the sides, (it does not matter if the piece touches the sides when it is dipped because the varnish lubricated the very slow movement). Third, it allows you to inspect the level of the varnish in relation to the position of the piece (for example to stop it rising when extracting the rod completely).

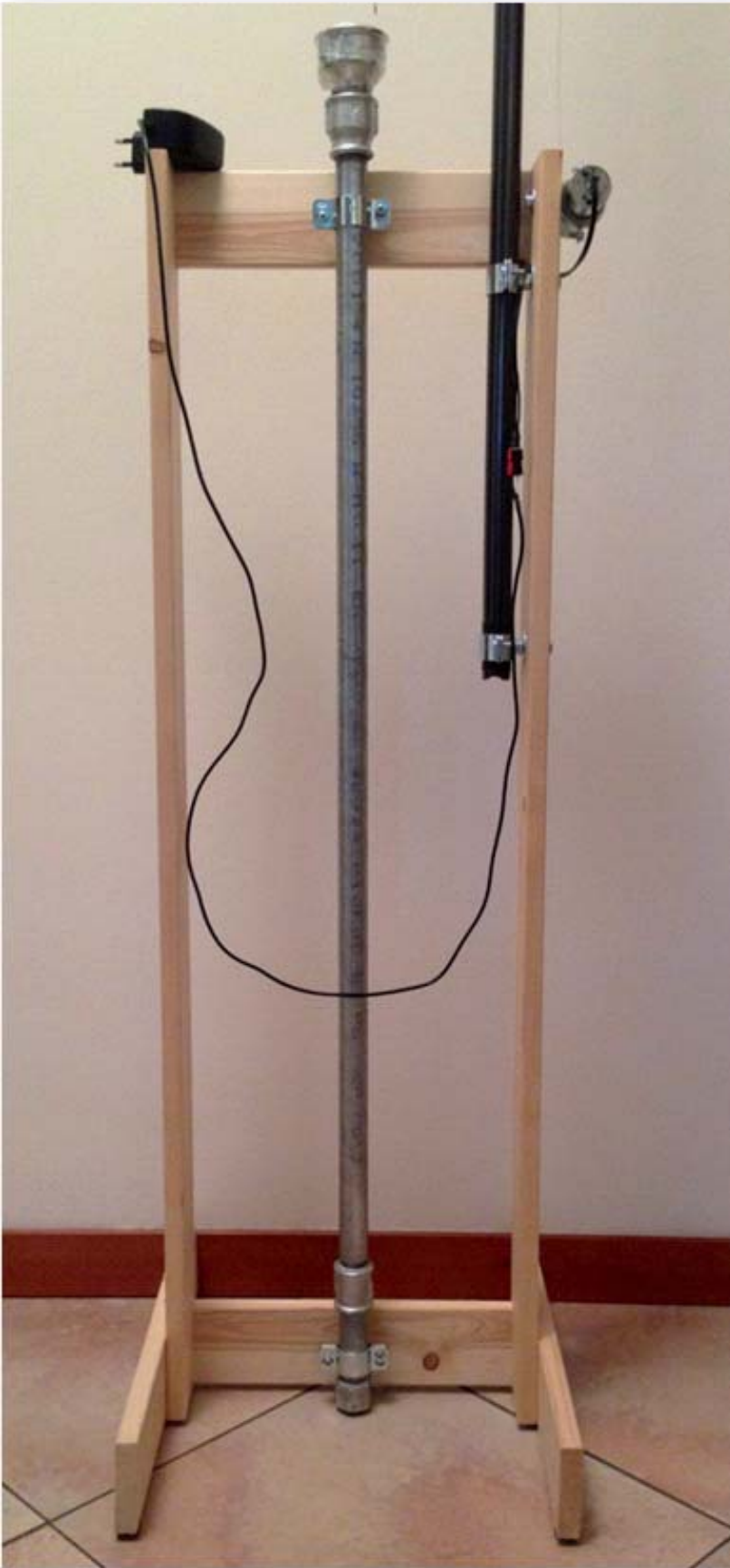
In this case, too, the optimal dilution must be found by experimenting the type of varnish used. The producers suggest a light dilution (10%) and only for the first hand, which must impregnate the wood, while the dilution should be much less or nothing for the subsequent hands. In fact, the modern varnishes are formulated with specific additives to obtain the best compromise between flow and application of the product and its capacity to produce a film of a certain thickness without irregular runs on the surface. This is valid for the brush, though, which has a mechanical action on the product: in our case, it is only the “weight” of the varnish (and the effect of the superficial tension) that guarantees a uniform application, so I think a greater dilution is necessary.





The reduced viscosity is also important to avoid accumulation and thickening at the guides. It needs to be seen of the use of very diluted varnish from (from 2:1 to 1:1, as many rod makers suggest) involves only the necessity to apply more hands to achieve the required thickness or a real difference in the result. If you cannot couple the tubes with different diameters by means of a welded flange, you can do as I did, very cheaply, using standard plumbing tubes: one or more pieces of $\frac{3}{4}$ threaded tube, in galvanized iron and various threaded joints, also in iron zincate that I found in a regular DIY shop.

The plumbing $\frac{3}{4}$ tube has an internal diameter of about 21 mm, which corresponds to roughly $\frac{3}{4}$ of an inch, so perfect for the scope. The upper cup can be created by coupling to threaded joints: the first one from $\frac{3}{4}$ to 1 and the second one from 1 to 1 $\frac{1}{2}$. The images clearly show how I composed the device. The piece of 10 cm tube that I joined to the base, was used to obtain the necessary length without cutting (and above all, rethreading) a longer tube. The zinc plumbing tubes need a slight internal finishing to eliminate the irregularities of the zincing process, which could scratch the rough piece during the varnishing. This is done easily by fixing a strip of emery cloth to an iron pole at least 60-70cm long. The tube must be held in a vice and our improvised "mill" will run back and forth with a regular electric drill that will make it rotate at medium speed to obtain the desired result (all you need are a few minutes!).

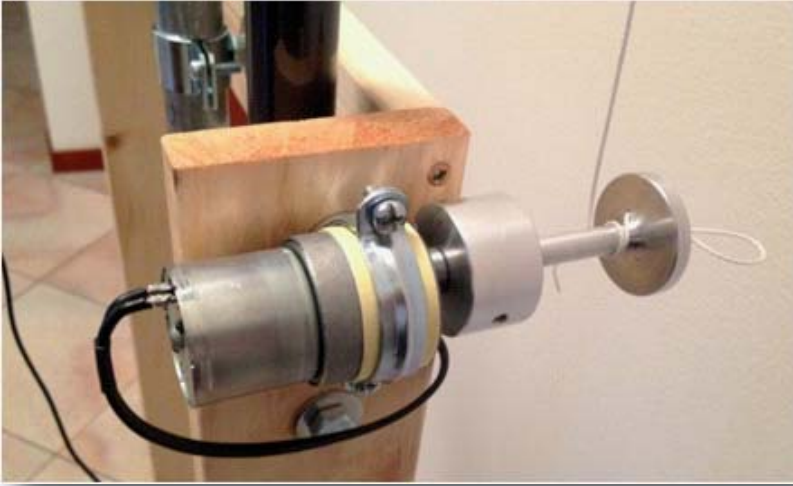


The various pieces are then coupled with Teflon tape, or even glued with epoxy and the whole is supported in vertical position fixing it to a wooden structure with two collars. If you want to exaggerate and you have a lathe (or better still, like me, you have a friend that has a lathe and knows how to use it), you can mill the internal threading of the last joint that acts as a cup. However, this is just an aesthetic whim, because the threading does not influence the functionality of the system.

The wooden trestle will also support a pole with a small pulley at the top with a small rope to which the piece to varnish will be hung. The rope is handled by a small electrical motor, considerably demultiplied, to obtain the requested speed of exit (circa 5 cm/min).

The motor too is fixed to the wooden structure with a collar. A double deflector turns the device on and changes the direction of the movement. My motor runs at 2 rpm, so my friend with a lathe (Paolo, whom I thank again) milled an aluminium spool with a diameter of 8 mm, that rolls about 25 mm of thread at every turn.

The pole that holds the small pulley (actually I used two simple eye screws) is telescopic, to reduce the overall dimensions of the apparatus and to store it easily when it is not in use.



The operations to carry out are:

1. Prepare the varnish, diluted with white spirit, in quantities slightly larger than necessary; for example with a tin of 500cc we get 750cc of ready-to-use varnish (dilution 2:1); mix thoroughly but not too energetically to avoid the emulsion of micro air bubbles;
2. Pour the varnish into the tube with a funnel; let the varnish flow along the side and ensure it does not form bubbles: a real risk considering the reduced diameter of the tube;
3. The level of the varnish must be over the base of the cup a few mm (by introducing the rod, especially the butt section, the level will rise a little);
4. Position the tube in the vertical support, close the opening with a top and let it rest a while; the purpose is to make any air bubbles or solid residues "float at the top" a few taps on the tube can help;
5. Dip the butt section in the varnish completely and tie it to the pulley by the handle (the ferrule will have been protected by adhesive paper tape, like the cork – which will not be dipped anyway – and the tip);



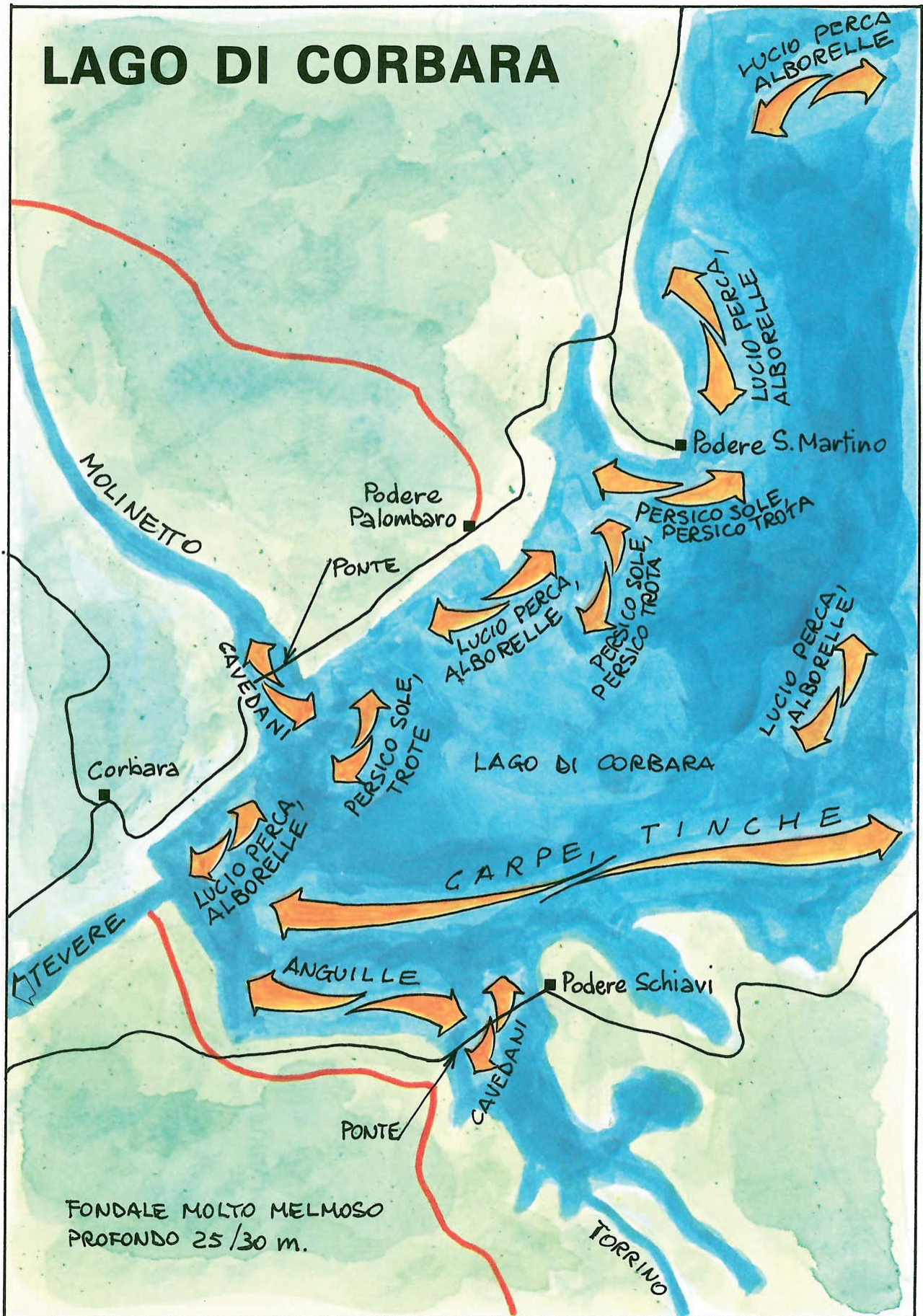
6. Wait a while to let the varnish “wet” the wood well, especially for the first hand;
7. Start the exit at a constant speed of about 5 cm/min, stopping at each guide to let the drop that could form, fall; the process will take about 20 to 30 minutes for each piece;
8. Hang the piece to dry in an environment protected from dust;
9. Repeat the exact treatment for the tip, hung from the top;
10. Once you have applied the first hand, close the tube with a top and keep it ready for the next hand, that will not be applied before 24 hours and not later than 72 hours (these times must be reduced in summer or if you work in a warm ambience);
11. A passage with very fine sandpaper is indispensable after the first hand to eliminate the “fluff” that can arise from the surface of the wood (the silk wrappings, instead, will have previously been treated and pre-varnished);
12. Small defects (bubbles, dust, inclusions) can be eliminated with fine sandpaper on well-dried varnish, obviously only before the last hand.
13. Once you have finished varnishing the rod (from 2 to 5 hands according to necessity or personal preferences that also depend on the dilution and thus viscosity of the varnish) put the leftover varnish (practically almost all of it) in a sealed container that does not leave too much air above it. This will guarantee a long conservation in time. The tube must be washed with the thinner and closed until the next time you use it, to prevent oxidization.

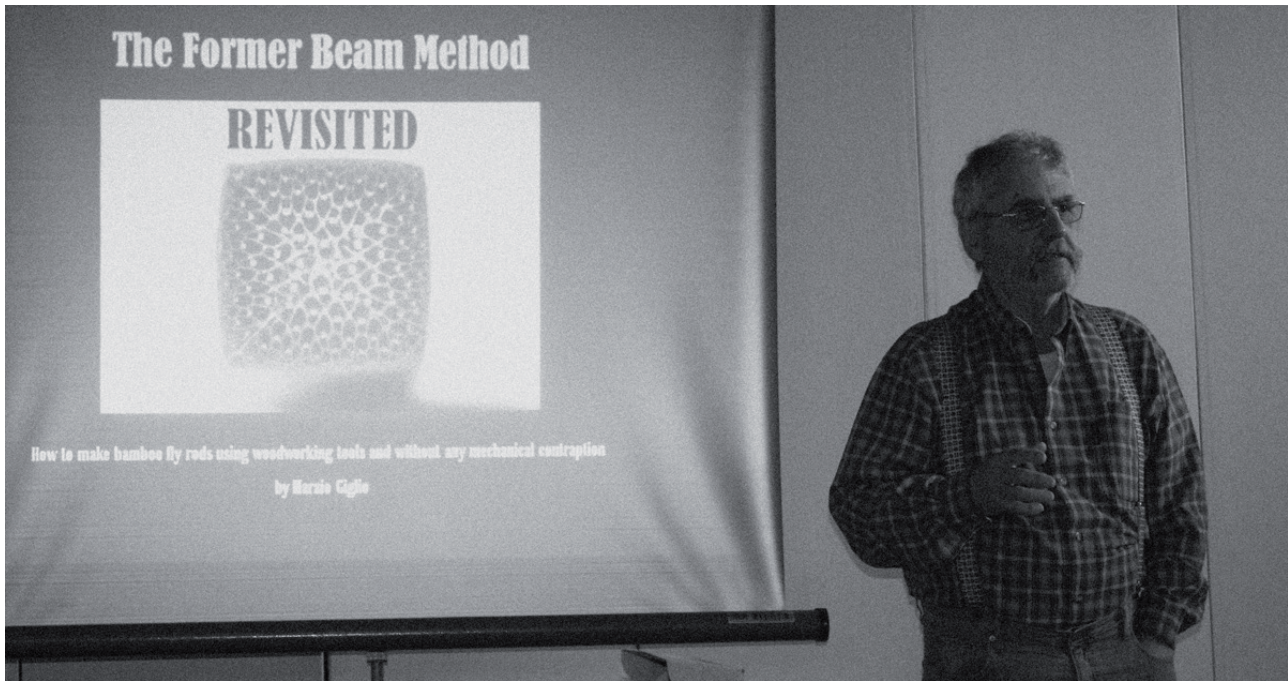


And here is my “Number One”, the fantastic Dickerson 7012 planed and made at the 2013 IBRA course, which after some initial attempts at brush varnishing (actually with quite dignified results), was completed with the tube.

PS: during the next transfer (for me in some months, probably) the varnish can be filtered. Any impurities gathered by the varnish tend to come to the surface or sink to the bottom. All you need is to cut the “head” and the “tail” at the next use to have a perfect product.

Do the same thing with the grappa, and then toast your new rod.





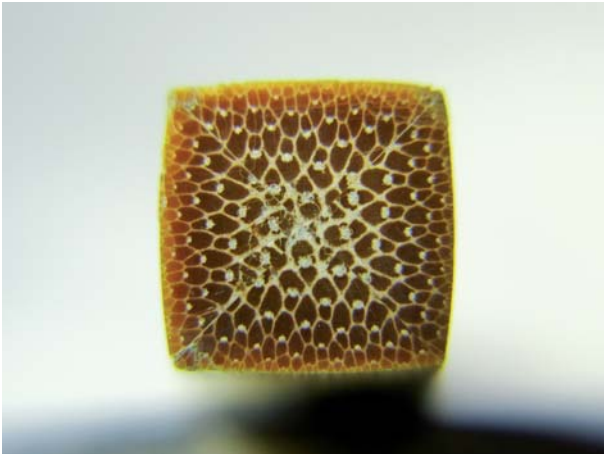
The Former Beam Method REVISITED

At the X IBRA gathering Marzio Giglio presented a work on the revamping of an old construction technique called "Former Beam Method", described in literature in a small book by Lawton Moss and published in 1947. The book was designed for amateur rod builders. The method is little known and probably not in use anymore. Marzio has re-elaborated the method to eliminate the limitations of its original form and he has developed a series of techniques to obtain an accuracy comparable to that of a planing form. The advantage is that the method requires only tools used for hand woodworking, like a block plane and a scraper plane. Marzio has devised a simple and ingenious technique to plane bamboo strips according to a taper. The technique does not require any mechanical adjusting system like those needed for the planing form or the Hand Mill.

From conversations with Edward Barder, the famous English rodmaker, it seems that the original technique is in fact, much older than Moss's book and it can be dated to Hardy, circa 1880. The technique was used by Walker and Bampton, in business until 1965. It has then been used until quite recently by small laboratories run by people initially connected with Walker and Bampton.

The presentation sparked a lot of interest and we thought it would be desirable to publish the introductory chapter of a booklet that Marzio is preparing on the subject. The chapter contains a little history of the method and a brief description of the innovative parts of the "revamped" method with technical comments and explanations. This part was expanded for this issue of the Bamboo Journal to supply a basic framework for the presentation of some of the photos shown by Marzio at the X gathering.

A long preface



Well established construction techniques.

If we had to choose an instrument as an icon of the rod maker's activity, the choice would almost certainly be the planing form. Most of us were introduced to the planing form by the detailed description by Hoagy Carmichael in his famous 1983 book on Everett Garrison, the "Bible" (see bibliography). It was a revelation for all of us, because after understanding how it worked, we immediately started to think that if we bought one, we would definitely be successful. And from the book we learned that along the journey we would be accompanied by the second icon of bamboo rod building, the Stanley 9 ½ block plane. A winning combination! The only problem now was choosing the taper we liked and build a rod. Any rod.

The planing form described in Carmichael's book is the refined and almost definitive evolution of a long series of attempts described in Herter's book (see bibliography).

It is a potentially precise instrument and expert hands can achieve accuracies close to a thousandth of an inch, the zenith for a rod maker. Of course, buying a good planing form is an investment that forces one to understand if he (she) is really sure of the journey one is about to take and face the expense of buying a professionally built planing form.

The alternative was and still is building your own, but it is not easy if you do not have kind friends with a well equipped machine shop, considering that to build one you need a good milling machine with a long enough table. The real "do-it-yourself", which is made at home with hand tools only, practically does not exist. Unless you are heroes. Or not fussy at all. Anyway, whichever path you might have taken, the planing form has been the tool universally used for the construction of bamboo rods for many years and I think it still is the most popular today.

Then Tom Morgan's Hand Mill arrived and it represents the only true innovative technique that substantially deviates from the planing form. The hand mill has perhaps reduced even further the chances of building the instrument on your own at home and without precision machines. Nevertheless, the Hand Mill has been very successful, among amateurs as well as professionals, regardless of the price considerably higher than for a planing form. I think the reason for this success is that many could not cope with spending so much time sharpening block plane blades or handling a defiant plane. And the Hand Mill throws both sacred objects away, the planing form and the block plane.

I do not have a Hand Mill, but I have read the instructions manual and I have seen it being used. I think it was a stroke of genius and I can imagine Tom Morgan's joy in conceiving and developing the idea. The use of the scrapers removes the hard limits imposed by the use of the planes. The proof is that, while the Hand Mill works on two sides of the strips at once, there is no technique that uses two planes that do the same. Even if, curiously enough, the antique plane that was sold at the highest price is and rare and perhaps unique double plane, or better, a gadget made with two planes arranged in such a way to plane simultaneously two sides of an edge, and invented by Mr. Tidey.

I tried to use something similar to build bamboo rods. It does not work. It is too difficult to align the two planes and press on both sides of an obnoxious rough bamboo strip sitting on a bed with the same continuous pressure. I made some tests: eventually, you lose contact with one of the two sides of the strip and accuracy is lost. I threw everything away after a few months of useless efforts. On the contrary, with the hand mill the alignment problems are greatly reduced. The two scraper cutting edges operate as zero length planes, and all you need is that the two inserts are lowered gradually, pass after pass on center on the bamboo strip. A job the machine produced by Tom Morgan does in a very nice way. Hats off!

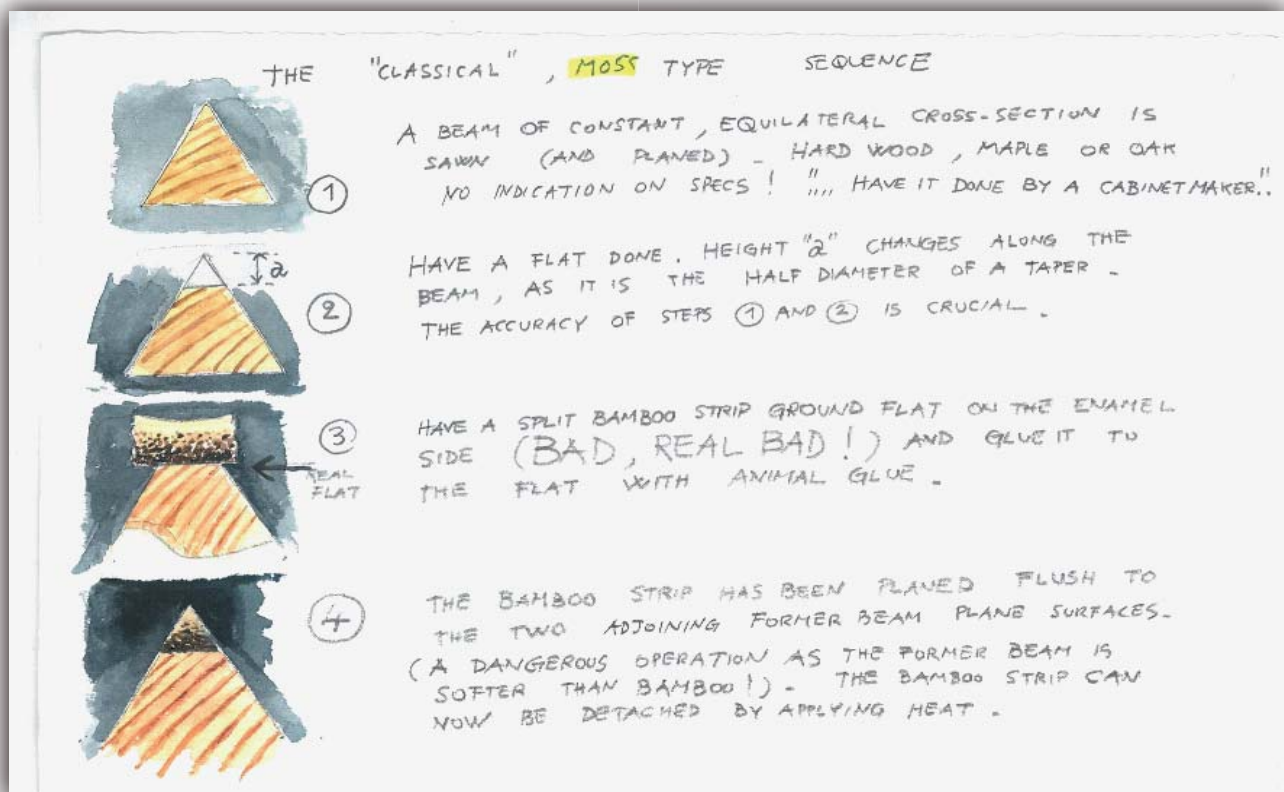
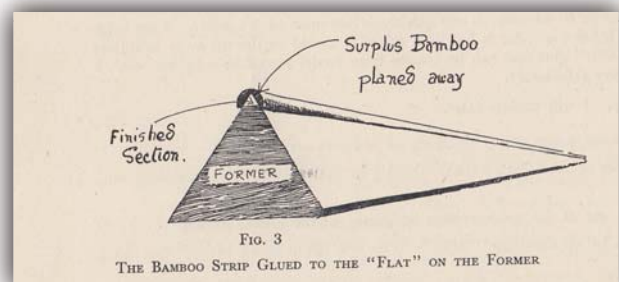
Older stories. A lesser technique.

If we go far back and explore the distant roots of the method described by Hoagy, we will find the first attempts to use rough versions of the planing form. I am not a rodmaking historian, but I think the furthest roots are undoubtedly in the US.

However, looking carefully, we find faint traces of another constructive technique, which probably very few know about, the so-called "Former Beam Technique".

As far as I know, the only book specifically dedicated to its description is a little book written in 1947 by Lawton Moss, who introduces it as a method suitable to satisfy an amateur's aspirations. The technique is very simple and anyone can set it up with very low costs and without the help of any device that needs to be built in a machine shop. The most important characteristic of the method is that it is based on a beam of wood with sharp edges.

The edges are planed, so to leave flat tracks on each edge. The void space above the tracks duplicates exactly the dimensions of the strip to be built according to a desired taper. To make an hexagonal rod the wood beam must be triangular and of equilateral cross-section. See the sketches below, one from Moss book, and the other to show details not so apparent in the Moss sketch.



Three split bamboo strips are planed flat on the outside (enamel side). They are then glued with animal glue flat against flat, onto the tracks on the beam. Animal glue is selected because it is reversible. The glued strip will have some irregular overhang protruding over the beam sides. The overhang will then be planed away so that at the end the strips will be flush to the beam sides. Finally the strips are detached by applying heat (do not fear. Violins are also taken apart this way, without damaging the wood nor the varnish. And can be reglued!).

Moss's book is rudimentary to say the least and it does not explain how the flat tracks must be made to have the desired taper. Although he does not neglect to recommend the precision of one mil with annoying flippancy. A real disease for rodmakers! The book and the method were severely criticised at their time by Herter and I think no rod maker uses this technique anymore. Rolf Baginsky too, in his book, speaking of the dawn of rod making, mentions Moss's method and seriously criticises it and in particular, the fact the method calls for the external planing of the bamboo with a massive loss of external fibers, the "power fibers".

But was the former beam ever used by professionals? By whom and when? I am doing a small research and I have discovered interesting things thanks to the courtesy of Edward Barder, the very famous rodmaker in England, who told me the technique was probably invented by William Hardy, in about 1880. He was disturbed by the presence in the UK of the US made Leonard rods and bought a few and had them unglued with hot water by a cabinetmaker. He then asked him if he could invent a technique to produce strips with the same precision as the Leonard. The answer was positive and it seems it was the technique described many years later by Moss. Certainly, with the presence of a cabinetmaker to suggest a constructive method, the story is plausible. Edward Barder also told me it was the technique followed by Walker and Bampton, partly founded by people from Hardy.

Walker and Bampton boasted about the fact that they used the old original Hardy technique and this reinforces the suspicion that the technique was indeed invented at Hardy. Again, thanks to the kindness of Edward Barder, I hear that, after the closing down of Walker and Bampton in the 60's, some artisans went at it alone and used the method until not many years ago. I believe that is fair to say that while the planing form was very openly described in texts that stretch along a lengthy period of time and is clearly marked US, the method of the former beam has remained underground and confined to the UK. The research continues with the help of Andrew Herd and Calum Gladstone, who were at the IX IBRA Meeting last year in Sansepolcro with Tom Moran. I heartily thank them.

Personal stories.

I am so old that my first contact with the world of bamboo rod making was in fact with the Former Beam technique in Scotland by pure chance in the late 70's during a fishing trip to Forsinard. With my dear friend Peter Behan I went to Forsinard to try salmon fishing in the rivers in the area. "Spate rivers" damned unpredictable, where you fish only if the river is in flood. But the flood never came, and we ended up fishing brown trout in small isolated lochs near Forsinard. During a trip back to the hotel, I broke my rod and Peter took me to Rob Wilson's shop in Brora to get a new rod. Mr. Wilson asked us if we were interested in seeing his laboratory for bamboo rod making. At that time, I had not started rod making and I knew almost nothing about the building techniques. I remember that the book on Garrison was not available yet. Obviously, I was very happy to visit and I still remember very clearly what I saw that afternoon.

Mr. Wilson took us to his laboratory, which was not far from the shop. It was on the first floor of a small building above a bakery.

I entered Mr. Wilson's laboratory with curiosity and wonder. Against the wall there was a huge quantity of long bamboo culms, and an even greater quantity of wooden beams with an equilateral triangle section, all painted emerald green, and as long as the bamboo culms. I asked him what the wooden planks were for. He answered they were essential for the construction technique. He took six planks with both hands and formed a type of large hexagonal pencil. Then he told me what was more or less described in Moss's book. Like Moss, he said nothing about how he guided the plane in the planing operation of the track according to a selected taper. Not having started constructing yet, I did not have the presence of mind to ask for more details.

In a small tray, there were some slices of double built salmon rods butts, to give the visitors as a small present. I noticed that the sides of the two concentric hexagons were clearly straight. He said nothing about the booklet written by Moss. Curiously, Wilson started his activity in 1947; the same year Moss's booklet was published.

Some years later, early 80's, I was lucky enough to borrow a copy of the "Bible", which I devoured in a few days. I reached the conclusion that the planing form was definitely better, and I started in that direction. A friend who had a top quality machine shop built my first planing form and I soon forgot of the method I had seen in Brora.

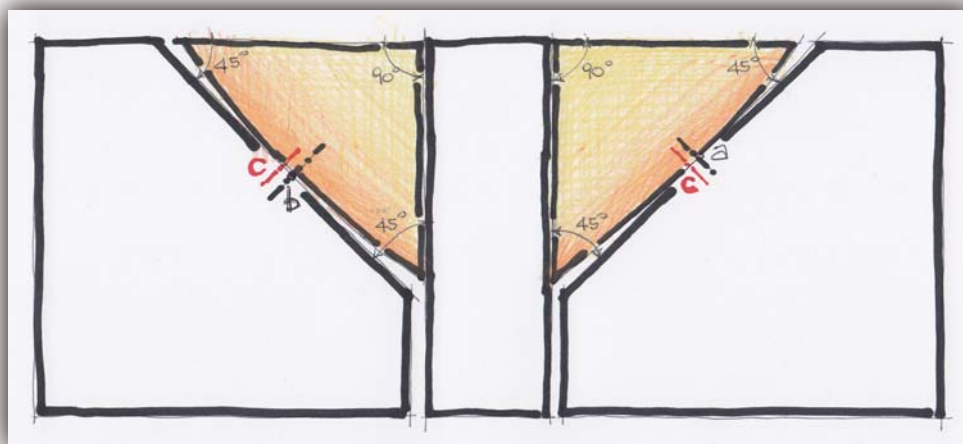
Building quadrate rods. A difficulty with the planing form.

In recent years I have been particularly interested in rods with a square section that I find have a more pleasurable action than the hexagonal rods, as they track very well in the casting plane (a personal opinion but commonly shared by aficionados of quadrate rods).

Working with a planing form, I noticed that I often stumbled on a peculiar instability caused by the pronounced curvature of the external part of the bamboo strip, which I remind you, in a quadrate rod, has a width almost equal to the diameter of the rod. This highlights the natural curvature of the bamboo culm more than with hexagonal rods, where the width of the enamel side of a strip is substantially smaller.

A strip for a square rod has a central angle of 90 degrees, confined by the flat surfaces that in section are the catheti, while the curved surface represents a strange curved "hypotenuse" and is the longest side. The one that in a planing form sits on the face at 45 degrees in the right and left grooves. However, while the catheti sides rest flat against flat to the side of the groove the hypotenuse side contacts the groove face along a line only (it is a cylinder against a flat surface).

In the drawing, we have indicate with "c" the middle point of the side at 45 degrees of the groove of the planing form. Ideally, we would like the curved surface of the bamboo to always lean on point "c". But it is not at all guaranteed that things will go that way, as there is no automatic correcting mechanism that will lead you there.



And if you manage to be “almost right” it is because by eye you keep under control the thickness of the air gap between the strip (enamel side) and the edge of the grooves, both in the right groove and in the left one. The best you can do is to try to keep these air gaps as equal as possible, by comparing them when you transfer the strip from one groove to the other. Hard to do at few mils accuracy by eye. Also, very tiring!

Realistically, the situation at the end of the planing session is as shown in the figure: in the left groove the strip leans on point “a”, which is above point “c”, but when it is in the right groove it leans in “b”, which is now under “c”. Obviously, “a” and “b” are arranged symmetrically compared to “c”. The strip fits perfectly in the two grooves (it will not wobble), the catheti are exactly at 90 degrees, so one could be happy. Perfection has been achieved! But it is far from being true, as the two catheti are unequal, and you will quickly realize that once glueing is done the section will look “strange” slightly rhomboidal or worse, trapezoidal. Slightly, but noticeably. If you measure the diagonals instead of measuring the diameters, you will be disappointed. If you are real good, there will be a difference typically between 4 to 6 mils! With just moderate accuracy, you can easily double that figure. So, why to be obsessed to keep the diameters within one or two mils?

Dissatisfied with the results with the planing form and wanting to use a system that would minimise the differences between the diagonals, I started thinking of the method I saw in Brora. I felt that it could guarantee great symmetry in planing the strips.

From that moment, I started working on the method and now, two years later, I think I have achieved interesting results, although improvable, I am sure. So this booklet is a “Progress Report” on the method. In future, if there is enough interest, I would like to publish a small book with many technical details that do not fit here, and more results about the performance of the method.

A preliminary result appears enlarged at the beginning of the text, under the title (I thank my friend Daniele Viganò for the photo and the many suggestions during his lunch breaks): a symmetrical square section.

Also, you can notice that the external power fibres are almost untouched. The diameters differ by slightly less than two mils, and the diagonals are within four mils, better than I ever achieved with a planing form. Exactly the objective I had set for myself.

I think the method could interest some of you. Especially those who have the additional hobby of woodworking (a cabinetmaker would learn the method immediately, certainly the cabinetmaker who unglued the Leonard for William Hardy). Anyway, I think it could interest those who love the planes, love tuning them with care and do not consider sharpening the blades a bore. With this, I have surely gambled the interest of those strongly biased toward the hand mill! But they would be wrong not to read further. Some points, like the part that concerns the method to create the taper, could be at the base of the construction of a rough but accurate homemade hand mill. This small booklet describes in part what I presented at the X anniversary of the foundation of IBRA in May 2014. Although this booklet describes a long solitary exploration that I wanted to do without talking to anyone until the final phase, it is with great pleasure to acknowledge the great importance IBRA had in all this. Without the stimulus of the atmosphere that IBRA has created in these years with the wise and farsighted leadership of Gabriele Gori, whom I thank with all my heart, all this would not have been possible. I thank Alberto Poratelli for letting me have a copy of Moss’s book last Christmas, for the encouragement, the help in editing, the illustrations and the continuous patient help in preparing this article for the Bamboo Journal. I thank Massimo Giuliani for his attention in moments of discomfort, for the advice and the photos of his very refined rods and the fish he catches. I know I will never get close to his levels in both fields. I thank Jo Nese for the late Friday afternoon chats on the mobile while he travels through various Italian regions. I thank MOG, with whom I sometimes disagree, for his rambomantic art in finding unobtainable things. Like three original copies of Moss’s book; one for himself, the others for Alberto and Gabriele. It is also thanks to him that I managed to get an electronic copy of Moss’s book from Alberto. I thank Moreno Borriero for the encouragement and Doria, his kind wife, for help with the English translation in frenetic conditions, all because of me.

Organisation of the “Former Beam Method. Revisited”.

Briefly, the booklet is divided into 6 chapters that are roughly organised according to the sequence of the various operative phases of the method. An overview of the necessary equipment is shown in the following photo.



1. The former beam.

Great care in preparing the former beam is essential because the accuracy with which it is worked largely determines the final accuracy of the section of the rod you will build. The situation is similar to that one faces when discussing the accuracy needed for a planing form.

As my interest is mainly for quadrature rods, let me say that the beam I will consider from now on is a wood beam with a square cross-section. Everything I will describe however can be used in connection with triangular beams, if interested in hexagonal rods. The advantage with quadrates is that the beam has the simplest shape to generate, and just one beam is enough to make all the four strips needed for one section. Sides of 35 to 40 millimetres are OK. With this choice, you only need a block plane with blades of 1 5/8". I use the Veritas low angle block plane, the only one (as far as I know) that is equipped with two setscrews for the lateral confinement of the blade at the throat. As we will see, this feature is very useful. Beam lengths from one metre twenty to one metre fifty. For the three-piece rods, one metre will do in most cases. A solution to consider if you have little space at home!

I am sure that the idea to use a wooden beam to build bamboo strips with accuracies close to a thousandth of an inch will immediately raise many doubts. Can you use a wood beam at all? One or two mils is a really small, and one may object that it would be impossible to select a wood beam that it is straight to few mils over one meter or so. And even assuming you find one, it will not be straight in a little time, because of changes of air humidity. That type of accuracy can be guaranteed only by metal bars and by using milling machines. But the question is whether you need at all to have such tight tolerances. The answer is that it depends on how you use the wooden beam.

Let me expand this point. Suppose you take a wooden beam as described above, one and a half meter long, 40 mm square. No one would be too surprised to see one using a block plane and planing a thin, continuous shaving, as wide as the beam, from end to end. And with little practice, the shaving can be made real thin, somewhere between one mil or two (search videos on the web, and see people generating continuous shavings below half a mil!!). That shaving is there to tell you that the surface you have generated is real nice. So nice, that over any length the size of the block plane, the surface is flat to one or two mils. And this despite the fact that perhaps the bar is slightly bent, let us say with a bow of a few millimetres. So the question whether a wooden bar can be used to work bamboo strips with tolerances of thousandths of an inch is a badly formulated question. And the answer is yes and no, it depends on how you use it.

The revised method I will describe uses a very short, luthier plane to plane the tracks. The small plane sits on a guide that glides astride the beam edges. The length of the plane and of the guide is a couple of inches, much shorter than the block plane six inches, which in turn is much shorter than the sixty inch beam length. In a nutshell, it is this hierarchy of lengths that guarantees that ultimately the actual depth of the planed tracks will be accurate to one mil.

Stated in a slightly different way, the beam edge is straight to one mil (or better) over the length of the guide carrying the luthier plane. And this is all you care, as the luthier plane and the carrying guide ride along the beam. The reverse would be a disaster! If the beam would be moved under a mill head, then one mil accuracy would be required over the entire length! I daresay that with metals, that is the only way to go. But the price to pay is enormous in terms of accuracy and overall tolerances.

I have decided to use quite a lot of space to discuss this point because I believe it is a very important one, and I noticed that people tend to become dogmatic when it comes to accuracy discussions.

Anyway, for those who still do not agree, I invite them to re-read the Bible, where Garrison grumbles about a bumpkin who used his planing form as a crowbar to dislodge a large stone in his backyard. As a consequence, the bars were so curved he had to put a piece of wood to stop them from rocking. Yet everyone believed him when he said it was important to try to work strips with a thousandth of accuracy and he succeeded in doing so sometimes.

The chapter on the planing form contains methods for checking the quality of the surfaces with straight edges, the sensitivity being of the order of one mil. Also, methods to measure the dihedral between the beam faces to an accuracy of one tenth of a degree.

While the surfaces are planed with the Veritas low angle block plane, squareness between the surfaces is obtained using a simple method. Using again the Veritas plane and an assembly to form a 90 degree fence (also shown in a photo). A C clamp is used to fasten a wood fence to one of the plane sidewings. In order to finely tune the setting to 90 degrees, the edge of the blade is very finely adjusted by acting on the setscrews. While their use was primarily conceived to guarantee against accidental changes of the blade setting, they can also be used for the fine tuning necessary for the setting to 90 degrees. The adjustments of the setscrews are done by trial and error approach, as I have not been able to find a satisfactory method to check directly the actual position of the blade setting. Deviations from 90 degrees are checked on the beam with a high quality, 3 micron accuracy square.

I thank Dieter Schmid for advice on many items I use, and his super fast and accurate service.

Finally, the chapter contains a discussion on the choice of wood. Moss suggests hard and durable woods. I suggest soft wood, nodeless, straight fiber fir. There are many reason for this choice, including availability, it can be planed easily, the planed surfaces are very smooth, and so on. But there is also a more interesting reason.

A step back. The planing form bars are made in steel because steel will not be damaged by the plane. Bamboo strips will be planed until the blade of the plane grazes the surface of the bars. Once this happens, there is no danger that the bamboo strip will be overplaned, being protected by the steel bars. Paradoxically, the choice of making the former beam out of a wood that is definitely softer than the bamboo brings to the same result. As it will be discussed later, this will happen because the final passages to remove the last few mils from the bamboo strips will be done with a scraper plane. I found that when the bamboo strips protrude very little and the blade protrusion is one or two mils only, the scraper will at first remove very thin shavings. However, when the glued strips are flush with the beam surface, the scraper plane will stop working and remove no more material. This is probably due to the fact that at low blade protrusion fir is so soft that the blade just displaces the fibers without cutting them. It is probably like scraping felt. So the all important final passes with the scraper plane can be done with great confidence. Again, I believe this is one of the important ingredients in making the revised method successful. I anticipate here that the scraper plane that is best suitable is the 212 Lie Nielsen scraper plane, as discussed in the last chapter. It is the only scraper plane using very hard blades, a must when working bamboo. Other companies offer somewhat softer blades, as they advocate the technique of forming a burr at the cutting edge. I thank Deneb Puchalsky of LN for his kind competent advice.

2. The curved pane

Another important innovation introduced by the revised method is that the tracks planed along the beam edges are curved, and the radius of curvature matches the average curvature of good quality bamboo culms, that is $R=25$ mm.

In this way, it is no longer necessary to plane away the external part of the strips and remove the precious “power fibres”. As the tracks are curved, from now on I will call them “grooves”.

The idea of using a curved plane has caused quite a few problems, including the difficulty to find curved planes with the right radius and short enough so to satisfy the hierarchic sequence we discussed before. After trying a number of planes, I discovered that very short curve planes can be found among luthier planes. The best choice fell on a Herdim plane sold by DICTUM. It is a flat sole brass plane, 40 mm long, 18 mm wide, with flat parallel sides (again, an important feature)



You will need to work the sole of the plane to make it cylindrical, as well as reconfigure the bevel to make it curved and with a well-defined radius. The second operation is the more important of the two because the shape of the cylindrical groove will have a radius that is dictated only by the curvature of the projected cutting edge (as seen sighting along the plane sole). A few words on the two operations, in part described by the photos.

Rounding the sole. We suggest you proceed in two steps.

First, remove most of the material with a file. The parts to remove are marked with four lines, two on the sides and very close to the edge of the flat sole and two on the flat sole (see photos). You remove two shallow prisms on the sides of the plane body. Use a reference plane to keep the file angle steady. At the end you are left with three plane surfaces that are tangent to the cylindrical surface you want to generate (see photo).

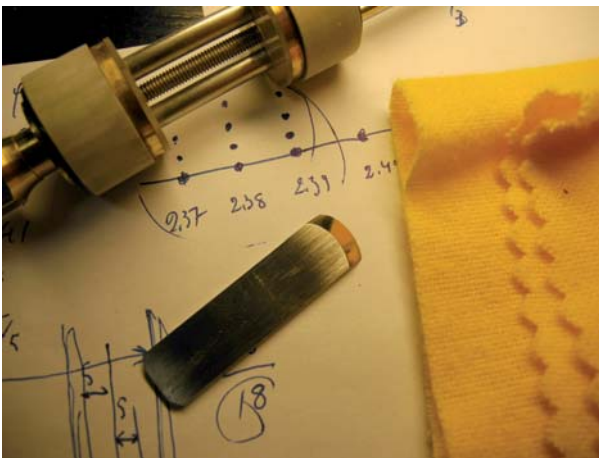
Notice that the central one is part of the original plane flat bottom, left untouched.



Second, use a strip of tube, 50 mm diameter, with emery paper pasted inside, to grind away the few tenths of mm. to obtain a cylindrical surface. Finish with fine emery paper.

It is important to note that by working by hand, the sole will not be exactly cylindrical, but will be very, very slightly cupped. I discovered that this can be used to a great advantage, as discussed later.

Renormalizing the curve blade bevel. The surface of the bevel belongs to a cylindrical surface. It is not possible to explain why here, but the radius of the tube you will use to shape the bevel is bigger than the radius of the base. It depends on the bedding angle, the bevel angle, as well as on radius of the shoe. For the Herdim plane, the radius of the tube to use has a diameter of 65 mm. The bedding angle of 35 degrees must be kept steady by mounting the blade on a guide and using templates to ensure that the angle between the blade and the tube is correct. I use a very simple and accurate guide built by Richard Kell, which appears in the photo where I also show a sharpened blade.



Please note that the use of a template to set the grinding angle is essential, as the grinding surface is below the plane where the guide rolls (do not use the table of blade protrusions you receive with the guide). Small adjustments around 35 degrees may be necessary, as the final result you want to achieve is that the blade edge protrudes uniformly from the shoe. Beware that this is not the usual recommendation given in woodworking books, which recommend that the blade protrudes more on the center of the sole. This is perhaps one of the most delicate tunings you have to go through.

An alternative method to work the bevel (it is the one I use, but it is a bit more expensive and laborious) is to use the tube with emery paper pasted on the outside of tube to form grooves on Japanese stones of 250, 1200, 5000 and 8000. I work by hand for the roughing on the 250, frequently redressing the groove, and then pass to the finer stones using the Kell guide. You decide! Obviously, the small plane cannot be used free hand, as you would have no control. You must use a guide that runs astride the beam edges and keeps the plane well centered. This will be discussed in the next chapter.

3. The plane-bearing guide.

The luthier plane is placed in a guide that runs without play along the edges of the square former beam. The guide is essentially a rectangular box, without the lid and (almost) without the bottom. It is made of mahogany, with inserts made with fine birch plywood (the AVIO type one used for flying models, with very fine layers). All the parts are made and squared, or planed at 45 degrees accurately using the shooting board method (see below), so that all the joints are seamless. Small diameter bamboo nails are used to add strength to glued joints between the sides and the front and back.

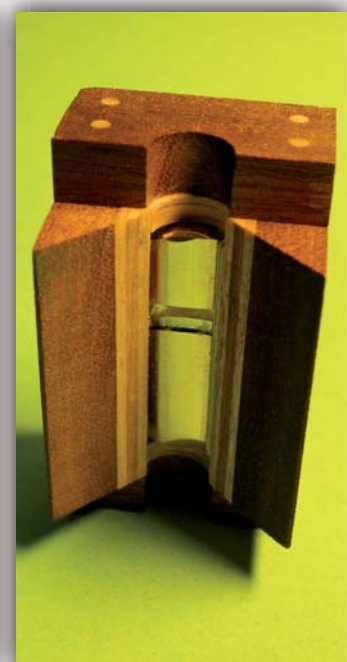
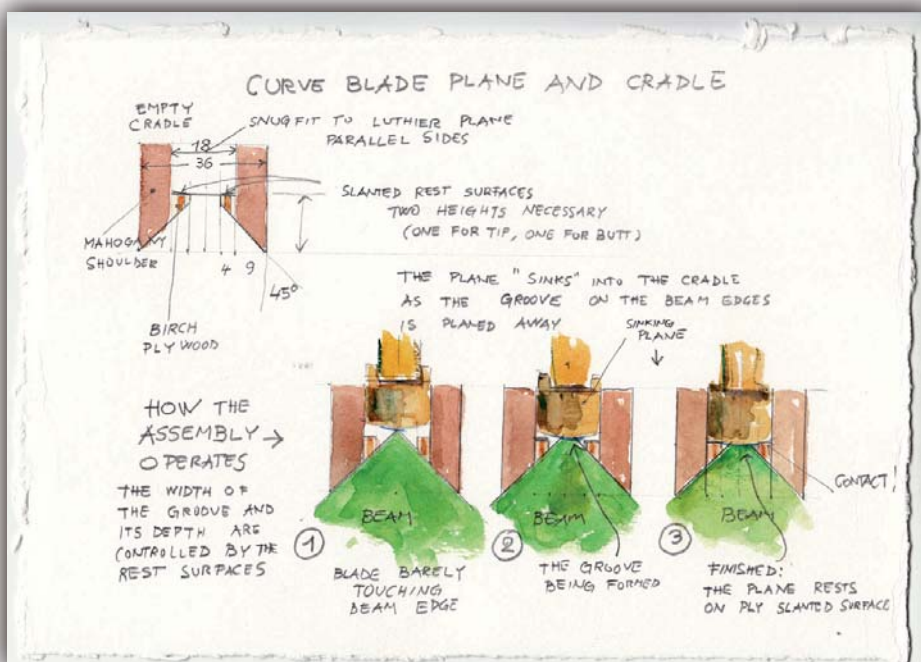
The luthier plane has flat and parallel sides and sits with a tight fit inside the guide box. It can be pushed down in the box sliding along the sides. The front and back and the back of the box allow a substantial play so that the box can be easily inserted with a rocking motion. To prevent the plane to be pushed out of the box, two stops made of birch ply are glued to the mahogany sides at the bottom of the "box". The sides together with the fences are planed at 45 degree with the shooting board. A photo from below shows these two composite surfaces. They are the surfaces that will slide along the former beam sides.



On the inside of the mahogany front and back, I have glued two false bulkheads made of birch plywood. The false bulkheads have no structural function, and do not contribute to the “box” strength. Their sides are tapered to 45 degrees so to form recesses to retain narrow shims as discussed below. The operating principle of the guide is briefly described in some sketches. The guide runs along the edge of the former beam being pressed against it so that a good contact is maintained. Simultaneously, the luthier plane must be pressed inside the guide so that it contacts the beam and removes very fine, continuous shavings. At the start, when the edge is intact, the plane sits inside the guide in the highest possible position. Pass after pass, the plane descends between the sides of the guide, removing thin shavings of increasing width. The plane stops removing material when the luthier plane sole reaches the internal birch plywood inserts. Incidentally, the thin flat surfaces of the ply have been planed at 16 degrees so to match the sole slope close to the wall. Once contact is made, the plane cannot descend any further. Consequently no more material is removed. When used on different edges, the system guide-luthier plane generates cylindrical tracks with the same depth and with a repeatability in the order of a thousandth of an inch.

In the next chapter I will describe the method that I have devised to carve cylindrical tracks with a depth that varies according to the chosen taper.

To use the method, it is necessary that the depth of the groove carved by the system guide-luthier plane coincide with the maximum thickness for the section being worked. That is, half of the diameter of the rod at the wood insert position for the butt section and half of the diameter at the ferrule position for the tips. Because the guide is built with a fixed maximum depth of cut, it would be impractical to make a new guide for every new rod section. To cope with this problem, the guide has a narrow receptacle along the plywood stop to accept shims that reduce the depth of the groove. The shims are 3 mm wide, and 50 mm long. At the end they are tapered to 45 degrees, and these “ears” are trapped into a 45 degree recesses planed on the false bulkheads glued inside the front and the back (see details in some of the pictures).



Once the luthier plane sole rests onto the plywood stop, minute rocking motions can be performed because of the slightly dished sole. This small rocking of the plane is precious in the last passes of the plane, when the shavings become automatically extremely thin. I have found that it is essential to allow the plane to take the position that best allows it to remove material. This will be discussed briefly in the next chapter. The rocking of the luthier plane is obtained by alternatively pressing the plane in the front and in the back. The plane will never remove material unnecessarily because of the rocking. On the contrary, working with blocked planes, I noticed that occasionally the depth of the groove was a mil or so higher than expected. I have no explanation why this happens. The rocking can be more easily done using the new micro ledge and ball handles offered by DICTUM. They transform the small planes from "finger plane" to "palm plane" and they are shown in some of the photos. The peculiarity of the floating plane can be described by the term "Rock and No Roll". I thank the DICTUM technical staff for generous advice about reshaping the brass body.

Finally, an important detail. Because the former beam is squared with great precision (90 degrees to better than 0.1 degree) it is necessary that the sliding surfaces of the guide equally accurate. This cannot be achieved during the assembly of the various parts. So once the guide is completed, the sliding surfaces are tuned by using a block plane. The tuning is done by resting the sidewing of the block plane on one of the surfaces and working the other, and then doing the reverse. The operation is very similar to the use of a shooting board, briefly discussed below.

There is no space to describe in detail how to setup and use a shooting board, and you can find a lot of material on the web on the subject.

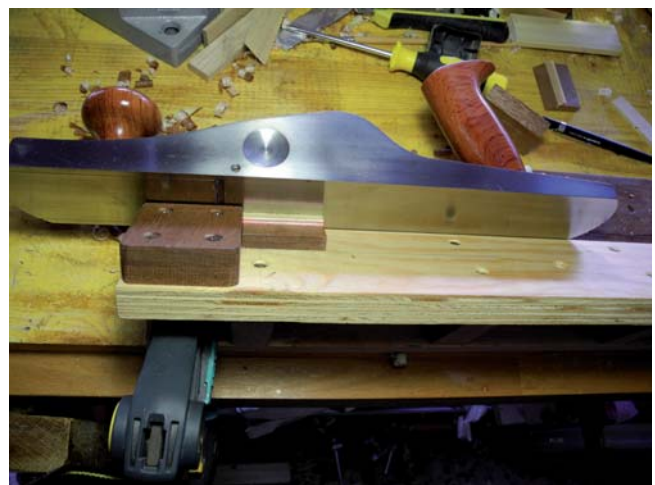
I will however add a photo showing a 45 degrees shooting board in use to generate the 45 degrees sliding surface on one of the mahogany-birch plywood sides of the guide.

The shooting board technique excels in the working of small pieces, included those so small they hardly fit in a vice. It guarantees squared or splined surfaces at any angle with great precision. All the guides that appear in the photos shown here were made using various shooting boards. For correctness, I must say that in the photo above I show a Jackplane and not a block plane. The work can also be done with the block plane, and in the instructions of the Veritas block plane, it is described how it can be used in connection with a shooting board.

In the same chapter there is the description of a guide very similar to the one described above and used to hold a dial indicator, the instrument to read the depth of the tracks. The guide and guide will need a zero calibration, as usual. To this end, you could use a cylinder of about two cm diameter onto which you will to put the guide astride, and block the dial barrel so that the reading is the correct one. For reasons of space, I cannot elaborate this point any further here.

I advise you against using the standard point the dial comes with, the one with a small diameter ball. It will indent slightly the fir groove, and reading will shift in time by one or two mils.

I use a Mitutoyo roller point as it does not indent the tracks due to the generous curved radiuses at the point of contact. It rolls smoothly on the bottom of the cylindrical groove, and it gives reliable readings.



4. How to plane grooves according to a chosen taper. The shim packs method. The Shim Pack Master.

The guide and luthier plane generates a fixed depth groove, as we have repeatedly said (the actual depth being eventually adjusted with the shims inside the guide). Obviously, this does not suit us, as we need to plane grooves with depths changing according to the taper we have chosen. To build a butt for example, we want the depth of the track to reduce from the maximum depth of the butt section to the depth at the ferrule station. The method to achieve this result is very simple and it consists in fooling the guide. The deception involves positioning on the sides of the beam a series of shims in a staircase fashion so that the guide and the plane go up or down as we desire. For example, for a butt section, we want the guide to be at his highest point when at the ferrule station, and be at the lowest at the wood insert. The guide will keep thinking it has planed a constant depth groove but actually, at any position along the former beam, this "constant" value will be the sum of the depth actually planed away and of the shifting up due to the shims. Consequently, at the station of the ferrule there is the largest number of shims and it will decrease to zero at the wood insert station.

Also, one single shim gives an upward shift, but also an equal shift left or right, depending on which side the shim is. But we are only interested in the shift upwards and we do not want to introduce lateral shifts of the plane at all. So the shims are equally into two separate packs. They will sit onto the two beam sides. At worst, they will differ by one shim alone.

To put this scheme into practice I searched the best way to generate the shim packs, using various materials and a fair number of glues. It was a frustrating phase, with disappointing results. Lack of uniformity of the shims thickness, variations due to the non-uniformity of the glue, packs of shims too rigid to fit well on the sides of the bar, variations of thickness with time, brittleness, etcetera.

At the end, I found a solution I think it is hard to beat with regard to precision, stability and easiness of use. In honesty, I am kind of proud I have found this scheme, and I hope you will like it too. A comment. Every time you give a dimensional specification, the finer it is, the more expensive the object will be and it will also be more difficult to find. Example. If you look for a straight edge with one mil accuracy over ten inches, you will likely find it in a hardware shop not too far. But if you look for 0.1 mil accuracy over the same length, then you must go to very specialized places, and will cost you substantially more. Do you need 0.1 mil accuracy? Not for thickening bamboo strips, for sure. But thinking to shim packs, say twenty or thirty layers.....then 0.1mil accuracy and stability becomes something desirable indeed. I felt at loss.

But then I found the ideal solution while idly looking at the specs of 3M adhesive tape I had at home, the 810 tape called "Magic", the transparent one with the matt back, on which one can write. The thickness of the tape is given to 2.2 thousandths of an inch. Eye-popping!!! Guaranteed with 0.1 thousandths of an inch precision, about three microns..... and it can be found anywhere!!!!

If you do the calculations, one layer alone on a beam side at 45 degrees introduces an upward shift of exactly 1,5 thousandths of an inch. The ideal to form the steps of the staircase. Added advantages. It is already in the shape of tape of the right width (3/4"), it has adhesive on one side, it can be easily stuck one layer to the other; the glue between the two layers is stable in time; it keeps an admirable flexibility and rests wells on the sides of the bar. The perfect choice!

I suggest building the steps on a strong 3/4" plastic ribbon made with oriented fibers, the kind used in gift parcels, so that the shim packets can be placed and removed, used many times and kept in a small library of tapers. A lot faster than re-adjusting a planing form!

Let us now determine the length of the individual tapes that will form the two shim packs necessary to plane the groove for the taper we have selected.

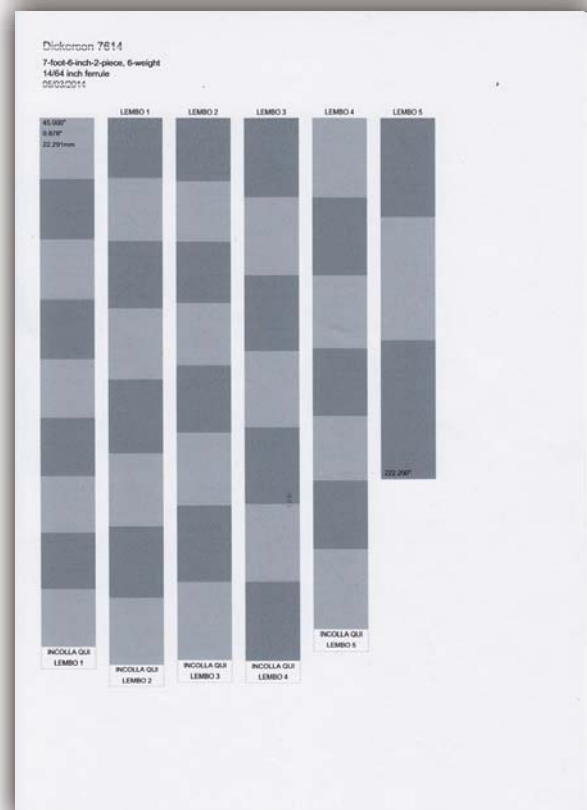
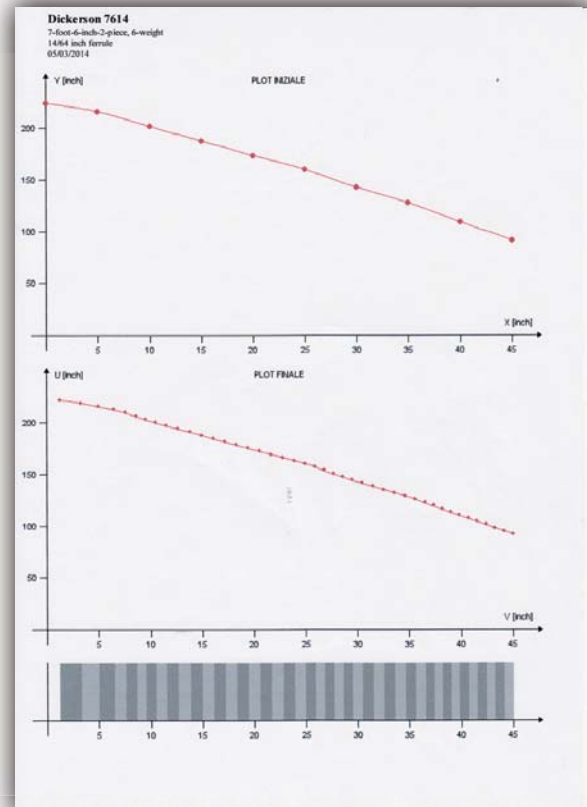
Let us consider a butt taper, for example the Dickerson 7614. The standard plot with diameter data at stations 5 inches apart is shown in the figure, upper part. Find the maximum butt diameter, at the wood insert. The shims in the guide should be adjusted to plane a groove with half that depth. Starting from that value, we must trace a comb of finely separated horizontal lines, one above the other and spaced vertically by 3.0 mils. The intersection of each of these lines with the continuous curve of the taper gives the length of the single pieces of adhesive tape. In practice you can find the values graphically, but it is painful. Much better is to develop a software to do the job. I show in the figure, lower part, the same taper with the intersection points with the comb of 3.0 mil spacing. Obviously, the points are more spaced where the slope of the taper is smaller and they are less spaced where the incline of the taper is larger. It is easy to think of the distance between the points as the width of the steps, all of the same height. It is immediate to be convinced that steps are short if the climb is steep, and wide if it is shallow. At the base of the figure, we have a kind of a bar code that depicts the steps in two tones of grey.

The programme (in the debugging phase) also plots a real size image of the bar code. To fit into an A4 format, the bar code is broken in a few pieces. Once they are stuck together, they form a long ribbon as long as the section. I call this striped ribbon the "Shim Pack Master". Once it is stuck to a table, it is very easy to generate the two shim packs. Moving in a given direction, mark on the right the light gray-dark gray transitions. Mark on the left the dark gray-light gray transitions. The two sets of marks determine the lengths of the two sets of Magic tapes.

You do not have to bother about inches or centimeters. Just use the real size images. It is all there!

Finally, I would like to describe two very useful tests.

Once you have the two shim packs, you can "read" them to see if there are mistakes. Proceed as follows.



Take an edge where a constant depth groove has been planed (take notice otherwise). Apply the two shimpacks, and read the apparent depth with the guide that holds the dial indicator. Subtract from the readings the actual groove depth. The difference should be identical to the taper. If the groove is not even, take the difference between the two readings. Again, you should get the taper values.

The second test is more important and certainly more useful. We start with the two shim packs on the form and carry out the planing with the guide and the luthier plane. If we feel we have finished, we can check if we have removed as much as we should have or if we need to insist on some point. To check, just read the apparent depth by running the guide with dial indicator along the bar, **WITHOUT REMOVING** the shim packs. The readings must be constant. This test tells you immediately whether you have planed well or not. If the readings are constant within one mil, good! You have done a great job, and you have finished. If you have removed less here and there, try going over the beam again and again, rocking the plane inside the guide. It is very probable that you will remove very thin shaving, and accuracy will be improved. Conversely, if you have already removed enough and insist on removing more, my experience is that you will fail. Rocking is legal!



5. The animal glues.

A few words on the animal glues you will use to glue the bamboo strips to the grooves of the former beam. Actually, this operation will be carried out after that the strips have been pressed at the nodes, as described in the next chapter. I prefer to anticipate the topic of the glues, leaving the last chapter exclusively to the working of the bamboo, before and after the gluing.

First, which animal glue? There are various types. I suggest the bone glue, usually in the shape of round little pearls (see the photo).



I advise against glue made from rabbit skin (the finely ground stuff), as parts glued with it cannot be taken apart as neatly as with bone glue.

It is fundamental that the concentration of the glue is much lower than that used for standard glueing. I hesitate to give you strict indications as I have noticed that glues from different sources have varying adhesion strength. I have found that concentrations of glue around 5 % by weight are adequate, but I have bone glues that at these concentrations give a too fragile bond. Do your own tests.

The ungluing is carried out with heat. All it takes is a few minutes, but the parts must be detached by inserting something (a thin artist's spatula) to gently pry pieces apart. The detachment is usually quite sudden. No appreciable traces of glue are left on the detached parts, because at low concentration used the glue is very thin.

A problem that must not be underestimated is that the operations have to be carried out quickly, before the glue forms gels. At the low concentrations, the process grants quite a few minutes, about ten. The strips must be tied with rubber bands, joined together in a string. For short sections, it can be done by hand, by rolling the beam while keeping the rubber band taught. It is very useful to fasten wooden screws on one of the sides of the beam to hook up the ends of the rubber band string. For security, tighten the screws well, leaving just the head proud of the beam surface. An example of a bar with strips blocked by rubber bands is shown in the photo below. Also notice the end of a rubber band hooked to a wooden screw.

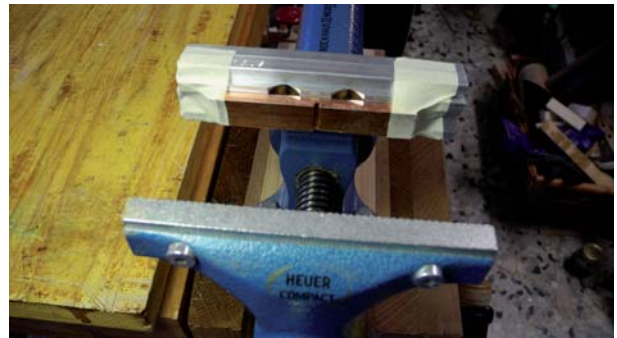


Due to the excellent coupling of the curved surfaces, it is very easy to slide the strip sideways to be sure that each groove is covered well from edge to edge by the bamboo strip. It is also easy to slide out of the groove any imperfection in the bamboo that are near the edge of the strip.

6. The working of the bamboo strips.

What makes the revised former beam method unique can also be appreciated by the fact that we do not speak about bamboo until the last chapter. Indeed, we only see the bamboo in two distinct phases, pre-gluing and post gluing.

The pre-gluing operations, after the splitting, are concentrated on working the external surface of the strips only. This involves first the treatment of the nodes with a heat press. The vise is a good quality vise that closes without play or transversal movements. One of the jaws is covered by a movable jaw with a cylindrical shape and a radius close to 25 millimetres. It is built with pieces of pipe with an external radius of 25 millimetres glued one inside the other with epoxy resins. The inserts that will press the heated strip have a groove to fit the lip at the node. See the figure below.



The pressing of the nodes guarantees that the radius of the bamboo is brought to a standard radius. Between the nodes the radius may change some, especially if the section of the bamboo culm is slightly oval shaped.

To guarantee that the radius is exactly the same, I suggest you work the entire strip surface with a piece of pipe identical to the one used for the vise. Use this template to sand the external parts without fear, starting with an 80 grit grain, and then decrease the grain for the final passages. You will notice that, if the bamboo is good quality with a generous diameter, the material removed comes from the edges initially. Stop when you have just removed the enamel from the central part.

I suggest, at least once, that you carefully gather all that you have sanded away and that you weight it on a scale with 0.1 grams resolution. Knowing the strip surface you will be happy to discover that you sanded out the first 2 or 3 mils from the bamboo surface, and the exposed power fibers will be very thin.

The post gluing operations are the most important; they are the ones that generate the finished strips. I forgot to mention something important. The strips are baked before gluing them to the shaping bar. Therefore the strips are planed to measure in one shot. Therefore, the procedure is very fast as it is done in one session only.

I should add that you will benefit from an important advantage that Moss forgot to discuss. You will plane bamboo glued to a wooden bar and as a consequence the bamboo is so to speak “frozen”, and it will not move, deflect or jam under the plane. It is like sawing frozen fish with a belt saw. You will discover that planing glued bamboo is much easier, and in the initial phases you can remove shavings of 0.2 or 0.3 mm without difficulty.

The 1 5/8” blade is wide enough to cover both strips at the beam edges, and it would seem an advantage to plane them both simultaneously. It can be done, but I prefer to work one strip at a time, using long and even passes and trying to keep the height of the strips above the beam equal.

The beam must be blocked with some type of clamping method that will not disturb the edges (remember, the gluing is fragile). Below there is a photo of what I use. The clamps are the single hand operation and useful because you will need to block and unblock quite often.

I suggest you use two planes and on each one place adhesive tape to cover half of the sole lengthwise.

One on the right and the other on the left.



The idea is to plane a strip at a time, basically using the groove method at the reverse.

Leave the strips 3 or 4 mils proud of the beam surface. Keep checking with a blade and proper lighting how the work proceed. See photo.



At the end the Lie Nielsen, 212 scraping plane comes into action. The very fine setting of the protrusion of the blade can be done by exploiting a precious characteristic of the adjustable bed scraping planes. Fine tuning is done without unblocking the blade, but changing the angular setting of the blade by operating on the two spin wheels in push-pull. If the protrusion is around one mil or so, something magic happens.

The plane removes shavings only from the bamboo strips and only if they protrude, even minimally, from the bar. Conversely, once the strips are flush to the beam, the scraper blade cannot remove material from the beam because it is too soft. See discussion in the first chapter. Therefore, the final operations are very easy and you will work with great precision.

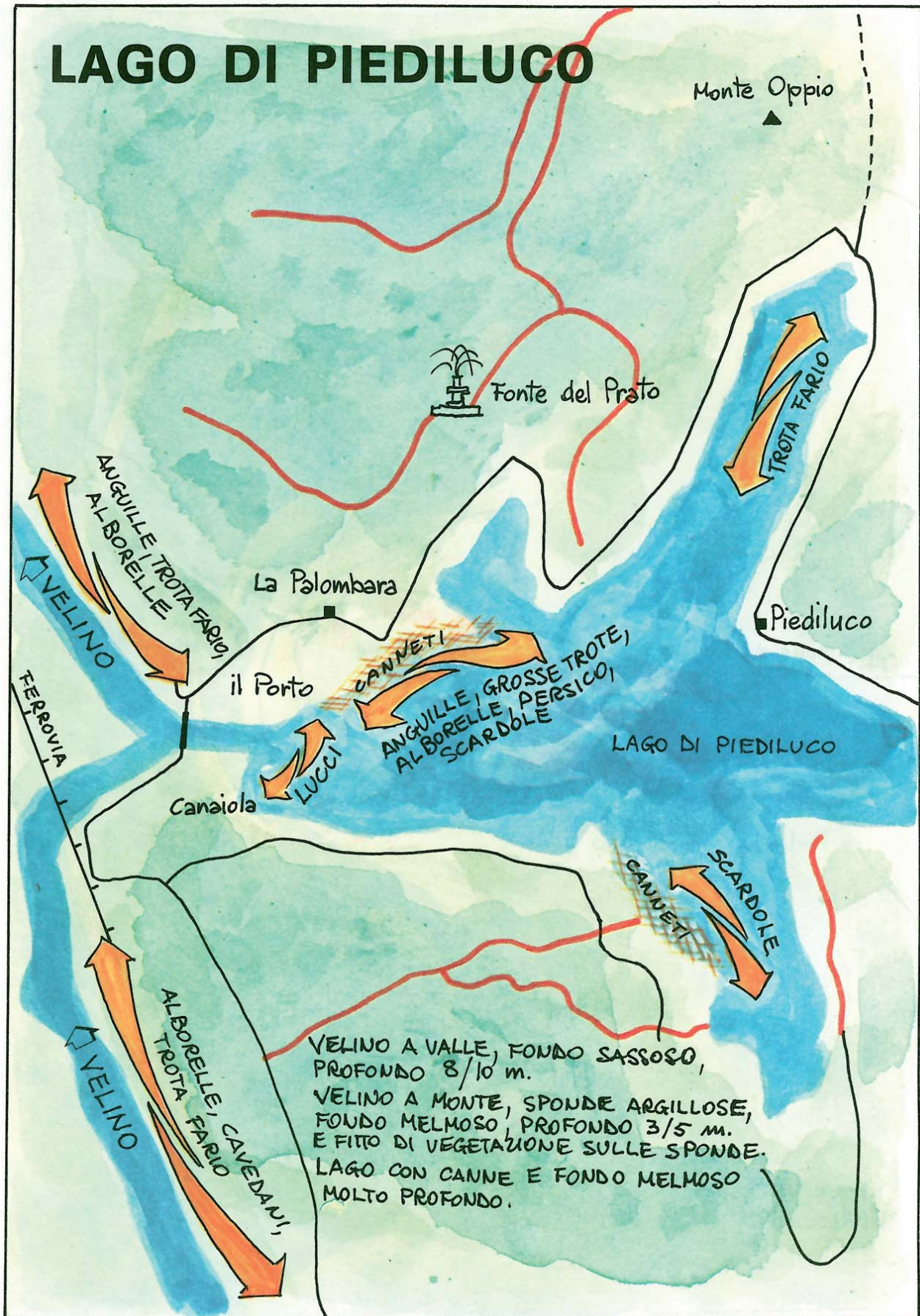


Good luck!

If you have any comments or questions, let me know.

email.marzio.giglio@gmail.com







10TH ITALIAN GATHERING

23-24-25 MAY 2014

.. SOME PICS



Marco Giardina and Gabriele Gori



the French delegation



picnic on the banks of the Tiber River



Jeff Wagner with Daniele Giannoni, his fishing guide



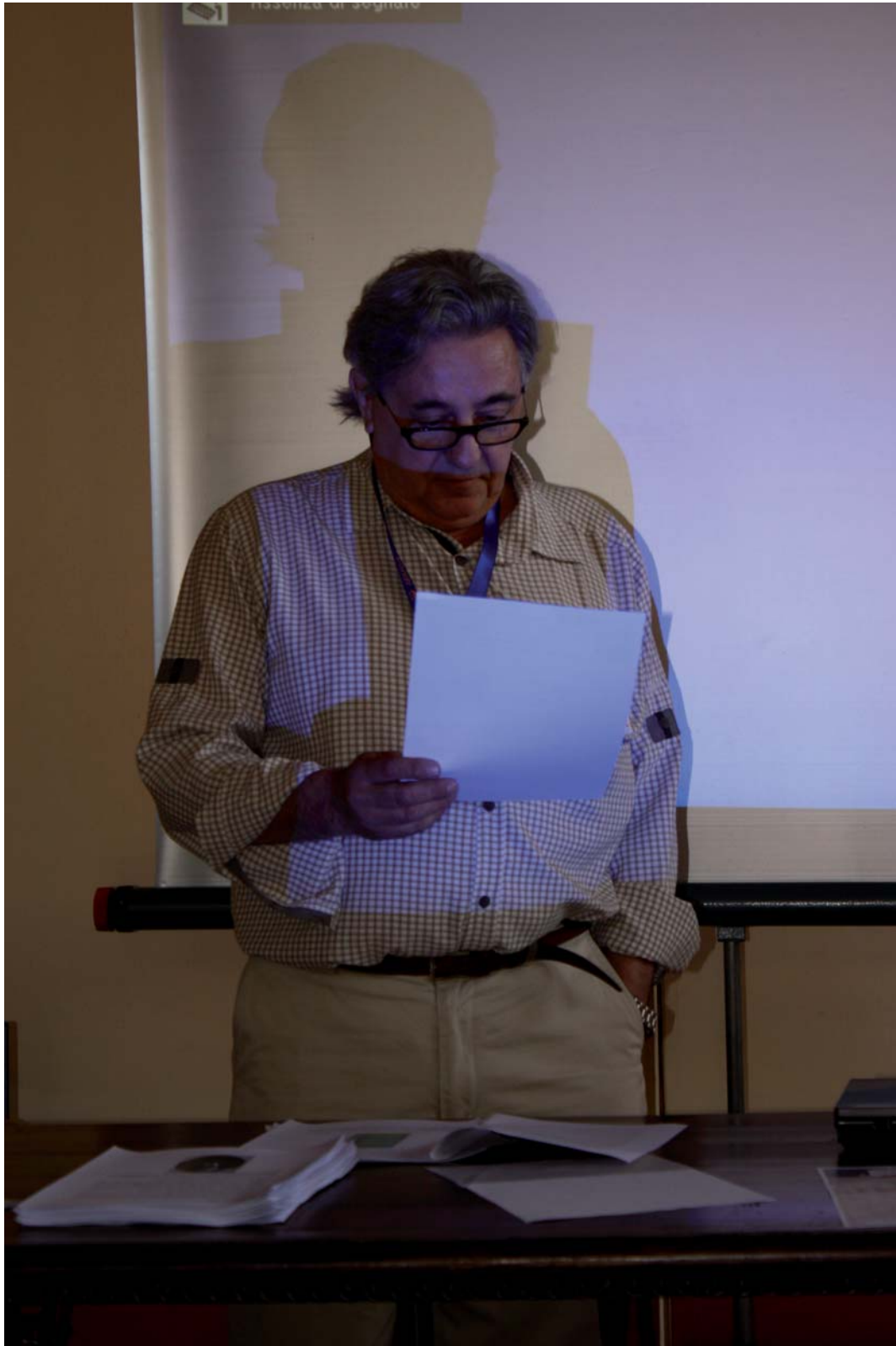
Jeff Wagner fishing in the Tiber River



picnic on the banks of the Tiber River



the group of participants at the Bamboo Day



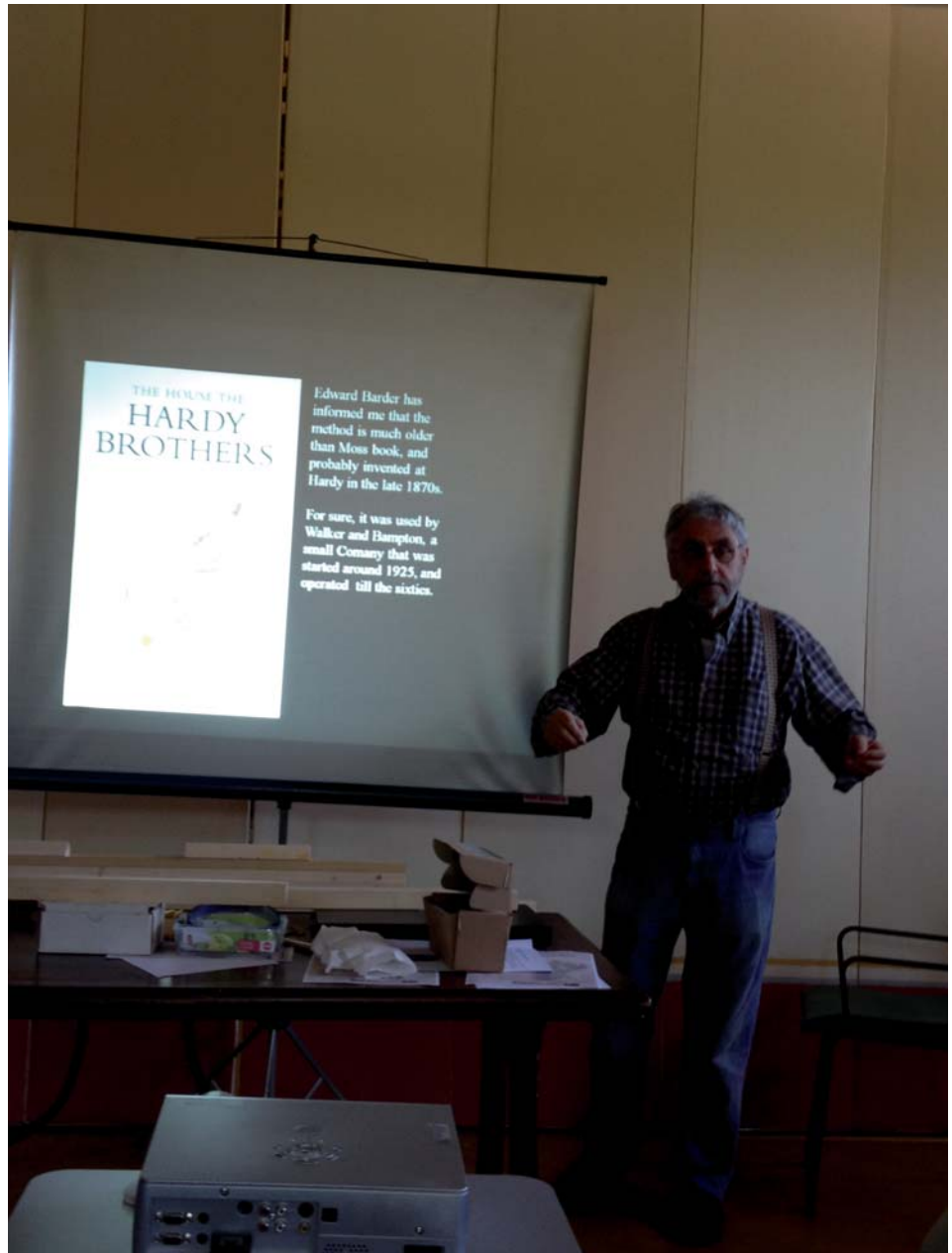
the IBRA President Gabriele Gori opens the works of the gathering



intervention by Gabriele Gori



intervention by Jeff Wagner



intervention by Marzio Giglio









Gabriele Gori and Edoardo of the Podere Violino
open
"The IBRA Corner"
a space dedicated to bamboo rodmaking
maintained by IBRA

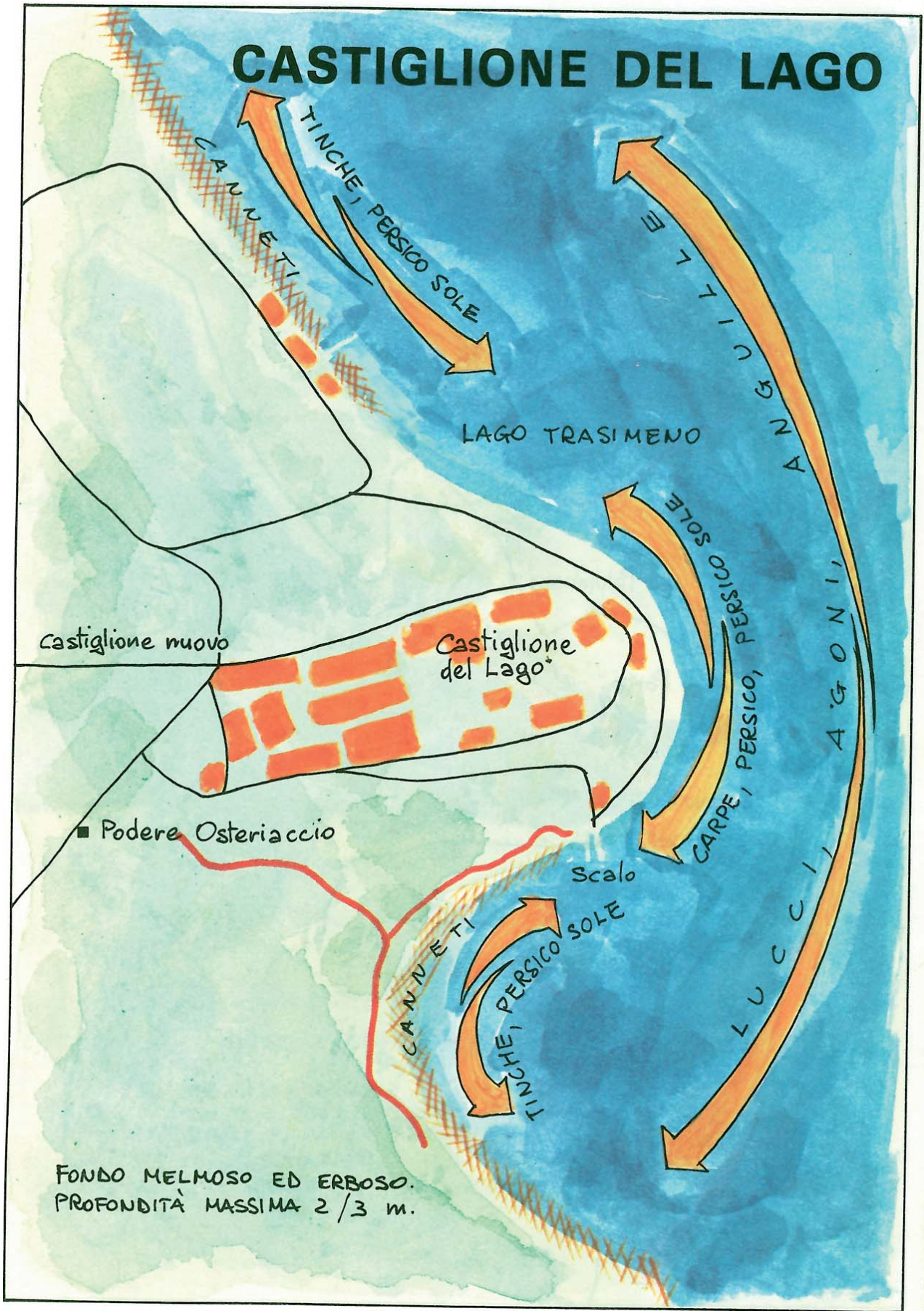


“THE IBRA CORNER”





ITALIAN BAMBOO RODMAKERS ASSOCIATION



IBRA

THE NEW BOARD OF DIRECTORS

The general meeting of the members on 24 May 2014 elected the new IBRA BOARD for the four-year period 2014/2018.

The new Board is composed of



Gabriele Gori
Honorary President



Alberto Poratelli
President



Moreno Borriero
vice President



Massimo Giuliani
counsellor



Davide Fiorani
counsellor



Silvano Sanna
counsellor

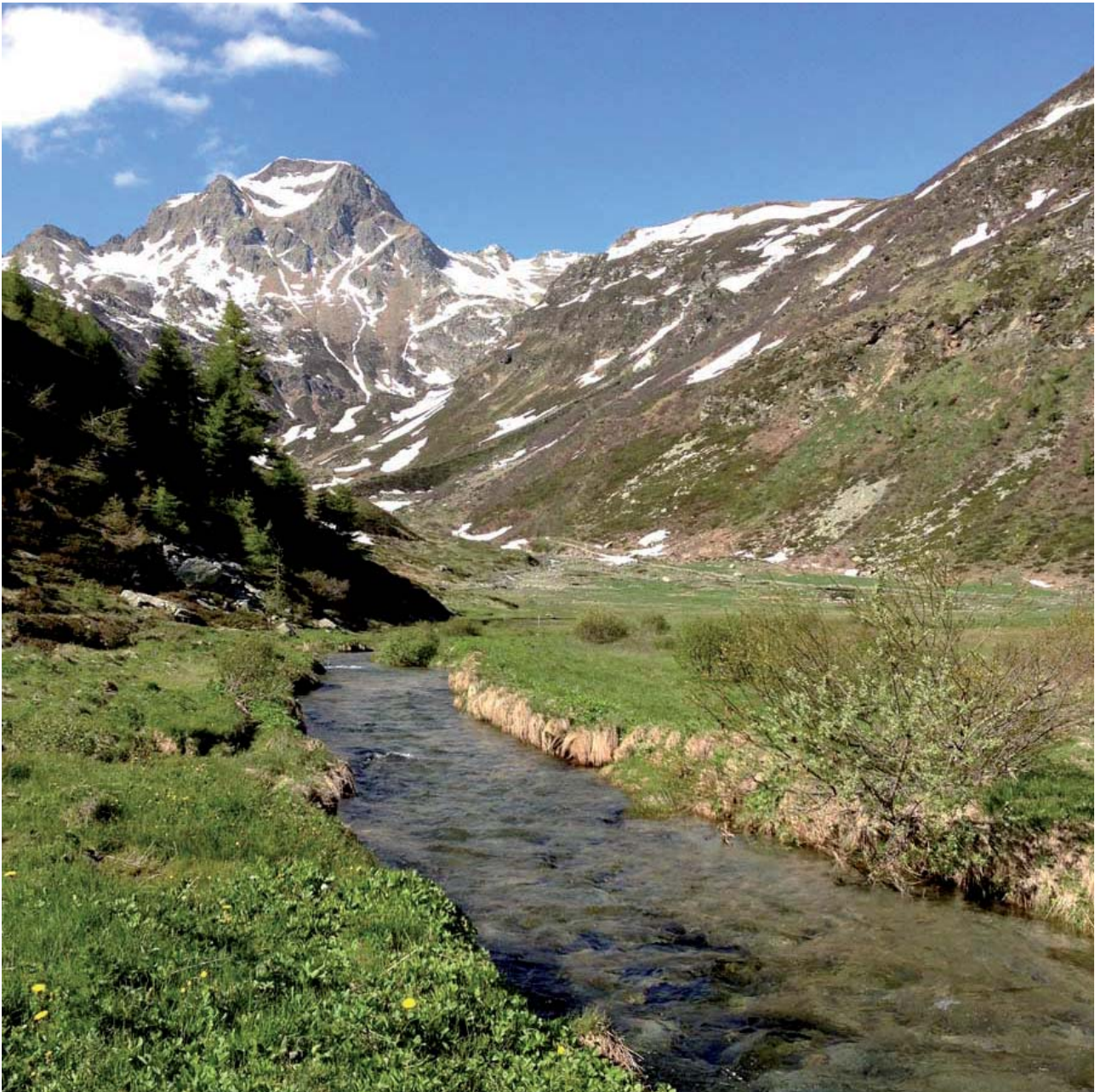
In this issue
The interposed pages are dedicated
to a series of vintage maps
dating back to the 70's of the last century
that show fishing places

the maps were
kindly supplied by
Beppe Saglia



*With the generous concession of
PIPAM*





Newsletter of
Italian Bamboo Rodmakers Association

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