



BAMBOO JOURNAL



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January 2012



ITALIAN BAMBOO RODMAKERS ASSOCIATION



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Bamboo Journal n. 8 - January 2012

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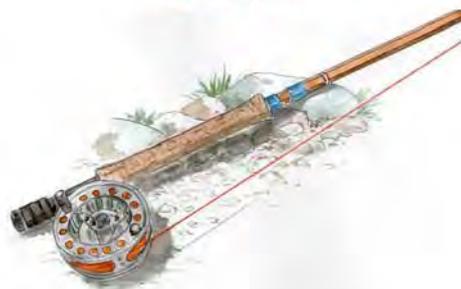
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Front cover: Roberto Pragliola, inventor of TLT casting
 With a rod "Giuliani FH - Roberto Pragliola"
 Phot by M. Barbacci
 (courtesy of Massimo Giuliani)

Photo on page 2 "Grayling", steel sculpture
 Made by Alberto Coppini

AGENDA del PESCATORE A MOSCA ...e non solo...

2012



a cura di Roberto Daveri

The cover of

L'agenda del pescatore a mosca ... e non solo ...
2012

(The fisherman's diary ... and not only...)

Made by Roberto Daveri and downloadable on
<http://digilander.libero.it/daveri>

...another one is done!

Issue N. 8 of the Bamboo Journal is ready but above all we are finally out of “Annus Horribilis”: the terrible 2011.

Europe and the world have been hit by financial crisis, unemployment is growing in the western world – typhoons, earthquakes and hurricanes have stricken the earth.

Japan was a reminder of the dangers of nuclear disasters

But now all this is over and we are in 2012.

Yes...perhaps there will be a few problems en route...I don't know... on December 21st the world should end. The specialists foresee that Italy and Europe will begin a phase of economic stagnation, the Middle East is as turbulent as ever and we expect famine and unrest in Sub-Saharan-Africa.

The Euro is at risk, Greece is at risk and we have also lost a series of “A” and have gone into second division. But all is well ...let's hope that 2012 passes quickly as well!

And now some words of hope.

In May there will be the next Italian Gathering. It will be a cracking one! We have reunited the bamboo ferrule gurus Bjarne Fries, Marcelo Calviello and Alberto Poratelli, who after 14 years from their wonderful invention by the Danish Maestro, will recall the history and make a point of their impact on the world of rodmaking

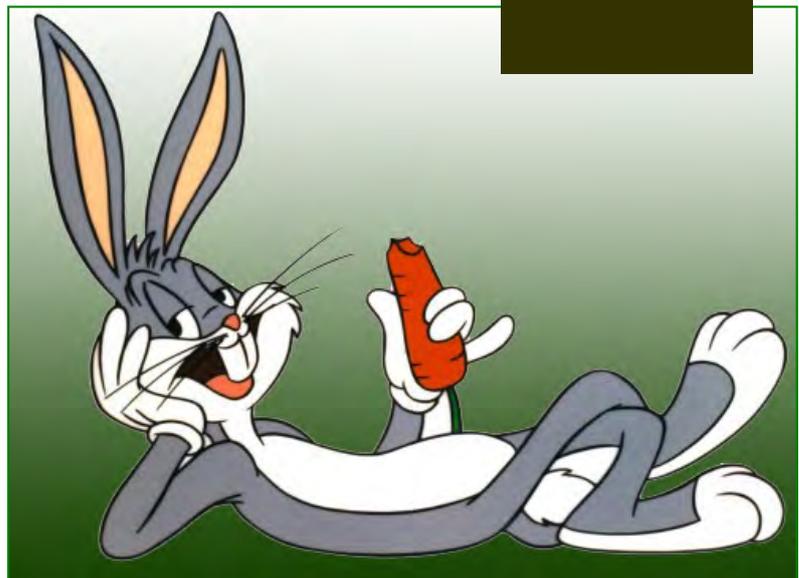
I believe that those who will take the time to come to Sansepolcro on 25, 26 and 27 May, will not regret it.

On the 17th and 18th of November our French friends are organizing the 2012 European Gathering. An excellent occasion to try out the gastronomic delicacies of the South of France. I love France!

Among these words of hope I would like to add my wish for a greater participation by the readers and rodmakers in sending articles that will enrich the contents of the BJ. Until now, my appeal has not had much success, except the interesting article sent to the BJ by the Parisian friend Daniel Le Breton. We thank him warmly and publish it with great pleasure.

Happy reading and thank you to everyone.

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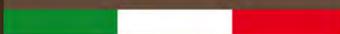


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8° RADUNO ITALIAN BAMBOO RODMAKERS ASSOCIATION



SANSEPOLCRO ITALY

25/26/27 MAY 2012

BAMBOO FERRULES AND OTHER STORIES

From their invention by Bjarne Fries, Bamboo Ferrules have created their own space and great interest in the Rodmaking world. Many years after their appearance, IBRA feels the necessity to draw conclusions on this construction method, that has become part of rodmaking all over the world.

With this foreword, it is time to reunite in a single Round Table conference, the three people who in these years have pushed, developed and promoted the use of bamboo ferrules: Bjarne Fries from Denmark, Marcel Calviello from Argentina and Alberto Poratelli from Italy.

**FRIDAY
25TH MAY**

The gathering will open with the traditional Bamboo Only Day. The Tiber river Tailwaters which is managed by the Mosca Club Altotevere, will give us the opportunity to see different rods from many rodmakers in action. This event is of course open to all and those who do not own bamboo rods will have a chance to try the rods made by IBRA members. During the event a picnic lunch will be served on the river bank

**SATURDAY
26TH MAY
MORNING**

The Round Table will be open for interaction between the public and the Guests

- **Bjarne Fries** from Denmark
- **Marcelo Calviello** from Argentina
- **Alberto Poratelli** from Italy

The conference will be moderated by the IBRA President **Gabriele Gori** on the theme: Bamboo ferrules, 14 years after their invention, the history, the present, the developments and their impact on the world of Bamboo Rodmaking

AFTERNOON

- Presentations and discussions by other participants on Rodmaking themes
- **Mauro Raspini** will introduce his new book: "The Fly – La Genesi"

EVENING

- During dinner **Hoagy Carmichael** will honour us with a speech on the world of Rodmaking

**SUNDAY
27TH MAY**

An important institutional moment:
– The General Assembly of the IBRA Members

MORNING

Casting Time and Relax: the participants will be able to cast the rods made by the many rodmakers that will be at the Gathering. This will take place on the lawns surrounding the Podere Violino

The Lottery tickets will be drawn.



STANLEY BLOCK PLANE

The 2011 IBRA rodmaking class

(Sixth Edition)

di Enrico Francioni

Following Marco Giardina's suggestion – whom I thank for the faith he has in me... (faith which I hope to maintain or perhaps to increase by the end of this article) – I accepted (being one of the participants) to write this report, this little article about my impressions regarding the 2011 IBRA Rodmaking class



Marco Giardina

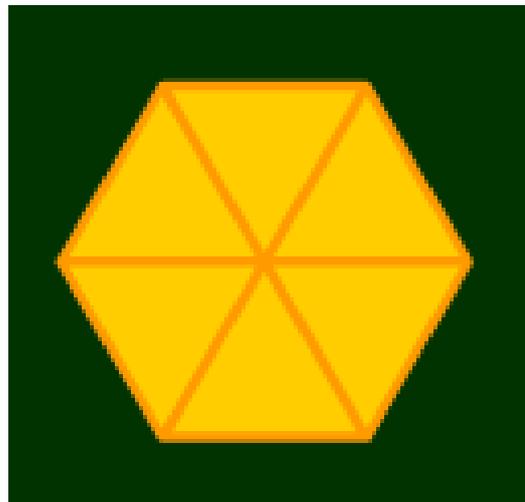
This is no more than a collection of considerations while trying to highlight the less technical details (also in consideration of my little experience in the rodmaking world which I have just approached). Instead I wish to point out the more “human” aspects and was kindly suggested when I asked for advice on how to go about it.

The class / seminar on “Making Bamboo fly fishing rods” – 2011, took place at Podere Violino in Gricignano Sansepolcro (Arezzo) Italy last November.

This is also the club house of the Association – and it saw the prevalent presence of a “magic number”: the six (6).



Effectively this class was the sixth IBRA one and the participants were six (the maximum the rules allow) and six rods were made, six were the instructors and six the working days and I remind you that the prevalent geometrical figure in rodmaking and as we all know, is a hexagon .



In short, the number six really occupied our minds, much more invasively with respect to the previous editions and on top of it all during the second weekend at Podere Violino I was in room six.... Diabolical!!

But let's talk about the class: the instructors/ coordinators and the staff of the Podere Violino transpired an atmosphere of great availability and I might add also a spirit of collaboration. This spirit of collaboration was also evident among the participants who by the end of the course had bonded and created a great team.

We worked in a serene and favourable atmosphere which was determining for our concentration during the designing and planning of our creation: the bamboo rod.



The logistics of the class is the best you can hope for. The Podere Violino is 100 meters from the Tiber river, There is lots of space and the structures are perfect for our work.

A great hall for the lectures and a second hall where the manual work takes place.



THE PARTICIPANTS

In rigorous alphabetical order: Ortensio Ambrosini, Giuseppe Bo, Enrico Francioni, Giordano MonteSi, Francesco Muzzi e Simone Paci.

After having participated in the 2011 class, I cannot forget Ortensio Ambrosini, big (and I underline big)



technician of the art of smoothing and the use of the plane. He is also a talented metalworker.

An able and dishinbited gourmet, he gave us pleasant moments of merriment in front of the exquisite food and also during the hard graft on the benches.

His jokes are truely authentic and spontaneous. And what about the complex questions, the motivated conviction, the teorie and the acute considerations of Giordano Montesi?



How can we not remember the wisdom and the expertise and also the depth of the Engineer Francesco Muzzi

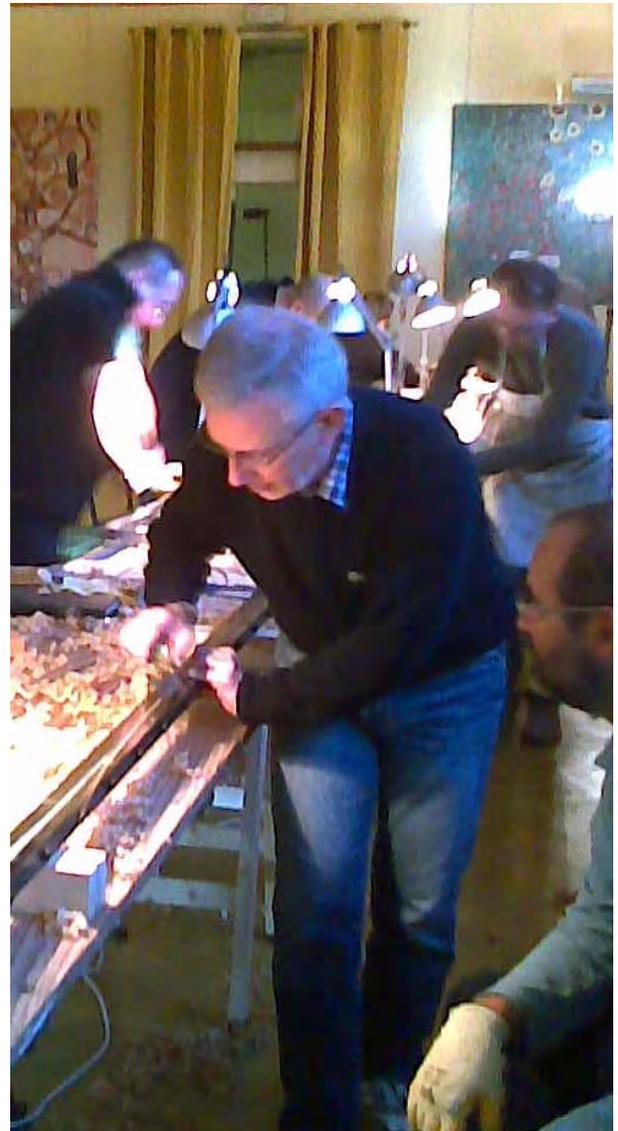


who among other things , shared my work bench.

Of course my thoughts run to the notes I took during the lectured, the advice given by the most able Italian Rodmakers – a real treat having them all so close (only 50 Km from home) and all in one shot..... the other participants came from farther Italian cities.

THE INSTRUCTORS

Personally I am enthusiastic and passionate about the lessons given by Alberto Poratelli for his great technical and theoretical competence, his precise calculations, his drawings and the scrupulous scientific approach and the infallible working method (his rods are very beautiful and refined). I also appreciated his very clear explanations of the initial phases of the work which took place the first weekend and also other issues like varnishing, the glues or the research of products.



I also liked the lessons held by IBRA President Gabriele Gori who organized everything to perfection and really thought of everything. I particularly appreciate his manual and documents on rod design which are professional pieces of work .

Of course he has the merit for having set up the complex machine which is the IBRA rodmaking school – the first of its kind in Italy.

I was attracted by Marco Giardina's charisma: his great knowledge of the subject which goes beyond rodmaking and what is more significant –and this is fantastic- he dispenses advice and suggestions which derive from a lifetime of work. I really think he is a unique person in the Italian rodmaking world.

His lectures are complete and full of amply documented notions (often brought forward with a subtle vein of irony) on matters like safety, varnishing, discussions on the rodmaking world particularly about Garrison. His photos of historical rods which he showed me personally is very interesting and I thank him for this.



*(The President of IBRA Gabriele Gori – right
– fishing with Marco Giardina)*



During the class I found the rodmaker Roberto Valli to be very likeable and I love his fabulous rod rubes which are truly original works of art. His description on the techniques for dip tube varnishing very very useful .



And what about Giorgio Grondona IBRA instructor who was always ready with his formidable presence and clear instructions to impart advice, solve problems and to formulate theories about the rodmaking world



During the various phases of construction, the advice and assistance given by the instructors that were assigned to me, were fundamental: respectively Enzo Afri (great manual craftsmanship and practicality) and Massimo Giuliani (unreachable and unimitable wrappings) and then the competence and technical expertise of Fiorani, Grondona, Morisetti, Paglia (...how I envy you!).





As you can see, the class was lasted two weekends (Friday, Saturday and Sunday) with quite a strenuous schedule. At the end of the first (hard) weekend we glued the blanks - the butt and the tip sections at the end of the quieter less strenuous second weekend we completed our number one with casting test on the lawns around Podere Violino and the final Class Photo.

During the class, some of the instructors dedicates some of their time to making a Bamboo rod which will be raffled and the proceeds will be donated to the victims of the recent floods in Italy: admirable and authentic solidarity.





After days of hard work, on and above the pleasure of having an attendance certificate and our first bamboo rod, I wish to underline the friendships which grew between the participants and the instructors and the spirit of collaboration, the exchange of ideas and technical solutions that emerged.

During the course I was introduced to texts like "A Master's Guide to Building a Bamboo Fly Rod" by Everett Garrison (the rodmaker's bible), "LA CANNA IN BAMBU' PER LA PESCA A MOSCA: Costruiamola insieme" by Nirvano Franzoglio, or the new "Bamboo Rod Taper Design with RodDNA Designer" by Larry D. Tusoni (designing Bamboo rods).



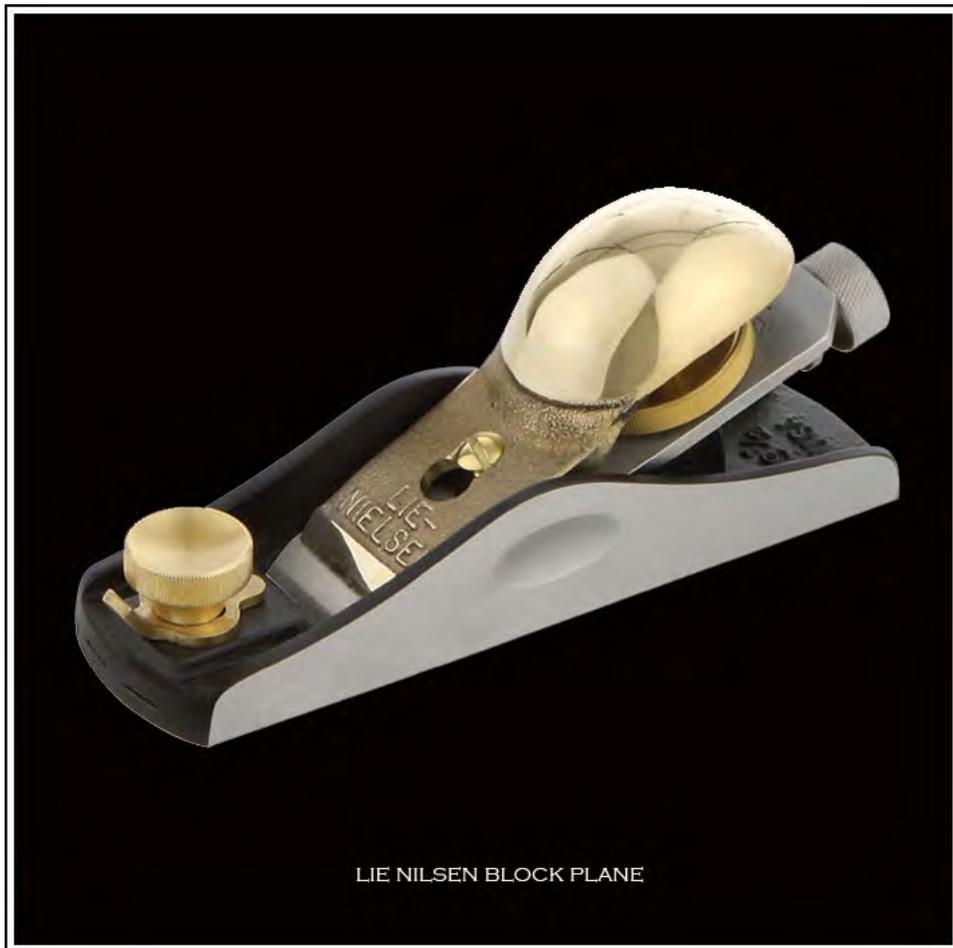
I understood that in rodmaking it is essential to have the right frame of mind to tackle every phase scientifically, with rigorous precision and without leaving anything to chance.

Being a rodmaker means to continuously question your choices to achieve better solutions that are motivated by experience.

In all this it is important to know and practice with historical tapers that are starting points for the growth and subsequent personalization of future designs projects and choices. I feel that each participant that during the IBRA course made his rod with his own hands, realizes that he has made something great which can be repeated in the future and this is something of extreme value.

Enrico Francioni





LIE NILSEN BLOCK PLANE

SOL company and Wenzel Thöner

by Petr Holecek

Intro

Sometimes one man's destiny equals to several others. Wenzel Thöner – the founder and owner of SOL company in Decin, contemporary Czech Republic – was a man who experienced two world wars, Nazism and the beginning of communism

SOL – company history (1903 – May 1945)

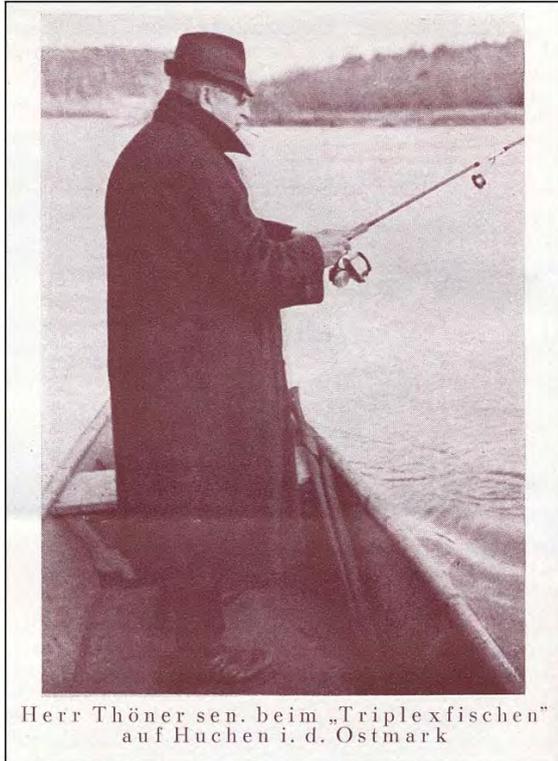
„I combined my journeys around central Europe with sport and I learned methods and wishes of fishing sportsmen.“

- from a letter of Wenzel Thöner to president dr. Eduard Benes, 1945



Wenzel Thöner, a Sudetenland German, was born on May 5 1877 in Markvartice near Ceska Kamenice. He soon followed his father and started production of fishing equipment. In November 1903 he founded company called Wenzel Thöner – metal goods and fishing equipment production „SOL“ in Decin. Besides fishing equipment the company produced also dentist equipment, ski sticks and Cassablanka knitting-needles for knitting machines.

Successful development of the company was influenced by World War I. Wenzel Thöner was drafted to a railway regiment of the Austria-Hungarian army. After the war had been finished, the company got on with its production to experience its greatest success after 1924. It was already the era of the Czechoslovak republic. In this era the company employed several tens of people. The assortment was very wide – from splitcane bamboo rods, reels, lures, flies up to floats or hooks. 1937 catalogue contains over 600 items on 100 pages. The most famous SOL products are TRIPLEX reels. Patented Triplex-C was later, after 1938, considered the first modern spinning reel in Germany although it was produced in Decin, Czechoslovakia. SOL exported the goods into the whole continental Europe and also to England, Russia, the USA and Africa. The company was well-known for its support of fishing competitions. These were used to promoting the quality of SOL products. Thus it is not surprising that one of the successful competitors was the son of Mr. Thöner, Wilhelm. Wilhelm Thöner(1905 – December 26, 1962) the designer and SOL production manager, was also the winner and the record-holder of many fishing technique competitions. He worked in his father's factory from 1925 – is means from the age of 20.



In 1938 the Munich Agreement (also called Munich Betrayal) joined a part of Bohemia to Germany. Wenzel Thöner and his company became a part of Nazi Germany. SOL continued its fishing production and had to start also war production for German army. According to the records of contemporary Economic Chamber in Liberec (Reichenberg) Wenzel Thöner employed about 60 people at that time.

Rybnářovo jediné přání
a největší
vánoční štěstí:
nářadí
„SOL“!

Obzvláště oblíbeno:
Navijáky
TRIPLEX
k tomu se hodí
pruty,
šňůry,
vnadidla.

Každý odborný obchod Vám předvede mílerád nejrůznější
SOL - výstroje
a jednotlivé předměty hodící se jako cenné a krásné dary.
Výměna vždy možná. **Soutěž 1937:** Poslední lhůta 10. ledna 1938!
Sfavné Vánoce a Petrův Zdar pro r. 1938!

Továrna na rybářské náčiní **„SOL“ - V. THÖNER,** Děčín-Staré Město.

*Die große Funktion
für die Angelfischer
1939*

TRIPLEX - ROLLE
Die erste Reichsdeutsche Rolle mit stationärer TROMMEL
Fabrikat der Sudetendeutschen Angelgerätefabrik „SOL“

passende
Spezialschnüre
sind:
FERRUM
ELFE
DIABOLO und
LIONESS

**SPEZIAL-
RUTEN**
sind:
DISKUS I
für Forellen bis 3 Pfd.
DISKUS II
für Hechte bis 6 Pfd.
DISKUS III
f. gr. Hechte u. Lachse

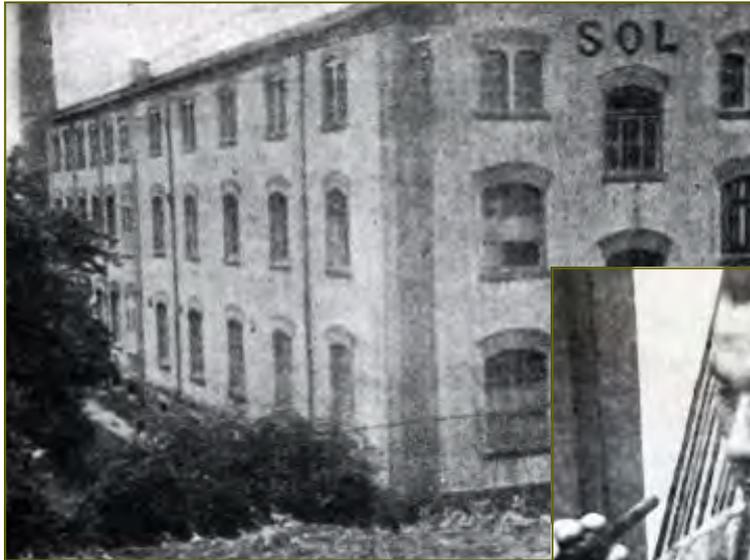
**Zu beziehen
durch:**

A. Werner
Das Spezialhaus f. sämtl. Angelgeräte
BERLIN SO 36, Köpenicker Str. 195
Fernsprecher: 08 83 49
Eckhaus am Schlessischen Tor

SOL the end of WW2 - 1962

I and my son were not politically active because I was a SdP (Sudetendeutsche Partei) enemy. My son has an anti-Nazi warrant. As my factory has been annexed, I would like to ask for a residence permit for me and my son and our families until all the matter is clear, because I would like to have my lifelong work in good hands.

- from a letter of Wenzel Thöner to president dr. Eduard Benes, 4 July 1945



After the end of WW2 Wenzel Thöner and his family are threatened with the possessions annex and displacement to Germany (based on Decrees of the President of the Republic also known as Benes decrees).

The company was taken under national control. The director of a competing company Rousek – ing Frantisek Tichy was appointed to carry out the national control temporarily from 18 June 1945. Wenzel Thöner writes a letter to the president of Czechoslovakia dr. Eduard Benes. In the letter he asked for a temporary residence permit and for a possibility to turn the SOL production over. This was refused. The company administrators were often changed but SOL carried on its successful fishing production. By the end of 1945 SOL was almost free of competitors – its biggest rival Rousek Fishing Sport could not produce due to lack of material supplies. One of the company's advantages was a big material supply – especially bamboo for rods. The company moved to a new place, the plant was extended and still exported its products. This flourishing time did not take long. In the end of 1948 a competing company - Rousek Fishing Sport (later TOKOZ) - took over the production and the factory in Decin was closed. The company founder did not experience this bitter end. Wenzel Thöner died in 1947 in Stralsund, Germany.

However, the SOL trademark was still alive. Wilhelm Thöner, the son, supported by the German state and banks continued the family tradition of fishing equipment production in Bavaria from 1947. His new company was called TRI- PLEX – fishing equipment SOL, W. THÖNER and was settled in Munich, Rossenheimer Strasse 34. The company got into financial troubles and its activities were finished in 1956. Unfortunately, six years later he paid for his obsession. In 1962 on the Lech river during his beloved winter fishing for huchos thin ice broke under him and he drowned. His body has never been found. The SOL history was finished by his death.

SOL bamboo splitcane rods

„Splitcane rod purchase is a thing of trust. Avoid buying second-rate goods, they will be more expensive than a quality product.“ - Wenzel Thöner, SOL catalogue, 1937.

By the end of the 1930s SOL produced over a hundred kinds of splitcane rods out of which about 20 in various lengths and types were for fly-fishing. The rods were single-handed or double-handed, 7 to 12 feet long, two-piece or three-piece. There was an offer of a single-piece rod with the length of 3m and there was a possibility to buy a six-piece travelling rod. Another interesting kind of rods were combined rods for both fly-fishing, spinning and float fishing.

SOL made rods in the following modifications: Normal, Sport, Florett and Excellent. They differed in the surface finishing, cork quality, way of thread wrapping, and various types and materials of guides (steel, agate, nickel, etc.). The company also produced rods on order according to customer's wish. A customer could bring his own scheme of rod including the measures of the taper.

In the photographs below is a fly-fishing rod SOL from the 1930s. It is a three-piece, 10 feet long, approx. 5 AFTMA. It is a great grayling rod.



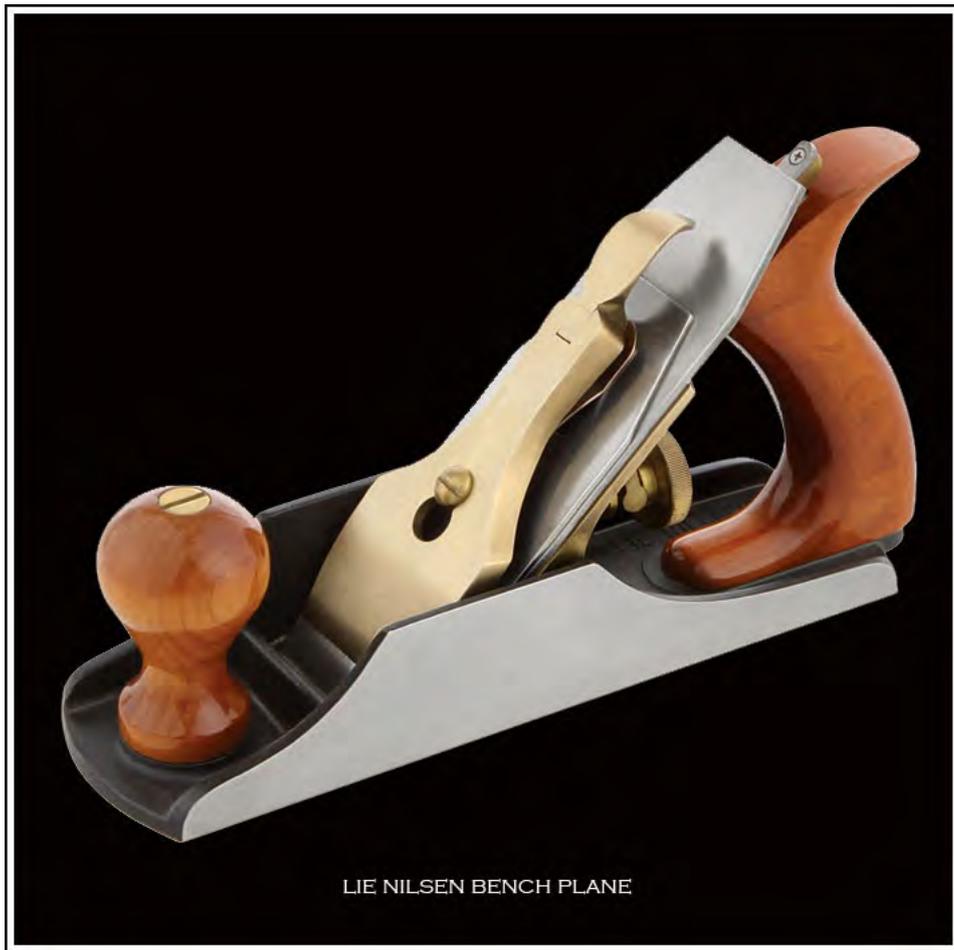


This rod has been ground and varnished several times, the taper measures are approximate

0	.110	35	.202	70	.290
5	.127	40	.208	75	.312
10	.139	45	.214	80	.334
15	.150	50	.232	85	.347
20	.158	55	.258	90	.356
25	.174	60	.264	95	.369
30	.190	65	.278	100	.390

I would like to thank the staff of the local archive in Decin (Czech Republic) and Mr. Peter Prokop and Wilhelm Thöner jun. (Germany) for providing some materials and Wenzel Thöner photos. This article would not be complete without this help.





LIE NILSEN BENCH PLANE

TAPERS

by Giovanni Nese

Let me try after 17 years! Let me try to write about what I have understood about bamboo rods and about some views some ideas I have made about bamboo rodmakers. First a little "brainstorming" or else I'll go off-topic 20 times.

What is a taper;

Large deformations, deformations and the theory behind elastic beams; changes in the deformation related to large deformations;

Let's design a taper: methods on various levels, by hand and by machine;

Great Rodmakers;

Geniuses;

Copiers;

Cars salesmen;

And;

Conclusions .

Let's proceed:

About tapers: what are they?

- Can we take it for generally accepted that we understand why a fishing rod, in imitation of any tree comes with a taper that goes with from base to tip?

No!

I understand that is a consistent presumption, but let's think about it

Firs trees: How Nature made these tapers is a question that I have have been asking myself for a long time. When you are walking through a forest of fir trees you can see the taper of the tree trunks and you can get an idea of how this taper can be: a short section, strongly tapered, at the base where the stem joins the roots, a section of several meters, without branches, almost cylindrical, the next sector, rich in branches, where the taper is evident and it shows that it is convex, (runs from cylinder to cone with its belly out).



For other trees such as poplar or beech trees which do not have a single continuous shaft, it is not correct to speak about a taper, because the shape of this type of branching trees will vanish the identification of a smooth taper, I'd like to find in these trees the laws that cause the mutation of the sectional areas of the branches. Cut the tree into slices at different heights and then determine whether or not the surface of the wood changes and if this happens verify to see how it changes depending on the altitude to which you are cutting, exposure of the tree, isolated or placed in a forest. Do a dimensional analysis of the lymph channels to see if they actually continue from the tip of the roots to the tips of leaves, etc. etc.. One can study a bit. I have an idea for this type of trees and we will rediscover something similar to the "area law" that governs the design of supersonic aircraft. The goal of the fir tree is to bring leaves, needles, above into the sun. To do this, for reasons of energetic balance, the tree must use a small amount of wood in the stem, extend the branches almost horizontally but make sure that the structure thus formed can withstand the wind and snow load. The snow is not the major problem, the organization of branches and small branches as swags and fringes prevents the accumulation of snow and facilitates the discharge with every little movement.

It's amazing to see how natural selection has optimized the shape and behavior of living organisms towards hostile climates and everything is strictly functional and practical. It is a common observation that while the small branches are turned up, large ones, with ease throw away the weight of snow a little due to their own weight and a little because they are turned down.

The last consideration I have in this regard is: the branches that are turned upwards allow the accumulation of snow on the side that is most exposed to wind action.

This could also be a "specialization" to protect the most delicate part of the plant, which acts both as protection from a mechanical and a thermal viewpoint. The snow acts as a cushion against mechanical shock and as thermal insulation.

Since we are not discussing about reproduction, everything is reduced to the bare minimum, there is only what you need and nothing more.

The problem with wind is very important, if we analyze the need for light exposure of the leaves, they are in situations that are the opposite to what it takes to withstand the action of the wind without damage.

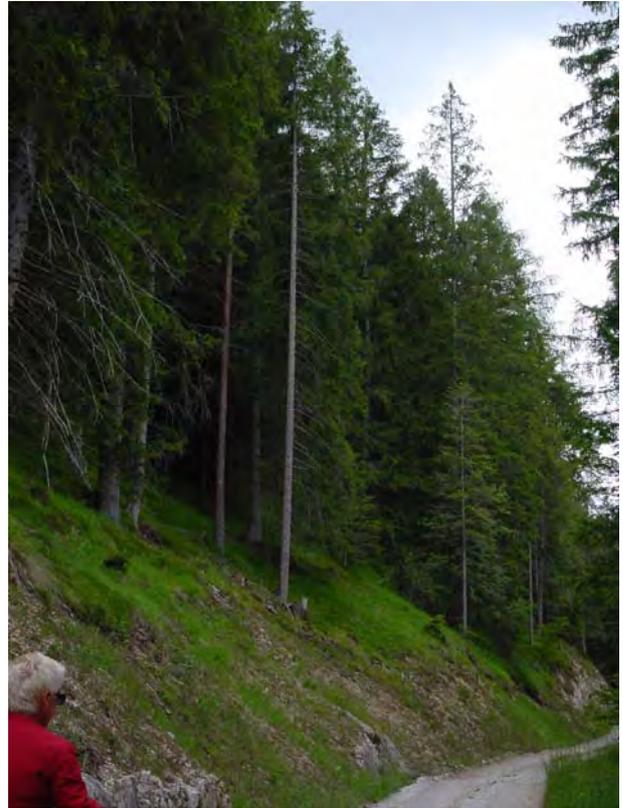
The tree optimizes this response by using a flexible structure with the capacity to absorb large deformations.

If you've seen a forest with many fallen trees, you may have noted that it is often in coppiced woods of trees that have fallen more for a heavy snow storm than because of strong winds.

These things happen only in coppiced woods.

Due to their shape the coniferous trees are also equipped for snow and the wind. The wind bends the structure which gradually takes the shape with a lower resistance. The tree changes shape, reversing most of the branches towards the wind direction assuming what is the lowest aerodynamic resistance. A great contribution comes from the fact of living in communities where the overall effect is to raise the forest boundary layer to a height above the forest line.

For the isolated coniferous tree Mother Nature has adopted a different solution, since the lower branches can reach the light she has removed the cylindrical base segment, the trunk is more tapered stem and has also positioned branches and leaves close to the ground where wind speed is lower.



Because of friction with the ground the wind is slower and lower branches are helped by this effect. For trees with leaves, where, because of the weight of these, the tree must "use" heavier branches. The flexibility that reduces the impact of wind is assigned mainly to the leaf stalk that allows it to assume a downwind position and puts it in the condition of minimum aerodynamic resistance. In firs this flexibility is assigned to the small branches

Another peculiarity that has much relevance to rods is given by the bending of the tree due to wind.

As noted, the shape of the tree trunk is characterized by a large almost cylindrical section, large enough when compared with the conical section in which the branches grow. If we make an analysis of the stresses placed on it we understand why: the branches are concentrated at the top.

The greater part of the pushing force is spread on these. The tapered base that connects the trunk to the ground need to spread the load over as large an area as possible. Why? Because there no a deep planted taproot?

For two reasons: the first is linked to the fact that the majority of nutrients lie in the surface layers of soil and roots seek out these substances, the second reason is strategic: if the ground were very hard or did not have sufficient mechanical properties to support the taproot the tree would rely its stability to a situation that is too uncertain to ensure its survival.

So it shapes the roots more like a pedestal rather than an embedded shaft relying more on them for support rather than ground. Having solved the problem of support to the ground, it remains to determine which is the most appropriate form to withstand wind pressure. It is evident that the form that is most suitable to withstand stresses is one that distributes the state of stress and deformation on the largest possible surface. The one that imposes less local deformation. A nice curve that bends the trunk along the entire length and increases as the section becomes thinner, but that gives, however, a significant portion to the bottom of the trunk.

If it were a rod instead of a fir tree, it is just what we would call "parabolic action." You can imagine that downloading the deformation in the lower portion, "saves" the tip of the tree from possible breakage due to wear and at the same time, it uses, in the lower part, a section of solid material with a greater reserve of strength.



Under the snow, coppiced woods collapse because of the phenomenon related to the buckling (instability of equilibrium). The branches are designed to flex under the load of snow and the deformation they can support is significant when compared to their resistance: the branches can bear high deformation without breaking. In a thick forest where the branches are crossed and supported by others and there is no possibility of bending and the shaft is straight and very often almost vertical.

The snow accumulates in the saddles of the branches or on leaves which because of an early winter have not yet fallen and the branch operates as a column with a concentrated load at the top: take a load much higher than what had been destined to support and when it reaches the limit the collapse is catastrophic.

L. Euler Swiss mathematical genius of the 18th Century found a solution to this problem by calculating the limit loads of the vertical beams and identified the slender stalk as the critical element of strength and stability. For trees it's the same formulation. The solution to the problem of coppice woods felled by snow is always the same: maintenance. The loads rashly applied to slim columns were often the cause of fatal accidents.

The bamboo culm has an organization and a taper similar to conifers and even though it is a grass (Poaceae formerly known as Gramineae), it has become so specialized to look for the "geometry" of a fir tree. A section which is strongly tapered at the base where the stump and roots develop, a stretch of almost cylindrical stalk, a convex conical section where there are branches. Compared to trees the specialization has led to skip the long phase of development: trees are born small and grow gradually. The bamboo is born "big" and then ages. In a few weeks of growth, the stalk reaches the top of the surrounding plants and then free from leaf bracts it enlarges the leaf system. You can imagine the shaft, the pole, like a long needle, a telescopic antenna that is fired into the sky and what's more: the thin section, the silicated bracts that can pierce any object and have the ability to circumvent obstacles. Once the light is reached, the bracts fall off and release the buds from which the branches bearing the leaves emerge. In a period of less than 2 months, a taller young plant, fully developed and with maximum force replaces the oldest.

As the wood in the bamboo gets older, from the old, thin and low stakes, which are not exposed to the sun and have worn and inefficient leaves, all the elements are absorbed and the stalk is left to dry.

The trunk will decompose and release its chemical elements for the new suckers, in a closed loop in continuous evolution that has limits imposed by soil and climatic conditions of the site where the plant grows: soil, wind and precipitation. Under ideal conditions a species of this cane can reach 30 m in height.

I'd like to do a statistical analysis and correlate dimensions of pole, wall thickness and meteorological events to discover what is clearly visible to all: the species best suited to a site is the dominant species. Then to push this analysis to evaluate efficiency, mix thoroughly and find that the grass species are the most efficient.

It was known, but to get to it through an energy balance, with numbers that speak of calories, joules, which measure the used or obtainable energy would be nice for me since I have ambitions of rationality and pragmatism. Pushing this analysis to include the energy related to sexuality would be sublime.

The bamboo plant is virtually sexless. 40, 50 years, some species exceed 100 years without a hint of interest. One day it decides to engage in reproduction and does totally. In a couple of weeks it blooms, produces seeds and then dies! The whole plant, including the rhizomes hidden in the ground.

The new plants grow from seeds and the cycle begins again. Another round of 40, 50 or 100 years. The concept to understand in this introduction is: the "natural" taper that uses less energy, the entropic taper (sic), is the "parabolic" one.

Nothing new under the sun.

The fishing rod has also, of course, the same problems as the tree in the wind, but the rod moves and not the air and in the normal speed of use in fishing this load does not represent the most significant value, at least for our ordinary flyrod.

Since the rod is moving and not the air, another fundamental aspect becomes significant: the mass. The property, which governs the movement, which contributes to persistence in motion or at rest of the object, until a force acts to change the status.

For the rod we have to ensure that the mass of the tool is appropriate for this purpose: handling, transport and oscillation frequency must be right to make an usable tool.

We could make a very solid tool, but it would be heavy, its mass and oscillation frequency would be so high as to hinder us from using it to cast a fly line. Not be able to give the line sufficient speed to unwind.

The mass, or roughly: the weight of the rod is a compromise between strength, deformation and mechanical properties of the material that composes it. The mass distribution: the center of gravity of the cane, is one of the discriminatory aspects on the effect that the force applied by hand to the rod imposes to his movement in space.

An example: the feeling of more weight that is felt by swinging a rigid rod is connected to a phenomenon that matches the position of centre of gravity of the rod with some of the modes of vibration of the rod. A flexible and a rigid rod with the same weight distribution, the same center of gravity, behaves in a totally different way under a cyclic stress.

You have observed that if you apply a rapid impulse to the rod, the tip has a tendency to bounce in the opposite direction. The more the rod is rigid less the tip rebounds. The rod holds its overall state of rest, the pulse generates a change in this state. The rod tries to move around a position which should coincide with the centre of gravity of the system that consists of: the fisherman's arm and the rod and tries to maintain a total inertia which will make the tip bounce in the opposite direction to the base where the force was applied. Big mess! Rather limit ourselves to observe pragmatically that a flexible rod generates a feeling of less weight because it is the biggest part of the rod that bounces in the opposite direction when it moves.

Another example that links the centre of gravity and frequency of oscillation: if you swing a weight attached to a wire the oscillation frequency is related to the length of the wire, or the location where the mass is concentrated.

So closely associated with and so obvious that Galileo GALILEI observed the conditions for the construction of clocks. He was also easy to get distracted in church during the ceremonies, I know others like this but that are not so fruitful with ideas and innovations.

The position of the center of gravity will affect the frequency of vibration of the rod and its ability to move faster or slower in space.

It is intuitive (sic) as it is convenient to move the mass as low as possible, close to the hand that generates the impulse, to take advantage of the increase in its frequency of vibration of the rod and reduce the effects related to the inertia of the tool.

The taper of a rod is an ordered series of linked conical sections that creates a lightweight, flexible and modular tool; the distribution of scaled and coherent thicknesses which allow a certain range of casting distances, which can resist the force of the fish, allow you to cast a fly line at a certain speed and uses a small amount of energy.

Shall we open a paragraph that talks about energy? About quality of energy, entropy. (entropy measures the amount of energy that is obtained in a process and can be used to produce work) ...

Let's go back to talk about Murphy's Law, the great Whore (mother nature) of the chaos that eventually pervades the entire universe, (not now and not absolutely sure) does god coincide with the entropy of the universe? At the end it will only... a lot of unusable energy! It takes more energy to control the movement and acceleration in a fast cast as in TLT (Italian casting style) or in a slow cast made only with rod?

If at the end of the story the fly reaches the same distance then it is a tie but the quality of the energy used is very different - more sophisticated and expensive the first one than the second. The overall energy balance, the difference in entropy, is in favour of the latter (from the second we have a saving, we have used less "sophisticated" energy). Perhaps it is for this reason that the slower rods and not sophisticated casting techniques have more believers. It comes natural to follow the easy way.

When we walking in the mountains, we usually go downhill. Then we repent. I've had countless proof. When we lose the path we must never take the first one that leads down, I can assure you that in a half hour you'll have to go back to the starting point.. Then after some experience is amusing to observe how mushroom hunters or trekkers behave in the forests.

"Goats" are always on top, the "cows" tend to go down. It is also a natural law.

If you were shepherds in search of a lost cow in the pasture you should arm yourselves with patience and look in all the blind holes at the bottom of the valley, if you're lucky your lost cow is already on the way home. With the goats is easy: you look up, almost certainly on the crest, you just have to go up to fetch them. Donkeys are another story. The donkey is known as the road engineer of the mountain! I am still laughing (I'm master road engineer) but if you walked into a meadow where donkeys have traced the paths, these will be easy to walk, they climb constantly, go around obstacles, plan a linear path with no jumps and sudden changes of direction. Now people go to the mountains by car, the paths of the donkey have become roads now. During World War one in the Alps they expanded mule - donkey paths and created new ones. The paths tracked by donkeys and mules still exist but have now lost the memory of the packs. Many things can be enjoyed along these paths: the little challenging stretch that interrupts a climb that'll break your legs and strangle your breath, the obvious deviation that reaches a spring, the steps just below the mountain ridges, protected from the wind but often seen on both sides of the mountain ...

I am losing myself with memories of easy walks and charming mule paths that seem designed by a physiatrist.



Even in the mountains you must use a criterion of selection of energy. The goats know, so do the cows but they do not care. It is preferable to maintain a high level of potential energy: the altitude at the expense of kinetic energy: the speed; keeping altitude has an entropic advantage, it conserves energy.



Starting from the butt characterized by a few millimetres in size: 6 or 8, the tip of the rod, a few feet higher, ending with a size of about 1.5, 2 mm.

The law, the reasoning or philosophy that determines that the size decreases as then length increases is called a taper. On this type of scaling brains have been racked for a century and a half, maybe even more

Who build rods using carbon fibre currently has the same problems, some technological resource benefits the design and implementation, other phenomena such as deformation of the thin wall sections will generate new and more difficult problems to resolve .

Large deformations

Deformations and theory of elastic beam, changes in the curvature and shape related to large deformations

If you apply a load to an iron bar, it flexes more with a heavier load and a thin bar.

The limit in the case of iron bar, is the fact that at once the iron is bent, it will not spring back to its original position, caused by the phenomenon of plasticity is a typical property of that metal. If it were made of steel, it might have more ability to spring back, better resistance, perhaps a lighter weight.

In building and the mechanisms that we use habitually, the deformation of the structure is usually a small fraction of the size of the structure. The lowering of the floor of a house under the operating load is usually less than a 1 / 500 of length, we have the nutcracker to crack nutz without the handles pinching your fingers, the string immediately raises the shutter as soon as we start to pull.

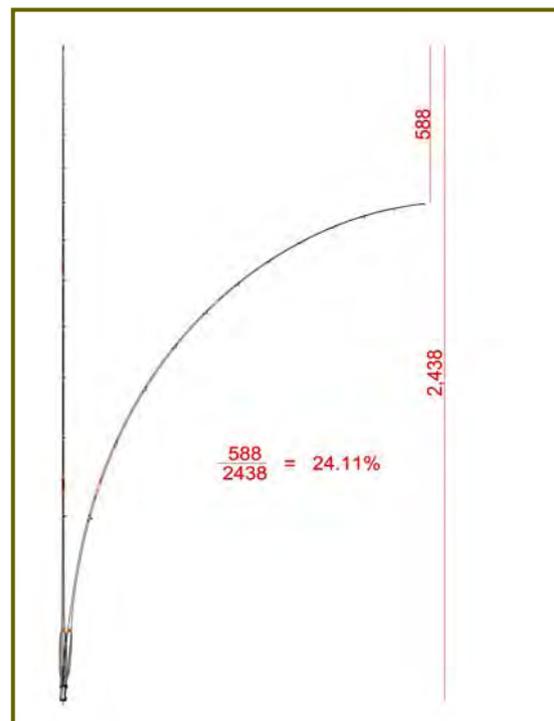
This indicates that there is a large safety factor in the relationship between stiffness of the material and weight

For rods and other elastic bodies these are not the answers: the rod may be deformed a lot, the distance between the two extreme positions of movement may be equal to its length, elastic hair clips must take a maximum deflection of at least 10 times the size that will have to hold ... the spring that weighs the fish must have an extension that allows at a fisherman, happy and excited, to read the value on the scale. There are several situations where large deformations are used..

What are the implications of large deformations? In some cases the shift changes the action on the structure: the lever arm of the rod is reduced; When with the end of the lever you touch on the ground we are forced to use a wedge to reposition it and continue lifting the car.

Fishing rods are subject to large deformations I need this obvious consideration to clarify some aspects related to deformation and the ability to adapt to short casts and even to cast even greater distances.

Large deformation means basically one thing: change the geometry of the rod: length, during bending. From straight to bent under load, a rod may reduce its height by about 25%



This affects the state of stress of the material and consequently the deformed rod.

It is clear that the rod bends with a heavy load in the direction of traction so the contribution to the bending of the tip is practically zero. This phenomenon is developed in each state of bending, even during casting the deflection of the tip decreases and its contribution to the traction of the fly line changes significantly.

Building a taper

How do you get the taper.

Taper each of 6 strips which form the rod. To do it with the traditional planing form I act on the adjusting screws. There are two methods of construction of the planing form, the simplest is the push-pull, a screw pushes for spacing the bars, another, nearby, pull to close.

Acting simultaneously on the two screws I adjust the width of the groove and therefore the height of the strip and the thickness of the rod.

The other method is ingenious but somewhat more difficult to understand.

It uses a single screw. on this there are two threads, both right handed and on two different diameters, at the front there is a faster groove and at the back the slower one. The purpose of this geometry is to use the difference between the two threads to change the distance of the bars.

It is a variation of what they call the China hoist. When I do a full turn to the screw, the first thread moves the first bar of 1 mm, the second tread moves the second of 1.25, then the useful difference is only $25/100 \text{ mm} \cdot 1/8$ of a turn changes the size strip of $3/100 \text{ mm}$

Great idea!

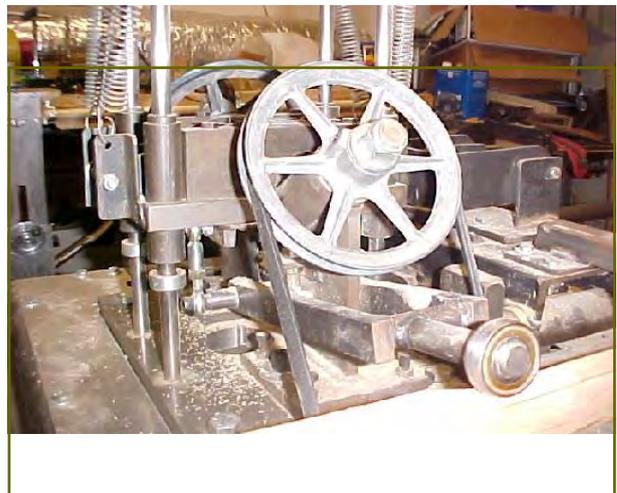
Where are the hidden problems of this system?

- the screw must be turned in order to get the perfect alignment of the two shafts. The screw threads should be necessarily made on a lathe so as not to modify the coaxiality, the thread must be continuous, all threads must start and finish at the same point in all the screws and the beginning of the thread diameter on the order must be the same on the large diameter. - the same goes for females threads on the bars.

All this is not needed for the push-pull where you just use screws of good quality and have the foresight to drill straight holes.

On the PF you make continuous half Vee groove that ranges from 0.65 to 2 mm on a side from 1.5 to 3.5 on the other. Then, with the screws you can set it to any kind of taper.

One with an angled blade and a sliding frame. (like Leonard)



(photo of an Nunley RL machine)

one with a mill with groove of 60 degrees, fixed table and sliding mask (type Dickerson)



one with fixed sliding mask and table. (like the Brunner of which I have not photos).

The most widely used is the Dickerson type, who has less moving parts and fewer items. Yet another application of what Henry (Ford) said "everything that does not move does not wear out, if it isn't there it does not break ". The mechanism consists of a milling cutter with the interior angle of 60 degrees, under this passes the strip that is placed on a shaped-mask this alters the distance of the mill as it moves which results in a change in size. The use of this technology therefore implies that for each type of taper that I intend to make first I must realize the appropriate jig-shape.

One for the butt, and one for the tip.

It is a machine made to produce many pieces, to produce rods, not for building rods for a hobbyist. We would have to do a good chat about how many rods to produce as a craftsman and how many as a hobbyist.

On how to reduce production time and other considerations about the timing and methods. On the absolute uselessness of producing semi-finished products for a hobbyist. The modern machine to cut strips does not exist and what you see around sometimes is more than 100 years old and it's all mechanical. But it would be nice to think of a modern workstation, a small software and a micro contact/non contact measurement tool would enable us to produce the strip directly from the raw pole with a little intermediate processing.

I had some fun calculating the levels of production of a device like that. With wastage near to zero or at most 5%, from a single pole you could produce about 90 strips, 6 rods with a standard pole! Instead of getting 3 like a "stingy" like me or the 2 that are produced by those who tend to be a little rough during the levelling.

The Leonard type machine, who was only used by him and kept hidden from employees for over 50 years; it is a machine as big as a room with long drive belts and two tiny circular saws arranged at 60 degrees.

A flattened strip supported by a frame that acts as a guide and taper operator passes under these saws. On the machine there are quite a bundle of adjustment screws and various gadgets. It is missing safety screens and all the safety precautions that can be seen today on any electromechanical equipment.

This machine allowed Leonard to produce strips with tips of 0.5 mm! Leonard has never used strange shapes in tapers, there was a small step in the transition between tip and base, the trend of the taper was always pretty straight and with a strong continuity, this is partly due to his machinery and I think also for his professional insight and design.

Later Dickerson, Payne and others will do complex taper with simpler machines but that were more refined in the implementation of the taper. But now there was nothing left to invent.

Designers of tapers ...: or big rodmakers

Just an example that explains nothing

Let's suppose that our beautiful rod has a linear taper, so that for each increment of weight applied at the tip there is an increase of deflection (lowering). When you are casting, when the distance increases, this corresponds to an increase in deformation.

Now let us assume that at some point in the rod has introduced a section that has a resistance proportionally lower than the previous value: it is a size that is of a few tenths of a millimeter lower than the progression of the taper would have called for.

With a section a slightly lower resistance the total deformation increases.

Elementary!

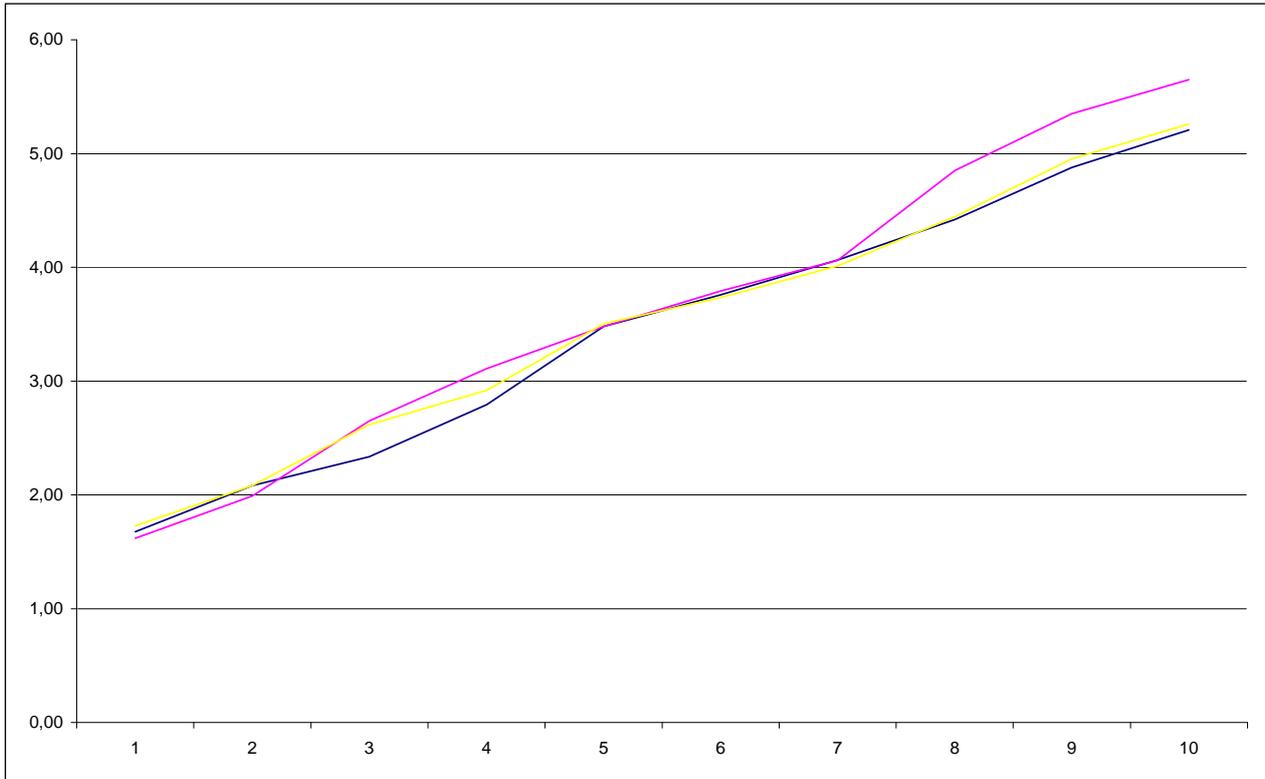
But how does it increase?

In the beginning it increases, then when the rod is deformed, when the tip is aligned with the direction of fly line, the section of lower resistance is stressed by less load and the deflection is reduced by little... little, but it is reduced, and this happens only if the deformation of the rod is large, if we're casting far.

On short distance casts it is as if I had a soft rod, when the cast gets longer and the rod flexes more, this greater deformation induced by the section of low resistance is gradually decreasing, little but decreasing. I moved the stress to a lower point, in doing so I got a rod with a "reserve" power for use in long casts, which is manageable and pleasant even with short casts.

There are just a few rods where these tricks are applied, they should be quite long, if the rod is not long but short, the rod should be thinner but it's hard to guess where to put this narrowing and make it work well.

Some of the rods that carry this narrowing are considered exceptional, and are at the top of the 25 best rods in the world: the No. 98 Payne, Gillum 1-974, Granger Aristocrat, Leonard Tournament. P. Young Driggs



This, in my opinion, it is the geniality!

These thoughts were made by Leonard first of all, Dickerson, Payne, P. Young, Gillum better than the others.

But they didn't only think about this, sometimes they focused variation of the section at the ferrule or just below it, in part to counter the phenomenon of localized stiffening caused by the metal, or sometimes to transform the action of a rod of a simple progression to a separate action in which a hard butt moves a flexible tip. A flexible tip casts the fly line, a rigid butt is used to fight the fish, not only, the rigid butt amplifies the pendulum movement of the forearm and allows geometry of motion that can not be achieved otherwise. It increases the speed of the action.

Gillum was, in my opinion, the most passionate lover of this strategy, if you want to focus the projection speed of a fly line it takes a fast rod. fast rod which has a stiff butt. How do I get the solution: Gillum adopt this strategy - it takes a Payne rod, (one of his contemporaries, perhaps the most meticulous-Swiss-pedantic-big of the professional rodmakers) and cuts off a couple of pieces of bamboo under ferrule. Do not ask me if doing so the taper is to be considered as his - the result is that the Payne rod increases in speed because of a larger section of bamboo so that you get, increase in speed because you have moved down the centre of gravity of the rod and this increases the natural frequency of vibration.

The rod becomes faster for the mere fact that the rod is shorter.

With a Gillum it feels like having a Colt in your hand. Distance will not scare you !

Copiers of tapers

I also belong to this category. I don't think that it is a disgrace to say that you copy rods. From Mr. Garrison all of us have copied the first one, and many other rods, from Leonard, Payne, Young and everyone else continues to copy. Why not do it if the actions of their rods are considered modern and still unrivaled.

Also copying is not easy, surely it saves you from producing a large number of prototypes and throwing many rods to the stove. But we must always choose the right pole, work the strip with the necessary precision, use foresight, experience and tricks to produce a rod of similar quality as the original, not true to say that the taper is a Leonard or a Garrison if the quality of finish is on the "Chinese" side. You can love a rod like this but not be proud of.

Copying means to have a huge number of control possibilities, having 300 or 400 rods of existing tapers, perhaps with the comment by the builder or owner, comment on to which apply the benefit of the doubt on things like the quality of measurements and the nomenclature of the actions .

To try to invent something new in the subject of bamboo rods after that minds like Leonard and Payne dedicated their minds to it seems a bit pretentious. There is no section, profile, length, material that has not been investigated, everything has been deeply scrutinized, dissected and understood.

I believe that the new maker is missing the stimulation of originality, but the certainty of applying the knowledge of Leonard or Payne to a specific rod give me guarantees of reliability that no other condition, if not their long experience and many very large capacity employees, could grant.

Cars salesman.

This is a fine paragraph. What do I mean by car salesman:

I wrote it in American because in the States the car salesman has the same reputation that insurance brokers have here. I mean those who offer rods and enhance the features, talk about action and invent names without having the slightest idea of what a taper, a deflection, a moment of inertia and those other 20 variables terms that enter into the construction of the rod.

Try to asking to any supplier of rods how to calculate the moment of inertia of a section or how to change the stiffness and hence the action moving from a hexagonal to a square, from a solid section to a hollow.

If he is quiet and get no response you are talking to what I consider an "honest Car salesman. (sic)". If you get an smoky answer you are talking to one of the most current dealers.

Instead...

If you talk to someone who knows something, the situation could be worse: analysis of the geometry, distribution of curved line tension, tension variation with depth, effects induced by large deformations ... a bit like the things written here and in the Bamboo Journal on previous occasions.

Some of these people fail to make themselves understood and suffocate the listener. They just cannot!

They are infused with an aura of genius that I do not doubt but that excludes them from society. They are not very different from car salesman

The theory is really awkward, stuffed with unusual terms and hard concepts.

In an attempt to explain the casting physics of the rod there is a tendency to adopt improper terms on phenomena that physics knows very well.

Few people study physics. if you try to explain a complex phenomenon such as the forced oscillations of a rod that has a unique rational illustration and you try to explain with words such as "deformation", "parabola", "stress", ... which are considered normal and understandable but are unsuitable, and it becomes a totally incomprehensible explanation.

To explain ourselves in our usual context, with friends, we use a simple slang, elementary words, and we demand to apply it to phenomena that has nothing intuitive nor sentimental. I tried to explain something of the theory of rods to my sweet wife, she did not understand.

It is not her fault, she is very sensitive and humane, it is my fault, I can not explain! Perhaps? If every day, "we fight" with the moods and some Russian author who wrote 2000 pages to illustrate this, if I claim to illustrate a physical concept writing only 30 lines, is this thing is a presumption or unconsciousness?

Conclusions.

I have wandered off topic!

The conclusion is only a question,

"From whom shall I buy a rod?"

"From a rodmaker after having chatted a bit ' . "

There are some enthusiastic people and is always fun to chat with them, ask to see the stock of bamboo, to tell you where to get the wood for the butt, the adventures necessary to make a ferrule. The builder is the father of your rod, practically your father in law, and unlike many fathers never had any reason to fight with his daughter.

A builder is always a good person. It has a small dose of madness similar to yours. He does not sleep at night because he has to go on with the work that allows him to pay taxes, but it has a escape route and a garage to take refuge in.

When he is absorbed in chasing his own thoughts, he is surely thinking about some taper and where to save a cent to build a better rod!

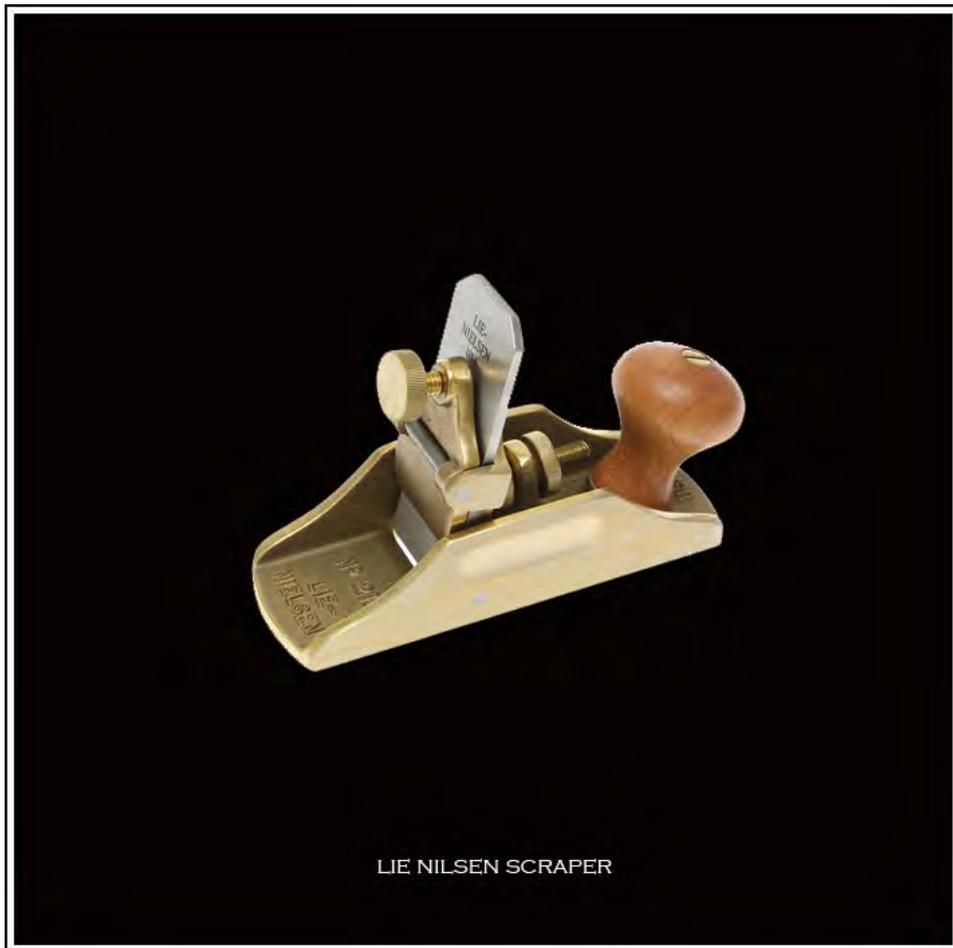
P.S. There is a category of rodmakers that I think is super-human, they are those who make rods and remove the Enamel at the end. A production process that slightly differs from that used by by "industry" and codified by Mr. Garrison .

All it takes is a stain that becomes apparent, a damaged bamboo area that was not evident and you throw away the entire section and a few dozen hours of work.

They build the rods with the same spirit of Russian roulette: if it went well, the result is unapproachable by any production process and only a rodmaker that uses the same procedure is, perhaps, successful to make it equal, if goes wrong, he can build at least twenty ferrule caps with or a fine stiffening rod to sew into the rod bag.

Ciao.





LIE NILSEN SCRAPER

Some things I know that may help

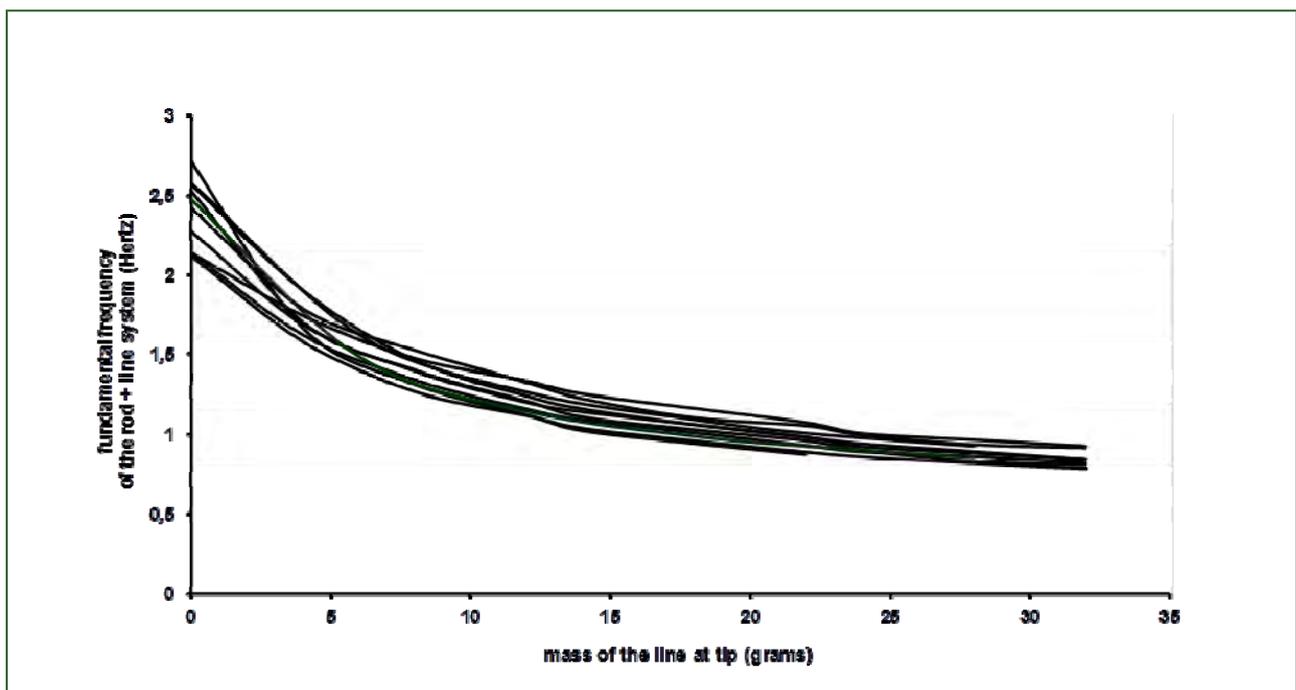
By Daniel le Breton

After reading the already published issues of the magazine, I thought it could be worth sharing some ideas on rod mechanics and design, a subject I have been working on for a long time.

What is a fly rod? It is a flexible lever. From the lever, we get a high speed by rotation, and from the spring, we get the benefit of a temporary storage of energy which allows us to generate more energy to the line on a straighter path: we move a force over a longer distance. A rod has specific characteristics adapted to our physical capabilities. If we were giants living on Mars, our rods would be very different. In some cases, we privilege the fighting capabilities of the rod before its casting properties, but in the cane area, we can focus on the cast, as we are not fishing tarpon everyday with our rather small rods.

We know that casting style is linked to rods characteristics; we use to speak about slower rods for cool people and faster ones for more energetic ones. The casting mechanics are behind that phenomenon.

A few people have modeled the fly cast, essentially with a spring and a mass. The maximum speed achieved during the cast depends of the stiffness of the rod and of the mass of the line, and also of the way the caster accelerates and then decelerates its rod to a stop (or nearly to a stop, another topic for discussion late in the evening at the bar). It is a question of timing. On one side the timing used for accelerating, the timing used for decelerating, and on the other side the "speed of the tackle", which depends on the ratio of the stiffness of the rod and the mass of the line. This characteristic is a frequency, and is sufficient by itself to estimate the line launch speed through modeling. To come closer to rod design, let's have a look at that frequency. Here is an illustration of the records I made with some of my rods a long time ago (hence the poor shape of the curves, I do much better today).

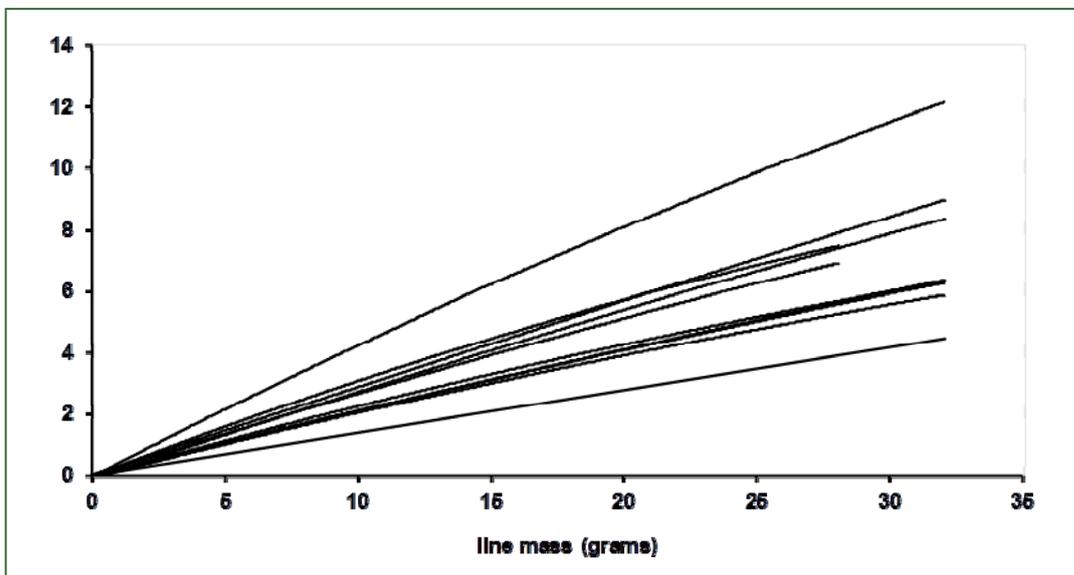


Ideally, it would be nice to have a rod of constant frequency whatever the load is, a good value would be around 1.8 Hz, but this is not possible given the law of physics. So as we lengthen the line, the frequency diminishes which has a negative effect on the line speed. The best way to compensate is to increase the casting arc (or change for a faster rod). Most casters do not vary the casting time when increasing their rotation speed.

A rod has a usable range of frequencies somewhere within 1 Hz and 3 Hz (60 to 180 cycles per minute). We can estimate (trout) rod stiffness with weights up to one ounce (or 30 grams), we can also evaluate their response to load with the same weight. In fact, we can estimate their “equivalent stiffness” through the measurements of their loaded frequencies only. I use to do that for rods clamped horizontally with small deflections and a stop watch (some use a stroboscope for more precise measurements). The miracle is that the rod response to load can be described by just one parameter. It is an approximation, but a fair one. This parameter is called the “equivalent mass” of the rod. It means that the rod behaves as if this mass was concentrated at its tip. We could also speak about the “mass in motion” of the rod. There is a direct relationship between the loaded frequency and the unloaded frequency with the “equivalent mass”. Once I get this mass from analyzing the change in frequency with load, I can compute the “equivalent stiffness” from the value of the unloaded frequency.

$$Freq\ loaded = Freq\ unloaded / \sqrt{1 + \frac{load\ mass}{equivalent\ mass}}$$

So the trick is to compute the ratio of the squared Freq unloaded divided by the squared Freq loaded, minus 1, and you get a nearly straight line. Its slope is the reciprocal of the equivalent mass. For example, these are the curves corresponding to the measurements I shown before (now the different rods can be better visualized).



$$Unloaded\ freq = \sqrt{equivalent\ stiffness / equivalent\ mass}$$

Knowing the unloaded (measured) frequency and the equivalent mass allows you to compute the equivalent stiffness.

You can also directly measure the stiffness with a static bench; you will find a value which is slightly different from the “equivalent stiffness”, just by a few percent. This stiffness is directly proportional to the line weight aimed at for the rod, you know the story. For a 9 feet #6 rod, it is around 1 N.m (Newton meter, for specialists), sorry, most of my references are for synthetic rods.

If we dig again deeper in the “equivalent mass” of a rod, we find this is just the sum of the “equivalent mass” of the blank, and the “equivalent mass” of the hardware (guides, ferrules, wraps and even varnish). So simple, you know....

$$\text{equivalent rod mass} = \text{equivalent blank mass} + \text{equivalent hardware mass}$$

Now you see what I am pointing out: the influence of the hardware is there, and you already knew that it does influence the behavior of a rod. A few order of magnitudes: a “tip action” rod has an equivalent mass around 2.5 grams, and a “butt action” one around 5 grams. It seems small but it is large in fact. The most influencing parameter is the rod length. Double handed rods can have an equivalent mass of 10 grams and above.

The design comes next, then the material. The hardware part can be around 1.5 grams for a trout rod, depending on its length. This is enormous by comparison to the blank equivalent mass. The middle ferrule is not very influent, the tip one in a three piece rod is. Finally, pay attention to the tip top, it is a large contributor to the equivalent mass of the hardware, it accounts for 100% of its weight. Below is an example for a rod which I modeled with one of my programs, with the objective to evaluate the different contributions of hardware components.

The right hand column gives you the equivalent mass of each part of the complete hardware and the percentage it represents in the change in equivalent mass between the blank and the finished rod. You can see that the tip ferrule has a much larger influence than the butt one, which is really small. Guides are in first place.

The differences between the casting characteristics of the finished rod and the ones of the blank are important. Nihil nove sub soli.

EEG215 #7 line	Unloaded freq. Hz	Loaded freq. with 30 feet of #7 line Hz	Equivalent mass grams	Eq. mass of compo- nents grams
Blank (approx. total mass is 101 grams)	2.54	1.16	3.53	
With guides & wraps on top	2.20	1.11	4.67	1.14 (59%)
With butt ferrule on top	2.19	1.13	4.81	0.14 (7%)
With tip ferrule on top (finished rod)	2.04 (20%) (loss from blank)	1.09 (6%) (loss from blank)	5.47 (+ 55 %) (increase from blank)	0.66 (34%)

As I said, rod length is the most dominant factor for the equivalent mass, but we use line length in practice, so can we build rods for different lines that would exhibit the same change in frequency with line length? The smaller the rod, the smaller the equivalent mass (it goes on the tip action side). To get the same trend in terms of change in frequency, the load has to be smaller (see the first equation), which corresponds also to a lighter line. Small rod, light line is thus the rule of the thumb to define a series of rods.

If you want a characteristic only relevant of the rod profile, you can divide the equivalent mass by the mass of the rod (excluding the part embedded for the measurements). It is a percentage that is directly linked to the geometry of the rod, a pure design one.

Let's come back to the mechanics of the cast. Everyone here has heard about the famous factor "4" used by E.E. Garrison to compute his profiles. It simulates the dynamic loading of rods. Casting modeling and casting records do show that this is underestimated. For a normal fishing cast, it is about 6. For a long cast with high rotation speed from the angler, it can go beyond 10. That means that the stress you compute may not be the right ones. The "Dyna Rod" approach takes the rod deflection on board and its rotation, but does not (yet maybe) reflect a better dynamic factor evaluation. It gives a broad view of the consequences of a design in terms of stress.

Even if I do not rely completely on stress curves, they are a very good guideline for design. You have numerous examples that help you to orientate your choice. When I read my Garrison book, I asked myself how he decided to change the stress curves as a function of line size and rod length, since it is not explained. Rather than explaining the way to get the following result, which just follows the laws of mechanics, I prefer to give it straight: the stress at a given level of the rod shaft (a percentage of its length), goes along with the ratio of the mass of the line and the length of the rod, all at power 0.75, if you want to keep the action profile (again you should discard the embedded part of the rod, I take off 8 inches or 20 cm from the butt end):

$$\text{stress} = \text{given design coefficient} * \left(\frac{\text{line mass}}{\text{length}} \right)^{3/4}$$

If the line number increases more than the rod length relatively speaking, the level of stresses has to increase to keep the action profile. This is the trend. Although Garrison rods have a similar stress profile, they do not exactly follow that rule. Analyzing these rods and others helped me to understand the way series of rods were made. Ideally, for cane rods, you get one rod length for each line size (the heavier the line, the longer the rod). This rule can be overcome, but it explains a natural trend in the design of fly rods.

A good computing program is Rod DNA. It allows you to change profiles in a smart and efficient way. In fact, it is very close to the exact mathematical solution of the problem of transposing a design to another rod (change in length and line). I use something equivalent (more sophisticated in terms of governing equations) for synthetic rods, my "secret weapon". However, my program is not user friendly at all by comparison to Rod DNA. In practice, I use several in-house programs to cope with the same issues than both "Dyna Rod" and "Rod DNA" softwares. Time consuming sometimes, but really helpful to draft a rod profile.

Now what do we know about rods? The loaded frequency is "the" casting parameter. The way the frequency changes with load is influenced by blank design and hardware. The unloaded frequency is also called the "speed of recovery", because the rod response after line launch is governed by it. The fact is that we can design rods with similar casting characteristics but different designs (stress curves). This works up to some point however, since general linkages appear between rod speed and rod stiffness: slow butt action and fast tip action for example. This property is "built in" for solid cane rods. There is a little bit more flexibility if you make them hollow.

One of the big issues, if not the biggest one, is the control of the “feel” given by a rod when casted. It is often associated to its action (an umbrella word). There are two components to the feel (I put apart the caster himself). One is related to the distribution of mass along the shaft, it is called the swing weight, but it is the momentum of inertia for mechanics. This characteristic translates the difficulty there is to move (rotate) the rod. It can be estimated through measurements or calculations. It is interesting to know that it does not change very much as the rod bends. The swing weight can get down by some 10% for tip action rods and 5% for butt action ones.

The other component is linked to the distribution of stiffness along the shaft. There is no proper word to name it and it cannot be summarized by a single value. As we rotate the rod during the cast, the angle between the line and rod varies continuously. The consequence is that the “instantaneous” stiffness of the rod varies. Tip action rods stiffen quickly then soften up to the end, butt action rods stiffens progressively until they soften abruptly as they launch the line. In between you can find all type of designs. Until now, I have got no evidence that this change in stiffness can be captured by a caster, even if stiff spots can be located (e.g. ferrules) by sensitive casters.

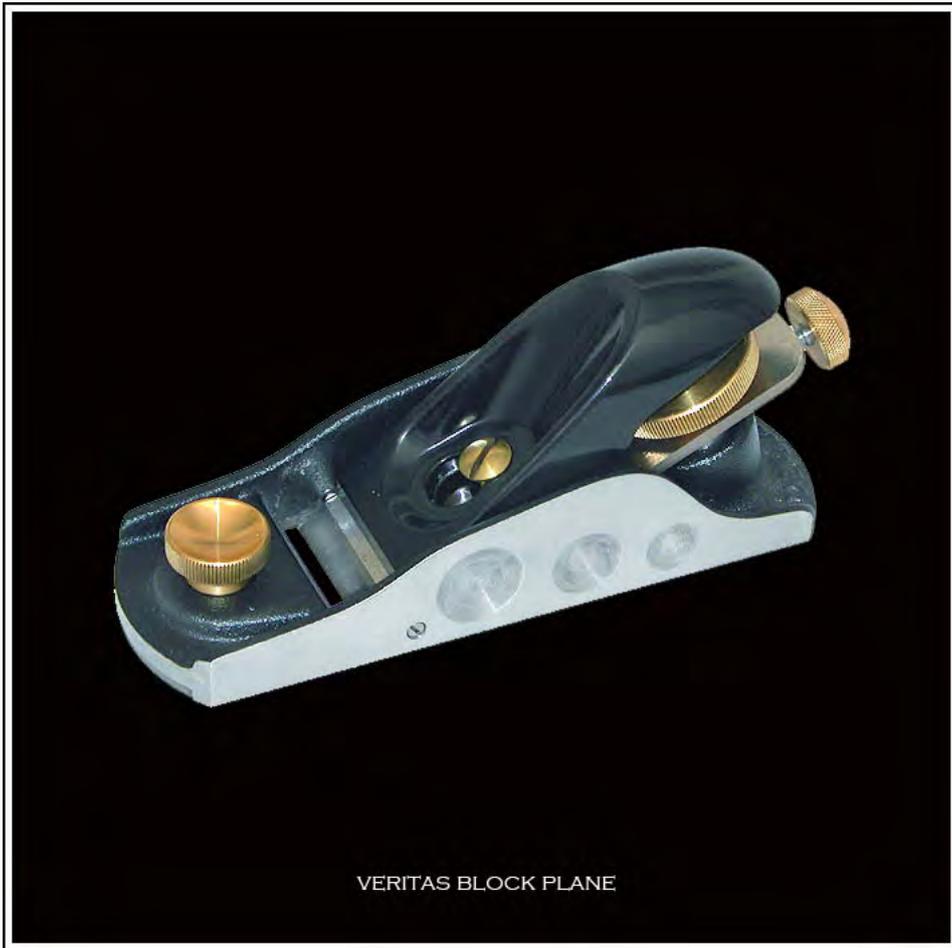
For a particular range of angles between the line and the rod, a “wave” seems to climb along the rod shaft. It starts approximately as we hold the butt in vertical position, then the rod passes through its maximum bend somewhere near the middle of the shaft, the wave ends at the tip top and the line starts shaping its loop. Remember the “wave linear action” of Garrison? It could be there. The speed of the wave along the rod shaft can be estimated by modeling, it is not constant and smaller than the line speed, even for a Garrison design. Some people think one can “throw some energy” as the wave is climbing the shaft. I have never got any evidence of that even if some people say so. From the line speed point of view, the story has been written well before that moment.

To make things simple, both “feel” components have their maximum value during the loading phase of the rod, and the first one (swing weight) is generally predominant by far, unless you cast a long line. The conclusion is that it is really impossible to qualify precisely what we “feel”.

Trying to solve this incommensurable problem is the essence of the magic world of rod design. We can build a good rod in terms of casting characteristics, but how to design a better one, if not the best? That’s really a headache; there is no given equation to fix it. For cane rods, some designers use the “constant stress” concept to minimize the amount of material, and it works. But there are many “angles of attack” that can be used and have to be validated by experience anyway. It is clear that a rod builder puts his own tastes (his casting style) in his designs, whatever the rod material is.

I can talk about that for hours, but let’s stop for the time being.





A WALK DOWN MEMORY LANE

by Giorgio Grondona

On 15 October in Varallo Sesia a friendly meeting on the Valsesiana fly fishing technique was held.

This antique technique was developed on the splendid Sesia valleys probably in the 1500's and today is living a new life.

The event was promoted by Andrea Scalvini, a young fisherman from the valley who is trying to promote the Valsesiana technique in the area where it originated.

In the meantime he has set up a beautiful website (www.moscavalsesiana.it) where you can find the history and information about the equipment,



biographies about fishermen who practiced or are still practicing this fishing method even in places far from where it was born. There are also various article and photos illustrating the beauty of the Sesia and its tributaries.

The meeting took place in mid October in Varallo and reunited some "youths" in their 80's who, in the past half century have been the custodians and promoters of this fly fishing technique which was born in the Valleys of the Piedmontese Alps and which was probably the starting point of fly fishing in Italy. Among these was Arturo Pugno who is the president of S.V.P.S. (Società Valsesiana Pescatori Sportivi). Arturo, who is probably the bearer of the history of fishing in Valsesia, showed us his skills at tying the typical flies he uses with his bare hands, without any vise or other tools usually used by fly tiers. With his bare hands he furred the typical Valsesiana fishing line made from horsehair and which is attached to the tip of the traditional rod which is also handmade using a Culm of *Arundo donax* (also called Nicoise sweet

cane) to which a tip in bamboo or any other flexible and whippy wood is attached.

Arturo Pugno's rod was a single piece 4 meter rod, like most of the rods used by the locals who did not need to move much since there was great abundance of fish in the Sesia and so they didn't need to make ferrules or other forms of connections. After fishing the rod was laid flat so that it would stay straight.

To find rods with ferrule, you need to go to just after WWII. The most famous ones were most certainly the ones which were passionately made by Luigi Cerovetti aka "Moretto".

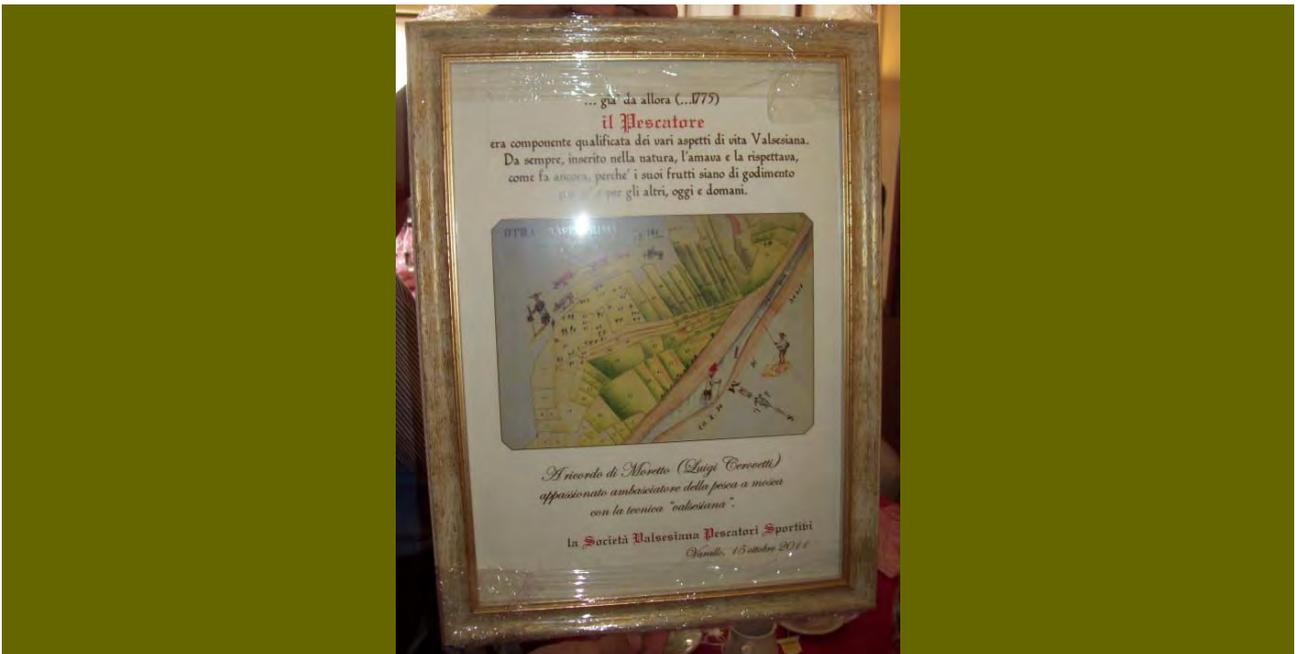
His nephew Adriano Cerovetti was present at the meeting in representation of his grandfather who died in 1983. He brought one of his grandfather's famous rod, the one he usually used, and it was the model which in 1951 he showed an Italian pioneer rodmaker. This sprung a collaboration which brought to the production of hundreds of Valsesiana rods in three differentiated pieces.



The rodmaker that collaborated with Luigi Cerovetti is Renato Gonetto and we listened to his recollection of this meeting which was the prelude to a series of episodes and experiences which took place on the river between Pugno e Gonetto and another "youth" who was also present at the event Bruno Cordero. Bruno achieved great results in competitions wearing the uniform of the "Morettiani", a fishing club that was founded by Moretto in Turin during his collaboration with Gonetto.

I invite you to watch the videos of the event which are visible and punctually updated on Scalvini's website.

Scalvini is aware and proud of the goal he and his collaborators are pursuing and that is to keep up the interest for this wonderful technique which is at the same time awesomely essential and efficient and is practiced by equally wonderful and who are in love with their river and the landscapes surrounding it. They are always ready to welcome anyone who wishes to cast a horsehair line with the same ease as a few hundred years ago.





“Le gabarit”

Dr. Pequegnot and Jaques Cholle’s planing form

by Marco Kerner – photographs di Alfio Jörger

In the introduction of the article in the recent BJ on the Swiss rodmaker Mario Chiari, mention was made of fan unusual planing form used by him. I saw it in a glass case in the fishing museum in Caslano Switzerland and I asked the museum curator to let me examine it and measure it to understand how it was made.

There was no need for this because a beginner Swiss rodmaker Alfio Jörger had done the job for me and he sent me the detailed photographs and the measurements. Above all Marco Kerner wrote to me. He is also Swiss and was a fishing friend and a fellow maker of Mario Chiari and Jean-Paul Péquegnot who invented this planing form.

Jaques Cholle made about 100 of these particular planing forms, especially for French rodmakers from the Franche Comté and if you happen to pass near Caslano in Switzerland, I invite you to visit the Fishing Museum to see it.

This article is therefore thanks to the material sent to me by Alfio Jörger and by Marco Kerner whom I thank for their availability and kindness.

Alberto Poratelli

Doctor Jean-Paul Péquegnot is one of the most valued authors about fly fishing in France. He has fished for Trout, Grayling, Atlantic and Pacific Salmon in many countries and his fly fishing books are a reflection of his vast experience. He is a successful Doctor in Besançon (France), but he still finds time for fly fishing, fly tying, writing and rodmaking too.

The planing form he designed with Jaques Cholle was published in his book: “*L’art de la pêche à la mouche sèche*” published in France and also in Italy by Sperling & Kupfer who unfortunately have omitted the part that is most interesting for us rodmakers i.e. the chapter about rods.



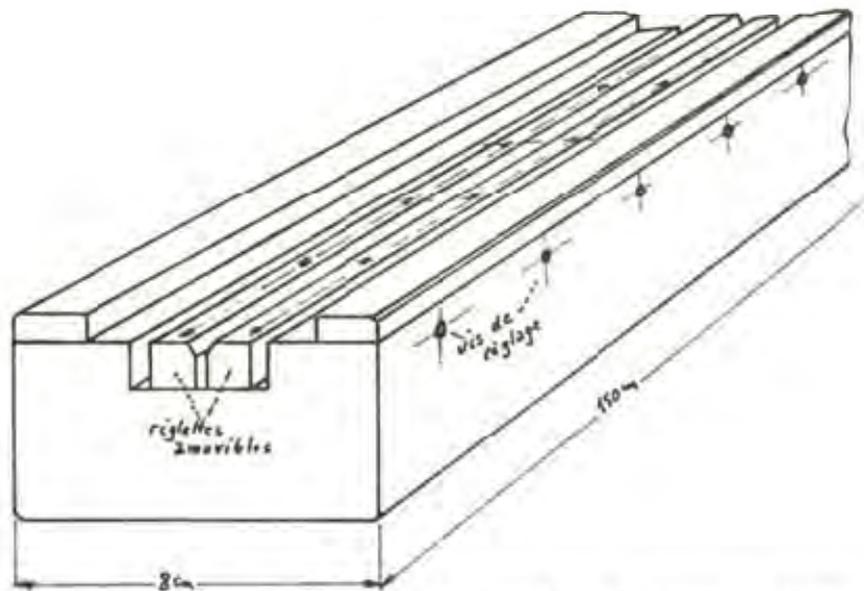


FIG. 7. — Gabarit métallique réglable de Jacques Cholle

Further on in this article you will find photos of the planing form and the original drawings by Jaques Cholle, which will help you to understand the workings of the this tool.

Firstly the upper part is made so that the plane runs between two guides which always keep it horizontally with a groove where two steel bars are place is made so that the plane sole runs on them while only the blade comes into contact with the bamboo. Bear in mind that the bars are 9,9 mm wide while the depth of the housing is 10mm. In this way the PF can be tailor made to suite the plane that is used.

The idea of having the bars 1/10 mm lower than the base may at first glance give the impression that they act as the rodmaker's groove but it is rather deceitful because as soon as you start planing you get aluminium shavings together with the bamboo. The lateral bars can also cause some problems to those like me, who hold the plane obliquely with an angle of 15 – 20 degrees.

Regarding the setting of the form, as you can see the bars have grooves on the 4 sides which are not progressive but parallel and that measure 0,4, 0,7, 1,2 and 1,6 mm. and since they can be mounted on the aluminium base in whichever direction, with the bars complete closed, the opening can have the following dimensions:

$$0,4 + 0,4 = 0,8 \text{ mm.}$$

$$0,4 + 0,7 = 1,1 \text{ mm.}$$

$$0,7 + 0,7 = 1,4 \text{ mm.}$$

$$0,7 + 1,2 = 1,9 \text{ mm.}$$

$$1,2 + 1,2 = 2,4 \text{ mm.}$$

$$1,2 + 1,6 = 2,8 \text{ mm.}$$

$$1,6 + 1,6 = 3,2 \text{ mm.}$$

Having said this, and since taper measurements are taken from flat to flat which corresponds to twice the height of the triangle, in order to get the sides you must use the good old Pythagoras theorem multiplied by 1,1547.

Once you have the dimensions of the taper, you mount the bars of the form in such a way that the groove is never smaller than the taper and you use thickness gauges to set the distances, starting at the widest point.

For example: if for the butt of a PPP Colorado, the planing form is to be set at 3,75mm at station n. 12 and decreases to 3,24 mm at station n. 1, the bars are mounted to use the 1.6mm grooves which correspond to a total opening of 3,2mm, starting from station n. 12 you insert a thickness of 0.55 mm and you tighten the side screws and you block them with the bottom ones.

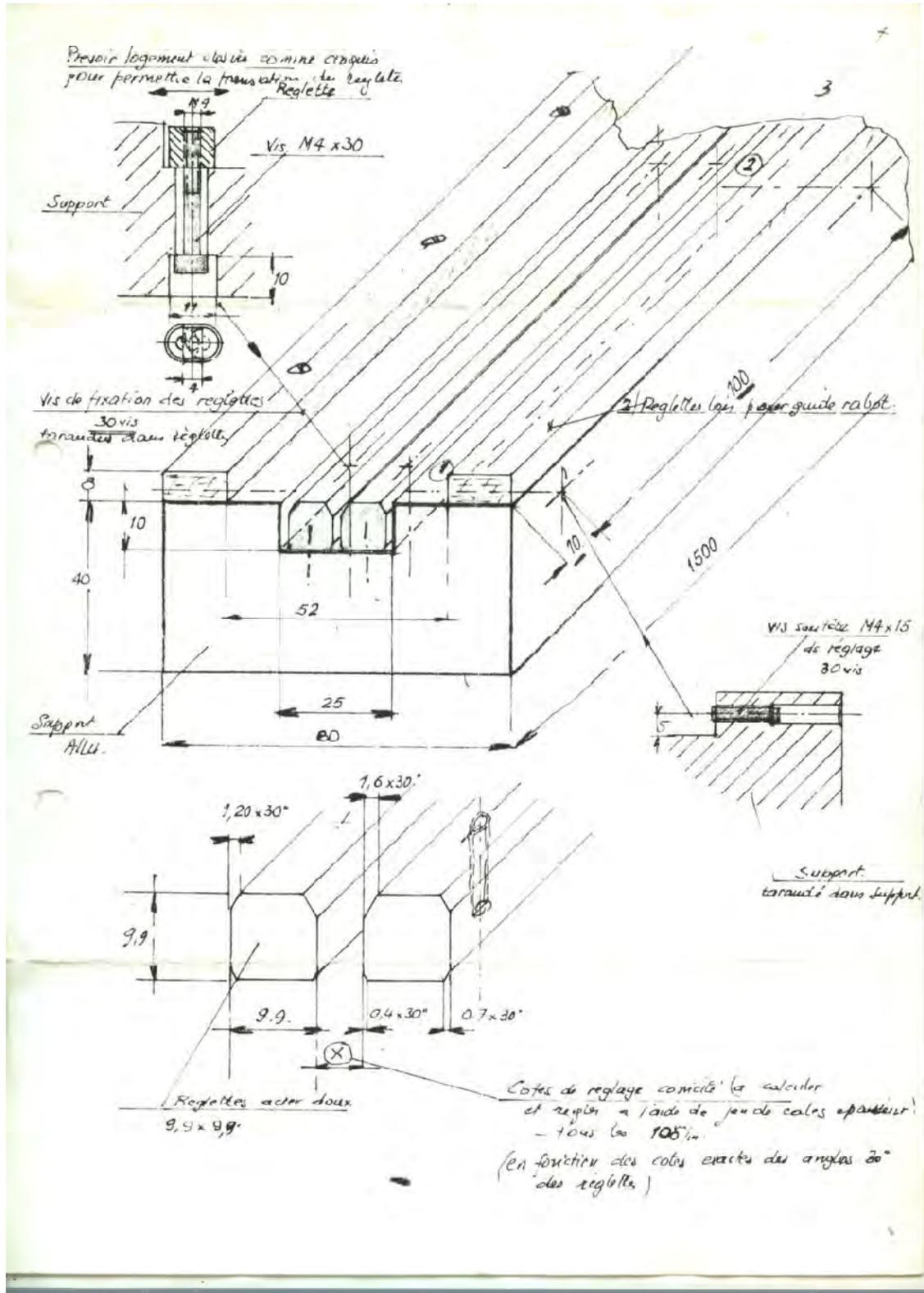
Then in the same way you set all the stations until you get to n. 1 where the bars must be set with a thickness gauge of 0.04mm.

One big advantage of these forms is that the thinner bars let you set gradients which are much more accentuated and this facilitates the formation of swelled butts or intermediate hinges like Paul Young or Cat-tanach. It could also be useful for bamboo ferrules. Other lesser advantages are the lighter weight and that it is easier to come by thickness gauges than depth gauges. There is no need to reset it and can be used with your eyes closed.

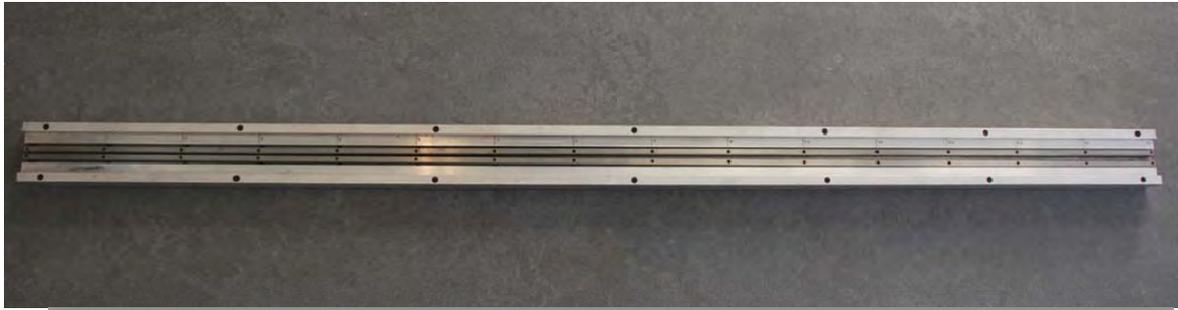
The disadvantage is that the setting takes a lot longer than with a traditional planing form.

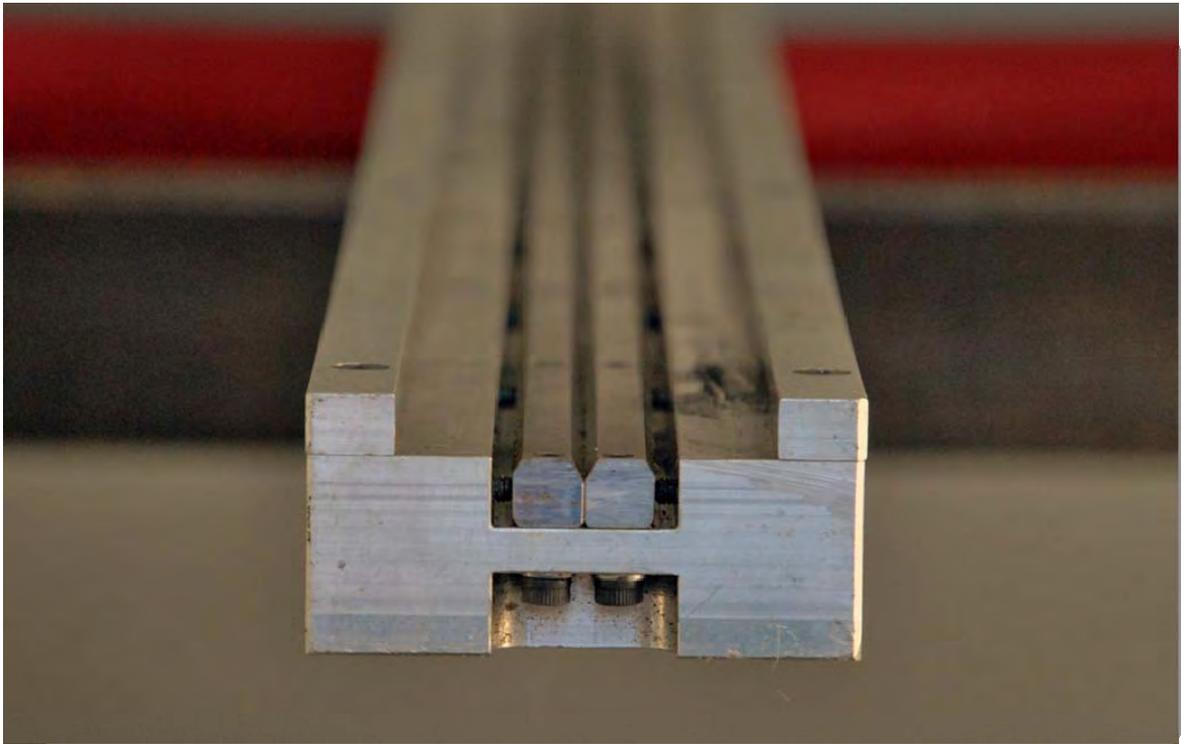
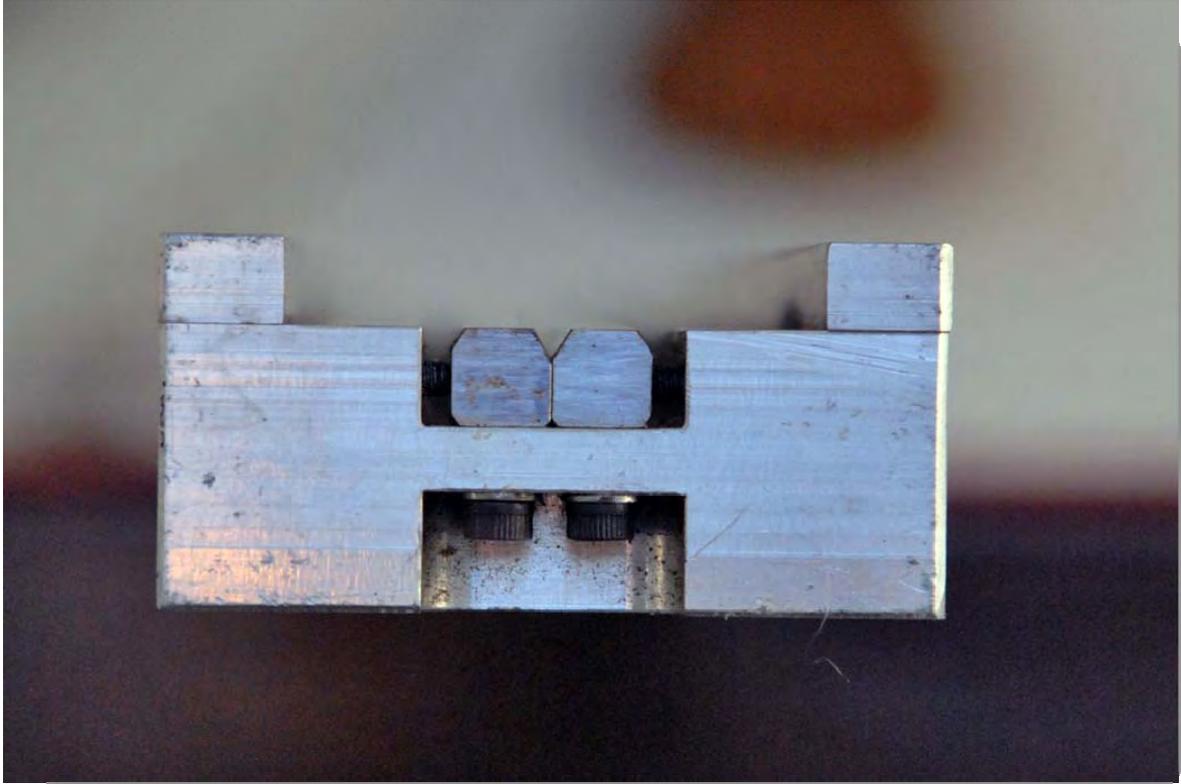
Marco Kerner (mksplitcane@gmail.com)

ORIGINAL DRAWING BY JAQUES CHOLLE



PHOTOS OF THE FORM IN THE CASLANO MUSEUM







VERITAS SCRAPER

DIVAGATIONS ON COLLECTING

by Alberto Calzolari



There are so many things we take for granted while we thread the plastic line through the guides, while we mount the reel on the rod, while we choose a fly from the box. We rarely wonder about the path that has brought us to modern day equipment, the history behind every small aspect of fly fishing. Everything seems to be there since forever, as if it were born that way. To the few willing and interested in asking a few questions a whole world may be revealed as fascinating as fishing and even if they will not be infected by the collecting disease they will enjoy this added knowledge, at least of how it all started.

There are human beings that crave to possess the most modern and current things the market can offer, the novelties and the latest version; other humans merely yearn for more or less antique and vintage objects, to use a cliché.

In both cases we satisfy a primordial need to possess although in different forms and expressions but we are not interested in understanding their chemical psychologies.

Any kind of collecting is a form of organized possession, defined and limited in the species. In other words any collector limits his range of action in quite precise boundaries, occasionally deviating, thus keeping a high specialisation indispensable to acquire the necessary knowledge and culture to move about in that world. It is humanly impossible to be collectors of everything. Collecting needs dedication, study and love. The more we are concentrated within an action perimeter the more value the collection will have.

Even in the fishing world and in particular in the fly fishing world there are various forms of collecting at different levels.

I will purposely neglect all that is part of the modern commercial and industrial production for a very plain reason. The compulsive collection of rods, reels and other modern objects cannot, in my opinion, be defined as collecting but is a simple form of hoarding, the gathering of objects that have already lost part of the value once they left the shop.

But as a famous fisherman of souls once said, let he who is without sin throw the first stone. Nearly all of us have fallen into the consumerist trap of hoarding, including the undersigned and it is probably part of the cultural growth game.

Or, at least, it should. In the sense that it would be desirable to reach the famous awareness point that drives us to wiser purchases and choices not driven by marketing.

That is, to err is human but one should repent and take the righteous path. This was also quoted from the famous fisherman of souls.

Let's go back to the pure and simple collecting of fishing objects. If this were a manual the questions to answer would be "why, what and where". The why is a question that implicates the personal sphere of reasons, tastes and stimuli of each subject. So I will not try to give generic explanations but I will merely give my own, very personal interpretation.

For me collecting is one of the many ways to satisfy my thirst for culture, to provoke pride and above all, an easy way (I did not say economical) to dream. A collection with historical and emotional value.

Through antique objects, be it a bamboo rod or an old wallet full of flies, we can better understand the many aspects of fishing which we would never perceive with a photo or a description. Details, only details which nonetheless enrich our cultural baggage.

For example, the weight of an old bamboo rod will help us understand how the action of fishing must have been like in a specific historical period and at the same time will make us smile at the extreme lightness that graphite rod producers proclaim, as if they were tools designed for a sick or physically impeded public.

Or with a nice old reel we can appreciate the study behind the mechanics and the elegance of the details and also understand that designs boasted as modern day inventions are in fact a legacy of the past. Or still, with a group of flies mounted on eyeless hooks we can understand the delicacy of those constructions, the frailty of those bodies and their life-like guise.

We will realise that those flies look more like insects than many of the modern flies. Maybe our ancestors spent more time looking at the insects, admiring the subtleness of their forms, than we do.

But far more simply, these objects will help us have the conscience and knowledge of how we reached this point. We will understand the development path of the fishing equipment and this being the mirror of the progress; we will comprehend the historical and cultural milestones of this sport.

Merely a fact of awareness.



As I have already mentioned, a large part of the satisfaction which derives from collecting fishing equipment comes from the intrinsic pride of possessing it and the higher the value or the price (distinct concepts which we will discuss later) the higher the level of “ego stimulation”. Yet I have always considered the term “possession” inappropriate when referring to collecting objects and even more inappropriate the term “property”...

I don't believe we have the property of these objects from the past. The term property in its judicial meaning implicates the right to enjoy and dispose of things. So I have no doubts in affirming that the right to enjoy these objects is sacrosanct; it is for our enjoyment, in any form it may be, that we conserve these things from the past. But also, let me disagree with the fact that we have the right to dispose of them if this means at any risk.

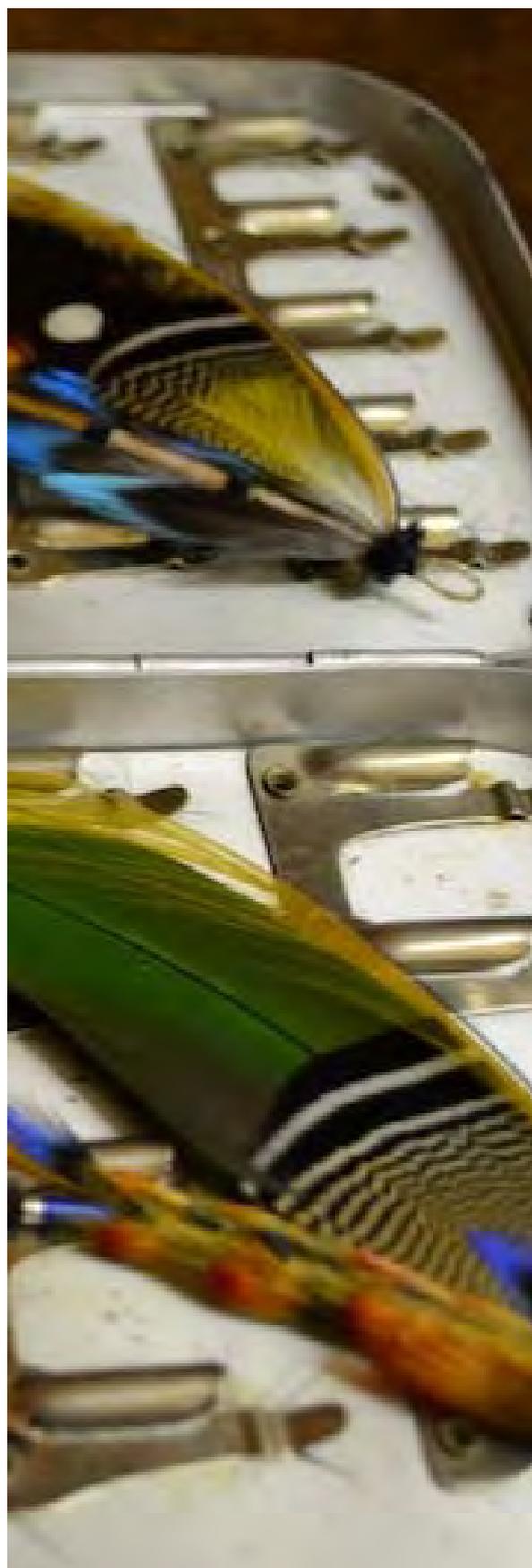
I am more inclined to consider myself their temporary curator. We have temporary possession and the privilege to enjoy the beauty but their historical and cultural value imposes us to allow our descendants the same enjoyment.

This topic opens the parenthesis on the fact of whether it is acceptable or reproachable to alter the originality of the acquired pieces in any way or at any level. Is it sensible to strip an old Payne to bring it to optimal conditions or to shine the patina acquired through the decades by a vintage reel or again, rebind an antique book whose cover is in terrible conditions?

Or is it advisable to keep these original conditions or the signs of time and use so peculiar in an ancient object? There are various schools of thought on this point and each one is based on supported convictions that vary from the implications of the value of the object to vaguely romantic reasons.

A simple example that comes to mind: should the patina accumulated on the cork handle of the vintage bamboo rods be left or should it be cleaned to bring the brilliance of the essence to the surface?

I think that a lot depends on the historical value of the rod and on the fact of whether it will be kept for pure collection or used regularly for fishing.



The patina is simply created by human and animal DNA. Would we ever dream of cleaning the handle of a rod used by Lee Wulff, Marinaro or Charles Ritz (just to give the two continents equal treatment)?

We were just discussing satisfaction and enjoyment of the collected objects. Their level is proportional firstly to their rarity or uniqueness. The more rare they are the greater the value and the enjoyment we gain from possessing a certain piece. The closer we get to the uniqueness of the piece the greater the personal satisfaction. It is such a basic rule that it warrants no further comments. All the same I am interested in understanding where this uniqueness derives from.

A collection fishing object can be considered unique in few cases: it can be a prototype of some sort or a hand-made object not repeated commercially. Or it can be a combination that I love the most, it can be a more or less rare or expensive commercial object that belongs to a famous person and in general one of those giants that have left an indelible footprint in this sport.

Its uniqueness will depend on the uniqueness of its previous owner and user and not so much on the intrinsic value of the object. When we sum up the high value of the object with the fame of the previous user we are faced with the best combination. The fame of a certain personality, the mere fact that he used a particular tool and the beauty of the piece amalgamate perfectly. Even when the piece is lacking in beauty or intrinsic value of the price, the first two factors suffice to keep its desirability intact.



The way in which collectables of fly fishing are universally catalogued is quite simple and common to books, auction houses, catalogues and websites. We can summarize them in rods, reels, flies (with fly boxes and leather wallets in the same category), various types of accessories from landing nets, various cutters and knives to kreels and wading staffs to finish with books and paintings. With these categories there is another which deserves special treatment. The “memorabilia”, equipment or photographs, certificates, books and other personal objects, not necessarily tied to fishing that belonged to famous people from the past. The high historical and cultural value is added to the real value of the objects.

Fishing rods and reels represent one of the most loved categories by collectors worldwide but I must admit that various reasons, not the least of which is the price, have pushed me towards the branch of more affordable collecting but not less satisfying or historically interesting, even if some bamboo rods I was particularly interested in as well as adequate reels to match them are part of my current collection.

A large part of the attraction of collecting derives from the search, from the discovery of the unique object and the obvious satisfaction of finding something important at a very low price. The classic “bargain”. It is more and more rare but it is still possible to feel this pleasant experience. The advent of the Internet and the greater “culture” tied to fishing collecting have, on one hand, made the circulation of these objects easier but on the other hand they have contributed in distorting the prices creating never before seen anomalies.

It is common that the publication of a book on a certain personality or even more on a certain brand can hugely influence the value of a certain product. The fashion, the tendencies as well as the discussion forums can drive the prices to limits we have never had before. The prices of the online auctions create precedents that are then perceived as guidelines to set the value of similar objects. In some ways this has always occurred even in traditional auctions but where the access to information was limited to paper catalogues so not for the occasional collector.



It is probably the increase in occasional collectors and their attitude (due to their lack of knowledge) to leap on the requested price not in line with the value that causes an alteration of the prices.

Without doubt the price of something is proportional to its value and even more to the market demand. However, which is the “right price”? How can we determine whether what we are offered is a bargain, a fair deal or a simple rip-off?

To move about the labyrinth of information on collecting a good dose of practice is needed and to avoid unpleasant surprises, one should acquire technical and historical knowledge through continuous research and study. It is only with knowledge and specialisation that one can have full rein of the situation...

I also think that the answer is somehow tied to the desire to possess a certain object. Sometimes it is one's will and desire that establish what the right price is. It could simply be what one is prepared to spend to get what one wants. Do you remember the childish yearning to possess the card missing from our almost completed album? That yearning would force us to accept otherwise unacceptable exchanges. Even if the card was of a minor league reserve football player. The person that will have nearly all the books of a certain writer or nearly all the models of a certain builder of reels or rods will then yearn to have the unique missing piece. And for this reason he will be prepared to pay a lot more than the normal market price.

Even if books have nothing in common with fishing equipment, they have a particular fascination and they represent one of the most interesting articles to collect.

Any field I have dedicated love and pleasure to has always surrounded me with an impossible amount of specialised literature. Something comparable to a rite of passage before moving to the real action.

It was the same for fly fishing. Starting from manuals, growing with nonfiction and specialising with the search of important books, limited editions and whenever possible, more or less antique texts.

I am prepared to make an exception to what I have already affirmed only for books. Only for books do I conceive the collection of anything old or modern. And I accept gathering them in the same library albeit in different sections.

On these shelves, like in my memory, each book has its place. Even the most insignificant ones and the ones without value have their importance for witnessing a period, a growth, emotions and memories. Through those books one could reconstruct my life, my journey as a fisherman and collector. Some have always remained in their place with their importance but they have not made me dream or have been unable to stimulate me.



Others have shared significant moments with me and others, like non-paying passengers, have flown around the world with me. Have you ever noticed how a hardcover tends to bend in the pressurised cabin of an airplane at 10 000 feet and then return to its normal shape on the ground? Probably an effect of the pressure and internal humidity.

I admit I have never looked for the answer, I prefer to imagine that this occurs because the book lives, breathes. For a brief moment it seems animated.

Neglecting the natural historical and cultural value of the books one would find in my shelves, what increases the beauty and interest of some are the traces of DNA in the pages. I mean those more or less antique books that belonged to some personality from the past. According to some theories of forensic medicine there cannot be contact between two bodies without a natural exchange of organic matter or at least that is what I understood. There are two types of books in this category that I am particularly fond of: books that once belonged to fishermen or fishermen from the past and those that once belonged to anonymous enthusiasts or simply without reference.

But even these must have belonged to someone, someone who sat comfortably in an armchair, in front of a fireplace and paged through it dreamily.

Just think of how many clues one would find with a microscopic analysis of the interstices and their pages: traces of skin, hair, threads of fabric of the era, traces of tobacco and cigars, drops of aged Scotch. And perhaps in those belonging to old builders of flies, even feathers and microscopic fragments of animal fur.

Often a date, small dedications or simply the name of the owner are added in pencil or ink in the first pages. In the antique ones the ink has an unmistakable smudge due to the natural ageing. In one of these books, a 1902 copy of Etymology by Halford, a gift from a friend I will never stop thanking, there is a type of poem or riddle dated 1904.

The content, evidently remarkable irony between the lines on the diatribe between dry and wet flies as well as the signature of the anonymous author, help me to identify it as the writing of a funny Irish fisherman that was definitely not a purist. This brief verse written over 100 years ago touches me more than the book itself and its obvious value.

Try taking one of these books, open it on any page and bring it up close to your face. Close your eyes. Run your fingers across the pages; breathe in the smell of old print and paper. And fly. Someone who possessed that book cried, laughed, loved, and lived. In a period gone by. Inside those pages there is an imperceptible piece of his life.

Even the books worst treated by time conserve their dignity. They carry on their pages the use and abuse of those who kept them or passed them on or they merely carry the obvious traces of atmospheric events, heat, humidity, water. Like my copy of the beautiful book by William Blacker, *Art of Fly Making*, dated 1855: I wonder where, when water managed to attack those pages, perhaps during a flood. So, I like to think that this book was saved at the last minute by its owner from the pitiless flood of a Scottish river.

That unwanted but unstoppable water in the cottage on the banks. He could have saved more important things, important for others but not for him. I chose that book and the dreams it held. In this book there are attractive, untouched coloured figures with salmon flies.

Looking at them now it seems that the water wanted to spare them with reverential awe. The edges of the book are slightly tinted by water stains; the amber colour makes me think even more that it was the peaty water of a Scottish river, good for salmons or an aromatic Scotch. Miraculously the coloured hand-drawn figures are intact and their beauty immaculate.

Various antique books dedicated to the fishing of Atlantic salmon or to the trout flies in general contain coloured figures of flies and fish. Many of these figures, from the older books before the invention of coloured printing, were hand painted with the techniques used in those days. Every single page was coloured by pieceworkers, usually women and young people that were specialized in one single part of the whole figure, often one colour, in order to make the final result more homogenous. Brushes of gold and silver were used on the tinsel part of the flies. Slight layers of shellac added brilliant effects in some areas of the fly or the fish enhancing the beauty.

Several editions of these books have been printed over the years so one can find, with some good will, one of the latest that still has the coloured figures at affordable prices.





In every collection there is always the piece we love the most, the one that gives us the greatest inspiration: in my case, among all the books, almost hidden, is the one I am most fond of. It is small; the smallest book of the entire collection, with few pages, a wrinkled green cover, almost insignificant. It is the 1950 edition of *Silk, Fur and Feathers* by a great English fisherman, anyone who has played with feathers and hooks knows him, G.E.M. Skues. It is a collection of articles written by Skues with the pseudonym Val Conson and published after his death. It is quite a rare book but not impossible to find. What makes it so precious is what is inside the front cover: the book was once owned by Harry e Elsie Darbee, the famous tiers from the Catskill area in the Eastern USA.

Although what really makes it unique, irreplaceable is the dedication written in pen on the first page of the book: a few lines and an unmistakable signature, Alfred Miller, Sparse Grey Hackle for his readers, just Sparse for his friends.

In one book there are four of the most renowned personalities of days gone by. Sparse, the reporter from the golden age of modern fly fishing in America, Harry Darbee, one of the fathers of the genetic selection of cocks for construction purposes, Elsie Darbee, one of the most exquisite tiers that has ever existed, Skues, the father of modern nymph fishing. The names Darbee and Sparse may not mean much to European fly fishermen and they may only recognize Skues, not for the knowledge of his texts that deserve more study by Italian fishermen but for the famous and overused diatribe between him and Halford.

A few original flies by the Darbees, one of the husband and the other by the wife, two interpretations of the Coffin Fly, the spinner of the Ephemera Guttulata, accompany this book and they remind me of the pleasant passion for combining the collection of original books by a certain author and the flies he tied, when it can be done. All the authors of books dedicated to the tying of artificial flies are or were obviously excellent tiers and in these books one finds their experience and their style.

The possibility to possess a real example of their art, one or more of their flies, adds to the interest of the book and gives one the privilege to appreciate something that could not be completely perceived by a photo or a drawing.

Then the conservation and collection of flies can be an excellent example of collecting. Personally I find that an artificial fly is an admirable example of the dexterity of a fisherman, something human and intimate. It represents his fishing style, his relationship with the imitation. It is said that one of the best ways to understand the experience of a fisherman is to nose around his boxes. His flies will talk about him and will tell us his story, his way of facing the river.



I started conserving a few flies from my friends a few years ago and I still do and then I unwittingly moved to the search and conservation of more or less precious or rare flies. Many of these are perfectly identifiable with their tier but others are generic examples of styles or types of artificials which belong to a specific historical period. Flies for Irish salmon, Scottish, antiques with gut eyelets or more modern ones with metal hook eyes, wet flies for trout still tied to the gut leader and perhaps conserved in the folds of a leather wallet with artificial leaders protected in their wax paper.

Every year the possibility to find antique flies, especially trout and salmon flies is reduced. Above all, the chance to find them in perfect condition. Naturally the prices increase in relation to the integrity of the fly and of the hook to which they were tied.

I wonder how many leather wallets containing these flies lie in chests and boxes in old dusty attics. Sometimes they emerge and one needs to be in the right place at the right time or have to right contact.

These flies too, like all the objects from the past, rods or reels, old boxes or wicker baskets have something to pass on to us. On a cold winter evening just sit and place them on a table under a warm light. In silence, if one listens carefully, one will hear their story. A story of English chalk streams, peaty Scottish rivers, wild American mountains, slow French riffles, stories of hatches, touts and graylings, proud salmons, battles won and battles lost.

And amidst these, stories of men.





My first rod ... with a bamboo ferrule

by Davide Fiorani

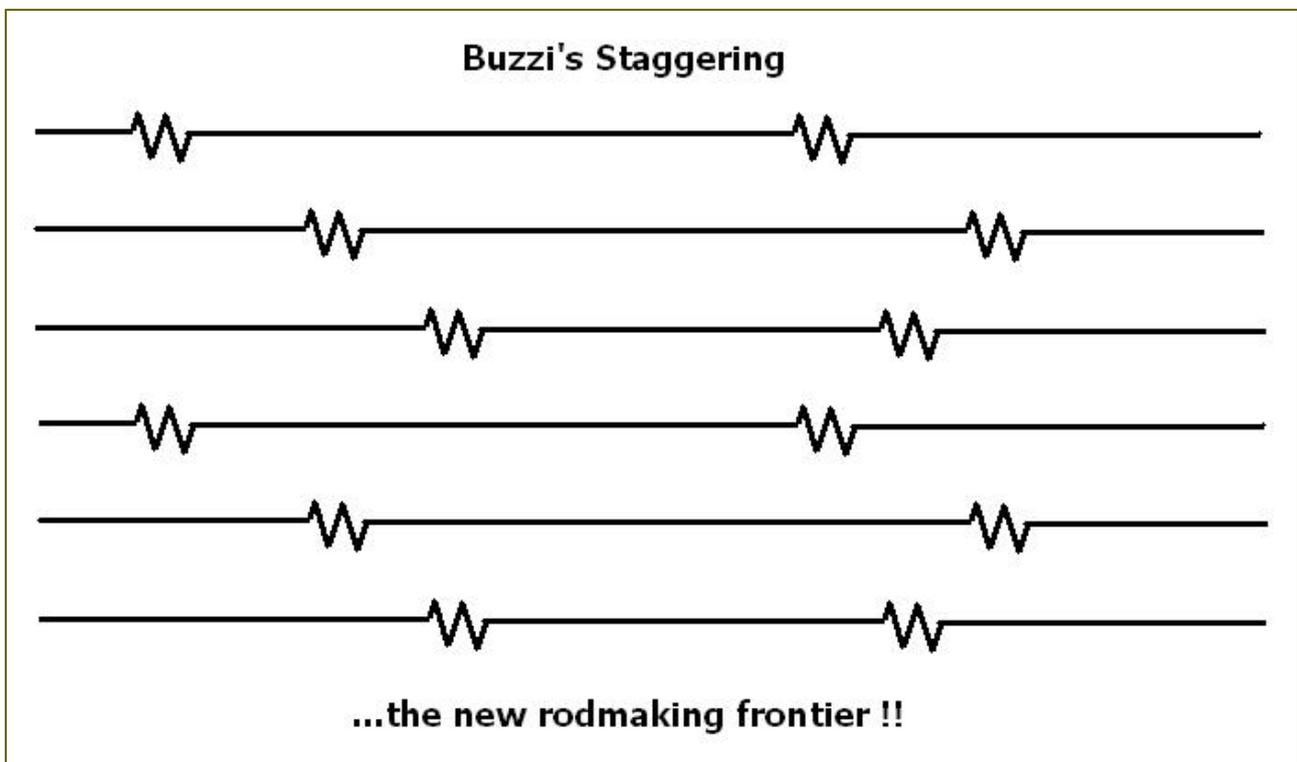
I was immediately fascinated with the idea of making a “*cane rod*” without using nickel silver: the continuity of the lines and the elegance conquered me from the first time I saw one...

After having tried the IRP at the show in Bologna, I promised to make one last winter Then I resisted and I began in April.



Since I am a newbie (my fifth rod), I made a couple of phone calls, sent some emails to clear up my doubts and I then started work: split the culm, straighten node and strips and started on my "new casting toy" using the taper of the IRP with two tips and a rigorously blonde look. To be honest from that culm I managed to make an 8' pike and shad rod with a bamboo ferrule...but this is another story. I asked my friend Buzzi to level the strips with his beveller and to heat treat them because my oven is not finished yet: cost of the operation a kilo of 28 month cured Parmigiano cheese, some jars of truffle honey and some green tomatoes and fig honey and a bottle of Franciacorta to wash everything down.

A small mishap caused us to risk the second tip, we were lost it. Having already paid my dues, and my friend having already consumed, he split one of his culms and made me two new levels. The intermodal distances were not really the same so we that we could not have a 2X2X2 staggering but were forced to have a variation and use Buzzi's staggering on tip n. 2. Below is a diagram for those who do not know it.



After some phone calls during the work with Gabriele Gori and Alberto Poratelli (I might add – how much patience they have with us nuisances!!) I begin with tip n. 2 – the one with Buzzi's staggering. With the help of a few 1.5mm thickness gauges I began working on the strips. I try the ferrule a few tips to prevent mistakes by binding it tightly and I get to the point: mmmh..... it seems a little wide.

You can easily imagine the stream of curses!

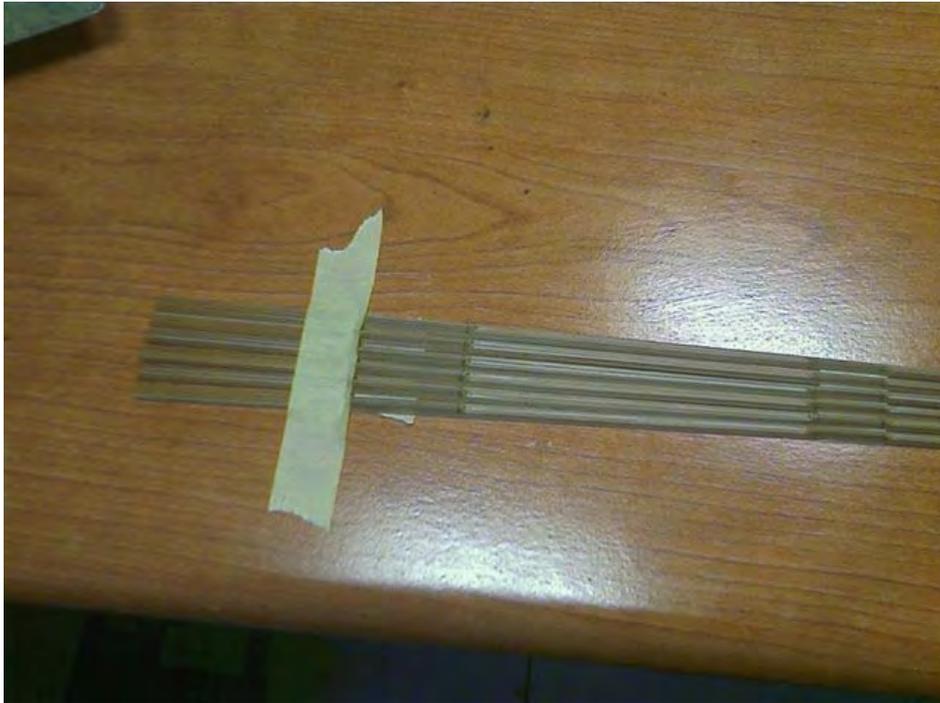
For the second tip, the n. 1, I do not make the same mistake and it seems to be a good job. I don't know how much I was off: to know this you would have to measure the ferrule internally all along its length. I just managed to measure the beginning of the ferrule with a micrometer for internal measurements. Anyway it was doomed. It was wide and I had to accept it and I reflected on what to do to solve the problem before gluing the strips.

At 4:55 the next morning: idea !!.....

I bind the oversized ferrule tightly under the flow of the hot air gun. I got this input from having read the method to make the male ferrule in the Streamlined® ferrule in an article by Alberto Poratelli. I have faith in the plasticity of bamboo when worked with the right temperature. I get up and go into the attic, put on my gloves and set the airgun. I bind the ferrule very tightly with the excess from the male of the butt section inside. I force the male part out with pliers and I leave it to cool down. I remove the thread and bind it again without forcing. I try:.....it seems to work. Now you need a little force to insert the male part in the female part.

I then glued the strips of the two tips. In my next call to Alberto he said that one of the IBRA members (I don't recall his name – forgive me) doesn't glue the strips in the area of the female ferrule and that just the silk binding it keeps it together. He suggested a 3/0.

So I thought. I have two tips. One will be glued in the classical way, and the other will be done as described above. During the operations, a thought went through my mind and it was the waterproofing of the male and the interior of the female; I spread some epoxy thinly using heat so that only a thin veil would be left. Some beeswax inside the ferrule and also on the male and the operation was finished.



For the reel seat, I thought I would use cork and the original length of the original IRP design; the same for the grip but I changed the design slightly. The positioning of the guides is the same and so are the sizes excluding the third one from the tip which is a 1/0 instead of a 2/0. I set up the rod with a line and reel and it shoots line out like a dream!!!!

I wrap the rod (rigorously transparent wrappings), asking for help from Massimo Giuliani, who is the patron of rod wrappers. I varnish and wait 15 days before trying it. Every now and then I would try the ferrule, just for the pleasure of hearing the sound that remind me of a champagne cork.

It weighs 87 grams.



The big day arrives. I set up tip n. 2 (glues ferrule and fixed by heating) and with a friend I try it! Everything seems ok...the tip stays in its place...perfect. After a few days we try the other tip: after an hour of trials I check and the ferrule has come out more than a millimeter.

I go home and reflect on this: is it possible that the ferrule with unglued strips deforms under stress? I could not feel any play in the ferrule during casting, so I tried it again and the damned thing did it again



The next day I set up the two tips to see if I can feel any differences between the two, but they feel the same....but something doesn't seem right.

I check the dimensions of the male ferrule: the measurements on faces 1/4 and 2/5 are almost identical all along its length, while face 3/6 is about 3/100 smaller.

I remove the wax and prepare some epoxy. I heat it up and heat up the ferrule slightly and spread a thin layer on faces 3/6. I spread it nicely and let it dry a few days.

I apply some hot beeswax, I clean the excess and try to insert it. I do not feel an real difference and the force needed to lock it feels the same as before.

I try casting it and the tip doesn't come out anymore...perhaps it's the wax that keeps it together?. Is there more than before or perhaps I handed sanded the layer of epoxy last time and it was too smooth?

Sincerely I haven't understood yet. Being able measure the inside of the female would take away all my doubts: if the females were the same and within certain acceptable tolerances, I would like to blame the unglued strips. One must also consider that the connection with a bamboo ferrule is very unstable....but very elegant.

In any case I was so enthusiastic that at the next group purchasing, I bought no ferrules but only a lot of great silk



Now all that remained was to test it on the water fishing before taking it to Colorado.

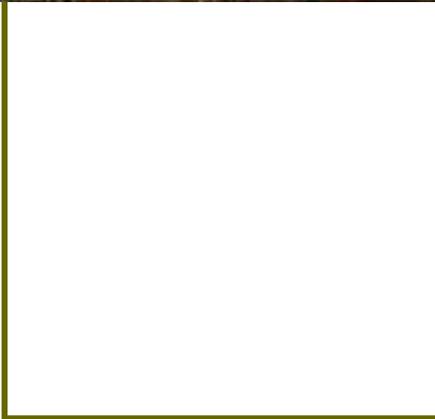
I'm off: the trout are waiting for me in the riffles...the levels are drought ones....I've just tied the flies (rigorously Rosorani style) ...I know how to cast...also to fish...I know the place like my pockets...if the rod was made well then I'm OK.

This has probably happened to you too while taking the rod out of the bag (sown by mom and shamelessly copied from Hardy), the usual stranger comes out from behind the car and he wants to see the rod and after three minutes want to buy it. I have no time to waste, I greet him in a hurry and disappear into the woods.

I go down to the stream, tie on a fly and take a rapid look at the situation and I cast along my bank – 5 – 6 meters next to a large granite rock with a frothy current along both sides. The tip of the line is lying on the rock and the fly drifts on the right hand side with the leader curved upstream. I drifts like a raft and then...disappears as if swallowed by the water. I hook my first rainbow of the day ! One jump, then a second one then it races upstream in the current. It comes downstream about a meter below me and stops in a pocket behind a white rock. I try to move it towards the bank pumping the rod....nothing doing. I decide to go downstream a few steps and then it's off towards the opposite bank and across the central current. I try to contrast it by holding the rod low down and downstream and parallel to the river. I have a 3X tippet and I pull with force. It crosses the current towards my bank and lets itself go downstream transported by the current. I manage to pull it towards the bank and to net it. I take the fly out, a brief reanimation and it is off to hide under the rocks.

downstream transported by the current. I manage to pull it towards the bank and to net it. I take the fly out, a brief reanimation and it is off to hide under the rocks.

The first thing I do is check the ferrule. It seems OK. I begin trusting the rod and I continue fishing without further checks. I will do this at the end of the day. I reel in the line listening to the click of my Hardy reel and I move to the next hole.....I bet I'll catch a bigger one! Then I wonder ***what about Colorado???***





“Essays in Honor of Hanno Jansen and Katy Shulkin-Jansen”

by Marco Giardina



Katy is an elegant lady, slim and tall.

In the past few years, following her Hanno her husband's, work, she moved from the lively and hyper active Los Angeles to a the small town of Lions, Colorado.

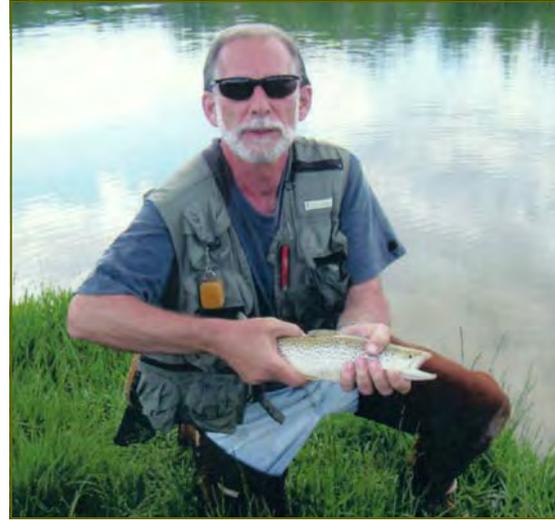
While strolling along the main street the very nice entrance of a shop drew her attention. The entrance was in a little two-story building; the doorposts, set in a red brick wall, had a shiny lively blue color.

Actually it was not a shop, but the site, workshop, showroom of the South Creek LTD, one of the most well known and famous ateliers where fly-fishing handmade bamboo rods are built.

In this shop the lady happened to meet the South Creek LTD' s owner and solitary crafts man, Michael D. Clark, who - sometimes chance or destiny do steer human lives - was looking for somebody to help him in his work and relieve him of some tasks in rod building (sometimes chance or destiny do steer human lives).

As her husband, Katy too had no experience in fly-fishing and even less in rod-building, but the opportunity seemed enjoyable and interesting.

This was the origin of a collaboration that continues



to the present day since 1998.

In these last months, Hanno Jansen found out he suffers from a malignant cancer, and as a consequence he has to go through an expensive medical treatment as soon as possible.

To the eyes of a European reader some facets of this event might appear surprising, but Hanno, as millions of US people, has no medical assistance. He has no insurance, and thus he has to pay out of his own pocket for the very expensive medical treatment. A tragic situation that worsens the tragedy of the illness.

Mike Clark and his friend Scott Whitman, while trying to help for Hanno's immediate needs, got on the move and organized a fundraising auction. Dr. Todd Larsen, owner of Classic Fly Rod Forum and publishing house The White Fish Press, launched the printing of a series of writings in honor of Hanno and Katy, whose proceedings will be entirely devoted to Hanno's medical care.

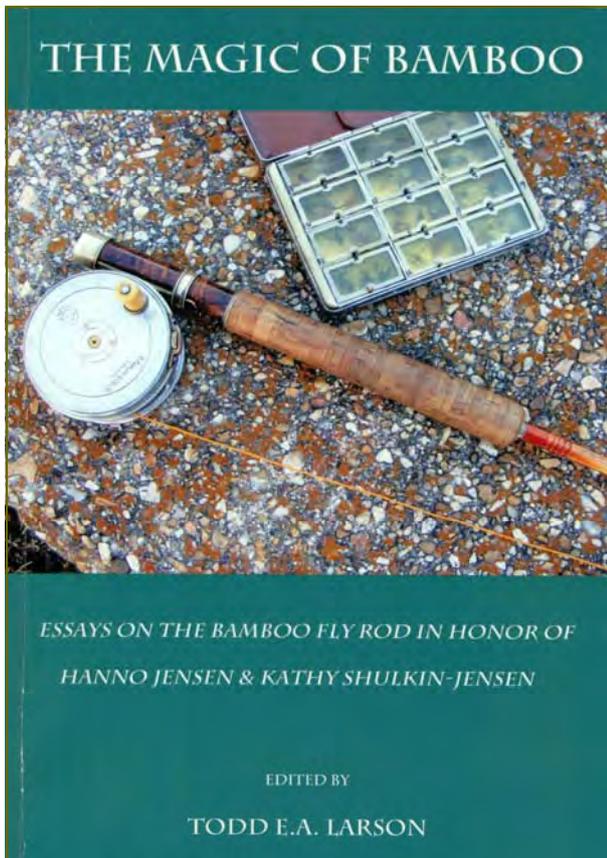
Recently I received and started reading a copy of the book. I went through it quickly and the reader is taken by the book. The single selected writings are very beautiful and the authors are writers who know how to convey the feeling and emotions of the rodmaking and fly fishing world to the readers.

Twenty one pieces of work written by authors of great competence and bravura form the book.

I would like to cite a few authors, whose pieces are particularly interesting: Marc Aroner who tells us about the rod-maker Tom Bailey, whom he met while working at Leonard's; Kathy Scott who, with the skill I admire in all her books, depicts her encounter with Mike Clark in his atelier in Lions; Michael C. Simon, excellent writer but even more excellent figurative artist; my friend Harry Boyd who wonders "why bamboo?". But I do not want to get lost in making a list of names, I would only like to say that a fly fisher's book

shelf wouldn't be complete without this book and that this book is a must on the book shelf of a bamboo rod-maker.

I firmly believe that bamboo rod making is not the outcome of a series of procedures applied one after the other, just like in cooking lasagna or gnocchi alla sorrentina. In order for rodmaking to reach high levels of excellence and aim to perfection, it must be supported and accompanied by Culture and Knowledge. Without the latter a bamboo rod is only a tool without soul. Perhaps it is functional, but doomed to be forgotten. And no doubt his book is an important tool to bring the necessary culture into rodmaking.



*The Magic of Bamboo: Essays on the Bamboo Fly Rod
In Honor of Hanno Jensen and Kathy Shulkin-Jensen
Edited by Todd E.A. Larson
White Fish Press
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Mike Clark, Hanno Jensen and John Gierach



Katy and Mike



ITALIAN
BAMBOO
RODMAKERS
ASSOCIATION

EVENTS CALENDAR 2012

24-25-26 FEBRUARY

IBRA WILL HAVE A STAND
AT THE BOLOGNA "FISHING SHOW"

13-14-15 APRIL

A WORKING STAGE ON BAMBOO FERRULES WHICH WILL
TAKE PLACE AT THE IBRA CLUBHOUSE IN SANSEPOLCRO

25 MAY

BAMBOO DAY AT THE IBRA CLUBHOUSE
AND ON THE TIBER TAILWATERS

26-27 MAY

8TH ANNUAL RODMAKERS GATHERING
AT THE IBRA CLUBHOUSE IN SANSEPOLCRO

12-13-14 OCTOBER

19-20-21 OCTOBER

7TH ANNUAL RODMAKING CLASS
AT THE IBRA CLUBHOUSE IN SANSEPOLCRO

16-17-18 NOVEMBER

WE WILL BE AT THE 5TH EUROPEAN
RODMAKERS' GATHERING IN CARCASSONNE FRANCE

30 NOVEMBER

1- 2 DECEMBER

A WORKING STAGE ON THE MORGAN HAND MILL AND
ON THE RODDNA AND HEXROD SOFTWARE
AT THE IBRA CLUBHOUSE IN SANSEPOLCRO

BAMBOO JOURNAL

Newsletter

Of the Italian Bamboo
Rodmakers Association

c/o Podere Violino
Località Gricignano
Sansepolcro (AR)

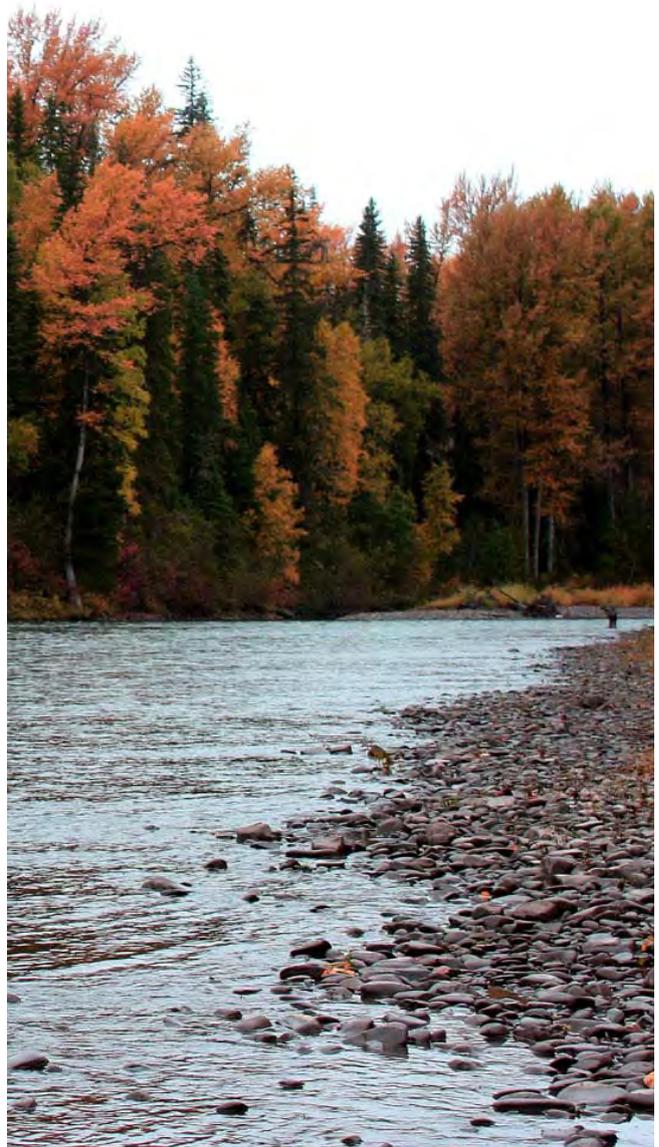
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