

IN MEMORIAM: ROGER ZABINSKI

by John Waddle

Minneapolis bow maker Roger Zabinski died too young of brain cancer, on February 27th, 2024, at the age of 74. He was born in Sauk Center, Minnesota, in September of 1950 and grew up in Hibbing. He studied music at the University of Minnesota, majoring in music history and literature, and graduated in 1974.

Roger's introduction to violin making came in 1972 with a visit to Chester Groth Music in Minneapolis, where he met the luthier Vaido Radamus who was doing repairs at Groth. Roger made his first violin in 1973, helped by Radamus, and went on to make 20 violins, 3 violas and 3 gambas, before turning to bow making.

In 1975, Roger met the Minneapolis bow maker Martin Beilke. At that time, Beilke had gone blind, but he was able to pass on some of his bow making knowledge and experience to Roger. Beilke died in 1979.

Roger started his own shop in 1976. In about 1981, he stopped making violins and started to focus on bows. In 1982, Roger accepted a job at Givens Violins in Minneapolis doing instrument and bow repairs. In 1984, he attended a bow-making seminar with William Salchow in New Hampshire.

In 1985, Roger was able to devote all his efforts to making and repairing bows. Gradually, learning from the bows he worked on, comments from musicians, other colleagues in the trade, and his own experience, he developed his own models of violin, viola, cello and bass bows.

In 1985, he was elected a member of the American Federation of Violin and Bow Makers, and was awarded a journeyman's certificate from them. In 1986 Roger won a gold medal for one of his violin bows at the Violin Society of America international competition and meeting. Roger became a member of the Entente Internationale des Maîtres Luthiers et Archetiers in 2011. Roger was also a consultant for Coda Bows of Winona, Minnesota, and helped them develop their Coda GX model bows.

By the end of his life, Roger had made over 900 bows. He made them one at a time, and made all of the parts of each bow himself. He started numbering his bows early on, and kept a 4 by 6 inch card in his shop with the number of each bow and details about the individual bow, and where each bow went. I had a chance to

visit Roger not long before he passed away and I knew that he kept records of each bow that he made individually on small cards. I was concerned about what would happen to those records once he was with us no more, and when I asked him about it, he said, "Since you asked, you can have them."

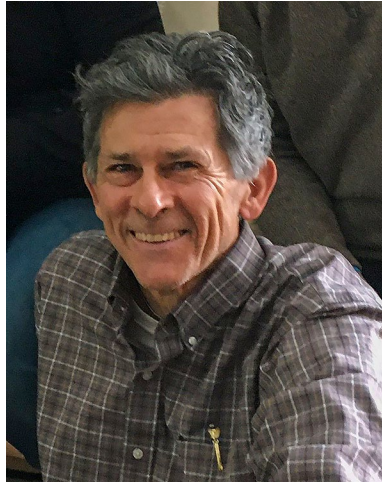
I took the cards back to my shop to study and had some questions about the information that was on them, so I went back to Roger's for clarification. His mind was still sharp, even though his body was giving out. Since he numbered each bow, there was a card for each bow explaining which type of bow it was (violin, viola, cello, bass), a description of the pernambuco (light or dark, plain or figured), the mountings, (ebony, ivory, tortoiseshell, silver, or gold). There were measurements pertaining to the dimensions of the stick, head, or frog. Roger explained that if a musician came to him and asked him to make a bow like one

that they had tried that a friend or acquaintance owned, the cards helped him to do that.

He was also careful about the weight of each bow, and especially the balance. He was able to make bows that were consistent. He talked about how important it was to make the bows straight, looking from the head back to the frog, and that the most important thing in bow making was the camber. Roger knew how to work with each bow to make the best use of each piece of wood, knowing that each piece of wood was unique. He mostly made round bows, but he knew how to make octagonal bows work too.

We will remember Roger for his many years of service to the musicians who bought bows from him, and the musicians whose bows he repaired. Roger was also gracious with young people who came to him for guidance about learning bow making, always willing to share his knowledge. We will miss him.

John R. Waddle is a violin maker, dealer, and restorer whose shop is in St. Paul, Minnesota. He is a 1981 graduate of The Violin Making School of America in Salt Lake City, Utah, and has had his own shop in St. Paul since 1986. John is a member of both The American Federation of Violin and Bow Makers, and the Violin Society of America. †



DESIGNING A PERSONAL MODEL — OLD MASTERS, NEW EXPRESSIONS

by Roger Zabinski

In 2011–2012, Roger Zabinski served as editor of the From the Maker's Bench... column for this magazine. As a tribute to his artistry and life's work, we are pleased to reprint his 3-part series on the design of a bow. [ed.]

Part I: The Head

When a bow maker sets himself about the task of developing a new model, he is placing himself into the stream of a long history of aesthetic culture and practice. The bow of course is a useful object, a

tool, in a sense, to help the musician express the beauty of their art; but the bow, too, in its own way is an expression of beauty. For over 200 years bow makers have been making these useful little objects,

but always incorporating an inherent and inextricable aspect of art. A fine bow must be a beautiful bow.

When you survey this aesthetic history of bow making, you are astonished at the wide variety of shapes and visual impressions a bow can present. You notice, too, that each epoch of bow making history seems to possess its own character; we can identify the combination of shapes and sculptural movements as belonging to one period of time or another; not rigidly so, but we do see strong inclinations at one time period or another. We speak of the Pajeot school, the Voirin school, and the like. Regardless of the school, a fine head presents to us a certain “stillness in motion;” while many contrasting or complementary shapes contribute to the overall effect, the whole must be visually at rest.

So that the bow maker’s new model flows in the continuum of this aesthetic history, he must be deeply immersed and informed by it; the eye, the hand, the heart must be attuned to all the sculptural details and how these particulars articulate with the others. This is accomplished only by years of study, self-discipline and practice; the bow maker has to be able to copy several master bows so perfectly that even a connoisseur may have difficulty discerning the original from the copy.

Personally, I have always been attracted by the bows of the early to mid 19th century. This, for two reasons. One, my first teacher, Martin Beilke, used these early models almost exclusively; seeing his talent, he was encouraged in that direction by figures like Rembert Wurlitzer of New York and Kenneth Warren of Chicago. Secondly, musicians have always coveted the tonal and playing characteristics of the early 19th century bows. The best among those bows have a strong flexibility that musicians so much desire; their superior tonal capabilities are legendary. They can be more difficult to play, but the experienced bow arm can easily overcome the obstacles; the effort is well worth it in superior expressiveness and tone color.

In discussing the head of a bow, we will consider the following constituents: the back of the head, the head plate, the point, the forward ridge and the chamfer. We will be using examples of Etienne Pajeot, Francois Tourte, and Alfred Lamy for our comparison study.

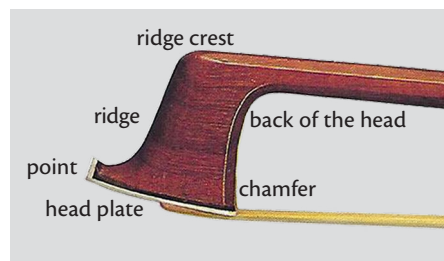
Back of the Head

The back of the head (inside curve where

the head joins the shaft) is the foundation and starting point of any design: How much curve does it have? Is the movement more vertical, forward-thrust, or backward-thrust? How does the shape move as it approaches the under side of the shaft? All these factors will strongly affect successful sculpting of the other components.

Look, for example at the Pajeot head. You will see that is gently scooped out, radiused, with a slightly backward moment. Consider then the Tourte head; the back of it is a bit stiffer, slightly more vertical. The difference is slight, but these small differences will make big differences in the overall expression.

Compare these two with the Lamy: a rather vertical movement, with a tight radius at the underside of the head. Lastly, consider the back of the head of my model, and compare it with the Tourte and Pajeot; note the slightly more swept back angle, the tighter radius at the underside of the shaft. I have gently accentuated these movements so that the shape is still much reminiscent to the Tourte and Pajeot, yet distinct enough to be a new expression.



Parts of the bow head

Head Plate

Next we will consider the head plate (i.e. the ivory). Note that the head plate of both Pajeot and Tourte the are rather flat, and lay out at a fairly flat angle; but note the Tourte has a bit more upward thrust than the Pajeot. This was necessary to balance and counteract the flatter, slightly more vertical movement the back of the head.

Next, consider the head plate of my model. You will notice the same rather flat expression, but it lays at an even flatter angle than either the Tourte or Pajeot. This flatter angle pushes the limits of what one can do with a head plate; I did it to create a sense of drama in the overall execution, but there is a definite limit.

Note also the movement of the camber at the top of the shaft; compare it with the angle of my head plate; it is as if the head plate is moving synchronously with the

top of the shaft, extending the thrust of the camber. A drooping angle would make for a weak, disappointing statement, almost as if the head were broken or “falling off” the shaft.

Compare these examples now with the Lamy. Note the more strongly radiused and upturned head plate of the Lamy. While not by any means exclusive to his generation and later, this detail becomes more typical of his epoch and into the 20th century. We can look to the Sartory and Ouchard schools which flow from this historic archetype.

Point

Now let us consider the point. First, study at the Pajeot. See how the front ridge rapidly descends, dives, right to the distant end of the head; the narrowest point of the head is on the ebony liner at the end. Note too, the backward thrust of the ivory tip; this complements and reinforces the dramatic sweep of the ridge, and the slightly backward sweep of the back of the head; recall we said that the back of the head strongly influences all other movements of the head sculpting.

Compare the Pajeot with the Tourte head. Note that the narrowest point of the Tourte remains on the pernambuco; the upward movement from there is more gradual, not so dramatic as the Pajeot, giving a more vertical sense. It is remarkable how so small a detail can so strongly influence the entire model.

Now look at my model; you will note that the narrowest point is more as the Tourte; if I had chosen the more dramatic expression of the Pajeot, combined with the already accentuated back of head and head plate, would have rendered the whole sculpture exaggerated. We are looking for stillness in motion.

Ridge

Our fourth detail is the ridge, i.e., the forward leading edge of the head. After the back of the head, head plate, and point have been defined, the maker is left with somewhat more freedom to finish this shape. Critical to the overall expression, though is the crest, where the ridge blends with the top of the shaft. Whether rounded or sculpted with a harder corner, on every fine bow I have seen, the downward descent of the crest begins about half way or farther back at the top of the head. Otherwise, the expression will likely feel severe or overly forceful.

Chamfer

Now for the lowly chamfer (beveled edge). Arguably the most unassuming element of the head, it is nonetheless the bow maker's opportunity to exercise sheer power, delicacy, mastery of skill, sleight of hand, illusion.

Why is this so? First, almost all the other sculptural parts may be worked and reworked until perfected; the chamfer, on the other hand must be executed immedi-

ately and directly. It will take several strokes of the knife to fully cut the chamfer, but the last stroke must be one, continuous, unflinching movement. The knife must be sharp; the hand and eye, strong and certain. Any attempt to correct a false movement will render the cut as overworked, unconvincing. Secondly, the chamfer can be used to create illusion. By subtly changing the width or angle of the cut, the maker can introduce a subliminal complexity of the expression at

the back of the head, thus enhancing the sculptural interest of the whole.

Look at the image of the Peccatte chamfer. Note how the chamfer is narrowest at the head plate, widens rapidly as it moves upward, then narrows again as it joins the underside of the shaft. This acceleration/deceleration subtly changes the perceived curve of the back of the head, adding interest and complexity to the whole. My model uses that same detail.

Part 2: The Shaft, Camber and Taper

The Shaft

Everybody knows how profoundly the bow affects the sound of your instrument; this common observation implies that the shaft is just as much an acoustic body as is the instrument. While difficult to quantify, it may not be excessive to say that the shaft vibrates as much as the instrument. At very least, the vibration of the shaft strongly influences the vibration of the string, therefore of the instrument. It is precisely the nature of this shaft's vibration that makes one bow sound so very different from another; its acoustics are substantive and proper to it, making it a unique acoustic member.

The shaft has two separate, but intimately related components to consider: the camber, or bend of the stick, and the graduation, i.e., how it tapers from end to end. Both of these markedly affect both the sound and playing characteristics of the finished bow. While it is true that the character of pernambuco itself has the single most powerful influence, these two factors of camber and graduation are powerful enough so that we can say it is these two that will define the degree of success of the bow.

Since we are speaking about developing a new pattern after historic models, the maker has to be aware of the habits of the period that he is emulating. Each epoch of bow making has an habitual way of approaching these two aspects, but not rigidly so. After all, we are dealing with the diversity of biological products and the human spirit, both of which bear an unending wealth of creative possibilities. Formulas are insufficient to satisfy the demands of art and artist.

The Camber

Over the years players have come to my studio and have said things like, "This bow

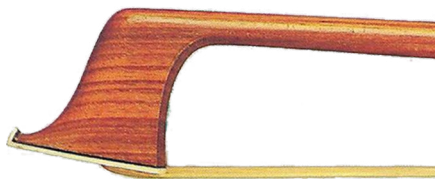
does everything—it plays itself," or "My arm and this bow feel like they are one piece. It's like an extension of my hand; it makes me feel so connected." When a first-rate player comes and says something like that, I try to understand why. The only consistent thing I have found lies in the cambering; that it is smooth and even, with neither soft spot nor kink, and this with remarkable subtlety.

That being said, the ways are myriad that the camber can flow from end to end, and each approach powerfully bears its effects on tone quality and playing characteristics. Typically, the curve of a good student bow will slowly accelerate from the frog to the head, perfectly counterbalancing the increasing flexibility of the tapered shaft. However, on every fine bow I have ever seen, with rare exception, the camber is a bit flatter under the winding. This seems to hold true in every epoch of bow making.

The early 19th century French bow bears an interesting, additional deviation. As a norm, the camber of these early bows is a bit flat four to six inches behind the head. Since my model is that of the early 19th c. French, the cambering I use follows this detail. In contrast, makers of later periods, as the Lamy, all but universally add extra curve behind the head. The images provided below show the differences of approach.

The Taper

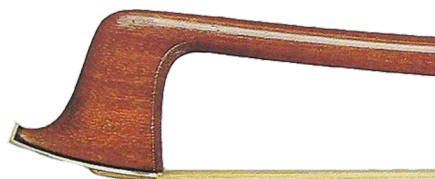
As is true of the camber, you can see many approaches to the taper of the shaft depending on when the bow was made; these too, powerfully influence sound and playing characteristics. Historically, there are two broad approaches that makers have taken: either make the thickest part of the shaft directly under the winding, slimming down from there to the head. Or he can put a "belly" in it, i.e., a bit slimmer under the



Etienne Pajeot



Francois Tourte



Alfred Lamy



Roger Zabinski



Peccatte chamfer

Photo credit: Paul Childs

winding and increasing the diameter, sometimes even as far as the middle of the shaft, then slimming again to the head. The early French makers seem to exclusively use the former approach; the earliest example I have seen of the “belly” approach was a Joseph Henry, ca. 1860. By the early 20th century this “belly” approach became the norm.

Though following the early 19th c. ideal, the maker has yet to choose how rapidly the shaft tapers. Of this early time period, the graduations will drop between 0.25 mm. and 0.9 mm., or more for the larger bows. The completed graduation is decided by a number of factors: the strength of the wood, its density, the type of sound the maker wants to develop, or the tastes and desires of the one who commissions the bow.

There is reason to believe that the early 19th century graduation closely approximates a mathematical model; a graph of these graduations will very closely follow a parabolic curve. I believe this is so, not because they took pencil and paper and calculated a “perfect graduation.” No; these makers were fine craftsmen and artisans; due to their practical methods, a direct hand and eye execution automatically generates the mathematical model. You can find a fuller explanation of this observation on my website blog <http://www.zabinskibows.com/blog>.

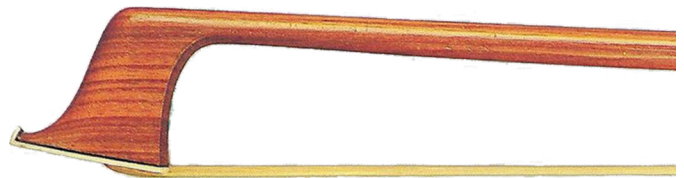
Part 3: The Frog and Button

The Frog

English-speaking people borrow a word from the French “ensemble” which expresses the union of separate elements into a synthesized unity, a “wholeness,” or “togetherness,” if you will. Whatever an artist’s intent might be, his creation has to accomplish this sense of integrity and oneness if his efforts are to give any fulfillment to aesthetic sensibilities. The bow for stringed instruments is no exception. The same sculptural elements that come together and define the style of the head must also come together and define the style of the frog. The head, frog and button of a fine bow must join together into one aesthetic whole.

Take a look at the Tourte frog and compare it to the head; the somewhat vertical, angular movement of the back of the head is reflected in the throat of the frog. Likewise, compare the head and frog of the Pajeot; the shape of the throat evokes the same sense of movement as that of the back of the head. For contrast, look at the Lamy and compare it with the Tourte and Pajeot; its movements are quite a different expression than the older models, but remain harmonious and integrated, an “ensemble.” You will see in the head and frog of my model the same integration of shapes; the throat of the frog echoes the same somewhat flat, backswept movement at the back of the head.

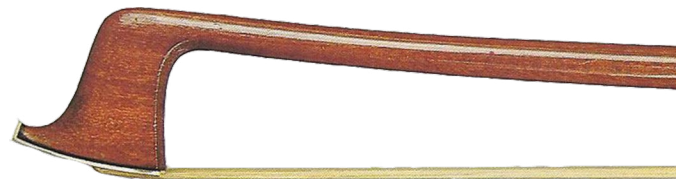
The thumb seat, too, helps define a model, and it normally correlates with the period of the bow. The rounded thumb seat of the Lamy reflects the rounded expressions of the head, typical of the late 19th into the 20th century aesthetic. In contrast, the thumb seat of the Tourte and Pajeot are rather square—typical, though not universal, of the time. Because it is inspired by the early 19th century aesthetic, my model uses that same rather square shape. For many players who grew up with an inexpensive student bow, this detail can feel somewhat foreign, and even uncomfortable. A younger student is more inclined to “squeeze” the bow, using force and tension, pressure and fast bow speeds to propel the sound from the instrument. The early 19th century bow needs a different approach



Etienne Pajeot



Francois Tourte



Alfred Lamy



Roger Zabinski

to the hand and bow arm; rather than “squeezing” the stick as the smaller, round thumb seat allows, the square thumb seat of earlier style demands less tension in the hand. And from the bow arm, more the feeling of weight rather than pressure. On the contrary, the square thumb seat becomes a luxurious point of control, a little more wood into which the thumb may rest.

There are many more elements of the frog, which we could discuss, e.g., the decorative eyes at the side of the frog, the ferrule height, width and shape, the three-dimensional sculpture of the sides, the angle of and shape of heel plate. No less important are the species of shell products and the alloys used for the frog. These are significant but lesser elements that create an aesthetic impression, and we note them only in passing.

The Adjuster Button

Like a precious little vignette in a museum which gets lost in the midst of great works of art, the adjuster button, though relatively inconspicuous, bears a significance all its own; the minute details of the button are integral to the overall concept of the bow. Unique to the early 19th century French bow, the button usually flares a bit as it approaches the outer ring. That flaring movement picks up and extends the increasing diameter of the shaft as it nears the frog, continuing past the frog right through to the outer ring. This flaring movement stands in contrast to later generations, Lamy providing our example of a later aesthetic. Compare the image of the Lamy with those of the Tourte and Pajeot; you will understand the point.

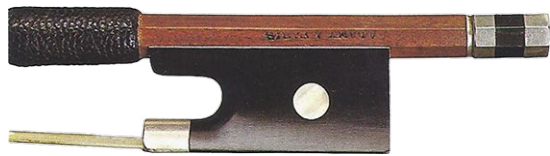
Not insignificant to the button’s execution is the forward collar,



Etienne Pajot (violin bow)



Francois Tourte (cello bow)



Alfred Lamy (violin bow)



Roger Zabinski (violin bow)

which adjoins the end of the shaft. As a norm of the early 19th century, the diameter of the collar is slight larger than the flats of the button. Aesthetically, the larger diameter gives a sense of strength and rich elegance to the whole; practically, it provides a better

protection against wear to the end of the shaft.

In the Round

Up until this point I have spoken of the elements of bow design only in 2-dimensional terms. But the bow, as any sculpture, is a three-dimensional object. This third dimensional aspect “realizes” the whole, creating highlights and shadows as the eye moves over surface of the piece. A little story here will be useful in making the point.

A little over 20 years ago when I moved into my new workspace, I thought how wonderful it would be to install skylights. “Just think of all the light,” I thought, “and so very smooth and even.” How wrong I was! Plenty of light, yes, but the wrong kind of light. All the shadows upon which I depended to shape the head and frog had disappeared. The shapes looked lifeless, ghostly, difficult to perceive. I never understood until then how much the 3-dimensional shadows give substance and “reality” to the 2-dimensional elements.

We might liken this difference to a person’s shadow and their real presence. The shadow presents us with an idea of what a person might look like; but when we see them in person, how different our perceptions might be. How rounded are their cheeks? Are they flat? Well-rounded? Maybe a bit sunken? In the same way, a maker can choose to make a surface very flat, or convex, or even concave; these contribute a sort of dialogue between the two-dimensional elements, completing them, giving them depth and reality.

Conclusion

In the course of this article, I have talked about a number of ideas of which bow makers are aware when they fashion this little object so very essential to the music making process. Some of these ideas address only what is technical; some of these ideas penetrate to what is uniquely human, i.e., our remarkable ability to both create and appreciate an object of beauty. And in that dialogue of creating and appreciating, we are all made a bit more human, we are all a little bit more connected. Perhaps the next time you look at a fine bow, you will see it with different eyes. †