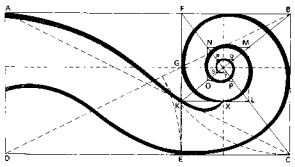

Maker's Bench

Advances in String Making

by John Waddle

Not much has changed in the evolution of violins, violas and cellos since the modernization that took place in the early 1800s when so many were converted from their baroque set-ups to modern set-ups. The one exception to this is strings. Strings have evolved because of advances in string making equipment and in new materials that can be used to make strings. In this article, I want to talk about a few of the higher quality new strings that have come out recently.

Pirastro

I had a visit recently from Ed Mingo, who is the U.S. sales rep. for Pirastro Strings. Ed educated me about recent developments in string making at Pirastro.

The Pirastro string company, founded by Giorgio Pirazzi, started in Italy in 1798. In the 1890s, Gustav Pirazzi, grandson of Giorgio Pirazzi, invited his friend, Theodor Strobel, to be his business partner. They combined the first four letters of both of their last names, and Pirastro was born.

Pirastro has a new line of strings called Evah Pirazzi Gold. (Eva Pirazzi is the granddaughter of Gustav Pirazzi, and is one of the leaders of the firm.) The Evah Pirazzi Gold line of strings follows on the heels of the popular Evah Pirazzi strings. The Evah Pirazzi Gold strings are described as having minimum playing-in time, clear, full, and focused sound with character, no metallic sharpness, excellent responsiveness from ***pp*** to ***ff***, and are said to be extremely durable.

The Evah Pirazzi Gold violin strings, except for the E, which is stainless steel, have a core made from a modern synthetic multifilament fiber. This is much stronger, and less subject to breaking than a solid synthetic core. The A string is wound with aluminum. The G and D strings are wound with silver. These strings are now available in full size, and only in medium gauge.

The Evah Pirazzi Gold viola string set consists of a steel A string, a D and G string with a synthetic multifilament core wound with silver, and a C string with a multifilament core wound with tungsten. These strings are also available only in "full size," and medium gauge as of yet.

The A and D strings for cello have a high-tensile steel core and are wound with a precision chrome steel flat wire. The G and C cello strings have a specifically designed steel rope core with a top-quality tungsten winding. These cello strings are currently available in medium gauge, with more options planned for the future. They are only available so far in full size.

Pirastro has also worked to develop rosins that they recommend for their strings. For the Evah Pirazzi Gold strings, they recommend their own brand of Evah Pirazzi Gold rosin.

Thomastik-Infeld

The Thomastik-Infeld company was founded in 1919 in Vienna, Austria, and has more than 200 employees. Thomastik is mostly known, among violin players, for their Dominant strings, which have indeed been "dominant" for a long time, but they have recently come out with a new line of violin strings called "PI", which are the initials of Peter Infeld, the manager at Thomastik-Infeld. The new PI strings are about twice as expensive as Dominant strings, but in my opinion, worth the extra expense. I have been selling them for a year or so now, and have had almost universally positive feedback on them. Compared to Dominant strings, PI strings seem to be ready to go right away when I put them on, and they seem to last longer than Dominants, which seemed prone to breaking more.

The PI strings come with three options for E strings, the gold plated steel E, which sounds beautiful, the platinum plated steel E, which also sounds beautiful, but is slightly more durable than the gold, and less prone to "whistling," and the tin plated E, which I am told also has a good quality of tone (despite the association we all have with "tinny" sounding E strings). The PI A, D, and G strings all have a synthetic core. The D string can be bought with either an aluminum or silver winding, and the G string is wound with silver.

I have compared PI strings with Dominant strings under magnification, and the PI strings look like a more finely crafted string with a smoother finish. The difference I have noticed in the sound is that I can hear the fundamental tone of each note more clearly, but all of the overtones of each note as well. So far, PI strings are available only for violin, and only in full size. I am anxiously awaiting the development of these strings for viola and cello, and in different sizes.

D'Addario

Another string making company with a long history (dating back to the year 1680), is D'Addario. The D'Addario family started out in Italy making strings, and is now based in New York. Not to be out-done in the competition for high-end strings, D'Addario has also come out with some new strings for violin, viola and cello.

For the violin, they have developed the new Vivo and Amo strings under the Kaplan line. (D'Addario acquired the Kaplan Music Strings company in 1981.) According to the D'Addario website, Kaplan violin strings offer professional-level players an unprecedented combination of beauty and power in two options, Kaplan Amo and Kaplan Vivo. Kaplan Amo provides warmth, richness, and flexibility for brighter instruments, while Kaplan Vivo delivers brilliance, clarity, and a robust feel for darker instruments. Both sets settle quickly, exhibiting a rich tonal color palette and superb bow response. Both Vivo and Amo have multi filament zyex core A, D, and G strings, with aluminum winding on the A, and silver windings on the D and G. Both come only in full size, but are available in light, medium or heavy tension. Comparing a Vivo violin G string with an Amo violin G string, the Amo does seem to be more flexible.

D'Addario has also come out with a new line of viola and cello strings called Kaplan.

The Kaplan viola strings are available with a solid steel A with aluminum/titanium winding, or a solid steel A with just titanium winding. The Kaplan viola D is a stranded steel string with aluminum winding. The Kaplan viola G is a stranded steel core with silver

winding. The Kaplan viola C is stranded steel with a tungsten and silver winding. Making viola strings presents a special challenge due to all the different sized violas. Kaplan Viola is now available for long, medium and short scales. They are so far only available in medium tension.

The Kaplan cello strings are available in full size only so far, but do come in light, medium or heavy tension. The Kaplan cello A has a solid steel core, wound with titanium. The Kaplan cello D also has a solid steel core, but is wound with nickel. The Kaplan cello G and C both have a stranded steel core, with a winding of tungsten.

I spoke with Lyris Hung (product manager for D'Addario) and she explained how all of the materials used in string making can be manipulated for different effects. For instance, the new Vivo and Amo violin strings both have a multi filament core, made of zyex (a synthetic material developed especially for D'Addario), and the same basic metal windings, but by changing the composition of the zyex, or the way the multi-filaments are formed, and varying the composition of the metals in the windings and the way the windings are applied on top of and around the core, the properties of the strings can have different playing qualities and will produce different sound. That's why two strings from different manufactures may have the same or similar material description, but may perform differently from one to another.

There are several more examples of string companies who are coming out with new products, but to list and describe all of them would take many more pages, and with this article I have chosen to concentrate on the more advanced level of strings from just the three companies I am most familiar with, but they are also coming out with more affordable strings for students or people on a budget. This could be another article.

In conclusion, if you feel like trying something new, you have choices, and if you do a little research, you may be surprised by what you can find.

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.