MAY 17, 2017

# Tristan Comes to Life

by Greg Waxberg

Two parallel histories involving Pedro Díaz, an oboe and English horn player in the MET Orchestra, and Fox Products, an Indiana–based manufacturer of professional and student double reed instruments, have overlapped to benefit Pedro, Fox, and current and future English horn players. Put simply, Pedro wanted to fulfill his dream for how an English horn can be designed, and Fox sought a new design to improve its reputation as a manufacturer of professional English horns and oboes.

First, some context for the instrument. The alto member of the "double reed" woodwind instruments—a group that also includes the oboe, bassoon, and contrabassoon—the English horn is neither English nor a horn. It and the oboe evolved from a Middle Eastern double reed instrument known as the shawm, so the origin of "English horn" is a mystery. Pedro describes the instrument as being "within the vocal range, but it doesn't go very high, and it also doesn't go extremely low. Otherwise, it would be a soprano instrument or a baritone instrument." Commenting on its role within the operatic repertoire, he says the English horn is fortunate "because it gets to play some of the most beautiful solos. However, it's an instrument of 'doom and gloom.' I come in when there's death, when there's desolation, when there is a loss. It also plays very pastoral themes. It fits very well in the tragic world of opera."

Now, some brief background about the English horn's physical makeup. Again, for reasons that remain a mystery, it has historically been made from grenadilla (African Blackwood), which is sourced from slow–growing, over–harvested mpingo trees located in rocky terrains of Mozambique and Tanzania. Grenadilla is dense, hard, and rigid, necessary attributes for an instrument–making process that requires the wood to maintain its shape. (Expansion and contraction, which result from temperature changes and moisture, are problematic.) Also, the fact that grenadilla is tough means less cracking. "Grenadilla *is* known for cracking, but not *nearly* as much as other, harder woods that manufacturers have tried to build instruments from. Manufacturers love grenadilla because it is easy to machine, and it is the sound that the oboe/English horn community has become accustomed to hearing," says Sarah Rude, who leads oboe and English horn research and development for Fox Products.

There is another physical factor: weight. "The English horn is the heaviest instrument that is expected to be held in your hands," Pedro says. "The bass clarinet uses a stand, the bassoon uses a belt, and the tuba you put on your lap, but the English horn is a relatively heavy instrument that you have to play by stretching your hands forward. Some English horn players use a neck strap, but that can also create discomfort." To limit the excessive weight, the English horn's length is kept to 31 1/2 inches; however, this affects a musician's ability to play a low B–flat, which would require a longer

instrument. (The bottom of the English horn's two-and-a-half octave range is B-natural below middle C.) "There are at least four operas by Puccini—*Turandot*, *Madama Butterfly*, *Tosca*, and *Manon Lescaut*—that require you to play a low B-flat, and most people don't even bother. They can use a small extension between the bell and lower joint, but many English horn players don't own one or don't use it." That's because the addition of a two-inch segment of grenadilla immediately above the bell adds even more weight to the wrist.

With the use of grenadilla adding so much weight and limiting the range of the instrument, it is understandable why Pedro desired an English horn that is made from maple ("that was my dream") and has a *built-in* low B-flat. Maple is not only lighter in weight, but also more sustainable because it grows faster, grows in more areas, and is sourced from responsibly-managed forests. "Bassoons are made out of maple, and that was one of the inspirations for me. I thought it would be responsible to start a new tradition of playing an instrument made out of lighter woods, like maple," Pedro explains. "With the lighter wood, you could also get the low B-flat." Sarah of Fox Products confirms that lighter wood makes it easy to add the extra two inches, and, although the instrument becomes longer, "it is still lighter than a standard grenadilla English horn."

Over the past few years, as Pedro has been developing a wish list for the English horn, Fox Products has been trying to improve its position in the marketplace. Founded in 1949 by Hugo Fox, Principal Bassoon for the Chicago Symphony Orchestra from 1922 until 1949, the company initially focused on bassoon production. Student and professional oboes appeared in 1974, followed by student and professional English horns in 1999. In general, Fox has been successful with student instruments and with bassoons for the professional market, but not nearly as successful with their professional oboes and professional English horns—top-level players were not choosing them.

(L-R) MET Orchestra oboists Elaine Douvas, Susan Spector, Pedro Díaz, and Nathan Hughes

Why the slower emergence? "As a company, we didn't devote resources to developing professional oboes and English horns and didn't have professional contacts with the highest-level players often enough to develop them," Sarah says. "We're the biggest [double reed] manufacturer in the United States and we should be a serious contender in the professional oboe and English horn market." To try to achieve that, Fox has hired more full-time oboe players and is collaborating with more top players from around the world, including Pedro, who was introduced to Fox about three years ago by Tong Cui, who runs Innoledy, a double reed supplier in Manhattan. Also working in Fox's favor is the fact that, according to Sarah, younger musicians are becoming more open-minded about what brand of instruments they will play.

Before proceeding, there is a third player in this story: A. Läubin, Inc, a New York State-based manufacturer of handmade, but expensive, oboes and English horns, with limited production capabilities and a waiting list of more than 10 years. (The limited production stems partially from Läubin's perception that there are few people who possess the skills to make handmade double reed instruments to the company's specifications.) Simply put, Läubin prioritizes artistic integrity over financial gain. Pedro, who describes Läubin instruments as "exquisite," was playing a Läubin when he was introduced to Fox, so he proposed an alliance between the two companies that would result in a lower-cost instrument, help Fox learn from Läubin, and help Läubin benefit from Fox's machinery to increase production.

It is important to note that this alliance is "big picture"—Läubin was not involved in Pedro's and Fox's English horn design or construction and, until now, has made only oboes with Fox as a separate line of instruments. Essentially, Fox builds the body and finishes the outside mechanics, then ships to Läubin, who disassembles the mechanics, inserts the bore (the hollow interior that runs the entire length of the instrument), and makes the inside tone holes larger than the outside holes. "The idea is to use Fox's workforce and newer technology to make excellent instruments which will satisfy many Läubin players, while continuing to make A. Läubin instruments by hand," says Alex Laubin, grandson of founder Alfred Laubin, a professional oboist and instrument repairman. "This won't lower costs on the handmade instruments, of course, but it should give us financial stability, which will allow the handmade instruments to continue."

When asked if Fox had thought of the attributes that Pedro ended up suggesting (maple; built-in low B-flat; welcomed by professionals; reliable; economical to maintain; not extremely expensive), Sarah responds that "Maple was one-hundred percent his idea, and Pedro drove the idea for the built-in low B-flat. As for the others, we all strive for those things."

Inspired by the maple in its bassoons, Fox uses black maple that is aged for over 10 years because doing so increases density and stability. "There are many kinds of maple in bassoons—red maple, mountain maple, sugar maple, black maple. We chose black for the English horn because we were nervous about the mechanics the first time. Bores are sensitive, and shape is paramount. Maple would expand and contract and would absorb moisture, so we decided to line the entirety of the upper and lower joints, both for stability of the bore shape and to avoid absorbing moisture." The weight difference is noticeable: 1.75 pounds for a maple English horn compared with 2.25 pounds for a grenadilla English horn. Unfortunately, as Sarah points out, maple does come with drawbacks, since it is easy to scratch, mar, and dent, so the production process is much longer, along with the finish that includes painting, sanding, varnishing, and a two-month drying time. Manufacturing technologies include Computer Numerical Control (CNC), in which computers control the machine tools.

Thanks to Pedro's work with Fox, his "Tristan" English horn was officially released about one year ago, and Sarah reports that Fox now has two models of English horns, the traditional grenadilla version and the new maple version. "Everyone is curious about this instrument everywhere I go," Pedro reports. "It's so groundbreaking, yet such a simple idea!"

*Note: Pedro, along with other MET Orchestra Musicians conducted by Riccardo Frizza, can be heard on a Fox Products CD that features the prototype of the English horn made during the development process.*

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