

Dr. Poltuns XA 160 / XA100.5 Review

REV2

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Dr. Poltun, dedicated “Keeper” of the Vienna Archives gets updated to the new XA .5 design, and what a difference a .5 makes!!! What in the world does Pass Laboratories have to do with the Austrian National Bank, and why, Dear Reader, should any of us care??

About 20 years ago in an incredibly wise financial investment move - the Austrian National Bank purchased 25 of the finest stringed instruments then being offered on the international market. These included Strads, Guarneris and some select pieces of the other “higher price” makers, all of which were offered only at special auctions and by a class of very famous international dealers. As most of you are aware, prices for these instruments are typically calculated in the millions of dollars and their value has been increasing since the days when they were crafted by the Italian masters during a very specific short period of time at the end of the 17th and dawn of the 18th centuries. Purchasing such an instrument for oneself to use as a private musician is simply beyond the financial means of just about every worthy musician.

As an expression of National Pride and Patron of the Arts the Austrian National Bank then placed the very best of these 25 instruments in the hands of the finest players in Austria. The concertmasters of our orchestra are using a number of them. Keeping these exquisite national treasures in bank vaults might preserve their financial value for a time but would eventually ruin them. To persist and excel in their



Dr. Peter Poltun has held appointment as Director of Archives for the prestigious Vienna State Opera/ Philharmonic Orchestra since 1992. His office, the Musikarchiv der Wiener Staatsoper, stands as the historic home of the original manuscripts and performance materials for many of the greatest composers in the history of western classical music. This magnificent building was commissioned in 1857 by Emperor Franz-Joseph I to replace the original 1709 structure.

Prior to this appointment Dr. Poltun was American vice-consul for the US Diplomatic Corps stationed in Istanbul. During the Regan administration Dr. Poltun transferred to Geneva, where he was merged into the negotiations around the atomic disarmament between the USA and the Soviet Union, which historically brought Reagan and Michael Gorbachev together at the START and INF talk. These historic dialogs were fundamental to deep nuclear weapons reductions between the two super-powers.

Ultimately his passions for music lead him to exchange avocation for vocation, and thus the move to Vienna and the dramatic career change.

On a day-to-day basis, Dr. Poltun passionately manages one of the most important classical music archives/ collections in the world. His charge, the preservation of historically important original music manuscripts (Beethoven, Brahms, Mahler, etc.) and the day-to-day preparation of performance materials for the two performing departments. Dr Poltun holds advanced degrees from the music conservatory in Hamburg and Princeton University and is an accomplished horn player.

original purpose, they must vibrate and be played or they soon lose their very special sound.

And played they are; in this capital city of classical music. In my job here I routinely experience all 4 of our concertmasters Strads playing individually during a typical week of concerts and opera performances. Each one of these wonderful instruments is unique and each has a very different and specific character to its sound, a uniqueness instantly recognizable to anyone with even slightly trained ears -no matter who is playing on it that night.

There have been numerous technical and subjective investigations of these acoustic differences. Volumes of text have been written over the centuries -even more than Dr. P would ever write. No one has been able to pin down what exactly creates the specific sound nor why they are different. Many technicians and modern instrument builders with extremely sophisticated measuring instruments and equally sophisticated imaginations have come to Vienna trying to pin this down -sorry -it just defies any known conventional analysis. And even if you try to make something sound like that today by copying the specific wood, form, lacquer, etc etc, etc etc -and there have been many such attempts over the years -it still never sounds like the real historical thing. Why should that be?

Each and every instrument represents its maker's realization of what a violin should sound like, on that day -carried out to such a degree of perfection that it must be called a work of genius, a true work of immortal art just like the music we play here. So future attempts to realize that unique vision can never be the same -and thus the sound instrument to instrument is not the same. Each violin has a distinct

Stad family signature but because of the dynamic nature of the "Makers" vision each instrument sounds unique in its presentation of musical "truth".

That truth, the soul of the instrument, colored year to year by a myriad of factors, some controllable, some not. As for example, subtle material changes. One year a certain type of wood may have been available. The next year the wood changed either in species or character. Perhaps the weather was different when one instrument was lacquered. Maybe the mix which went into the lacquer or glue that year changed, thus hardened differently or caused the wood to age and cure differently. To these factors we must add that the instrument maker's insight into how to construct an instrument is under constant development. From instrument to instrument his skills and artistic visions are developing and his available materials and tools are continually evolving. Along with this we know that his or her concept of what sound he/her wish to achieve is also undergoing refinement. One instrument may be developed with a certain player or musical application in mind. The next project may have totally different requirements -sonically, physically etc. In any case, during this truly "creative artistic process". trial and error is a significant integral part of the finished process. Certain solutions to technical and musical problems are seen in a new light and can only be fully realized after a long step by step painstaking process -built on the consummate knowledge and experience of the instrument maker. One thing is for sure - none of these instruments can be made only by following rigidly fixed procedures, measurements, rulebooks or maxims. The creation of a great instrument requires total mastery of the techniques or rules and the forethought to modify those rules and techniques as required and to the better.

But there is much more involved in this indefinable creative process - listening over and over again, musical experience, yes even genius and yet it is ultimately possible to follow all the rules and still wind up with an unpleasant sounding violin.

Like the musical instruments in the Vienna Archives our audio listening instruments have also changed and developed over the years. Our hard earned trust in the excellence and superiority of Pass Laboratories electronics has remained constant over many years. This continual refinement of our archival electronics includes all of Nelson's designs of the last 10 years from the Alephs to the X's to the XA's and now to the latest addition to the Pass family -the XA.5s - specifically Model XA 100.5 which is the real subject of this paper.

I have already written at length about the sonic differences between some of these previous designs and submitted those comments in this forum. That knowledge of the equipment evolution is current, we've retained even the earliest of the Pass Laboratories product, so as to assure ourselves that what we perceive with new generations are sonic improvements in a very real sense and not just changes.

In general each design represents the vision of audio amplification of its creator -Nelson Pass and each sounds different -just like our 4 wonderful Strads. Like our wonderful stringed instruments Nelson's designs continue to mature, each new iteration an improvement over its older sibling.

Whatever their intended applications, all of these amps were designed with the greatest emphasis on achieving a maximum of musicality. This

involves thousands of hours of listening and experimenting. All of the amps sound differently but yet bear an unmistakably "Pass Family" resemblance the result of his well thought out basic concept of 2 gain stages, X-symmetry, etc. The parallels with the making of a great violin and these amplifiers should be obvious to all. Like the creation of a fine musical instrument the designing of a fine amplifier one deals with different materials and techniques, which have metamorphosed in an evolutionary progression over the years.

Certain parts are available now that never before existed or parts which have better subjective or measured performance parameters. Pass Labs has not been shy about incorporating improved components into product. The creative process involved in making these electronic audio instruments is like that involved with each of our Strads -a never ending quest to achieve greater musical perfection and satisfaction with each new generation.

At this "Strad Level" of amplification Pass develops his products slowly -testing , listening, re-listening. The Master didn't make many Strads and likewise Pass doesn't come to market with a new design until he is convinced that real musical progress has been made thru a new product. Many years of expertise in the techniques are blended into the consideration of what application the execution of the design is supposed to meet. In making amps at this level of excellence there are also no pat school textbook solutions -it is a long, step-by-step process. For Pass it is an unending process of continuous audio hardware evolution towards the goal of seeming to recreate a perception of the actual musical event in the home.

In the Vienna Archives there have been some other changes in our reference monitoring system to complement the improvements in our Pass electronics. Cornerstone of the 25,000 disc, analogue side remains the infallible SME 30/ Series V arm turntable with a myriad of super high-end phono-cartridges. Digital was recently upgraded to the Accuphase flagship SACD transport model DAC DP-800/801. Our ever trusty and still unsurpassed Pass Labs XONO and XO.2 still handle all pre-amplification duties. Everything in our archival system is wired together with Transparent REF MM Interconnects/power cords/speaker cable (Transparent power conditioning -but only on the digital/preamp level -no power conditioning is required for the Pass amplifiers.)

The end of the chain was recently upgraded from Wilson Audio Watt Puppy 7 to Series 8. The Wilson's like Pass are another high-end manufacturer who appreciate what the very special "Vienna Sound" and tradition in classical music that this orchestra and opera is all about.

This is the setup that was used to evaluate the new Pass XA 100.5, chiefly comparing its performance to that of the XA 160. Our procedure for evaluation has not changed. We listened intensively for one month to the XA 100.5. Our source material is that which we have known for up to 50 years; the famous Vienna Philharmonic/State Opera recordings by Decca and EMI that were made right here by our orchestra. As many of you know, some of these recordings are extremely valuable collectors items due to their superb engineering and performance values. We frequently involve a number of musicians in the listening process who actually participated in these historic recording sessions. Who else would know

the actual sound better than those responsible for it's creation! After one month, we reconnected the previous design XA 160 and listened to all the same material again for one month.

For us this systematic repetition is the only way to know what the differences in presentation really are. Our listening and evaluation is a slow and careful iterative process. Some things are quickly apparent, but for us in Old Vienna; we need time before we as a collective fully understand what a specific piece of equipment is doing differently in terms of reproducing trusted and familiar source material.

So, that lengthy process behind us, time to finally talk audio. What are the differences between the XA and the XA.5. Both are pure A class designs to the limit of their rated power –within that limit, no matter how much stressed neither ever leave pure Class A operation, within their rated output. This means like the XA the XA.5 has that warm, fluid, exquisite articulation of musical energy, which only pure Class A amplification can provide.

There is a harmonic "rightness" to this design. The full harmonic spectrum of each instrument or voice is fully developed and gorgeously presented in the sound stage. (Nelson Pass has called that exactly right in his writings about The XA.5 design versus X.5. The XA.5 gives the best subjective musical performance, the X.5 gives the greater power delivery -which may be preferred on a given speaker, room acoustics or simply power vrs money outlay requirements of the buyer. Keeping in mind; that the X, XA and subsequent point 5 variants of these products have much in common, despite their inherent strong differences -again the over arcing family resemblance.

But from that point the XA.5's performance greatly exceeds that of its XA cousin. Each full, Super-musically warm image is reproduced with far superior clarity -that characteristic can be heard almost immediately from this product. Each musical event occurring between ones speakers is precisely located with the most uncanny clarity. One hears page turns and breathing, sighing even the emotional moaning of conductors emotionally and physically caught up in the music and the orchestra members -sounds of living people making real music. All happening with incredible clarity. Every slight movement of an instrument within the sound field is captured (It was truly frightening to hear again these byproduct body sounds of some of our conductors and former VPO colleagues -a number of whom have gone off the realm of Mozart and Beethoven since these records were made. Although welcome an uncanny if not downright weird audio experience indeed. Perhaps the higher current output of the XA.5 generation or the new hardware involved may be responsible for this -but, we leave such technical matters to Pass and his team of amplification geniuses; ours is to revel in the results, not muse in the why. The final resulting sound is what counts, it's not about the sound.... It's ALL ABOUT THE SOUND!. And here you have the feeling of unprecedented control over the loudspeaker. This XA.5 has the Watt Puppy on the tightest leash I ever experienced. The XA was very good in this respect but this new XA.5 amp has totally taken control over the speaker -and every driver within it -in a never before experienced manner. Everything is better tighter; Deep bass, mid-base, mid-range ,treble up to the harmonics and beyond. The source material seemingly get out to the speaker quicker and more articulately -can you measure that? No. But it is a subjective and emotive response and we can definitely hear it. This amp is

delivering the sonic goods like controlled lightning -getting the energy out to the drivers with supreme articulation. The 100 watts of this design are superior to the 160 watts of the older XA. In spite of less Class A power, they sound cleaner and quieter. Even though this model measures less power into 8 ohms than the XA 160, the sonic impression (which is infinitely more important than the measurements with this level of instrument) is one of unlimited/enormous power reserve and greater dynamic differentiation -ie- the differences between pp, mp, p, mf, f, ff (or even ffffff -if you're listening to Tchaikovsky or Mahler symphonies). Playing the very first, and justly famous DECCA VPO stereo recordings from the late 50ies (Beethoven's 5th Piano Concerto) revealed never before heard clarity right down to the hammer felts hitting the piano wires. Mahler's Second with Zubin Metha (VPO Decca) -all of these things recorded here at the famous incomparable DECCA site, which unfortunately no longer exists - revealed individual voices in a massed choir as never heard in our archives. There is incredible resolution, fast reaction time, unflappable -and always controlled no matter how hard you push it -from single instruments to huge masses of sound. Dynamic contrasts between loud and soft are incredibly enhanced. Loud passages erupt with tremendous speed and control. Even the silence of the rests sounds quieter because of this much better dynamic contrast and, gradation. (In any case, XA.5 is a quieter circuit than the XA) Every single instrument is presented with greater clarity in the sound stage-nothing is smeared, masked or left to be imagined -yet the naturally, never hard sounding pure A class performance shines thru. Each image beautifully and fully developed with lots of palpable air around each sound source. Spectral balance, top to bottom just seems more correct.

So to propose an answer the question I asked at the beginning: The Pass Labs products in our archives here in Vienna are much like the Strads purchased for our orchestra by the Austrian National Bank - BECAUSE ALL OF THESE INSTRUMENTS ARE PURE SONIC GOLD.... AND YOU CAN TAKE THAT TO THE BANK!

ASSOCIATED EQUIPMENT

Pass Laboratories; XA160, XA100.5 & X600, X0.2,

Xono

Accuphase; DP-800/801 CD / DAC

SME: Model 30 Turntables

Cartridge; Benz LP, VanDenHul Colabri, Ortofon

MC5000 & Per Windfeld, misc Lyra

Wilson Audio; Watt-Puppy 8