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BOURBON A GO-GO BY BRIAN HUNTER
It wasn’t supposed to be like this. I’ve always been more than a little envious of Moses. Is that weird to say? It’s true, though. The problem of meaning is rather straightforward when your answers come to you from the “mouth” of incendiary topiary. That experience just leaves very little room for questions, doubt, and debate. The mystery of what to do in and with your life? Solved. I wish.

Instead, I’ve always had a somewhat different guide: “Life is what happens while you’re busy making other plans.” Thank you, John Lennon. But true or not for life in general, this accidental approach is how you’ve come to be here, with this magazine. It wasn’t supposed to be like this. I was supposed to go back and finish grad school. Instead, I fell into a lucrative career. I was supposed to live out that career to ever-greater heights of dizzying capitalistic paroxysms of money and power. Instead, I was immediately and irretrievably bored out of my skull. Part-Time Audiophile was supposed to be a way to idly improve my skills at writing through a regimen of regular practice (and distract me from the mind-numbing inanity of corporate life), but like such things tend to, it got WAY out of hand. And now, it appears we have a magazine too.

Speaking for myself, I did not see this coming. But what a trip it’s been.

So, what you’re “holding” here is the evidence of the long struggle of a misfit band. Struggling with voice, place, identity, and a hobby we variously understand, embrace, celebrate and cherish. I must commend these good people; it has been my great pleasure to know and work with them, and I will remain eternally grateful that they clearly did not have enough to do with their free time.

Before I wrap, I need to say thanks. Thanks to Rafe Arnott, my dear friend; without his support, guidance, and help, my corporate space capsule would surely have burned up on reentry. To John Stancavage, for his steadfast and stalwart contributions in the face of little or no guidance.

To Dr. Panagiotis Karavitis, for always pushing us on to the bigger and the better. To John Richardson for being my base-cleaning hitter. To Brian Hunter, for holding me to the “lighten up” motto. To Paul Ashby, Darryl Lindberg, Ken Micallef, Mohammed Samji, Eric Shook, Lee Scoggins, Rick Mak, Marc Phillips, Lee Shelly, and Nina Sventitsky, for their continuing help, counsel, support and contributions.

To Kirsten Brodbeck-Kenney and Mal Kenney, Frank Iacone, John Grandberg, Mike Mercer and Roger Skoff, for all of their past help. To Doug White for all the advice, encouragement and support.

To Gary Dew for shaking up the complacency. To Jeff Catalano for demonstrating a true love of, and respect for, music. To Jeff Fox, for all that time, attention, and space to play. To all of our generous sponsors; you have our gratitude and thanks.

And finally, I want to thank you, Gentle Reader. For your time, for your attention, for your clear and indisputably poor taste in reading material. You are why we do this.

-SCOT HULL
LISTEN!

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Piano Diacera G2

... These speakers are warm, full-of-life, and breathtakingly rich in their sound, with a level of detail I've not heard outside of headphones.

- Scot Hull
Founder, Editor & Publisher at Part-Time Audiophile

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Since the dawn of time music has played an important part in human life, whether at the top or bottom of society, people have participated, and listened to music in its many forms as it has developed through countless generations to the present day.

Instruments have developed to allow increasingly complex, and expressive music forms until the peak was reached sometime in the latter part of the 19th century, coinciding with Thomas Alva Edison's invention of recorded sound.

Before successfully inventing recorded sound, Edison must have arrived at a fundamental realisation that sound can be entirely characterised in two dimensions. His first cylindrical recording was nothing more than a rough approximation of the changes in amplitude pressure (caused by the modulation of his voice), plotted against a constant time base (generated by the steady turning of a crank). Crude as his technique may have been, sound was recorded, and recognisably produced for the first time in history.

The limiting factor in Edison's first experience was not his idea, but his hardware; further improvements could only come from refinements in technique. So here we are, just over 120 years after the invention of recorded sound, and how much further have we really got?

When looking back over the past century of audio developments it is interesting to note that improvements in technique have not happened simultaneously in all branches of the 'tree' that makes up the music reproduction chain, as we know it today, but rather 'jumps' where one part has suddenly moved forward, only to leave other parts of the chain badly exposed. I could mention several examples of this, but suffice to say that a very clear example was when we went from 78rpm records to 33rpm microgroove LP's. The replay hardware left a lot to be desired, and eventually this inadequacy led to a severe reduction in the quality of the software.

Progress is not a straight line and this situation has repeated itself numerous times over the history of recorded sound, and as a result, music recording, and its associated recording, and reproduction equipment, has fluctuated greatly, and peaked in several areas of performance, only for the improvements/developments to be reversed due to the limitations of another branch or branches of the system.

It is, in my opinion, of the utmost importance to study the historical development of each branch of the music reproduction chain, in order to 'glean off' the best (most interesting?) developments, and then resurrect them to compare the overall result with what is considered the 'state of the art' today.

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It makes for an interesting comparison, and teaches important lessons in why methods, and technologies were discarded – mostly, I am sorry to say – due to economic considerations rather than qualitative ones.

To try to visualise the argument, I have constructed the chart below to attempt to demonstrate how I see the peaks, dips and troughs of development in the five main areas of the music reproduction chain.

Firstly to demonstrate the relative lack of real progress in sound quality in absolute terms (so much is and has been made of the High End Audio industry’s obsession with “State-of-the-Art” technology, that this serves as a potent reminder of the numerous areas where current technology is anything but “State-of-the-Art”), in order to analyse why, historically speaking developments took a turn for the worse.

Remember this is very broad historical/imperial overview, not a detailed study. A book will be written on the subject if ever I find the time, so here are the five “branches” as I would define them.

To support, and understand the thesis it is important to stress that the positions of each branch represents what should be considered the best effort available at the time, not necessarily what was well known or prominently marketed. A view has also been taken on the ideas, and principles behind the equipment in question, so that advances in technique – when applied to the older ideas – have also been considered.

The points system is applied to simplify the overview, and allow for comparison between the decades in absolute terms, and as can be seen we have not moved forward since the 1950s. In fact, we have reversed most of the absolute peaks of development relating to the position of each branch wave on the above scale. It is fairly easy to see that the audio quality in its absolute form peaked around 1960, and that this was primarily due to the superior quality of the recording, and software quality, the decline since then has a number of explanations, some of which I will attempt to address in the rest of this essay.

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SOFTWARE QUALITY INDICATED BY 1
RECORDING QUALITY INDICATED BY 2
REPLAY EQUIPMENT QUALITY INDICATED BY 3
AMPLIFICATION QUALITY INDICATED BY 4
LOUDSPEAKER QUALITY INDICATED BY 5
With the benefit of hindsight both recording, and software technology reached a peak during the 1950s, so by early 1960s recording, and software quality peaked, which goes some way towards explaining why records, and recordings from this period are so highly desired, and prized by today's music lovers, collectors, and audiophiles (don't you just hate that word!). Relative to the quality standards of recording, and software manufacture, the replay equipment was at a very crude stage in its development at the time of the introduction of the microgroove mono LP in 1948/49, and developed very slowly until the early 1970.

In my estimation, it really only reached its peak about 1985, with the introduction of the Pink Triangle, and Vony three-motor turntables, the Helius tonearm, the van den Hul diamond stylus shape, and Mr. Kondo's Io cartridge with its titanium cantilever. It is therefore fairly easy to understand why record companies could reduce the quality of the LP-software (in many cases this was actually an "improvement" in the sense that you could now play the record without severe mistracking) without noticeable quality loss. Anyone who has tried to play a Decca or RCA opera record like the Decca recorded RCA release of "The Force of Destiny," with the Rome Opera conducted by Pre- vitali, and di Stefano/Milanov on RCA will seriously wonder how this could possibly have been tracked by an average 1959 tonearm/cartridge combination. No wonder Decca had such a high return rate of their LPs at the time.

Amplification reached its peak earlist of all in the 1920s or early 1930s, and only by 1989/90 had it re-established or exceeded the quality level with the re-introduction of the single-ended triode amplifier (SET). As a side note here, it has always amazed me that no magazine has ever made a challenge of the decades, where they compare what could be considered the best amplifier at the end of each decade, to see if we have indeed moved forward in absolute terms. I have done this comparison on several occasions which is one of the reasons why I decided to write this article. I can tell it is a more educating experience than any review.

A similar comparison should be made between older and newer models of different manufacturers products, to establish whether their claims to have actually moved forward, or whether (as might be suspected) their claims of continual progress ring hollow.

Loudspeaker technology was only invented in 1924, and is considered to have peaked in the late 1930s. It has to be remembered that loudspeaker technology is by far the most expensive audio technology to research, and develop, and that most of the really serious development took place in cinema sound, not in home music reproduction systems. It is only with the benefit of hindsight that this becomes really obvious. ATO me a sole loudspeaker product stood out in the 1980s: the Snell Type A/I. This is why speaker technology did not drag the result down even further.

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In reality, if you compare the very best products available during each decade from about 1930, very little progress has taken place. This is undoubtedly due to the widely disparate levels of development (or in some cases refinement?), in each of the branches of the “audio reproduction tree” at any given time, as well as increasingly commercial considerations regarding cost, finish, and appearance, as the audio industry started to aspire to commercialism in the late 1950s and 1960s. Most of these later decisions have not benefited or furthered the goals of “Higher Fidelity.” It is almost paradoxical that an improvement in one branch of the system has invariably been counteracted by a severe decline in another branch – or should I say “have allowed a reduction of quality to take place unnoticed in another branch” – thereby leaving a kind of “balance” which has meant that sound quality has not changed much over the past 30-40 years.

In order to try to understand why real development towards “High-Fidelity” has not progressed further than it has, the above historical diagram helps to visualise how I see the deterioration and improvement in quality that have happened since the introduction of recorded sound. Our measurement technology has certainly contributed considerably to the slide in absolute quality, “the same for less” is the motto that has been applied time, and again when engineers have discussed measurements as a direct proof of sound quality. This approach invaded the industry in the 1940s, via David Theodore Nelson Williamson’s high-feedback amplifier design, and measurements used as a proof of better sound has become increasingly dominant to this day. Every new technology that has been introduced has generally started its life just as another branch on the audio system “tree” has reached its peak, but there has always been another trough somewhere else to put the blame on when new technology did not provide the necessary (claimed) improvements in overall performance. Our belief in the idea of progress has most certainly supported this development.

It is almost certain that when the transition from triode to pentode was made, software quality can be at least partly blamed for the demise of the triode, the move from 78s to microgroove LPs helped conceal the real inferiority of the pentode. The result was the pentode being the victim when the transistor amplifier was introduced.

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This happened almost simultane-ously with the introduction of stereo, a time when software, and recording quality was at its absolute peak, so the reduction in sonic quality that the transistor introduced was more than counterbalanced by the improvements in software quality.

As we approach modern times, the increasingly well developed "objectivist" technological dogma, combined with the growing post-war belief in the idea that progress is indeed a straight line, which, combined with better, and more clever marketing techniques originally used to "rally the troops" during the national emergencies of the 1930s, and 1940s helped create a shift in the market aimed at higher proliferation, and profitability to the detriment of absolute sound quality.

To me, it is perfectly clear that the resources being invested in improving absolute quality had largely evaporated by 1965, as marketing men, and accountants took over the main budget in most commercially-successful companies, a fact that seems to have gone unnoticed by both the audio press, and buying public.

Remember the excuses for the Compact Disc in the early days? "It is too accurate for the rest of the audio chain, and is therefore showing it up…" or some such nonsense. How about the current speaker/room interface debate? The room is the "last frontier." Speakers would sound perfect if only the rooms they were used in were better! The fact that most loudspeakers (whether claimed to be of high-end quality or not) are designed under near-field anechoic conditions compounds the issue in mind. What use is there in designing under these conditions when most people sit at three-to-six times the distance used to measure speaker response? On top of that, who lives in rooms with an acoustic complimentary to an anechoic chamber? These little truths do not seem to have impacted the designers of modern loudspeakers at all.

The list of creative excuses for the lack of real research, and thus the questionable or downright incompetent performance of much of the so-called high-quality equipment sold is endless, and a strongly contributing factor to the early fragmentation of the audio industry into many companies: Each specialising in one branch (amplifiers, speakers, cables, cartridges, etc.) which allowed a kind of collusion, where the fault for the poor performance of any piece of equipment could always be explained away by a lack of compatibility with the other equipment in whatever system was used to pass judgement. Synergy became the illusory goal of disillusioned music lovers through endless "upgrades" until most gave up.

Which is another item that has always made me wonder why reviewers, and hi-fi magazines have not applied a review process that reduces this problem. The solution is simple, you ask the manufacturer of whatever piece of equipment you want to review to submit a complete system within which he believes that the specific piece will perform at its best, and then review the overall result, together with a conclusion on how the reviewer (or reviewers) feel that the manufacturer has achieved his stated goals with the product in question. This would remove 90 per cent of manufacturer excuses, and give the reader (end consumer) a much better idea of what to choose.

If more time had been spent investigating the fundamental problems, and less time on constructing a great marketing story, and subsequent excuses (where necessary), perhaps we would have better, and more satisfying music reproduction equipment today.

In 1948-49 the single most important negative development, after the abandonment of the single-ended triode, and the introduction of negative feedback – invented in 1928 by Telefunken – was the 1947 Williamson article in Wireless World that launched the foundations of the single most important theory now ruling audio design: Specifications as a measure of sonic quality.

This theory was quickly picked up by great marketers like Harold Leak, Peter Walker (of Quad), A.Stewart Hegman, David Hafler and countless others.

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This was, in my opinion, the most single damaging theory to be imposed on audio design. This suggestion that sound quality, and measured quality (as exemplified by distortion, bandwidth, and noise measurements as we know them) are directly related to sound quality became the most compelling theory going. Why? Because it is very simple, and its very simplicity makes it the most powerful marketing tool ever handed to the audio industry. It provides the manufacturer with “proof” that his audio product is “better” than the competition. What more could you want?

It has single-handedly created the ideological basis for thousands of minute, and incremental quality reductions. In part because it has made it possible to make products that measure the same at increasingly lower prices, music reproduction techniques – provides a powerful substitute, and excellent surrogate to feed an unsuspecting, and gullible public seeking a music system of quality. It is this public who can be easily fooled into believing that when two products measure the same then they ARE the same, and the buying decision then becomes a simple question of price. How brutally simple, and incredibly effective.

Digital Audio is the latest example of how the high-fidelity industry has distorted the concept of research, and improvement. Since the introduction of the Compact Disc in late 1982, the technology has entered into the usual numbers game. 20-bit is better than 16-bit, 96kHz is better than 44.1kHz, 24-bit is better still, as is a 192kHz sampling rate, and so on. In addition to this, music is now becoming virtual, and very few customers actually know what level of quality they are downloading onto their computer. Claims from the file-providing services that their files are stored using the ultimate lossless, high-resolution codec, coupled with the convenience of a song at your very finger tips makes this path a rather compelling one for music consumers.

And does all the necessary hardware, and software upgrades necessary to play back these new file codecs make manufacturers happy or what? Believe me when I say that a critical-listening session comparing high-resolution files to a well-recorded CD on a decent CD transport quickly dispels any claims of higher bitrates as just another marketing-based illusion.

CONCLUSION

I started writing this discussion piece in the first half of the 1990s, and it has stayed on my computer for years, being taken out, and “brushed off” from time to time. The piece you have just read was intended as a “taster” to a much longer series of articles discussing in much more detail each of the five branches of audio, and music recording, and reproduction. I still intend to write these articles delving into each of these technologies, so perhaps we will meet again.

Peter Qvortrup
September 17, 2017
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Some beers inspire you to step outside your comfort zone, such as their tempting, voluptuous ways. And some images they stir, like the sleepy golden storm of Dageraad Blonde, stay with you for life. I never used to really enjoy Belgian beer, preferring the more austere lines of German pilsner, the comforting, nourishing maltiness of Scottish export by the pint, and the bracing hop blast of West Coast IPA. The Belgians, let’s face it, have always been a bit weird. Throwing all sorts of spices like coriander, and star anise or orange peel into their brewing tanks before anyone else did, thinning out their beer with refined sugar, and the yeast! Oh my god, the yeast: like unleashing a rampant raccoon of unpredictable flavours into your brewery. But then Dageraad Brewing – B.C.’s first brewery to focus only on Belgian styles – opened close to my home in Burnaby in 2014. It was like meeting that person who introduces you to a whole new spectrum of friends you thought you would never have; those people you thought were weird but were actually just different, and deeply interesting; whom you hit it off with instantly, and picked up conversation with comfortably, and continued to do so even if you hadn’t seen each other for a while. Friends you wonder how you ever did without. Before I start channeling the language of alcoholism too much, I’ll say simply that Dageraad’s beers were a revelation. At first there were just two, Amber and Blonde. Amber is a rich, ruby ale filled with flavours of dark fruit, stone fruit, and peppery spice. It’s an incredible beer, and the fact it’s often overlooked in Dageraad’s lineup (which now numbers up to 12 at any given time) speaks to the skill of head brewer/owner Ben Coli and brewer Mitch Warner. Continued on PAGE 27

B L O N D E S
SOMETIMES WORDS FALL SHORT OF DESCRIPTION
WORDS & PHOTOGRAPHS BY JAN ZESCHKY
Then there’s the Blonde. I tend to take tasting notes of most beers I try, especially ones from British Columbia: appearance, aroma, flavour, mouthfeel, overall impressions, according to the guidelines of the Beer Judge Certification Program. But I had a bit of a mental block with the Blonde. It almost seemed blasphemous to put these sensations into words, like they were direct, holy, sensory transmissions from Aegir, Ninkasi, Silenus, Siris, and all the other ancient beer gods. Besides, when beer is this good, sometimes you just have to sit back, and savour every deep kiss. I’m willing to break the taboo for this radical publication. It’s time.

First, let’s be clear on the definition: a Belgian blonde is vastly different from the quickly brewed lager substitute pumped out of brewpubs across North America. U.S. blondes can be refreshing, and lightly fruity but they’re fast, and functional, without a hint of the deep, educated complexity of the Belgians. (I couldn’t possibly draw any analogies here.) Affligem, and Leffe are two generally available prototypes from the old country.

Now, let’s look at this thing of beauty. To do that, you’ll need to pour your chilled bottle (6-8 degrees Celsius) into a stemmed tulip glass – Dageraad branded, preferably – but make sure to go slow, and at an angle because the carbonation is feisty. Leave the last inch or so in the bottle: Dageraad bottle-conditions all its beer, meaning that some yeast is added to each bottle to naturally carbonate the beer, and develop its complexity. That means there’s sediment in the bottle that shouldn’t make it into the glass, though a little isn’t the end of the world. (Some swear by the B vitamins in the yeast, but let’s be honest, this ain’t a diet supplement.) Any case, Blonde might carry some haze because, like all of Dageraad’s beer, it’s unfiltered.

You’ll know when you’ve poured it perfectly: It’ll be pristinely clear, and showing off its brilliant, golden glow. There’ll be an inch or two of bright white head pluming above the rim of the glass, a moussy whip of dense-packed, tiny bubbles. It’s those bubbles that trap, and release Blonde’s magical aroma. Take some sharp sniffs, then some longer, longer ones. There’s rich apricot pulp in there, bitter orange, and a little lime. A seam of bready malt is given further depth by a sage-like, herbal note, while peppery shots are fired off above. As it warms a little, the orange comes more to the fore, as do aromas of hay, and even cinnamon.

Take a sip, and enjoy the flavour ride. That fruit profile presents itself immediately, before the beer descends gracefully into an earthy, dense middle that swells the beer’s body into something wonderfully round, and deep. Mysterious peppery accents emerge from this, and crackle in the background. The dense bubbles lend a certain creaminess to the body, but the high carbonation also keeps the beer brisk as it moves into a tight bitterness, and a blissfully dry finish.

A warming alcohol glow (Blonde is 7% ABV) swells almost imperceptibly, and seals the sense of damn near complete satisfaction. There’s a dash of lemon zest in the coda to give one final lift to the experience. Not all beers have these effects on me. As one of the finer things in life, Dageraad Blonde makes me appreciate the finer things in life, think about the finer things in life, and realize that life is pretty damn good. I get some strange nostalgia from this beer, as well, which makes absolutely no sense. Perhaps it evokes a simpler time of simpler pleasures, of sharing a bottle, and a wheel of ripe brie with friends while you leave it to Jacques Brel to ponder life’s complexities through the speakers.

A friend of mine swears by Thelonious Monk as a musical pairing, but Brel and his disciple Scott Walker work just fine for me. And, to be fair, Blonde was bouncing along admirably to LCD Soundsystem on the warm vintage hi-fi setup at Dageraad’s splendid tasting room.

Alternatively, cue up “Songs of Leonard Cohen,” embrace the imagery, and get lost in this sleepy golden storm.
System synergy – components mating so well that the result exceeds the sum of their parts – is one of the most elusive goals in audio. You know it when you hear it. You just don’t hear it all that often.

There are the obvious pitfalls. You wouldn’t want to do something completely deranged like trying to rock some 85-decibel-efficient speakers with a flea-watt tube amp, for example, or add a ruthlessly revealing cartridge to an already-bright system. Still, you might think that if you choose gear that is well-designed, and doesn’t employ some obscure design schemes, you would have a fighting chance of getting at least OK sound. But we’re not in this hobby to shoot for OK, right? We’re looking for the combination that makes magic.

Here’s where the challenge comes. Even high-end designers – who know their gear inside, and out – can struggle with synergy. I can’t tell you how many times I’ve been pulled outside at an audio show, and had an exhibitor whisper to me that his room-partner’s gear wasn’t meshing as well as hoped.

If industry veterans have trouble here, what chance is there for hobbyists? The current environment presents additional hurdles. To audition a broad range of components, form opinions about them, and find that perfect interplay, audiophiles have to work harder than ever before – a lot harder. I got into a comment-thread exchange about this recently on audio-writer-extraordinaire Steve Guttenberg’s Facebook page. I said there that I worry about the current situation, not just because it takes some of the fun out of it for us longtime enthusiasts, but because it also puts up another barrier to non-audiophiles who otherwise might get interested in exploring hi-fi.

Twenty years ago, there were more large dealers who offered a good number of lines, and had multiple listening rooms. For me, there were a half-dozen within a short drive. I spent many blissful Saturday afternoons hopping in the car with a friend, and visiting these shops.

A few of those retailers still exist, but generally brick-and-mortar stores are few, and far between, and tend to offer a limited selection. For the shopper looking for that synergistic system, you have to hope the retailer has done some of the work for you, and is showing gear it has found to match well.

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Still, there are a lot of reasons dealers offer the lines they do, and ultimate synergy is not always one of them. Or, a shop may have put together some simpatico components, but they might not be from the manufacturers that interest you or at the right price points. Next in the search for synergy – and I almost hesitate to open this can of worms – is the home demo. Again, harking back to the “old days,” this was the only way to reliably add a component to your system. But in my city now – and probably yours, unless you live in New York or LA – the number of brands available is miniscule. And, the last time I asked locally to borrow a $7,000 pair of speakers for a few days, the salesman looked at me like I was insane. But that’s another column. If you find a great dealer – even if it’s a guy operating from his house (increasingly common) or out of town (do some research, and planning before you go on vacation or a business trip) – support him. Don’t take up his time, and then search the online listings to save another five percent. His expertise, and investment has value. There are some other strategies to put together a system that really sings. A growing number of high-end companies are offering no-risk home trials on equipment. It’s a hassle to wrangle gear that can weigh 100 pounds or more, and you might have to cover some shipping, but at least you can get an adequate trial where it counts: in your own listening room. This works better when you’re upgrading individual components than when assembling an entire system from scratch. A third option is to go to a high-end show. I’ll circle back to this topic, but nowhere else can you hear so many brands in such a short time. The acoustics may not be optimal, and you’ll have to tune out – or stare down – the occasional blowhard talking during your demo, but these events can be a great opportunity, and fun to boot. What should you not do? When I first was making my transition decades ago from a Yamaha receiver/JBL speakers to higher-end brands, I pored through Stereophile’s “Recommended Components” list, and check-marked the lowest-cost products – amp, preamp, speakers, etc. – that were Class B-rated, or one step down from reference.

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This way, I'd get the biggest bang for my somewhat limited bucks, and still have almost flagship-quality sound, right?

Wrong. I did listen to each component individually before buying, but as I got them from multiple dealers, I never heard them together. Here's where luck comes in, and this time it was not with me. That first high-end system turned out to be bass-heavy, closed-in and fatiguing. All the pieces were capable, they just didn't play especially well together.

A few years later, when I was ready to upgrade, I heard a collection of components at an out-of-town dealer that definitely had the synergy thing in spades. Wow. I started to purchase those components, replacing the gear in my existing rig over time, as budget allowed.

When I started this process, the dealer gave me some good advice. The preamp I fell in love with, for example, came in a regular version and an "S" model that looked identical but had some upgraded internal parts. "Don't go for the lower model," he said. "It won't be the same." But, the "S" was $2,000 more, I responded. "Buy the best, and cry only once," was his wise response.

Remember, too, that bliss-inducing synergy may be a matter of getting everything just right. For instance, the speakers in the upgraded system I fell in love with were electrostatics. When I got them home, however, they didn't have quite the charm they exuded in the dealer's room. Then I remembered the salesman telling me, "What makes these really come alive is the cable." The particular wire he used in the demo cost more than the transducers themselves, though, so I had tried my best to ignore that little detail. A few years later, I broke down, and got the cable. He was right. Synergy finally was in the house.

So, to sum up, my advice is this: If you're lucky enough to have a well-equipped, friendly local retailer, buy there. If you travel frequently to bigger cities, visit dealers, and make notes on equipment that seems to work well together. Purchase something small, like a pair of interconnects; establish a relationship. Soon, the shop probably will be shipping you components for the ultimate addition in your own listening room.

More manufacturers, and brick-and-mortar retailers are embracing online sales. It's common to get a 30-day, money-back trial, so give it a shot. I also can't recommend highly enough that you should attend at least one audio show a year. You won't be able to mix, and match in demos there, but there will be a lot of combinations. You're bound to find something that pleases your ears, and your pocketbook. And, exhibitors frequently offer sizeable discounts you won't see after the show weekend.

So far, I've resisted the temptation to do that. But there isn't a day I haven't thought about it. You've been warned. True synergy, once you've heard it, could put another dent in your wallet.

John Stancavage is a contributing editor at Part-Time Audiophile. He writes about equipment, and music from the top of one of the few hills in northeast Oklahoma.

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There is nothing like grabbing a prized LP, dropping the needle in the groove, and having the events of the day get whisked away. Nothing else matters at that exact moment, only that you are sensing every emotion and every note… cue relaxation.

But now more than ever, times are a-changing. Digital music reproduction, the growing availability of high-resolution content, combined with better software is making this something audiophiles need to pay more attention to. The debate of Analog vs. Digital will rage until the end of time, but it is abundantly clear that digital files can sound fabulous and can reproduce music. Over the years I've been overly conservative on the digital side of my system, using mostly entry level Sonos Connects with various outboard DACs for convenience. Why? Rock-solid reliability, and a user interface that is extremely simple. Simple enough that my children can discover, and playback music. If the system doesn't work, they won't use it. What Sonos lacks is access to high resolution content, and digital/analog outputs that match the rest of my system. I have made attempts to maximize the Sonos Connect with mods, but fancy wheels can't make this inexpensive car a bar-no-expense dCS Vivaldi. I have tried other streamers, and each time I came away disappointed. Some sounded better than Sonos but were not reliable, and were complicated.

Magic happens when we bring together hardware and software that works in concert. Definitive Audio in Seattle hosts some wonderful events with headliner systems that seem to always do something a little unexpected.
I recall a rainy Seattle evening in November 2016, when it wasn't the headliner that surprised me. In a corner, was a small and unassuming system—a dCS Network Bridge streamer + dCS Debussy DAC driving a pair of Wilson Audio Sabrina loudspeakers. There was one other person in the room who looked relaxed, content, and was smiling ear-to-ear. He heard what I was hearing, music... The dCS Network Bridge didn't look like any other dCS product I'd seen to date. It was a small package with clean lines. Again, this was one little unassuming box. This room was a reminder that you can build something special without spending six figures, and that singular moment started my journey with the dCS Network Bridge (NBR).

On my way to the High-End show in Munich, I made a detour to the dCS office in Cambridge, nestled just a few minutes away from beautiful King's College.

dCS has been a pioneer for both digital recording, and playback for the past 30 years. Starting in the professional audio industry, dCS produced the first 24-bit analog-to-digital converter in 1989 with the release of the dCS 900, and follow-on dCS 950. These dCS products were used by industry greats like Bob Ludwig to create many of the albums that we cherish today.

When we buy analog gear, we know that we will still have it years from now. On the other hand, when investing in any digital technology, there can be the nagging doubt that it will be outdated next year like a mobile phone. Different from most of the industry, dCS products seem to blossom after release, as they receive a stream of hardware, software, and firmware updates for 10+ years.

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This concept didn’t crystallize in my mind until I spent some quality time with dCS Scarlatti, and dCS Debussy DACs alongside the NBR. Both DACs have been around for nearly a decade, but feel like current products.

The employees have passion and tenure. Two of the long-time principals, Chris Hales (Product Development Director) and Andy McHarg (Technical Director) together have more than 45 years at dCS.

After an enlightening discussion on the evolution of the dCS Ring DAC, I asked Chris what makes dCS different: “We used to talk about thd+N (Total Harmonic Distortion plus Noise) for example as a popular measurement, but at dCS it is not a metric we are interested in. Instead we rely on other measurements. The measurement techniques like FFT analysis are much more powerful, and gives you more information then thd+N ever could. We have a long history of using these measurements and understanding what they mean. It is an enormous advantage.”

You get the drift; these are men who are serious about making music. They delivered what some consider to be the best digital experience available with the dCS Vivaldi digital playback system, but can they bring that secret sauce to a price point that gets me excited?

Got a DAC you love and cherish? Wish you had access to streaming music? Maybe Roon for music management from your new plus-size fancy phone? No problem. The dCS Network Bridge allows you the ability to add streaming (Tidal, Spotify, Apple Airplay, Roon, Hard drive, Network Attached Storage) to your existing DAC.

Although you may assume that it’s just for dCS DACs, the design, and flexibility of the NBR design makes it viable for almost any DAC out there today. It can basically take anything as an input, and can send it back out in almost any configuration that your DAC needs. You can think of it as the Swiss army knife of streamers.

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The East Coast’s Favorite Audio Show
60+ rooms of Headphones, Vinyl, Turntables, Electronics, Speakers & More
Big Marketplace with Show Specials
Prizes, Giveaways, Seminars, Live Music
CAPITAL AUDIOFEST 2017
Featuring CanMania!
The East Coast’s Favorite Audio Show
60+ rooms of Headphones, Vinyl, Turntables, Electronics, Speakers & More
Big Marketplace with Show Specials
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We are about the Music!
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Hilton Rockville at Twinbrook
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www.capitalaudiofest.com
Looking at the Antarctic Peninsula from the Weddell Sea.
Hermes, St. Christopher and Lam Lha walk into a bar. It's the summer of 2015, and hot. St. Christopher is the first to sit, folding his tall frame onto the barstool with a sigh and addressing the bartender, "Chianti, with an ice cube please." With a slight nod to the bearded, Brooklyn-chic Saint, the bartender then glances over to Lam Lha, whose radiant skin glows with the summer sun outside. "I'd like a Bee's Knees with Bombay Sapphire," she says, pushing a bit of long black hair behind her ear. Another nod and the bartender sidesteps to put herself in front of Hermes. "I'll need to see some I.D.," she says to the young man with a neat mop of brown curls on his head.

His eyebrows rise a bit on his uncreased forehead with a gentle snort. "You know I'll be 3000 in less than a hundred years?" But the bartender's expression has him reaching into his murse for an international charioteer's license. "Ouzo, no ice," he mumbles as he slides the I.D. across the bar with two fingers.

A quick flick of her eyes from the laminated card to his glowering brown eyes and the bartender taps the I.D. with a finger and glides off to put the order together. "Whatever," sighs Hermes as he replaces his I.D. and adjusts the bag across his chest.

St. Christopher grins at the Greek God's annoyance and combs his fingers through a high-and-tight pompadour.

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“So this year there’s a family doing great missionary work in the Amazon,”
“No way,” interrupts Lam Lha, “I don’t want to have this discussion again. As far as I’m concerned, evangelizing is not acceptable behaviour.”
“What’s with that bartender?” asks Hermes to no one in particular.
“She’s just following her path of suffering as best she can,” answers Lam Lha without turning from St. Christopher.
“I think he likes the bartender,” grins Christopher to Lam Lha.
“Oh please, she’s like a hundredth my age,” snorts Hermes.
“And who isn’t?” quips Lam Lha.
“True, and when has that stopped anyone in your family before?” says the Saint with a gleam in his eye. “She does have a certain tattooed, boyish charm…”

The bartender looks puzzled but before she can ask, Hina clarifies, “Just a splash of passion fruit juice.”
“Do you by chance have Kings County Chocolate Whiskey?” asks Xaman Ek as the bartender approaches him.
“Sure. Neat?” she answers, returning his friendly smile.
“Please, that would be wonderful,” He turns towards his companions at the bar. Hermes is watching the bartender retreat to get the latest round of orders and Lam Lha is lost in thought, her glow seeming to light her neighbours to either side. He takes in the scene, happy to be in this company and savours the moment. “Have you begun? Do you think anyone else is coming, what about Baal Shamin?” he asks everyone.

“Y ou haven’t heard?” responds the Saint. “They dynamited his temple to rubble just a couple of weeks ago. I doubt he’s in the mood for this game.”

“Oh no,” Xaman Ek’s dark complexion fell to despair. His drink arrives and he lifts it, “To Baal Shamin, let us gift our friend the strength to get him through this dark time.” Murmurs of agreement and glasses are lifted. Then silence. “Look,” begins Hina, putting her empty champagne flute on the bar. She pauses, exhaling through her nose, “I think we can agree that we gods can be a pain in the ass.”

Chuckles and raised eyebrows.

“And that we often suck at conveying our teachings to our followers. I mean really suck at it,” she continues, her gaze fixed on the empty glass in front of her. “So let’s just take belief out of the equation completely this year. Just out—not a factor at all.” She looks up with this last sentence and turns to face the rest of her party, all of whom are staring at her.

“So… what? This year we just randomly pick anyone upon which to bestow the blessings of the Gods and Protectors of Travelers?” shrugs Hermes.

“Totally random?”

“There are many ways to be worthy of our blessings,” Xaman Ek interjects. “Are not Bill and Melinda Gates worthy? No one in history has been so generous with their fortune.”

“No one in history has had a fortune like theirs to be generous with,” points out St. Christopher. “I don’t think money should be part of this. If money determines who receives our blessings it is a slippery slope…”

“Chris is right,” interrupts Lam Lha. “Money and morality have a complicated relationship and I’m not interested in untangling it tonight.” Then she adds, “And our blessings would go unnoticed amid such wealth.”

“Good point,” agrees Hina, her large brown eyes beginning to shine for the first time since she arrived. “I think I like Hermes’ idea of a random choice, but maybe we can narrow it down to those who would truly appreciate our gifts.”

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Hermes perks up, “Like the opposite of the Gates or the Koch Brothers, someone who might never otherwise have the opportunity our gifts may provide.” He continues, more animated, “So unsuspecting that they might not even recognize these blessings.”

“I like it,” smiles the Saint. “It makes it more interesting: will the recipient appreciate or even recognize our blessings this year? This could be fun.”

“But still random, so it could be a factory worker, or a middle-class family with two working parents, even a single mom…” added Lam Lha. “I’m in, I like this idea for the years’ blessings.”

“Me too,” say both Hermes and Hina nearly in unison. They look to the other end of their party to see St. Christopher and Xaman Ek nodding.

“Great, we’re agreed then,” says the Saint, getting off his stool, standing to his full, impressive height and raising his nearly empty glass once again. “Until next year.”

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Epilogue:

In 2015 and 2016 my family and I embarked on a series of trips to places that I never even dreamed I would be able to visit. Because my wife works for an expeditionary travel company, we were able to afford these trips at her employee stand-by rates. Because my wife and I had both travelled extensively prior to our becoming a family we were ready to go. And because our intrepid young naturalist (then) 2nd grader is who he is, we knew we could pull him out of school, take him with us, and he would reap the rewards for years to come.

The first of these trips was to Borneo in 2015. I brought the camera I had at the time, a nice little point-and-shoot from Lumix that had served me well for years of snapshots. While the trip deep into orangutan and gibbon-filled jungles was more incredible than I could have imagined, it became clear immediately that my camera was woefully inadequate, and that memories and photos by other travelers would have to suffice to document our adventures.

I resolved to give my photo gear an upgrade and within weeks of returning to New York I had my first Micro Four-Thirds camera body and a couple of lenses. The body was a Lumix because I’d had great fondness for my previous camera, and because back in the film days (the Darkroom Ages) I’d used Leica gear, and because I like the current partnership this great manufacturer has with Lumix.

I chose the M4/3 format because of Lumix/Leica as well, and have been very impressed by the quality, value and sheer variety of truly excellent lenses available. The photographs in this essay are from our trips to the Galápagos Islands and to Antarctica, both in 2016. Most were taken with the Leica DG Vario-Elmar 100-400mm f/4-6.3 zoom lens mounted on a Lumix GX8 body. I actually had to buy the lens from Japan, as the US release date was after our departure to Ecuador. The day it arrived I shot for a few hours in the park, trying to get a feel for the very long telephoto reach (equivalent to 200-800mm in a 35mm full-frame format.) I shot everything as jpeg, and other than cropping one or two to square-up a horizon, everything is straight out of the camera. I can’t recommend the M4/3 system highly enough, especially for anyone who is eager to push their abilities but not their wallets. While the kit lenses are certainly fine, there is a huge variety of truly excellent glass available for the format, at a fraction of the price of equivalents in larger formats.

Lastly, our world is changing fast. I urge anyone and everyone to travel and see first-hand the staggering diversity this planet supports. These trips have changed me forever. These remarkable ecosystems are being transformed rapidly and the unique wildlife each supports is vanishing. When these creatures and habitats are gone it’s forever.
THE SINS IKARUS BLURS THE LINES BETWEEN ART AND INTEGRATED AMPLIFIER

WORDS & PHOTOGRAPHS BY DR. PANAGIOTIS KARAVITIS

"Guided by our obsessive passion for absolute quality, by the people, places & creations that speak to our imaginations in a language uniquely their own."

THE ROBB REPORT, ON SELECTING BURMESTER "THE BEST OF THE BEST"
Over the last few years I was given the opportunity to audition and eventually review several pieces of equipment including some rather well finished ones, if not beautiful. The ENIGMA Acoustics M1 Mythology speakers were absolutely gorgeous, same goes for the Pathos integrated amplifier. A special mention should go to the exterior design of the Devialet Expert amplifier, and the matching remote control, twenty-first century aesthetics from the French design masters. Then last year, audio legend Kostas Metaxas came up with a few renderings of what would be his new line of amplifiers, and eclipsed just about any given design that I had laid eyes on. These masterpieces were well beyond the sphere of different, beyond being simply interesting or innovative, putting them next to ordinary amplifiers is a bit like saying the Pagani Huayra is just another car.

A bit of almost useless background Kostas Metaxas has been an audio engineer, electronics designer, and producer for a few decades now. He’s worked on more than 300 recordings with artists ranging from Chick Corea to Sir Neville Marriner, most of which were done using good ol’ analog-tape recorders from Stellavox. Speaking with Kostas about high-end audio is like watching a documentary on how this entire world evolved from the early, and rather innocent days up to today’s frenetic business. His design philosophy, sound-wise, was to keep noise as low as possible in order to be able to use his equipment during recordings for capturing the finest nuances while keeping an ear close to timbre, as natural as possible. You see where this is heading? What is this Ikarus thing?

The Ikarus integrated amplifier, at least on paper, is nothing more than a moderately powered amp, boasting just 50 Watts at eight Ohms per channel coming from a low noise, high speed voltage regulator design that dates back something like three decades. In fact, the circuit topology is not new as Metaxas first designed the original Ikarus in the early ’80s, and what we have here is more of a refined version rather than an all new one. Some interesting points are the ultra-short signal path with no wires used (meaning no wire connections between the various modules, he uses pins, and each board is directly attached to the next one in a solid manner), High-speed, diode-rectified power supplies, and carefully matched output transistors compliment the circuit topology. The fascia sports a pair of VU meters, and two round knobs for selecting input, and volume. The rear houses a series of RCA inputs, a pair of XLR inputs, and WBT silver speaker binding posts. The IEC inlet sits underneath the chassis, next to the pair of toroidal transformers that occupy the centre part of the amplifier’s belly. Continued on PAGE 58
A pair of square covers keeps the biasing modules safe but can be easily opened in order to swap in a new pair of modules if, and when a revision design is available.

But really, what is this thing? Certainly not just an amplifier. Sure, it does amplify sound, and when I connected it to my phono stage, and DAC the speakers made great music. But the Ikarus is more than that, it classifies as work of art. I heard friends describing it as an "alien" or a "cosmic bug." I've witnessed my wife's girlfriends touching it as if it was a sacred reliquary, and others trying to make sense of it, only to miserably fail. Like a modern art sculpture, the Ikarus projected different emotions to each encounter.

Art: the expression or application of human creative skill and imagination, typically in a visual form such as painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power. This is the definition of Ikarus.

And how do you review a work of art? Well you don't. You surely don't review a sculpture by Boccioni, and you most certainly don't try to put down in words a point-less description of a Metaxas design. All I can offer is a few notes on the sound qualities of the Ikarus. I used it extensively with both my sources; The Rockna Wavedream DAC (1st series with MSB Platinum modules), and the Garrard 401 turntable fitted with Kuzma 4Point tone-arm, and ZYX 1000 Airy3 MC cartridge amplified by the ASR Basis Exclusive phono stage. Tonearm cables, speaker cables, and power cords all came from Signal Projects, interconnects from Black Cat Cables while the USB cable connecting my Odroid C2 streamer running Archphile OS with the Rockna DAC came from Das Klang. Speakers were – as always – the ATC SCM 100SL. Not the perfect match for any amplifier declaring anything less than a kilowatt, and this was my major concern when I accepted the Ikarus in for review. I remember insisting on this point, asking Kostas again, and again if the entry-level integrated would manage to "move" my notoriously hard to push speakers. The resident amplifier is an ASR Emitter with two external power supplies that boasts something like three times the power output of the Ikarus, and more importantly packs humongous power reserves thanks to One Farad of filtering capacitance, big transformers, and the like. I have witnessed my ATC literally swallow 400-watt Class D amplifiers, then spit them out with the seeds.

Metaxas was adamant, "you won't have any problems at all, it will be more than adequate," he said. I hate it when I have mismatching issues, but it wasn't the case. Continued on PAGE 61
While listening to Sivert Hoyems latest album, “Lioness,” a masterpiece, and easily my favourite non-classical music album for 2016, the feeling was that the amp had something more than 50 Watts under the bonnet. Electric guitars, and drums sounded solid, and bold so if your speakers are even a tad more efficient than mine then chances are you will need no more than the Ikarus for sufficient levels. For those who want or need more there are bigger models in the lineup including a pre/power combo. Just make sure your wallet is up to the task, these don’t come cheap.

Having ticked-off the box concerning power demand, I was finally able to focus on what counts the most: The sound. Make that the sublime sound. The Ikarus is a clearly sonically-balanced sounding amplifier that manages the toughest aspect of recorded playback – natural timbre – like few others. With both high-resolution files, and LPs it never failed to deliver the most life-like timbre on voices, and acoustic instruments alike. Concha Bui-ka, who I recently had the chance to listen to live, was present in the room, singing with her distinctive visceral, and dark voice, transporting me into French, and Spanish melodies. For those unaware of this rare talent, do give a spin to her “La Noche Mas Larga,” and see for yourself if there is a more touching cover of Ne Me Quitte Pas since the days of Nina Simone. It’s that sublime sensation that the Metaxas Ikarus amplifier managed to pull out, and it sure ain’t an easy task when feeding some ATC behemoths who are transparent like few other speakers.

I got the same magic from both chamber music, and jazz. The late Ebjörn Svensson tops my pics for modern jazz, and his “Viaticum” holds all the most intimate elements of European jazz, blended with a touch of contemporary classical music. The very first key strikes on the piano came out timid, introductory, no rush, and only there to open a path for the double bass. Only the drums started to shake up the space, and offered a glimpse of what was to come. While the composition was evolving it was clear that the Ikarus had it all, the finesse, and the emotion, the ability to convey so deep, and articulated music.

But the Ikarus was also about tides, and waves, proving to be able to grasp a powerful experience like the “Minimalist Dream House” by sisters Katia, and Marielle Lebeque. That first movement for two pianos by Philip Glass goes beyond the idea of employing minimal instruments or ideas, and frankly, who needs more than those two pianos? A modern equivalent of Vivaldi’s “Summer Storm,” a windy composition slashing through the speakers. The Ikarus has verve.

Not sure how many of you are familiar with Arman, the French-born artist who gave us a new concept on what art is, how materials should or could be used composing his “Accumulations” next to the Poubelles, breathing new life in the postindustrial art movement.
For me Metaxas is a bit like Arman. He is giving life to something old, and rather boring; electric circuits dedicated to the amplification of sound. There is nothing new or revolutionary in the components per se, I took a look at what's inside, and it ain't different from what's inside just about every other well-made amplifier. Toroidal transformers, and a few caps, resistors, and rectifiers. It's all the same, except for one thing, the final form. Form doesn't follow function, form is pure beauty here. It's an object of art, this Ikarus sculpture is a limited series work of beauty; you can find more copies of an "original" Arman Accumulation than that of the Ikarus amplifier. You don't appreciate the looks of it? Feel free to move along, after all art is not for everyone, and not all appreciate Arman as much as I do. Not your cup of tea? Maybe such a bold design will grow on you with time, maybe it will never do it for you. There is a good chance that you will laugh with those willing to spend more than $30,000 USD but then, de gustibus non est disputandum.

From a strictly audiophile point of view the Ikarus has merits that are noteworthy: It sounds intimate, detailed, and despite the moderate output will pack a punch when provoked. Are there better sounding amplifiers for this kind of money out there? Sure, I can name half-a-dozen beefier, more capable amps, but not a single one of them will pass in the history as a work of art, a unique piece of gear that says something about who you are, and what you cherish the most.

You want an Arman? A Metaxas? Or do you want just another box?

**SPECIFICATIONS:**

- **FREQUENCY RESPONSE:** DC - 5.0MHz (-3dB)
- **POWER OUTPUT:** 50WRMS per channel into 8 Ohms with no more than 0.05% T.H.D.
- **DAMPING FACTOR:** Greater than 500 wide band
- **SLEW RATE:** Greater than 1000V/us small and large signal
- **T.H.D.:** Less than 0.05% 20Hz-20KHz
- **I.M.D.(S.M.P.T.E.):** Less than 0.05%
- **SIGNAL/NOISE:** -117DBV unweighted input shorted
- **SENSITIVITY:** 0.5VRMS in for 50WRMS out (35dB)
- **INPUT IMPEDANCE:** 100kOhms in parallel with 11pF
- **MSRP:** $32,000 in the US

http://www.metaxas.com/
The very first gain device – the vacuum tube Triode – is still being made after more than a hundred years, and while it has been largely replaced by other tubes, and the many transistor types, it still remains popular in special industry, and audio applications. I have some thoughts on why the Triode remains special for audio amplifiers (apart from sentimental value) that I would like to share. But first, a quick tutorial about Triodes: The earliest Triode was Lee De Forest’s 1906 "Audion." Over a hundred years of development has resulted in many Triodes, both large, and small. The basic design has remained much the same: An evacuated container, usually glass, holds three signal connections, seen in the drawing as the Cathode, Grid, and Plate (the Plate is also referred to as the Anode). In addition you see an internal heater, similar to a light bulb filament, which is used to heat the Cathode. Triode operation is simple. Electrons have what’s known as “negative electrostatic charge,” and it is understood that “like” charges physically repel each other while “opposite” charges attract. The Plate is positively charged relative to the Cathode by a battery or other voltage source, and the electrons in the Cathode are attracted to the Plate, but are prevented by a natural tendency to hangout inside the Cathode, and avoid the vacuum. This is where the heater comes in. When you make the Cathode very hot, these electrons start jumping around, and many of them have enough energy to leave the surface of the Cathode. Once they are loose, they are free to follow their attraction to a positive charge, and so an electrical current is established from Cathode to Plate. Gain comes from the ability to control the flow of current. The Grid is a like a charged screen which adjusts the electron's view of the voltage on the Plate. If you vary the voltage on the Grid, you vary the attraction of electrons to the Plate, and so control the current going from the Cathode to Plate.

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As you charge the Grid negatively relative to the Cathode, less current flows. As you reduce the negative Grid charge, more current flows. In this way you can use the Grid voltage to control the flow of electrons through the tube, and this allows large amplification of power, either as varied voltage or varied current, or both. Other gain devices perform a similar trick, although the physics of their operation might be quite different. They all tend to have three connections corresponding to the Cathode, Grid, and Plate, but for bipolar transistors they are respectively called the Emitter, Base, and Collector. For FETs these would be the Source, Gate, and Drain pins. The character of gain devices is often presented as a graphic known as the characteristic curve, where the current through the device is plotted on the Y-axis against the voltage across the device on the X-axis for various discrete values on the control pin. For the example of a tube, we see the electron flow from Cathode to Plate versus the voltage from Plate to Cathode for different values of Grid to Cathode. Here are the curves for a 300B power Triode:

The extra control pins are used to flatten out the curves as you can see here, resulting in a higher Plate impedance for the tube, that is to say less current variation with Plate voltage. There’s a specific performance advantage to this in many applications, but not in this discussion. For other completely different types of devices there are similar characteristic curves. JFETs, and MosFETs look a lot like Pentodes, but with a different range in the scales of voltage, and current. The typical voltage of a transistor is lower, and the current is higher - more convenient for driving loudspeakers. A particularly unique thing about the Triode is the low Plate impedance – the dependence of current on Plate voltage. All devices, including transistors have some of this, but not nearly as much as Triodes. The exception is the rare Static Induction Transistor (ST), also known as the VFET. As the name implies, there are three pins to a Triode (not counting the heater, which in some designs is also the Cathode). There are three ways to use a three-pin device: In Common-Cathode mode the tube amplifies both voltage, and current in response to a signal voltage on the Grid. The output appears amplified out of phase into a load at the Plate. In Common-Plate mode the Cathode output voltage follows the Grid voltage, increasing the current only, in phase without voltage gain. In Common-Grid mode the input signal current is fed into the Cathode, and the output appears on the Plate, voltage amplified in phase, but with the same amount of current as the input. All three of these modes are very useful in amplifying signal, but each has a different quality to offer. Most of the time we see voltage-gain stages with Common-Cathode, and output followers in Common-Plate mode. These same operating modes apply to transistors, but with FETs they are Common-Source, Common-Drain, and Common-Gate. With bipolar transistors we substitute the pin names with Emitter, Collector, and Base.

These curves show that the current from Cathode to Plate is a function not only of the Grid to Cathode voltage, but also of the Plate to Cathode. More positive Grid voltage and/or Plate voltage means more current flow. This dependence on the Plate voltage is often referred to as the “Plate impedance.” Here we see another common type of tube, one with some additional Grid pins, called a Pentode. It has a flatter set of curves, representing less dependence of current vs Plate voltage:

The nonlinear errors found in amplifiers are routinely described as a single numerical percentage of a fundamental tone, for example “0.2% total harmonic distortion.” This number is a simplification of the series of harmonics comprising the distortion which starts with second-harmonic, and continues with third-harmonic, fourth, and so on. It is generally agreed that lower harmonics are less annoying than higher order distortions. Second harmonic is the simplest, being twice the frequency of the fundamental, and the next is third harmonic, three times the frequency.

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Compared to a fundamental tone, there are twice as many peaks, and dips in the second harmonic – it is at twice the frequency. Not only is the amount of this harmonic distortion of interest, but also the phase. When harmonic waveform peaks positively at the same time as the fundamental we call it positive phase. When it is reversed, and dips at the point where the fundamental is most positive, it is called negative phase.

This distortion can be manipulated by selecting the operating region of characteristic curves. In amplifying audio, the Triode moves along a load-line. For example, a 300B Triode driving about 1,800 ohms could be passed through an output transformer which converts to about four watts into an eight-ohm loudspeaker. When the Triode amplifies a musical signal, it moves around on this load line – if the load is a resistor – if it is driving a speaker, or other reactive load like a capacitor or inductor, the varying impedance will make it wander around a bit. Depending on the load impedance, and the bias point, the Triode will exhibit varying levels of second harmonic, and also the phase polarity of that second harmonic. You can have more or less of a positive/negative second. There is a point in the middle where the second harmonic disappears, leaving the third, and perhaps some higher harmonics. This is where the measured distortion will generally be at it’s lowest point, and is popular with designers looking for the lowest distortion number. But not all designers are necessarily looking for the lowest number. Some want some small quantity of second harmonic to “sweeten” the sound or perhaps to make it “warmer.” This is commonly understood among audiophiles, who routinely use tube preamps with solid state amplifiers to get this effect.

What is not commonly understood is that there is a difference in sonic signature not only in the amount of second harmonic distortion, but also between positive, and negative phase. This was something noticed in listening tests with SIT transistors. Static Induction Transistors, known as VFETs in the ’70s, are JFET devices which have a Triode-like curve. You can adjust the bias point of a SIT in a single-ended Class A amplifier, and hear the difference in sound. Modest amounts of negative-phase second tends to create greater depth, and space to the sound stage, with the illusion of better imaging. Positive-phase second puts the perception of midrange closer, with a little more in-your-face presence. I say this without peer-reviewed research, but I note that other experienced listeners have made similar comments in “blind” situations. I am suggesting that there likely something to this, and I encourage people to pay more attention to this aspect.

In the SIT-1 amplifier from First Watt, there is a knob on the front panel, and a meter for adjusting the load-line of a single SIT transistor operated Common-Source without feedback, and the user is invited to play with it. When the knob is set counterclockwise a larger amount of negative-phase second harmonic is present. Somewhere near the middle, the second is nulled out, leaving a trace of third, and when the knob is fully clockwise, the second is back again, but positive in phase. After I got enough feedback from listeners, I adjusted the circuit so that the centre point of the meter reflected the most popular position – about one per cent negative phase second harmonic, and made that calibration reference for the amplifier. Keep in mind, that the phase of the second harmonic is relative to the absolute phase of the signal. If you are using a Common-Cathode topology which inverts absolute phase, you must create a positive phase relative to the output of the circuit, and then invert the phase of the signal again to restore absolute phase. Routinely this is achieved by reversing the phase of the wires to the speaker. You can do this with all the Triodes as well, from the tiny little ECC88s to the big 211s, 300Bs or 6C33Cs.

It’s a simple enough trick, and if you go to the trouble of making the bias point adjustable you can listen for these effects yourself. More recently, Korg, in association with Noritake, released a tiny dual-triode for use in audio amplifiers. It looks like a glass computer chip, operating at low voltages, and currents.

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You can see the cathode/heaters glowing at heater currents around .0017 amps. This Nutube is specifically designed to recreate the "Triode sound," and it does just that. It's small, about one by two inches, and operates at a power consumption of about 20 milli-Watts (including heater). You can adjust the Grid bias point so as to create the effects I have described, and in my example Nutube circuit there is a potentiometer just for that. You can buy the Nutubes now for about $50 USD (you only need one for stereo), and the evaluation schematic provided by Korg works just fine. I ran mine off of a 24-volt desktop supply with some filtering, and it delivers about 16 dB of gain. You can see this little pre-amp using the Korg Nutube at Rocky Mountain Audio Fest this October. Perhaps I have improved your appreciation of Triodes, and sparked an interest in exploring these phenomena. Then again, maybe not. There are audiophiles who insist that they want to hear exactly what the artist created without alteration, no special effects thank you, and that the important thing is to make the reproduction chain as neutral as possible. Still others think that some audiophiles are delusional in their subjectivity – what they hear is the result of "sighted listening," not their hearing acuity. I suppose these are valid enough viewpoints. At the same time, what we get in commercial recordings often does not retain the purity of the artist's intention – recordings are creatively "stepped on" in the process of making their way to market. And who's to say what you can hear? Often electronics are chosen to complement other components. Even the best loudspeakers are clearly flawed for example, as are most listening environments, not to mention individual variations in taste, and hearing. Further, the customer has the perfect right to play with the sound as he pleases. He is, after all, paying for it. As Joe Sammut would have said...

“This is entertainment, not dialysis.”
Good things come in small packages. To be fair, good things come in big packages too. The common denominator is “packages” and I sure like packages. Sometimes, I’ll order something silly (like a pack of pens) from Amazon just so a package will come. Because when packages come, every day is Christmas. Sigh. I have issues.

But getting back to small packages. Have you ever taken the lid off of a piece of audio equipment and discovered that the guts running the whole damn thing is floating in a sea of empty space? Take an iMac for example — the actual “computer” part is something like 1/5 the size of the monitor, and easily gets lost behind it. That feels weird for some reason. Like that bag of chips at the quickie-mart. The bags sure aren’t getting any smaller, but if the chip-to-air ratio gets any farther out of whack, Amazon could use them to pad a shipping box.

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All of this has very little to do with BorderPatrol’s new USB Digital-to-Analogue Converter, except for the odd coincidence that the diminutive chassis feels like a piece of audio equipment that had been attached to a vacuum pack machine — all that “extra space” that haunts many manufacturers is simply gone. The result is a chassis that is only nine inches wide and seven inches deep.

It’s cute.

I think designer Gary Dews is gonna clout me on the ear with that comment, so I’ll just leave it there, but I will offer that this less-is-more thing is kinda the whole point. This DAC has zero frippery. Frippery is what gets in the way.

What there is, however, is a USB input. There’s also an optional S/PDIF input (RCA) for those interested in using an external CD transport. There are single-ended RCA outputs. There’s a IEC plug for an external power cord.

There’s a rocker switch. And that’s about it for the back panel. On the top of the box, you can see the cutaway into the copper chassis that shows off a single tube — that’s the “high inductance choke, and a EZ80 tube rectifier” for the power supply. The little blue-circle “power” button on the front of the chassis turns the tube “version” of the power supply on and off, but does not actually turn off the DAC (the rocker does that).

To continue the minimalist theme, the DAC use a “vintage” ERI DAC chip (Phillips TDA1543) with no over-sampling (NOS), no up-sampling, no digital filtering and no output buffering. Remember the zero frippery maxim? This is a Redbook-only converter, so think 16bit/44.1kHz files, or what usually streams from Spotify or Tidal, or what’s spinning off of that CD transport that I just mentioned. Being a BorderPatrol design, the power supply is of special mention, as it leverages their usual choke-input filter design.

A special SE version ($1,350 USD vs $995 USD for the standard) adds the “twin-transformer power supply system (as used in the EXS amplifier PSU’s), as well as ELNA Cerafine power supply capacitor, and film, and foil signal coupling capacitors.”

The lack of high-res audio support may have a few of you scratching your heads. I understand that. In the high-end world, we’re now starting to see files up to DSD512, with more to follow, and in that light, why “go backwards”? Why indeed? To begin to sketch the answer, let me suggest that I, like many of you, never did dump all my old CDs. I still have them. Piles, and piles of them. All over the place, really. And I will confess — I kinda miss playing them. With the S/PDIF version of this DAC (a $500 option), I just need a transport. Say, an OPPO, or maybe one from Bel Canto or Audio Note UK, if I’m going to splurge. Another thought — if you did rip all those CDs, they’re still all Redbook! And yet another thought — if you like to stream audio from an online service, Redbook is still probably fine — if not overkill. At some point, everyone of those online services may flip over to a high-res format, but until that heady day, we still have a shit-ton of great music to listen to that’s Redbook encoded.

But here’s the real reason why you should care — the BorderPatrol DAC Sounds great. If you’ll pardon the hyperbole, at $1,850 USD with all the bells, and whistles, this DAC blows the doors off of just about everything else. And no, not just in its weight class. I mean “just about everything else.” To clearly better it, I have to go to extraordinary lengths (and budgets) — and that’s crazy.

My favorite experience with the DAC was very recent. I had it hooked up via USB to a $17k USD Aurender W20. Yeah, I know that’s a 10-times difference in price, but that Aurender is so damn good it’s really hard to not use it.
Anyway, I had queued up one of my current reference tracks, the title track from the Reference Recordings CD of Copland’s “Fanfare.” Right at the beginning, there’s a couple of cymbal crashes. With the BorderPatrol DAC, this passage redefined “real” in my hi-fi world. My head whirled around, my eyes flashed whites all the way around, my pupils dilated, my nostrils flared, and sweat popped out across my forehead. That was brass. And not just brass, but Zildjian, and not just Zildjian, but recently polished Zildjian, polished by a man named Brad who’d recently moved from California. Seriously, I’d never heard this particular shimmer, and sheen before. This passage, and that instrument, showed a timbre that I was immediately able to take back to other DACs, and measure them on.

In terms of openness, a quality I value almost above all others these days, the BorderPatrol DAC SE is utterly absent. Not transparent. Not invisible. Absent. Open windows? Pshaw. No building. This is some serious voodoo shit, and I have absolutely no idea why this DAC sounds so different. Well, other than “zero frippery.” But what I do know is that it sure sounds sweet.

Speaking of “sweet” — the “focus” of the sonic signature is “wide-band.” There’s no lift, no tuck, no nothing — bass was as deep as I’ve ever heard. Think Lorde, and “Pure Heroine” for some truly not-natural but still epic bass. The top end shimmered, and sparkled. Both piano, and vibes had percussive attack, and natural decay — but if there’s any particular point at which this DAC gets matched, it’s here, with decay. In some extremely hi-fi sounding systems, I’ve heard über-DACs play into zero-noise-floor amps, and create this weirdly ethereal decay structure that feels like some kind of fractal Philip Glass construction built entirely out of LSD. This BorderPatrol DAC isn’t like that. There’s a tube in there. That tube adds some richness, and dimensionality into the presentation, a feature that Mr. Dews finds indispensable, and I’ll simply offer that his view is incredibly hard to argue with. But then, I’m a valve guy, so take that as you like.

To go that extra (detailed) mile, you can disengage the tube — and then you’re back into the über-quiet/über-black background, the endless void spinning slowly away from you as DAVE powers up the space station, while David Bowie, and you begin your endless tumble of slow orbits around the Earth. “Ground Control to Major Tom, can you hear me Major Tom?”

NOTE:
The output impedance is not zero or close to it, so anything downstream (amp, passive preamp, integrated, woodchuck, whatever) that presents an input of less than 20kΩ is worth being cautious about. I say that, though I should note that anything that presents so low an input load could be problematic for anything, so I’m really just pointing a finger at “specialty passive preamps.” If you’re concerned about a mismatch, ask BorderPatrol.

Also of note hat there is no volume control knob or switch on this particular DAC, so plugging it directly into an amp may/will require using Roon or some other app, tool, or gadget that does allow you to attenuate. Remember: zero frippery. Assuming you’ve got a quality preamp (and BorderPatrol is quite happy to sell you one, which, I submit, may be the best-sounding component that the company makes — and that’s saying a lot), none of this is an issue, but given how many of you out there appear prone to doing truly wacky things (with DACs specifically), I felt it’s worth mentioning — so, if you’re the wacko, plan accordingly. My recommendation is to use the DAC with an external preamp or an integrated. I did, had no issues.

Given the caveats around high-res support, which may or may not be minor depending on your current digital library, I cheerfully confess that this DAC has been the most entertaining thing to hit my rack in years. The performance easily earns the BorderPatrol DAC SE an Editor’s Choice award, but also puts it firmly into Best of the Year territory. An absolute must-listen.

www.borderpatrol.net
My father owned Jags when I was a child – the first when I was just a baby, the second as I stretched into my early teens – and despite the many, and expensive mechanical vagaries, and memories of a vapour-like electrical system, the marque left an indelible stain on my psyche. There was something about all that burled walnut in the interior, the leather seats, the curving steel lines, the smell of oil, and gasoline that makes an impression on a young child. I was hooked. Continued on PAGE 81
The years flew past, and with a young family on my hands any thoughts I may have had about acquiring a Jaguar vanished as quickly as my free time did. I was juggling work, a marriage, two small kids, and for several years could be seen with a Dirt Devil duct taped to one hand, and a bottle of wine strapped to the other. My kids are teens now, and in the throes of high school, and university, so while technically I have more free time, I live in one of the most expensive cities in the world so I don’t have any illusions of automobile ownership other than a Car2Go or the occasional taxi. Any dreams of a collectable two-seater are permanently on hold until my retirement.

But then fate took an interesting turn (as it always does). After dating for a couple months my girlfriend Karin casually mentioned one evening that her father had a couple of Jaguars – one in storage, the other going through a lengthy restoration – and once again the smell of leather, oil, and wood surrounded me again.

Due to a medical condition her father – an ardent Jaguar lover, who has owned a number of XK-Es, XKs, and XJs over the years – can no longer drive, and hadn’t touched his ’73 V12 E-Type in more than a year, and had it parked in storage. She, and I discussed the fact that it was no good for a car to be parked for extended periods of time without being maintained. A week passed, and she mentioned it again, so we put our heads together, and decided it was time to rescue the car from neglect, and see if it was still drivable for two reasons; so that we could take her father out on the road in it again – giving him some real pleasure – and because if he decided to sell it, he’d get a lot more for an E-Type that was being well-maintained, and driven, than for one that had been sitting unused, slowing drying out belts, seals, flattening tires, and collecting dust.
A few days later we headed over to the underground parkade where the V12 was being stored, and as the garage door rose up the car revealed itself to us: Gorgeous muscular steel curves in British-Racing Green peeked out from under a thick layer of dust streaked with dozens of finger marks, and several small paint scuffs from the handlebars of children’s bicycles that lined the walls of the storage unit where the grandkids also kept their two wheelers.

I imagined I felt how Howard Carter did when he uncovered the boy king’s tomb in 1922 – only without the death curse that followed. Shirtsleeves rolled up, a quick inspection revealed that despite the neglect all fluids were up to spec, the tires had kept even pressure on all four wheels, and that – unsurprisingly – the battery was dead. We grabbed jumper cables from the rear of Karin’s Jeep, wedged the 4x4 next to the low-slung coupe, and crossed our fingers as I pulled the choke out all the way, and flicked over the ignition switch: The deafening racket of 12 screaming pistons instantaneously filled the small space, and we involuntarily jumped in our seats, smiles spreading across our faces at the sound.

Several trips around the block was all the battery needed to hold a charge, so we parked it back in its cubby until next time.

The following week we discovered that the Vancouver Jaguar, and MG owners club was holding their 48th annual car show at a local park, and decided to enter the still filthy 2+2 for a lark, and a great excuse to get her father out for a day of classic cars, automotive camaraderie, and fresh air.

Arriving at the show we were guided to our berth next to a half-dozen other E-Types – all completely immaculate – gleaming in the bright morning sunshine, and slid the dusty XKE alongside its brethren. I opened up the rear hatch, and the doors to let some fresh air in, popped the hood, and the car was instantly mobbed with excited Jaguar owners wondering where the hell we had unearthed the dusty relic.

Over the next few hours – despite the fact there were more than a 100 cars at the show – there was barely a moment when someone wasn’t asking questions about the car (Is it a barn find?), or peering under the chassis, and shining a flashlight into the dark recesses of the massive engine bay.

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Unless you’ve had a chance to crawl around one of these vehicles, you really have no concept of the insane complexity of engineering that allows one to function. Want to change the rear brake pads? Undo twenty bolts in two separate panels in the back seat footwell so you can reach through to swap in fresh pads. Need to replace the emergency brake? You’ll have to drop the entire rear end sub-chassis assembly. Oil change? 10 litres of high-grade synthetic, and an oil filter rare enough that I counted myself fortunate to track down without a two-week wait. Running rough? Tuning four Stromberg carburettors is more dark-arts ritual than mechanical intervention, and this particular four-speed manual gearbox will only double-clutch into second on a downshift; it simply won’t let you engage otherwise.

Quirks? Reliability problems? You bet. But in the true essence of owning a piece of history all these pecadillos evaporate when you feel the fat rear tires desperately scrabbling for purchase as the tail of the howling V12 slides out of a 90-km/h corner, and then hook up, surging the car ahead into the straightaway. To me this is driving at its finest. You become one with the vehicle. Road feel through the 44-year-old chassis is like having a power cord plugged into the base of your spine: Every crack, bump, and texture irregularity in the pavement is instantly transmitted to your senses – much the same way the finest high fidelity systems connect you directly to the musical performance, so too does a great sports car.

Into music? How’s the radio? Couldn’t tell you. No need to listen to anything other than the raucous symphony of pistons, valves, camshafts, and bass-heavy exhaust as you go from fourth gear into third, and the whining gearbox seems to relish in 5,000 revolutions per minute.

Karin’s father often holds tight to the holy-shit handle on the passenger side of the dash when we go for drives – especially on a recent road trip up the Northwest Coast of B.C. We had just navigated a particularly twisty section of road, he looked at me with a huge smile on his face, and said “I like the way you leap out of those corners.” Owning a classic car – much like owning a high-end stereo system – entails a deep-seated desire to spend serious money, and to time travel back to revisit moments in history. Just like some audiophiles I know listen to their music for the pure, unadulterated joy that music creates in their core, so too some Jaguar owners drive simply to enjoy the drive. Others reclaim something lost along the way of life, and still others are intent on forcing time to slow for a few brief seconds to revel in the moment. Whatever reason you come up with to take on the responsibility of owning something as ridiculous as an E-Type, convince yourself until death, and hang on for the ride. It’s worth it.

“WHATEVER REASON YOU COME UP WITH TO TAKE ON THE RESPONSIBILITY OF OWNING SOMETHING AS RIDICULOUS AS AN E-TYPE, CONVINCE YOURSELF UNTIL DEATH, AND HANG ON FOR THE RIDE.”

–RAFE ARNOTT
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Now in our new home at the Renaissance Schaumburg Hotel & Convention Center.
A state-of-the-art hotel and convention center with free parking, quality restaurants, easy access from I-90 and just 13 miles from O'Hare International Airport.
It's been a fairly drawn-out story for the grenade-shaped bottle that is Blanton's Single Barrel. Born of the same distillery as the legendary Pappy VanWinkle, Blanton's is of course at its core an unblended, straight bourbon bottled in Kentucky by Buffalo Trace. The mashbill isn't made public, but the recipe includes the prerequisites of corn, rye, and malted barley. Unfortunately, no official word how deep the mix goes into rye. The bigger picture pulls focus on a supply that rarely meets demand, and numerous comment sections online with advocates casting unsolicited votes for "Best Bourbon for $50." For whatever reason – from personal experience – the sway on the price tag often varies quite a bit more than the norm. While a quick Google search currently puts the standard Single Barrel at $56 USD, bottles can be seen on store shelves for as little $45 in California, and as high as $80 in Michigan. Much the same inconsistency can be found in the supply chain. Some stores appear to have unlimited stock, while many others only get five bottles at a time for immediate sale. Whatever the contributing factor to this portly glass phenomenon, it’s had its time in the sun for a few years now. Blanton’s history dates back to 1984 with Buffalo Trace. It is named after Albert Blanton who started working at the distillery in the late 1800s. He pulled the hand picked barrels from what he discerned was the best physical space to age bourbon – the middle of Warehouse H from what eventually became known as the Buffalo Trace distillery. They reinstated the namesake for the introduction in 1984, and boast that Blanton’s was the first single-barrel bourbon to be sold commercially.

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The barrel is actually diluted down to 46.5 per cent alcohol with water right before it is bottled. Other variants are available at a higher proof, but distribution is usually limited to areas outside the United States. There is no distinction on the bottle, but best guesses land the aging around eight years in white oak barrels (necessary to be called bourbon). Unfortunately, age ambiguity is becoming the trend in recent years, so expect to see even less upfront declaration as the market supply for bourbon continues to tighten even further as popularity continues to rise.

Atop each bottle’s cork sits a metal horse in a racing position. Depending on what randomized version is attached, the race positioning will be either a starting, running, or winning pose. Collectors can figure out the entire run via a small letter on each that together spell out B-L-A-N-T-O-N-S. Buffalo Trace even distributes used barrel staves, and other promotional gear to showcase a complete collection in order.

The bouquet of the whiskey hits with a semi-sweet aroma ripe with honey, hints of vanilla, and subtle orange. On the tongue the burn is usually fairly light, and even less weighty if one has already had a few sips. There is a spiciness to the heat, and the taste dances on the palate with a nice rich mouth feel with undertones of buttered corn, and woody, ever-so-slightly toasted nut. There is an undeniable smoothness to the whole affair, and one that likely has contributed to much of the charm (and success) of the brand. The spice adds to the fun, and could be perceived as a slight lean towards citrus cuts, but still a softer impact than many of the current crop of rye whiskeys on the market. The butter is classic bourbon hues, pushing the sweetness forward in the same manner as much of this category. Comparisons to Four Roses Single Barrel (bottled on the same street in Kentucky) provides more of a bite from the 4RSB, highlighting the overall liquid-candor-with-a-hint-of-spice from the Blanton’s. It’s not that the Blanton’s is backed off in flavour in any way, it’s just that the Four Roses tends to hit you over the head with its impression, and the Blanton’s is a bit more balanced in delivery. Michter’s Bourbon profile proved a stark contrast to the Blanton’s as well.

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“THE BOUQUET OF THE WHISKEY HITS WITH A SEMI-SWEET AROMA RIPE WITH HONEY, HINTS OF VANILLA, AND SUBTLE ORANGE.”

-BRIAN HUNTER
Both sharing some similar DNA in the overall vertical, but again BSB proved much smoother on the approach with more diversity in the caramel, apricot, and pepper direction.

While the taste of this $50 darling has range, and unique qualities for its price, it isn't quite yet the poor man's Pappy. Properly aged Van Winkle tends to share a similar sweet buttery approach, but with nuances, and complexity that sum to superior flavors with even more pleasing palate tones throughout.

Blanton's is truly great bourbon for the price, and no enthusiast should be without one behind the bar. It is usually a good idea to pick up a bottle if you come across one at the store, since lack of inventory is certainly a characteristic that it shares with Pappy Van Winkle. An interesting side note: product placement for Blanton's Single Barrel in both film, and TV is at an all time high. Whether it's by coincidence or a marketing manager working overtime, if someone picks up a bottle of whiskey, and mentions its name in a moving picture, it seems to always be Blanton's.

There is a big wide world of whiskey out there to try, but Blanton's has managed to carve out a little corner just for itself. It has an easy edge with high drinkability which leads nicely into nuanced spices, plenty of character, and has earned a reserved parking space in many bourbon lovers hearts. Blanton's Single Barrel is a great one to sip, stone or even cube in a pinch... if you can find it.

Highly recommended.
Virginia is for Lovers.

That’s what the bumper sticker said on the car in front of me. The air was muggy, and charged with electricity as the windshield wipers tried to clear the rain from a summer thunderstorm.

I was sitting with Christopher Hildebrand, and Sara Moriarty in their station wagon idling at a traffic light; that’s when I noticed the slogan.

As I took in the scene of strip malls, and gas stations my mind wandered past the lowland forests in the distance, and the surrounding countryside gave way in the unseeable distance to the rolling Appalachian

hills of the Blue Ridge mountains made famous by John Denver so many years before.

Hildebrand, and Moriarty – the driving force behind the hip, high-fidelity brand Fern & Roby – had just picked me up from the Richmond, VA airport where I had flown in from the west coast.

I was in town to take a tour of their design, and manufacturing facilities, and spend time getting to know the story behind the brand.

Richmond is a city steeped in history, and one that is carefully formulating, and curating a rebirth of sorts – shaking off the weight of what it once was, and focusing instead on what it can become.

Fern & Roby is navigating through similar changes: it’s a company forged from the success of a large-scale industrial design, and fabrication business – Tektonics – not the typical basement or workshop of an ardent audiophile (although Hildebrand does develop new designs downstairs at the home he, and Moriarty built).

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Hildebrand says he likes to get his hands dirty with work, especially with materials like marble, steel, aluminum, and bronze – to name a few of the staples that have left their mark on his well-worn fingers, and palms – but it's wood that seems to inspire the most animated conversation from him when discussing Fern & Roby's lineup of turntables, speakers, furniture, and new phono preamplifier – the Mav-erick.

Like the slow waters of the nearby James River, there's a deep current of connection to raw materials underlying conversations about high fidelity design with Hildebrand. An easy-going manner, and connection to the old ways of creating products by hand, he can talk in great detail about casting bronze, or using a forge, as well as carving marble or releasing the shapes of his Beam speakers from massive slabs of local timber.

There's a dedication to aesthetic value, and adhering to a culturally-enriched manufacturing précis in every component he creates, and builds himself, or in conjunction with companies like Linear Tube Audio, whom he works with on amplification chassis design for their ZOTL line.

Hildebrand started Tektonics in his late twenties after realizing he wanted to do as much of the local artisanal manufacturing work as his small, dedicated staff could handle.

"Tektonics has always been about the principles, and care, and passion that we have for craft," said Hildebrand. "We've been in business now for 15 years, and we just said 'yes' to so many different kinds of challenges, and requests to solve different kinds of problems that we became immensely capable doing cabinetry, machinery design, machining, woodworking, metal fabrication – helping people with product design.

[We're] integrating graphics, and branding into millwork for corporate, and commercial spaces, designing, and building displays for museums, getting commissions to do sculptures – Tektonics is a company that really resides where the rubber meets the road in the design, and contracting world.

"We are responsible for delivering the goods on an idea." It was while in the whirlwind of growing Tektonics into a viable, self-sustaining enterprise that Hildebrand found himself escaping the stresses of running his company by listening more, and more to music. He quickly realized his mp3 collection, and meagre playback system was not cutting it though. Being an artist, and designer he took it upon himself to remedy the situation in-house.

One of his first designs was the Cube speaker, which quickly led him down a rabbit-hole of inspiration, and began his introduction into the world of hifi electronic engineering, and design.

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“Fern & Roby has been this... canvas for me to paint on to explore the things that I’m passionate about, and it’s given me the opportunity to put music back into my life in a huge way,” said Hildebrand. “Which has made me a much happier person.” Hildebrand said Fern & Roby most likely wouldn’t have existed without his experience as a professional with Tektonics. “I think our goals, and opportunities with Fern & Roby are the real future of our company. It really is the bigger business opportunity.” But another key factor to the company’s success is Sara Moriarty, who is not only Hildebrand’s partner in life, but his closest partner in collaboration with curating what Fern & Roby is as a company. Visiting the duo’s home they designed, and built together from the ground up a number of years ago is a window into how the brand positioned itself as a lifestyle niche within the structure of the high-fidelity marketplace. The house is located on a wooded hilltop just a few minutes drive from the 19th-century, colonnaded estates of old Richmond, and as much as the design of the home fits into the vibe of the area, it also stands apart with architectural insouciance – much the way Fern & Roby designs defy easy description. Fern & Roby looks different from every other piece of gear out there because it is different, and that’s no accident, it’s by design. Speaking with the couple about building their home, one gathers that it not only helped codify their shared sense of art-folk aesthetic, and somewhat indefinable, but timeless style, it seemed to have cemented how the growing company visually, and practically positioned its values. Whether it’s the cute, chunky Cube speakers, the gorgeous, and tactile Beam loudspeakers, the elegant Montrose, or imposing Tredegar turntables, the focus is in fusing form, and function. “I think people like seeing actual, physical, organic material,” said Moriarty. “You know? They’re like ‘How did you make this?’”

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Questions like “What is this made out of? Is this actual, real wood? How do you reclaim wood, and what kind of building did it come out of are not uncommon according to Moriarty. She said that people want to know how you make the pattern to cast something in a foundry, since many don’t realize that foundries still exist locally.

Located in an aging industrial zone, dominated by a massive beam-bridge factory next to the old warehouse that contains the offices, and manufacturing spaces for both Tektonics, and Fern & Roby, you feel like you’ve gone back in time 50 years. Inside, the handmade-feel the space is imbued with is contagious. You just want to grab a chunk of wood, or metal, and start realizing an object like the people working there are all engaged in doing. The artisanal craftsmanship being practiced is obvious everywhere you look as piles of turntable chassis carefully sit on one shelf, electronics parts neatly stored in drawers, and bins are on another, giant reclaimed wood slabs sit silently on pallets waiting to be cut, and shaped by both machine, and hand – a massive 20-foot Lord of The Rings-style metal-beam gate under construction squats amid everything with welding sparks careening down off of it – advanced computer-aided machinery whirs, and screams as metal billets succumb to hardened-steel bits, and blades in the process of creating complex shapes for a variety of products Tektonics is tasked with manufacturing along with the smaller pieces destined for Fern & Roby’s lineup.

Jesse Brown not only runs the firm’s social media, and online presence, but builds turntables like the Montrose, and Tredegar by hand. In fact, most staff do so much crossover work, titles don’t really apply. Brown intoned the two companies are intertwined, but that Fern & Roby is helping to push boundaries these days. He also touched on the unique cachet the brand enjoys. “We’re not trying to fit in any particular place, we’re just trying to make something really cool, work really well,” said Brown.

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Whether you speak with Brown or Michael Smith, Alex Snyder, Trey Squares, Clark Brummet or Luke Smith – all the staff share similar sentiments regarding the craft they’re engaged in; that it’s more a labour of love, and about doing something meaningful, and that has impact.

When pushed they say they’re involved in building what are really heirloom products; handcrafted goods that can be passed own from generation to generation.

Looking back on the time with the people of Fern & Roby you realize that this is not about pushing audio products out for consumption, what this is really about is constructing emotional connections to music with individuals through high fidelity electronics.

I guess Virginia really is for lovers.
Ray Wing is head of Industrial Design at dCS with a tenure of 17-plus years. Early in our conversation, Ray had to set it straight: “One of the things I always say to people when you go, and listen to a system which is setup properly, and it sounds good, it is very much been standing on a band playing on stage. You get the dynamics, the surround sound.” Wing still rocks his acoustic bass with his friends, and that live sound is what he’s on a mission to recreate. Behind Wing’s desk is a history of dCS with every product released stacked up in progression. He fondly described the history of the industrial design. The dCS Paganini was the first time there was a curve on the case, the NBR to see if it can hold the pole position in my listening room as we rolled with some beautiful DSD recordings. I then dusted off a 10-year-old dCS Scarlatti DAC paired with the NBR to make it a reference piece again in 2017. Finally, I discovered what I thought was an unlikely combo that any potential dCS Vivaldi owner should pay attention to: a dCS Vivaldi DAC paired with the NBR and aided by software up-sampling from Roon. So, how did the dCS digital front end compare to my AMG Viella/Lyra analog front end? The short version? I’m converted. LPs rule, but I’m listening to a lot of digital music on a dCS front-end that starts with an NBR, and Roon now. It’s delicious, and easy to use. Although DSD recordings brought out the best in this setup, some older Redbook recordings got a fresh look. Natalie Merchant’s 45rpm release of “Tigerlily” is an old favorite. Previous listening has shown that the Redbook version sounds flat, and un-engaging. Playing it through the NBR plus Debussy DAC, I was taken aback by the life that was breathed back into it. Merchant returned to her sweet, smooth voice, and the low end gained back texture. The LP is still ultimate, but I was no longer embarrassed to listen to the Redbook. I wasn’t ready for my experience with the dCS Scarlatti DAC being driven by the NBR. This was my first experience with the Scarlatti, which had previously held position as part of the reference Scarlatti digital stack from dCS that preceded the dCS Vivaldi. At the dCS Factory, the Debussy was described as a slimmed down Scarlatti. Although they sounded like they were from the same family, I was gob smacked by the difference. For the couple of weeks that the Scarlatti was cranking, it was the most engaging digital experience to date in my room – by a wide margin (well at least until big brother Vivaldi made an appearance). If you own a Scarlatti, don’t rush to upgrade, you have something special. Just drop in an NBR, and you will be streaming at 384k in DSD128 from your listening position. Who doesn’t love a little Ray Brown? Listening to “Shaking the Tree: Sixteen Gold- en Greats.” The DSD version has never thrilled me. But the combo of NBR/Vivaldi DAC/Roon up-sampling could reproduce something I have never been able to do to date with digital: Mercy Street came alive in its full dynamics, I love-you-Peter glory. Goose bumps, volume up, volume up, tossing down my notepad, and pencil, smiling – and most importantly – I stopped looking for differences, and just enjoyed the music.

CONCLUSION

The combination of the dCS Network Bridge + Roon provided the best sonic results with the benefit of being reliable, and easy to use. It has solidly earned a permanent position in my listening room.
admit, being a child of the ’80s does come with a few perks. As nostalgia for "the good old days" of my generation ramps up, more, and more movies, and TV shows like Stranger Things, Atomic Blonde, or Comrade Detective show how the decade has finally permeated the warm fuzzy sentiment of public consciousness. The time frame of much of my youth has finally come full circle; unfortunately, those mom-jean pants seem to have come along for the ride as well.

But what happened to two-channel listening during that impressionable section of time? I’ve always harboured a deep love for music, but how was it that the HiFi hobby nearly passed me by? Truth be told, I didn’t really fully enter the scene until my early 30’s. Back then it was a great time for audio, when personal listening choice really started to bloom and two-channel listening still had/has a strong audience. Sure, there is a lot of doom and gloom predicted for the high-end market, but that is for another time as so much has been said already. The focus here is to get a snapshot of that weird space within the ’80s and ’90s, where the pizzazz of HiFi hit a snag and took a very public misstep. It’s hard not to notice that there are very few 30-somethings in HiFi. What happened to that generation? The 60+ have their mainstay in two channel, and personal audio is still showing growth in the college sector and among those in their early twenties. But at times one feels hard pressed to find those Gen-Xers in online forums or wandering the halls of any audio show across the US. Sure, there are a few exceptions peppered here and there, but many seem to be more legacy constituents; born of a father’s love for all things audio. How many headphone enthusiasts today would state the same influence from a previous generation of headphone appreciation? Not many, I would guess. It would appear that most have gravitated towards the hobby of their own volition.
Growing up in the midwest offered a good number of interesting touch points for audio. I’ve been around long enough to remember 8-tracks in the car, but much of the listening was done via radio. I also remember absolutely detesting the way AM sounded, like a vibrating tin can crushed under the weight of its own obsolescence. It felt like listening to the past, even talk radio was barely acceptable on the media given the technological restraints. But eventually my family got a silver hand-held FM radio with a matching pair of foam-padded earphones. It was really something back then, but hardly anything by today’s terms.

Back in those days we had a huge stereo unit in the house. As a child it appeared immense, an all-in-one unit with an oversized cabinet, integrated receiver and turntable. The sound was mildly appealing, but the real action was going on with my plastic Fisher-Price orange and brown turntable in the basement. Alone with my grandfather’s collection of vinyl, I uncovered some of the strangest recordings known to man. To this day I will still come across some of those tracks and will be teleported back to that worn-out needle and those dusty record crates. But given the state of that rig, listening was more about discovery than swimming in an ocean of sound. With the first Sony Walkman it was more onto never really made up much ground and the popularity of sharing mix tapes didn’t really craft the highest standards for our music hungry generation. Back in those days before the digital era, each copy-of-a-copy took a pretty huge hit in SQ, as some of those tapes had a fairly long family tree. But the emotional connection produced by sharing music in such a way kept us distracted from it all. The tracks translated into something greater than the individual parts. A mix tape meant something. With the advent of the CD, things changed even more. While the higher resolution of the

Also rising up during my youth was the appreciation of watching movies at home. No longer were we restricted to watching Saturday morning cartoons on someone else’s timetable. Now we could watch and rewatch Star Wars until the tape finally gave out from playback exhaustion. Blockbuster came and went and we were distracted. The real blow to any hopes of two-channel intervention came with the DVD, and home theatre. Why would you have only two speakers when five were available – more must be better right? No matter what the budget, most college students could haggle together a set of rear speakers with a nest of wires crisscrossing the dorm room floor. In-amp DSP may have peaked the curiosity of a few potential audiophiles at the time, but most of that old processing just soaked the signal in varying types of reverb and did little to focus the sound. Besides, with the unstoppable domination of Bose in the marketplace, there appeared to be a shift in overall speaker size to cubes and rectangles that could be better hidden away from sight, but at least the in-home sub woofer started to gain some traction. But there we were, listening to sound with plenty of pop in the high end and lots of boom in the lows, but little to compliment the core of the music other than the whiz-bang of showy audio parlour tricks. I was no longer in school by the time I saw my first iPod, but I was there for Napster. A real fidelity awakening started to take hold.

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When so many simply couldn't collect enough files for free, my mind kept racing with the notion – at what price? In order to keep download times to a minimum, the bitrate for songs had diminished down to a crispy, down-trodden collection of noise with no discernible high hat to speak of. It would be much later in life that I would attend an educational conference on youth buying patterns when a man with far more degrees than I spoke of an uncovered revelation forming at the time: Kids who grew up listening to those tracks assimilated the sound to a central position of neutral in terms of sound quality. Those crispy tracks burrowed their way into the impressionable minds as not only acceptable, but as the reference to the way all music should sound. The same might also be said about the love of tubes in high end. The technology we are imprinted with in our youth can carry through to the rest of our lives if no additional education is sought. In a world dominated by iDevices and Beats headphones have we managed to regurgitate the age-old question: “How can I make this sound better? In an interview from HBO's "Defiant Ones," Beats creator Jimmy Ivine can be seen implying that the core motivation for the signature of his headphones was simply more bass. Critical listening of early models has confirmed that this was achieved, but the overall idea of a new lifestyle accessory not only brought a few new enthusiasts into the fold, it also opened a few doors that the rest of us can now take advantage of. For better or worse, the rise of headphones has at a bare minimum pulled music from out of the background and into the forefront of our limited attention span. Will these newcomers give birth to a new generation of two channel lovers? The rise of vinyl in recent years only further fuels tempered validation to the silent prayers hanging on the lips of high-end manufacturers across the market. Much text has also already been spilled on this subject, but the chasm of missing 30-some things is a trench that still has yet to be filled. I haven't reviewed an extensive amount of age data on the new wave of vinyl recruits, but my best educated guess is that they land closer to 20-something than the shockingly absent Gen-Xers. Where did we go? What are we doing? Perhaps the reclusive youth of headphone audio will open up once they get their own place? It appears the time for the 30-something has come, and gone with nary a bookshelf loudspeaker to speak of. Growing families and OLED TVs only leave room for soundbars these days. The collective zeitgeist has moved on in life, with HiFi sadly waving from the window of a departing train at the station of disposable income.
THIS IS THE END

If you’re reading this, then you’ve actually gotten through the last 100-and-some-odd pages, and have decided that my frantic scratchings are possibly worthy of a few more minutes of your attention.

I thank you.

Putting this magazine together was a bit like shoving a grapefruit through a straw at times. There was barely a month to do it before RMAF – which is when we wanted to launch – and it would have to be built from scratch, neither of which were enviable positions to find oneself in. But thanks to the help, and encouragement of my family, and friends – and the crew at Part-Time Audiophile – I managed to push it out.

I’d like to thank our advertisers for their blind support, and the manufacturing contributors this month for their time, and efforts: John DeVore, Nelson Pass, and Peter Qvortrup.

Is this is a finished product?

No.

Not in my eyes.

Much like the current high-fidelity industry; It’s a work in progress, with improvements always in the works, lots of new ideas, and a focus on excellence.

I wanted to include so much more, but time ran out before everything could be completed, and laid out for publication. That’s OK though since we plan on producing these Occasional magazines four times a year – Winter, Spring, Summer, and Fall.

Which makes this fledging issue a teaser of sorts for what’s to come: Think more.

We already have several articles, industry contributors, and reviews lined up, and in the works for the next issue. I hope you enjoyed the content we were able to explore in this volume, because there will be many, many more to come as Part-Time Audiophile sets its sights firmly on the magazine horizon.

-RAFE ARNOTT

Positive Feedback is a community, composed of writers and creative persons from around the world.

Positive Feedback is an ongoing “work in progress,” chronicling the efforts of audiophile listeners, reviewers, designers, manufacturers, distributors, and humorists to explore the possibilities of high end audio to the utmost.

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