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Opening Salvo

Letter from the Editor
Bill Leebens

“Do you REALLY need to tell people what they’re about to read, right before they read it?”

I have good friends, which means that they’re happy to point out my mistakes, in no uncertain terms.

“Well...I don’t know, “ I said. “I need to say something at the beginning of each issue---don’t I?”

“That sounds like more of a you problem than a me problem,” he said. As I said, I have good friends.

And here I am. After thinking about it at length, I agree that a ten-word summary of each piece that follows in the issue is pointless. I either need to pick one piece to focus upon in depth, or write about something completely different.

For now, that something completely different is that THE Show-Newport takes place June 3rd-5th. I will be there, nosing around, seeing what’s new, meeting with friends and colleagues. Next issue, I should have something to say in this spot.

With luck, my good good friends won’t give me grief over it.

See you at Newport!
You’ve opened Pandora’s Box

“The legendary/infamous/widely-feared, former TAS reviewer AGB, Andrew Benjamin” really made me laugh Mr. Leebens. The self proclaimed dragon slayer who said he would defeat all opponents when he first started posting on the PS site some years ago finally left tearing out of there like a terrified child fleeing screaming into the night. Reports were that he didn’t stop until he got to Eastern Europe, a place he originated from. I warned him, I’m not some gullible audiophile who can be talked into anything by some slick know nothing reviewer.

That includes audio and timekeeping goulash.....”

Mark Fischer

I didn’t reprint the rest of this man’s “wisdom” for brevity and this is already too long.

COPPER deserves better, and seriously, who cares what Fisher thinks?

Just for this wanker’s information (the guy created a butchered BOSE 901 system he’s so proud of), and for others thinking like he, I never represented myself except tongue-in-cheek as being for anything like his Royal Crazyness fictionalized.

He’s apparently not gotten over being exposed (mostly by others) for the TROLL he’s become at a number of audio websites that still allow his presence wherein he takes any opportunity to target those who disagreed with his “world view.” The man’s obsession with my existence knows no bounds even after a number of years has gone by since PS Tracks closed up. As if I had anything to do with Paul McGowan’s business decisions. Nope, I didn’t leave, Mark, PS Tracks has.

As it happened since PS Tracks closed, not that it’s Mark’s business, I wrote over 200 articles for American Thinker, Western Free Press, Canada Free Press and a number of other publications, the contents of which have been quoted from and reprinted worldwide. Fisher has not.

Fisher made it his life’s work to be a critic of anyone smarter than he.
As it happens, I live a productive intercontinental lifestyle, live comfortably in high end real estate in the best places on this G-d’s Earth, hardly anything to run away from, I do what I want to do, eat whatever I want, go wherever I want whenever I want, have no financial issues because I made it so (knock on wood or Mark’s head - whichever gets in your way first), and having the best time of my life. And Fisher does not.

Mark sits in front of his PC in his pajamas spurting out his life-force trying to convince the world that since the BOSE 901 there has been no progress in audio. He’ll also tell you CASIO is the epitome of the watchmaking art. It must be so because Mark tells you so, and I’m absolutely sure Ken Kessler will agree with Mark. Ken, you’re there?

Go ahead, sell your Rolexes, and you Ken, your Vacherons and GPs.

Just for his info, not that it matters, I did not tear out like a “terrified child fleeing screaming into the night” from anywhere. Good thing the Internet gives cover for Mark’s extraordinary cowardice to flourish. In an earlier life, not that it matters, I was a mixed martial artist “living in fear” all of the time, among other things, and had been shot in war. Because for some reason I habitually lived life on the edge and gravitated toward conflict and risk in fear of everything. Fisher, obviously, did not because it’s safer to sit behind a PC screen. Putting the lie to Fisher’s left hand wanks, I still live in the very same place I lived on the North American continent for a long while. Unlike Mark, I live an active and productive life.

There’s something to be said for a refresher course in “projection”: the psychological attributing of one’s own characteristics onto others who do not share them.

If I recall, Mr. Fisher is hardly a big fan of analog, yet he has an issue with another who will question the shortcomings of the technology. If it were digital, and if I were the critic, Fisher would waste no time to blow into the puke pot his misinformed two cents worth bile.

Now that Mark has managed to make himself the center of attention at COPPER which was his goal to begin with, as it has been in the past at PS Tracks, and COPPER took the bait, Mark’s other well-publicized mission, or obsession, is exposing the unbearable existence of the multibillion-dollar Swiss watchmaking industry that has demonstrated steady unit and dollar growth over a span of decades.
In other words, the Swiss have the audacity to manufacture precision handmade instruments because people want them, appreciate them, and are willing to pay for them. Mostly because they can afford them. Fisher gets bent out of shape because people continue to buy what Fisher can’t afford and appreciate - and they can. Worse yet, they will, regardless of what Fisher thinks.

As in, reality does not care what crazy people think. They only care about what they do. And what they do is usually crazy.

For example they surround themselves with BOSE 901s and pretend it is high end audio.

Analogous examples are the predictable bashers of high end audio on the (not admitted-by-them) justification that they can’t afford it or can’t hear the benefits - and they become even more offended that you can do both. Worse, these folk become really extreme if you actually make a purchase. The fact that you can afford and occasionally indulge yourself with high end audio, high end cameras, high end watches, high end wine, fast aircraft as I have, even beautiful women as I have, these unconscionable acts of insurrection will be Mark’s evidence of our depravity and his justified objection to others living as they pleased.

Mark’s joy in life is his very own gorgeous museum quality plastic Casio and his plywood BOSE system which is better than the Voice of the Gods. He may even tell us that a cheap mobile takes better photos than Paul’s Cannon D5 too. I mean, in the wrong hands it will, won’t it? While we’re at it, why would anyone bother to manufacture better, quality goods of any type? A Hyundai will get you there too at the same speed; and why would any audio writer write anything at all, since Fisher will disprove, by his assertions alone, that everybody but he is wrongheaded and he knows better?

I hate to use the cliché, the man needs to get out of the house, And get laid. Or to get a life. And you guys might be better off publishing letters relevant to COPPER and the high end audio arts, rather than to encourage the obsessive pathology of one man who clearly fell off the deep end a long time before we had the displeasure of hearing the details behind his obsessions.

Imagine if he got obsessed next with one of the other writers. It’ll never end!
Seriously, my ribs hurt, but truthfully I’ve heard better humor before Fisher the Comic got into the wrong profession.

Thanks,

AGB

**ONE CD**

Did receive the ONE …CD+ DSD + PCM.

Still learning to play and listen to the DSD/PCM BUT the CD sounds ‘out-standing’ on the current HiFI.

Lush sound and extraordinary clarity….BASS TREBLE and the human voice is all there

ELEPHANT REVIVAL quill pen feather is being played on a loop continuously.

The rest of the music has to be heard and enjoyed. What a gift for the Audiophile....

Target achieved ‘Mission accomplished’

Well Done PAUL....PS AUDIO has struck GOLD.

Manga. INDIA.
The Pleasure Of Buying Bad Records

By Seth Godin

One doesn’t generally expect a bargain at a Brooklyn flea market. After all, if it were any good, some hipster would have gotten it before I even got a chance.

Hope springs eternal. I bought two LPs from the mustachioed proprietor:

The first one, with correct capitalization included, was called:

DON GARDNER TRIO featuring JIMMY SMITH PLAYS STRANGER IN PARADISE IT’S A SIN TO TELL A LIE AND HOBO FLATS ... BY THE WILSON LEWES QUARTET

The second one had the far less attractive title of:

PRAYER MEETIN’ (love the trailing quotation) and it’s from Jimmy Smith as well, “with Stanley Turrentine).

I’m here to tell you that the DON GARDNER TRIO featuring JIMMY SMITH PLAYS STRANGER IN PARADISE IT’S A SIN TO TELL A LIE AND HOBO FLATS ... BY THE WILSON LEWES QUARTET is the single worst record I have ever heard in my life. It is worse than my Arnold Palmer golf LP. It is worse than the Cock Sparrer boxed set someone gave me, but only because I’ve never had the nerve to play any of those records.

DGTfJSPSIPAILAHFBYWLQ was such a bad record that I threw it out. I threw it out because I didn’t want to accidentally play it again, and didn’t want someone to say, “you know that record that’s so bad, I don’t believe you, please play it for me,” because then I’d have to play it. And because it is so much worse than you expect, I’d rather let you have the hope that maybe I’m exaggerating.

But I digress.

The other record, the record with the trailing quotation, THAT record is a gem. I’m listening to it now. I’m going to listen to it all day, in fact. It’s bluesy and light without being easy. It’s got depth and tension and lyricism. It’s the work of two professionals doing their work. It’s got Jimmy smoking a cigarette back when that was cool, not stupid. I mean, you can’t hear him smoking, of course, but he is smoking, and you can hear it.

My Volta speakers are using every ounce of their 101 db efficiency to deliver precisely what the artists
intended.

And if I hadn’t been sort of randomly buying records, I never would have heard it.

And if I hadn’t survived DGTfJSPSIPIASTTALAHFBYWLQ, I no doubt wouldn’t have appreciated this record quite as much.

This, of course, is what we have to fear from the MQA/Tidal/every-record-ever-recorded future. Abundance has its price.

No buyer’s remorse means no buyer’s delight.

Seth Godin is the author of 18 books that have been bestsellers around the world and have been translated into more than 35 languages. He writes about the post-industrial revolution, the way ideas spread, marketing, quitting, leadership and most of all, changing everything. You might be familiar with his books Linchpin, Tribes, The Dip and Purple Cow.
A.K.A. Alias

By Richard Murison

By now everybody should be comfortable with the notion that an analog waveform can be exactly re-created if it is represented as digital data, provided that it is sampled at a sample rate at least as high as twice the highest frequency component contained within the waveform itself – the so-called Nyquist Criterion. We also know enough not to confuse “inaudible” with “absent”. All frequencies that fail to satisfy the Nyquist Criterion – whether audible or not – must be stripped from the waveform using a filter called an “anti-aliasing” filter before it is sampled. By why exactly is this? And what are the consequences of ignoring it? That’s what I’ll be writing about in this column.

The answer is simple, and is all about something called “Alias” frequencies. The best way to understand this is to consider the graphic below:

The graphic shows two sine waves (a slow red one and a fast green one), a bunch of black dots, and some fine vertical lines. The fine vertical lines represent the sample points, which in this case happen to be at 44.1kHz intervals. The black dots represent the actual sampled values when we sample the sine waveform at those specific sampling points. You can also see that the sample points are identical for each waveform, regardless of whether we sample the red waveform or the green one. In other words, the sample values don’t enable us to differentiate which of the red or green waveforms they are referring to. This has the makings of a serious problem when it comes using those values to reconstruct the waveform.

The key to resolving this conundrum is to realize that only the red waveform meets the Nyquist Cri-
terion. It happens to be a 4kHz sine wave, which is lower than the Nyquist frequency of 22.05kHz (= 44.1kHz/2), and therefore meets the criterion. The green waveform, on the other hand, is a 40.1kHz sine wave, which is higher than the Nyquist Frequency, and therefore fails the criterion. So this gives us a solid clue as to why it is so important to comply with the Nyquist criterion. Clearly, the encoded data is unable to distinguish between a 4kHz signal and a 40.1kHz signal. Therefore, if the encoded signal contains any 40.1kHz frequency components, they will be interpreted – and reconstructed in the DAC – as 4kHz signals. The DAC can’t do anything else, because it has no way to tell them apart. [This is the exact same effect that causes wagon wheels on old Western movies to appear to be moving at the wrong speed – sometimes even backwards.]

These two frequencies – 4kHz and 40.1kHz – have a special relationship. They are called “aliases” of each other. In fact, every frequency below the Nyquist Frequency has its own personal alias frequency above the Nyquist Frequency. For each frequency F, its alias frequency Falias is given by the simple formula

Falias = (Fs – F)

… where Fs is the sample rate. The job of the anti-aliasing filter is to strip out these alias frequencies before the waveform gets sampled.

So here we have it, then. If any frequencies above the Nyquist Frequency are present in the recorded signal, they will be encoded – and played back – as their corresponding alias frequencies below the Nyquist Frequency. In other words, in the absence of an anti-aliasing filter, digital sampling will transform inaudible high frequencies into audible lower frequencies. But to what extent is this actually a problem?

If you will permit me to paint with a broad brush, unwanted signals tend to fall into two camps, distortion and noise. Distortion refers to unwanted signals which correlate with (i.e. are related to) the wanted signals. Noise refers to unwanted signals which do not correlate with the wanted signals, and are therefore completely unrelated to them. Psychoacoustics has demonstrated that the human ear/brain can for the most part tolerate noise far better than distortion. In other words, when listening we have a certain ability to ignore the noise, whereas we tend to hear the distortion.

Distortion falls into two broad camps, harmonic and inharmonic distortion. With harmonic distortion, the unwanted signals all comprise precise integer multiples of the wanted signal frequencies. This type of distortion tends to add tonal colour to the music. By contrast, inharmonic distortion occurs when the distortion contains frequencies which are not precise integer multiples of the wanted signal frequencies. This type of distortion adds harshness and other unpleasant characteristics, and is readily detected by the ear/brain at much lower levels than either harmonic distortion or noise. Intermodulation distortion, for example, is a well-known form of inharmonic distortion, and is widely recognized as being particularly unpleasant on the ear.

Digital aliasing is a type of inharmonic distortion. Inaudible ultra-sonic signal components are transformed into audible signals within the audio band. It adds an unpleasant edginess to the sound that most listeners can readily pick up on, even at very low levels. Once encoded, it is permanently baked into the signal and cannot be removed or otherwise ameliorated by post-processing. This is why anti-aliasing filters are critically important to the business of digitizing audio files.
I have one last point to add. I described a situation where each frequency below the Nyquist Frequency has its own personal alias frequency above it. In fact, that is an over-simplification. It actually has an infinite number of aliases, each one related to a harmonic (i.e. multiple) of the sample frequency. The actual formula for all of the alias frequencies is:

\[ F_{alias} = (N_{Fs} - F) \ldots \text{where } N = 1, 2, 3, 4, \ldots \infty \]

The fact is that every single frequency above the Nyquist Frequency, if not removed by an anti-aliasing filter, will be encoded as its corresponding alias below the Nyquist Frequency, and will therefore not only become audible, but will be perceived by the listener as adding unpleasant inharmonic distortion.

**Richard Murison** enjoyed a long career working with lasers, as a researcher, engineer, and then as an entrepreneur. This enabled him to feed his life-long audiophile habit. Recently, though, he started an audiophile software company, BitPerfect, and consequently he can no longer afford it. Even stranger, therefore, that he has agreed to serve in an unpaid role as a columnist, which he writes from Montreal, Canada.
Richard Beers: RIP

By Bill Leebens

The name of this column is “The Audio Cynic”, which some have taken to mean “The Audio Heartless Bastard”. That’s not the case, really: I take to task those whom I feel deserve it, but I also acknowledge those who selflessly support our industry.

This column may verge upon the maudlin as I discuss someone who did more good for small audio companies and the American audio industry in general, than will likely ever be realized: my friend and mentor, the late Richard Beers.

For those who don’t recognize his name, Richard ran THE Show (The Home Entertainment Show), which started in Las Vegas as a cut-rate alternative for small manufacturers who couldn’t afford CES. Obviously, “THE Show” was chosen long before the days of Google and SEO. Back when I was active in the Consumer Electronics Association (now Consumer Technology Association, or “Drones R Us”), the cabal running CES referred to Richard’s show and other outliers as “parasitic bloodsuckers”. He loved that.

But let’s back up a bit. Richard came
late to audio, and fell into it by chance. A baby boomer born in Michigan, Richard worked as a theater projectionist until drafted in 1968. He ended up in Germany, and as Richard put it, “the war was over [in Germany] by the time I got there.”

Returning to Detroit after his discharge, Richard worked as a film editor at a local TV station, then moved into weekend anchor slots. Heading to LA in 1980, Richard’s story was classically-Hollywood: scriptwriting didn’t pan out, so he became a bartender until hosting and PR gigs appeared.

A move to Fabulous Las Vegas resulted in seminar-production work, where he came to work with Mike Maloney, founder of THE Show and sometime speaker-designer(Scientific Fidelity, or Sci Fi)—and thus, Rich entered the eccentric world of audiophilia. Eventually, Mike left to focus on his business in gold and silver sales (no, really: www.goldsilver.com) and Richard was left to run the show by himself.

THE Show moved through several venues over the years, coming to rest at the Flamingo. The embodiment of all that is worn-out and cheesy in Vegas, the Flamingo was a perfect match for Richard’s ironic humor and well-modulated anchorman baritone. Richard worked hard on the show and for his loyal core of exhibitors, and branched out to California in 2011 with THE Show-Newport. Ever the marketer, he tagged the show as “Newport Beach”, which sounded far more alluring than its actual location in, um, Irvine. Hey, Newport Beach ain’t that far away. Ya take the 405 to…. 

The Newport show was originally spread out over two adjacent hotels across from John Wayne Airport, the Hilton and the Atrium. An aging and somewhat seedy resort, the Atrium continued the after-the-Apocalypse vibe of the Flamingo, with the added California touch of a poolside tiki bar. That bar and the nearby cabanas became Richard’s after-show-hours hang-out and war room for the next day's plans.

A couple years ago Richard came to meet me at the Atrium poolside bar at the end of yet another long show-day, and it was obvious that he was very excited about something.

“We’ve MADE IT!” he said, laughing.

“Well, yeah, “ I said. “What do you mean?”

“Security had to escort a number of ladies of the evening off-site. They only go to big shows---that means that WE’VE MADE IT!!”

After four years split between the Hilton and the Atrium, last year THE Show moved to the Hotel Irvine, a big, new, mildew-free hotel . There was much more room and far better facilities, but no poolside cabanas. Amongst the faithful, there was a certain sense of loss.

There was far more of a sense of loss earlier this year, when news of Richard’s death became known. A lifelong smoker, Richard had been stricken by lung cancer and a series of strokes.

I first met Richard when I was with Audiogon, and wrote blog entries about THE Show. After CES/THE one year, I called to ask him about attendance.

“What did I say we had last year?”
“You said, ‘a bunch’,” I said.

“Well, then---say it was ‘a bunch, and a bunch more’!”

In the ups and downs inevitable in the audio biz, Richard helped me obtain consulting jobs, and I worked with him at both his shows. In 2012, he walked me through preparations for the New York show at the Waldorf Astoria, and I realized I didn’t have the stomach to be a show-producer.

No matter how dire the situation, Richard managed it with calm, unless he or “his people” had been messed-with: then the direct stare and the “this is how it’s going to be” voice came out---and I never saw anyone disagree with him in such situations.

Reviewer Malachi Kenney told me, “Did I ever tell you about my first experience with Richard? I wasn’t in the industry, I didn’t know him, he sure as hell didn’t know me. Kirsten and I pulled up to the Hilton at about 8pm, and this white haired guy was chain smoking. The valet started giving the car in front of us a problem about payment, and Richard, with his usual demeanor, told him to park the guy and then talk to his manager to be educated.

“‘I’m sorry, sir. I didn’t know he was one of yours.’

“‘Everyone is one of mine. Don’t forget it.’ “ That was Richard, all right: don’t mess with HIS PEOPLE.

Richard’s flippant responses masked real concern, and a number of small companies owe their existence to his support. The fact that I’m still in audio is partly due to Richard’s assistance when times were tough. I miss him as a friend, and as a key figure in American audio. This year, the Newport show will not be the same without him---and Friday, June 3rd, the first night of the show, there will be a memorial for Richard.

Rest In Peace, Rich.

**Bill Leebens** is Editor of Copper and Director of Marketing at PS Audio. He has been in and out of the audio business for over 40 years. Each time he returns to it, he becomes more cynical. He does not intend to go quietly.
The Sound Of Music

By Dan Schwartz

There’s something I’ve been thinking about for around 25 years; ever since I started working with Bill Bottrell, and he made me aware of how different my sound was.

What that is, is just how affected many of us --- most of us, come to think of it --- are by recorded sound, by recorded music, as opposed to the sound of music as it actually occurs. We’re usually not aware of it, but it causes us to favor so many things “wrongly”.

I think I wrote about this briefly in TAS, writing about the glorious sound of the Neumann U47 and U48. Its colorations are so extreme and VERY romantic. And yet it’s become the number one choice of a microphone for most singers, including the Beatles. Think about those voices: so detailed, and yet sounding nothing like the real thing. Well, not nothing, but hyper-real.

I started to think about how this applies to me when someone --- I don’t remember who --- was talking about the way I play. Paul McGowan’s asking me about bass brought it up again. All the records I grew up loving were 4- and 8-track recordings. And everybody who played on the songs played a big role in those records, including the bass --- I might say ESPECIALLY the bass --- which, when I met Bill in 1991 had been reduced to a blip on beat one of most bars (think Jeff Lynne’s productions). Jack Casady, James Jamerson, Paul McCartney, the Wrecking Crew guys, they all played the song, not a bass “part”. EVERYBODY played the song.

Bottrell said back then that to him, the sound of instruments had to fit on a 7-inch single. If he couldn’t hear them like that, he didn’t record them.

But there’s more to it than just the playing; more than just how I play. For those who don’t know, a little slightly technical stuff (I imagine Gus Skinas could do this better): in analog recording, the wider the track, the better the signal-to-noise specifications. For instance, I have the third one-inch 2-track made. Giving half an inch to each side of a stereo recording gives specs that about equal 16/44.1. Not bad for analog. (And it’s tube, to boot!)
So: think about when McCartney overdubbed the bass --- it was given a track of its own, and a quarter-inch track at that, which was unusually wide (most 4-track machines were ½-inch). And the tape was running at 15 inches per second, which I think sounds much better than the 30 inches that was standard by the time I started recording. And then, of course he was in England, where the AC frequency is 50 Hz, rather than 60, which produced a head-bump, a frequency boost that’s a by-product of the tape head architecture, of about 100 Hz (rather than the American 120 Hz). The engineer, Geoff Emerick, generally mixed the bass 2 dB louder than everything else: a perfect situation for recording bass fat and loud. (Though sonically, my favorite McCartney bass track was one of the few done elsewhere, recorded by Keith Grant at Olympic Studio: “Baby, You’re a Rich Man”.)

And then the situation the players were in: all in the same room, some without headphones separating them --- creating a hyper-real version of what you might hear on a bandstand. This is in the days when musicians still ran the show and engineers merely documented it --- when, in Bottrell’s words, you had Mix A rather then Mix B (a subject for another day).

And then the relationship of bass to drums: by the mid-70s, when I started recording, drums were the be-all end-all ---- if the engineer got good drum sounds, well, he was the guy. But in the records I came into this art-form loving, the drums were one element, often mixed to one-track, and all thought of as one instrument --- a drum KIT. That’s how Geoff Emerick learned to hear, usually how he mixed them, and he and the Fabs heard the bass a bit louder. And they passed it on to me.

That’s how I learned to play.

Dan Schwartz is a parent, sort of a husband, and has been a musician of some years, having played on quite a few records - and even a few good ones. He’s recorded or played with Rosanne Cash, Bob Dylan, Jon Hassell, Brian Eno, Bernie Leadon, Dave Navarro, Linda Perry, Sheryl Crow, Stan Ridgeway, and was a member of the Tuesday Night Music Club. In his spare time, he used to write for Harry and Sallie at the absolute sound and the Perfect Vision. Professionally, he keeps trying to leave music, but it keeps coming to get him.
Counterpoint Keeps It Interesting

By Lawrence Schenbeck

Is there a recipe for making Interesting Music? Of course there is.

Broadly speaking, it's called counterpoint. The Rules for Interesting Music might be stated this way:
1. Do something.
2. Then do something different.
3. Then do that first thing again, with a twist; or do a third, different thing.
4. Lather, rinse, and repeat ad libitum. Include an event that couldn't be predicted.
5. Quit before you start to annoy people.

I realize that breaking it down this way may annoy you. Even Webster's Dictionary doesn't make it that simple. What they say is:

coun´ter-point 1 a) the technique of combining two or more distinct lines of music that sound simultaneously, esp. with an emphasis on melodic, as opposed to harmonic, progression b) this kind of composition 2 any melody played or sung against a basic melody 3 a thing set up in contrast or interaction with another

So according to Webster's primary definition, at least two "distinct" things must be done simultaneously. But that takes talent and training. Not everyone can handle it, nor is it strictly necessary. Consider System of a Down, a popular Armenian-American rock band. Many of their songs rely on steps 1 and 2 in the Rules: they begin very quietly, doing something for 45 seconds. Then they do something different.

This formula works perfectly well in classical music too. Here's the opening ("Introitus") of the Mozart Requiem. After establishing a quiet accompaniment pattern, Mozart brings in the brass, forte, and then the choir:

Only the online version contains the musical examples
Isn’t that a killer? It’s as if Death Herself had burst into the room. Instantly, the strings’ mournful limping is drenched in terror. And thanks to Maestro Suzuki’s urgent pacing, it happens at 37”, just a bit sooner than in System of a Down’s A.T.W.A.

This is not the only point of similarity. Despite what I may have implied, System of a Down demonstrate obvious talent and training. Their quiet intro contains a lot of Webster’s-type-1 counterpoint. Go back to that clip, rewind, and listen again.

See what I mean? The bass guitar notes provide one line, the off-beat guitar notes another, complementary line. When the singer enters, that’s a third distinct line, more sustained or lyrical. Counterpoint! To keep things interesting, the singer is soon joined by another vocalist. Strictly speaking, the two singers are harmonizing, which produces homophony (chords), not polyphony (counterpoint). But let’s not get that strict for now.

If we go back to the Mozart Requiem, we can hear the same sort of counterpoint in its opening. (Re-click the YouTube video above, or click here for a video showing the notated score.) Instead of having guitar(s) provide boom-chuck accompaniment, Mozart has orchestral strings play it. As immediate counterpoint, bassoon and basset horn enter with more sustained, lyrical lines. This is imitative polyphony, because bassoon and basset horn are playing the same line but not at the same time—they’re imitating one another. The brass entrance is chordal: homophony, as with the singers in the System of a Down song. The choir enters with four-part imitative counterpoint, a more complex texture than anything that came before.

Does an experienced listener process all this consciously? I don’t think so. That would be like reviewing the alphabet, or sentence construction, before sitting down with Anna Karenina. Somebody (Paul Hindemith, that’s who) once figured out that we can hear three-and-a-half distinct musical lines going on before risking a brain fart. That is, whether you’re Justin Bieber or J. S. Bach, you’ll be able to sort out three separate but simultaneous lines. You’ll never hear four, though, without momentarily losing track of at least one.

It’s not the Olympics. The object is to enjoy the music, to receive an emotional or aesthetic message, not to process data. If you can’t get into it, consider data flow as a crucial parameter. Too little change or complexity and you’ll get bored. Too much change/complexity and you’ll be confused/frustrated. We generally want music that hits a happy medium.

And that can differ depending on context, right? I don’t want to hear either A.T.W.A. or the Mozart Requiem while trapped in an elevator. If I go clubbing, I don’t want to hear Mahler. Likewise, with really old music (e.g., Gregorian chant) or really new music, I may have to reset my data-flow expectations. That can be tricky.

Recently I worked over Bach’s Goldberg Variations, including its wonderful store of counterpoint. Here’s something different, music from the core Romantic repertoire that also contains beautifully shaped counterpoint:

Counterpoint-free music is making new inroads as well. Check this out, folks:
How long did you last? My own personal best for this album is about 20 minutes. (I’m not proud of that. After all, I’m a professional.) In 2014 John Luther Adams won the Pulitzer Prize in Music for a similar work. I can’t sit through that one either. I keep waiting for something to happen. It violates most of my Rules.

And yet I’ve praised In the Light of Air, comparable music by Anna Thorvaldsdottir. It seems to combine mystery and monotony in ideal proportions. Just enough happens to keep me engaged. I wish I knew why one clicked with me and one hasn’t. They’re both about landscape, not narrative. Maybe that means less has to happen. Other people are exploring landscape too; it qualifies as a trend.

Here’s one difference: I experienced Thorvaldsdottir in a superb immersive recording, but Adams via plain old RBCD. Also, In the Light of Air is chamber music: you can feel the hearts of the individual musicians. That matters.

ps: Yes, I do think the best recent recording of the Mozart Requiem comes from Maasaki Suzuki and the Bach Collegium Japan (BIS-2091 SACD). It offers a big, appropriate acoustic, ideal balances, and passionately driven performances.

Lawrence Schenbeck was born on a mountaintop in Tennessee. In spite of that, he became a historical musicologist. He is the author of two books, many more scholarly articles, and countless liner notes, music reviews, and “casuals.” He lives in the Atlanta area with his family and too much music, Tchaikovsky being the least of it. Literally.
The Brotet Means Business/part 2

By Duncan Taylor

In the first installment, Duncan introduced us to Grisman, Leslie, Hargreaves and Smith, a quartet of young bluegrass prodigies also known as “The Brotet”. Talent was not the problem with this group—they had that in spades. But...how to capture that talent on video and audio? –Ed.

I set the guys up in a semi-circle spanning the room. From left to right, I had mandolin (Dom), upright bass (Sam), cello (Nat) and violin (Alex). I placed the high solo instruments on the ends, knowing they would face inward to look at one another. The placement would also help develop a nice soundstage in the recording.

I had a main stereo mic pair running about 10 feet from the guys, a bit behind the ends of the semi-circle, and center-stage. For this recording I used a pair of figure-8 microphones in a Blumlein array: ah, Alan Dower Blumlein, how indebted we are to you, even now!

When miking the cello, I wanted as much “room” sound as I could get. The cello’s a little quieter than the other instruments in this type of ensemble, and it pairs with the bass to provide structure for the music. I wanted it to be present, but open-sounding; the saying goes that you want the room, not the rosin, when recording acoustic strings.

The dilemma was that the farther I placed a mike from the cello, the more that bleed from the other instruments affected the sound...and not in a good way. So I came up with a solution that ended up working well. I came up closer on the cello -- about a foot away -- with a second stereo mic pair in XY formation. I angled this pair carefully so that the apparent placement of the cello in its field matched the image of the cello in the main stereo pair further out in the room. I did this by soloing the stereo channels and moving mics and listening through headphones. Because of the 3-to-1 rule, I could be confident that the close mic, being less than 1/3 the distance from the cello as the main pair, wouldn’t introduce phase problems when both pairs were mixed together. The delay between was long enough...
that the main pair picked up the “room” effect, and the close pair brought presence to the cello sound.

Moving on, I was surprised when Alex, an accomplished performer, asked to have the mic placed a foot away from his violin. I think the desire came from his many days performing live on stage, where excluding noise is often a big problem. In the controlled environment of the studio, though, I never like getting too close to violins (see “room, not rosin”, above). The higher frequencies produced by the violin travel just fine through space, and I prefer my violin with a side of room sound, thank you very much. The primary concern was, again, bleed from the other instruments.

I am not afraid of mic bleed by any means; it’s a viable, often beneficial addition to a mix. Much has been written about how much better and more realistic music sounds when the band is recorded together in the same room. Mic bleed can be used to advantage the same way Alan Sides (of Ocean Way Studios) uses intentional phase mismatches to shape EQ of some instruments, like drums.

I wasn’t doing that in this case, so I paid attention to the 3-to-1 rule again when placing Alex’s mic, and chose a position that provided a good compromise. I wanted a spot mic on him so that I could have a little control over the tonal and volume balance in the stereo mix.

The two instruments to the left, mandolin and bass, were two I wanted a little less “room” on. I wanted a strong mandolin sound in the mix, because plectrum sound and the higher-tuned strings in the mandolin’s doubled setup carry extremely high frequencies, and using a roomy approach can scatter too much high frequency information around in the mix. This was also partly a compromise for Dom’s preferred position, which was turned inward, almost facing Nat.

Mandolinist Dom likes to mix himself—he controls his distance from the mic based on whether he’s soloing, chopping or playing chords. So the close mic was his preference, and in my mind, a fine setup.

I had the most fun setting up Sam’s bass for recording. He had borrowed a random bass from a friend, and it became apparent he didn’t think very highly of the instrument. Good or bad, it had a nice transducer installed on the bridge, so I was able to get a great signal from it. I then used a trick I learned from Eric Thorin while recording him as part of the Jeff Austin Band: I wrapped a Shure SM57 with foam, secured the foam with hockey tape, and jammed the mic in between the middle two strings of the bass, below the bridge and above the tailpiece. I then mixed the Shure’s output with the bridge-mounted pickup to capture all parts of the bass.

Normally I pan bass players to the middle of the mix, so that during mastering I can convert frequencies below 80Hz to mono, and save sonic energy in the mix for the other elements. This time I noticed Sam doing a bit of percussive slapping. I panned him like he appeared in the main pair, so those highs would mix well with the mids and low mids he was also producing.

I mixed the transducer and the SM57 to taste first, then panned those signals to blend into the main pair. This is tougher to do with bass frequencies, but I was able to do it by flipping the phase of the pickup/SM57 pair and panning with the main pair through headphones until the mixed sound reached a null. Then I flipped the phase back, creating a wonderful full, chewy sound coming from the proper direction.
The transducer was so good that later on, playing these mixes in high resolution over PS Audio’s Infinity IRS V speakers, I discovered I probably could have put a high-pass filter on Sam’s bass. The IRS’ servo-controlled subwoofer towers let me hear exactly when Sam rested his hand on the strings. You can see 1/2 Hz in action! The bottom end was well-supplied by the on-board pickup, combined with the Shure.

Like all world-class players, these guys never hit a bad note, never messed around: first takes were good, every time. In fact, we breezed through the session after setup. During the performance the boys controlled their volumes so well, I found myself sitting there as a fan and audience member, as they performed their tunes for us.

Each of those guys has gone on to do interesting things. My session with them occurred about a year ago, and even in that time the busy group has done a couple tours. They still have a wonderful EP for sale.

The best way to keep up on what they’re doing is to follow them individually on Facebook and on their Bandcamp page. They are a little difficult to find, and seem to like it that way: “you have to want it,” chuckled one of the guys during our interview.

Watch and listen to the video below, and keep these guys in mind. I’m convinced that they’re going to grow into long, fulfilling careers at the top echelon of the music biz.

Duncan Taylor is a product specialist at PS Audio, and recording engineer and producer of live-track video recording studio Second Story Garage. He also plays a few instruments, pens a weekly music column for college students, and likes to build speakers and amps in his spare time.
Acoustic Research
Part 3 (the final)

By Bill Leebens

In our last installment we followed AR through a period of massive growth, to the point where the company was the largest seller of loudspeaker systems in the world. As the market for hi-fi grew in the late ’60’s and early ’70’s to include younger buyers, newer brands like Infinity, Cerwin Vega and Advent (founded by AR co-founder Henry Kloss) appeared to be more in tune to the demands of the younger, rock-listening crowd. Branded systems from companies like Pioneer became far more evident in the marketplace, as well. Inevitably, AR’s dominance in the market diminished.

That doesn’t mean they were dead. Not by a long shot.

In 1967, around the time of AR’s peak market share, founder Edgar Villchur sold the company to Teledyne. Villchur signed a non-compete agreement, and continued his longtime research into hearing, resulting in a number of important advances in the design of hearing aids. Teledyne was primarily an aerospace and defense contractor; the deal was an example of the odd mash-up conglomerates popular during that period. Most ended up selling off their component parts. Anyone recall LTV, which once owned Altec?

As might be expected, changes in ownership and in the marketplace resulted in changes in direction and image for AR. The elegant, eloquent ads that Villchur had composed for decades disappeared, along with the familiar models, nomenclature and “picture frame” styling. The mid- ’70’s brought a clunky, mashed-up sans serif logo, new models from the Advanced Development Division(ADD), aggressive ads, and styling with frameless grilles and a wooden panel on the front. The drivers added ferrofluid for increased power-handling—so they could play louder, longer--- and the tuning of the speakers became a little more California and a little less Boston. Designer Ken Kantor clarifies: “I like to think that one of the major changes was more of an attention to off-axis radiation and first arrival, which dried and tightened the presentation, rather than a traditional EQ change.”

AR’s initial acoustic suspension models from the mid-’50’s were considerably smaller than most high-quality speakers of the period. In his ads and papers, Villchur made a point of explaining that the speakers’ smaller size was one of the reasons for their superiority, and not just a marketing pitch. It was
somewhat ironic, then, that when AR brought out the AR-9 in 1978, not only did their ads pronounce it “the most perfect sound reproducer in AR history”, but at almost 53” tall, it was by far the biggest speaker in AR history.

The 9 was intended as a showcase of AR’s technical prowess, and to a certain extent, it succeeded. AR’s first tower speaker, it was a 4-way, 5-driver system, with 2 12” woofers firing from opposite sides near the cabinet’s bottom. It also featured other un-AR-ish features like sound-absorbent material surrounding the midrange and tweeter drivers, slight horn-loading of the upper mid, extreme adjustability, and of course, those opposed dual woofers.

In short, the 9 was an AR designed to combat the bigger, louder systems of the ‘70’s, while maintaining at least some of the old AR values. It was known for prodigious bass—but more of the John Entwistle variety than the Paul Chambers variety. I wonder if Edgar Villchur ever heard the 9; if so, he did he approve of it? Ken Kantor, again: “In my limited experience, Eddie was not one to offer loudspeaker reviews or opinions. He most certainly knew the 9 and its sound, and he seemed proud enough of it. My (totally) subjective read is that EV liked it when AR tried to innovate authentically, and wasn’t particularly concerned with specific product implementations.”

During the late ‘70’s and through the ‘80’s, I went through a string of Magneplanars and other fairly esoteric speakers (including a JBL Paragon and a 7-foot-long Fisher console—don’t laugh, it was terrific) and was a reader of Stereophile and The Absolute Sound. Despite my familiarity with and affection for AR, their products had pretty well fallen off my personal radar (sonar?).

In 1985, though, AR came out with a speaker unusual enough to draw my attention: the MGC-1, designed by Ken Kantor (see sidebar). Whereas the 9s were pretty much a standard box speaker on steroids, the MGC-1s had an angled front panel with two stacked woofers at the bottom, topped by three horn-like foam cavities that eliminated early reflections from the drivers and controlled directivity. Two 4’ cone drivers were arrayed above and below a dual tweeter, in what was then becoming known as a D’Appolito array. A side-firing array delivered a time-delayed ambience signal.
The 9 was still in the AR product lineup, and was both popular and profitable. The MGC-1 was thus designed as a more specialist product, a showcase of technological wizardry, emphasizing imaging over oomph. Its twin 8” woofers couldn’t challenge the dual 12” drivers of the 9, for forceful bass; as Tony Cordesman pointed out in his Stereophile review, “its bass does not extend much below 40Hz—a significant flaw in a $3600/pair speaker system”. For the obsessive amongst us, that’s nearly $8,000 in 2016 money.

In 1989, after 22 years of ownership, Teledyne sold AR to Jensen Electronics—the loudspeaker company founded by Peter Jensen, often cited as the originator of the moving-coil loudspeaker. Despite the incredible history and heritage of the two companies, it was pretty much all downhill from there. I can’t find evidence of a single credible AR product after the purchase, and I certainly don’t recall any. From that point on, I must rely upon Wikipedia for the corporate degeneration: in 1996, Jensen and all its holdings including AR, were sold to Recoton, notable primarily as a seller of inexpensive accessories.

In 2003, Recoton sold its speaker holdings to Audiovox, mostly known for inexpensive car stereos. Audiovox—now known as Vooxx—still owns the AR brand, which until recently has been used only for inexpensive accessories. For a long while it appeared that AR would be part of Vooxx’s pool of underutilized, once-great brands, including Advent and Jensen. Recently, however, the Acoustic Research name was applied to a credible, high-performance audio product, albeit a digital player rather than a loudspeaker.

John Atkinson’s review in Stereophile found the $1199 AR-M2 hi-res digital music player to be competitive with units from Astell & Kern, and others. Just as the AR-1 was, 62 years ago, the M2 is a premium product, and not inexpensive. While it’s sad that the company’s rich history of loudspeaker innovation has been discarded, at least the name is no longer being applied to cheap interconnects at Best Buy.

In today’s cutthroat commercial climate, one has to be thankful for small miracles.
Sidebar/Acoustic Research: incubator for an industry?

A major frustration in researching and writing these pieces is that I encounter stories that deserve more time and attention than I can devote. AR, besides originating technology which kickstarted the speaker industry (and not in a crowdfunding way), provided a base from which a number of talented designers and scientists went on to launch new companies. Given the constraints of time and column space, I’ll only mention three, but there were many more.

The most-famous AR alumnus is, of course, company co-founder Henry Kloss. Kloss left in 1956 to start up KLH with Malcolm Low and Tony Hoffman, who had helped bankroll the launch of AR. Along with a string of AR-ish 2-way speakers, KLH is remembered for the Model Eight FM radio and the Model Nine, a full-range electrostatic speaker designed by Arthur Janszen (about whom, more another day).

In true serial-entrepreneur fashion, Kloss sold KLH to Singer (yes, the sewing machine people—remember what I said about weird conglomerates?) in 1964, and hung around for a couple more years. In 1967, Kloss started what may be his best-known company: Advent. Amusingly, the company’s name came from corporate registration forms, which contained “the advent corporation” as a placeholder in lieu of the new company’s name—and Kloss made the phrase stick. Advent was best known for its initial product, a 2-way 2 cubic foot acoustic suspension speaker known portentously as The Advent Loudspeaker. Advent pioneered new technologies in their model 201 cassette deck, which featured Dolby B noise reduction, and in the VideoBeam, a large screen projection TV.

By 1977, Kloss had spun off the Kloss Video Corporation, which produced an improved projection TV called the Nova Beam. Following his departure from Advent, the company went downhill and ironically ended up owned by Jensen, which had also purchased AR.

In the late ‘80’s, Kloss started up Cambridge SoundWorks, which built a variety of speaker systems and radios, as well as a unique travel sound system which had a subwoofer built into its carrying case. Its direct-sales strategy was perhaps a head of its time, and the company was one of the first online merchants, selling on CompuServe in 1994. Kloss left in 1996, supposedly to retire, and the company was sold to computer-accessory maker Creative Labs.

Retirement didn’t last long: Kloss formed Tivoli Audio in 2000, with an associate from Cambridge. The company’s products were similar enough to those of Cambridge that Cambridge sued. Kloss passed away in 2002; Tivoli is still around.

Next to Villchur and Kloss, the best-known staffer at AR was undoubtedly Roy Allison. Allison received electronics training in the Navy, specializing as a radar repair technician. Following service in WWII and the Korean war, Allison worked as a repair technician until he ran into the publishers of a magazine called Radio Communications, in 1949. Allison drew circuit diagrams for them, and moved into writing and editing for a new magazine called High Fidelity (where he was joined by J. Gordon Holt and Julian Hirsch as reviewers).
Allison joined AR in 1959 as assistant to Edgar Villchur, and worked in a variety of areas including customer service, production engineering, and new product development, and in 1961, he was named Chief Engineer. With the sale to Teledyne and Villchur’s departure in 1967, Allison was named Vice President of Engineering and Manufacturing, and was involved in design and development of every AR product until his departure in 1972.

Allison had been involved in development of the most rigorous testing and quality control procedures of any speaker manufacturer, and became aware of a frequency response dip that always occurred near room boundaries. He described the effect—subsequently called “the Allison effect”—in an AES paper, “The Influence of Room Boundaries on Loudspeaker Power Output” (reprinted here) and founded Allison Acoustics to build loudspeakers whose design compensated for room effects. (Ken Kantor correctly points out: “the original work was done together with Bob Berkovitz, AR’s Research Director, and was published a couple of years before the Allison paper you cited.”)

Allison remained active in research until his death earlier this year, at age 88.

Another AR designer has been all over the audio industry: Ken Kantor. Kantor’s relationship with AR began around 1976, and continued in several stints of varied duration up through the mid-’90’s. In a recent conversation, Ken told me that his involvement began when AR provided parts and funding for a student project of his at MIT, after which he became an intern/go-fer for the engineering department. That coincided with the development of the 9, for which he performed a number of response measurements.

After graduation, Kantor was offered a job at NAD (then known by its full name, New Acoustic Dimension), which had recently been started up in England by a group of ex-AR employees including former President Marty Borish. Following a year in the UK, Kantor returned stateside and completed a graduate program in art & technology at MIT.

In 1982, Kantor returned to AR for (as he put it) “a real job”, working under Bob Berkovitz and Tim Holl, directors of research and engineering, respectively. One of his first projects was ADSP (Adaptive Digital Signal Processing), an early DSP system hindered by lack of processors fast enough to handle frequencies above the lower midrange. Some of the technology was utilized in the SRC-1, an add-on Stereo Remote Control sold by AR.

The MGC-1 loudspeaker was developed by Kantor and the research department to showcase their leading-edge technology. The speaker was brought to market alongside the existing AR-9, which was viewed as a “bread and butter” product.

Kantor left AR in 1985, consulting for a number of audio companies including Boston Acoustics (which also had ties to AR), Klipsch, JBL and Jensen. In 1986, he founded loudspeaker company NHT (Now Hear This) with Chris Byrne, and introduced their first product, the Model One, in 1987. Ironically, in 1990 NHT was bought by the Jensen group, which had also purchased AR, and Kantor ended up supervising engineering for all the loudspeaker brands in the group, including AR.
Kantor left NHT to be a founding partner of Tymphany corporation, and as its CTO, developed speaker drivers for OEM markets. He moved on again to start ZT Amplifiers, which produced small portable “Lunchbox” musical instrument and guitar amps Kantor recently sold ZT to company employees, and says he’s retiring.

I have my doubts.

Special thanks to Ken Kantor for his time, information, and insights.

**Bill Leebens** has bought and sold vintage gear since the days when it was new. He regrets that a goodly number of classic American components now reside in Japan, because of him. Mea culpa.
10 More Forgotten Albums

By Ken Kessler

As the previous entry in this series encouraged a favourable response or two, aside from one reader who found my detestation of Coldplay to be out of order, and another from one with no grasp of history who thinks Gram Parsons invented the wheel, sex and the internet, the next batch might inspire some pleasant conversions among you. If I happen to introduce you to an artist that you’ve either 1) never heard of, 2) heard of but never took seriously or 3) simply forgotten, and you fall in love with his or her music, then I my work is done.

11) Randy Meisner

You certainly know him from the 1971-1977 Eagles line-up, and perhaps from the first Poco LP (see below); he parted from the latter band under a cloud, but soon found employment with the former and the rest is history. Meisner is one of those Zelig/Forrest Gump-like figures who pops up everywhere, like N.D. Smart II, but who only registers with guys like me, who are OCD enough to still read liner notes. An accomplished musician in the country-rock vein – and, no, I am not in the mood to continue my Gram-Parsons-Did-Not-Invent-Country-Rock rant – he also played in Rick Nelson’s band and on two of his best hip-period releases. Meisner also issued a half-dozen solo albums, and is a form of respite for those who still mourn the Eagles, Poco and the Buffalo Springfield. Celebrate him.

12) Mitch Ryder

Forget “Big In Japan” – Ryder is “Big In Germany”, where he has issued so many post-Detroit Wheels albums over the past five decades that I’ve stopped counting. If you remember the 1960s, then you know that, prior to the J. Geils Band, this guy made the most raw, rockin’, frat-party sounds imaginable: “Jenny Take A Ride”, “Devil With a Blue Dress On” and a handful of others which kick ass so definitively that it is impossible not to react. His solo career recalls everything from Willy DeVille to Dion, so don’t stop at his greatest hits. The guy rocks, and he’s even cited by Springsteen as an influence, who plays a Ryder medley in his concerts. For the material with the Detroit Wheels, play loud over a high school-grade PA, preferably after three beers. For the rest, fire up your best sound system.

13) Claire Hamill

Initially known as a protégé of the Kinks because she recorded at their Konk Studios in London, Hamill is a singer-songwriter who has issued only a dozen or so albums since 1971. Still at work – her latest is 2015’s When the Daylight Arrived – she has had a varied career (including New Age…), but remains throughout a peerless performer who sounds like a cross between Sandy Denny and Rickie Lee Jones. (Wrap your head around that hybrid.) Golden moment? A cover of Jimmy Reed’s “Baby, What’s Wrong (With You)” on her second LP, October, that borders on the salacious. Despite this blues-y exercise, her
Britishness dominates, and fans of the Fairports, Kate Bush, Steeleye Span and the like will love her.

14) The Smithereens
Part of my fave genre of US purveyors of post-Beatles power pop and hard rock (think Nazz, Flamin' Groovies, Knickerbockers), New Jersey's Smithereens have been around since 1980, never had a truly gigantic smash hit nor serious chart action since 1994, but deliver some of the most satisfying, Nuggets-y music you could ever hope to hear. Try to find their version of “Time Won’t Let Me”, which closed the Jean-Claude Van Damme flick, Time Cop, or their Beatles or Who cover albums, the latter a complete remake of Tommy! These guys – led by Pat DiNizio, whose solo albums are equally satisfying – absorbed the British Invasion and tempered it with 1980s indie sass. For that, I salute them, and I hope you will, too.

15) Sopwith Camel
Losing the battle to label-mates the Lovin' Spoonful when vying for attention at Kama Sutra, this not dissimilar good-timey band’s only moment of fame was the delightful ditty, “Hello Hello”. Minimal action from the follow-up single, “Postcard From Jamaica”, didn’t help, and those who never heard in its entirety their eponymous debut from 1967 might have mistaken them for a mere novelty act. But that LP, for all of its brevity, was inventive, charming and exactly the tonic needed for those who found po'faced, self-indulgent crap like the 18-minute extravaganzas filling up the B-Sides of fellow San Francisco artists' LPs to be one of the curses of the era. Better still, seek out 1973’s The Miraculous Hump Returns From the Moon, with a sax solo to die for.

16) Richie Furay/Poco
Because Poco is still around in one form or another and is known to the audio community for the stunning MoFi edition of 1978’s Legend, with the huge hit, “Crazy Love”, I need only mention them to remind you that their first three or four LPs may have been the truest continuation of the Buffalo Springfield ethos, moreso than anything produced by Steve Stills or Neil Young. But more important is to note that Poco also enabled Richie Furay, possessor of a voice to equal Jesse Colin Young's for tear-inducing clarity and heart, to exercise his talents without being overshadowed, as he was by Messrs Stills and Young. He left Poco after six LPs, with one of his last efforts being a tribute to Gram Parsons, on an LP sadly released four days before Parsons died. (Add that to the spookiness surrounding Parsons’ passing.) Furay is now a preacher, his solo work is of a Christian cast, so be warned if you support ISIS. But that voice remains peerless.

17) Lesley Gore
Two words tell you all you need to know about the sublime vocalist too many only know for “It's My Party”: Quincy Jones. The legendary genius produced Gore’s work from 1963-1965, her peak hit years, delivering a run of AM radio masterpieces, but she then evolved into a less pop-oriented signer with attitude, standards and moments that recall Dusty Springfield and Carole King in their sheer artistry and quality. Much of it was what was later called “sunshine pop”, and she did indulge in some hippie-ish frippery, but Gore delighted feminists with the decidedly serious chart hit, “You Don’t Own Me”, became a highly respected composer and stood for women’s rights: a perfect coda to the teen angst of her first hits. Regardless of the material, her voice was never less than phenomenal. She passed away a year ago, too young at 68.
18) Connie Francis
Still one of the best-selling female vocalists of all-time, Connie Francis was so massive a star in the 1950s that it’s hard to understand how she could be unknown to anyone who ever listened to an oldies station. From heart-wrenchers to silly pop and everything in-between, Francis could cover standards, foreign language hits, material for soundtracks, country & western – from “Who’s Sorry Now” to “Stupid Cupid”, she exhibited a set of pipes that border on the operatic, like a female Jackie Wilson. Still playing the MOR circuit, a celebrated survivor of a troubled life, Connie Francis has a catalogue that will send chills up your spine. Just check out her versions of “It’s Only Make Believe” or “Mama” and try NOT to reach for the Kleenex.

19) The Beau Brummels
Predating the bands that fall under the “San Francisco Sound” banner, what the Beau Brummels lacked in the psychedelia that would follow their hit years of 1965-6, they would make up for with “concept albums”. Only theirs were precursors to country-rock and prime examples of folk-rock, hinted at in their hits “Laugh Laugh” and “Just A Little”. Their initial success was due to a homegrown, but sort-of-British sound that (along with the Byrds) helped to stem the tide of the British Invasion. By 1967, and overshadowed by their Haight Ashbury-based, fellow San Franciscans, they turned to roots-y Americana and delivered Triangle and what is now regarded as a classic: Bradley’s Barn, recently the subject of a Rhino reissue with extra material. Sublime songwriting, the voice of Sal Valentino – the Beau Brummels are one of American rock’s hidden gems.

20) Dion
Survivors from the 1950s continue to baffle us with their longevity, but Fats Domino, Jerry Lee Lewis, Little Richard, Chuck Berry and precious few other survivors are rarely seen or heard these days. And yet, this month I received a brand-new album from Dion, whose first hit with the Belmonts charted in 1958. Now 76, looking 10 years younger, a victor over his addictions, Dion has spent the last 56 years as a solo artist, focussing on blues for the past 30. His is a voice of richness, expressiveness and – with a value beyond calculation – experience. Don’t take my word for it: pick up his unplugged set, Recorded Live At The Bitter End August 1971, the retrospective The Road I’m On and this year’s New York Is My Home. The Wanderer has returned.
Hobbies have been known to get out of hand: audiophiles and record collectors know that better than almost anyone. Some years ago, Matt Fiedler and Tyler Barstow met in Chicago and discovered they shared a passion for discovering new music and sharing it with friends, family...basically, anyone who would listen. Most enthusiasts eventually burn out or tire of the rolled eyes of their significant others. Matt and Tyler turned their hobby into a business. A successful one, at that.

Emailing YouTube links to friends is a common practice, but the two went much farther than that with their “shares”. Starting with just a few friends, they developed a following of 30, then 40, paying members, who were sent copies of LPs, often with hand-written playlists. Then they included cocktail recipes selected to match the tone of each album.

And then...things got out of hand.

Working out of a basement, the pair packed and shipped ever-growing piles of albums, to the dismay of neighbors and mail-carriers. A move to Boulder to work with a start-up meant a move in their base of operations, but they kept going with their side-business, now known as “Vinyl Me, Please”.

Hundreds of records turned into thousands, and VMP turned into a real business with offices in a nondescript commercial development. The location, between a psychiatrist's office and a medical
marijuana dispensary, plays into every joke ever made about Boulder’s hipster community.

With thousands of paying members and near-asymptotic growth, VMP’s shipping and fulfillment are too much for an office staff to handle; warehousing and shipping are handled by another company off-site. With social media covered and a mailing list in six figures, the company is examining expansion beyond the membership model.

“I think we do a pretty good job of creating the ‘aha!’ moment, “ said Matt Hessler, director of marketing at Vinyl Me, Please. “The question now is, what makes you come back in the middle of the month?” —meaning, in between the monthly new releases.

The company is exploring opening up the member-only store to non-members, offering limited-edition special pressings and merchandise. Totally self-funded and bootstrapped from the basement up, the founders remain completely in control of the company’s direction.

“We’re geared to music discovery,” said Hessler, “and there’s no indication that the demand for that is going away.”
Record Matters
By Haden Boardman

Compared to most hi-fi equipment, the humble record player is often seen as something simplistic. It is pretty darn clear that, other than the basics of a plastic groove wiggling a small lump of diamond about, most people really don't have a basic understanding about the physics involved, or just how a complex issue the whole thing is.

The whole thing is a glorious compromise; a Thirty Three and a Third cut disc has huge limitations from the outset. We have to thank CBS for inflicting this too-slow-a-speed upon us, but after nearly seventy years, it is a little bit too late to start whinging. And then you Americans, with your bloody standards, the Recording Industry Association of America (RIAA), made it worse, much worse, with their fancy equalisation curve!

The ‘nuts’ of the argument against a 33.3 RPM record is that quite simply the speed is too slow, especially when the poor recording engineer is cutting the grooves closest to the centre. There are simply not enough molecules passing the cutter head to make an accurate ‘cut’ at high frequencies across the entire disc, resulting in mechanical losses and treble droop, which slowly becomes even worse as the cutter head travels towards the centre of the disc. The engineer, or machinery, has to slowly increase the level of the treble cut, to retain a flat and smooth frequency response across the records playing length.

To make matters worse, the RIAA curve is ridiculously, unnecessarily severe. Records need EQ. It would be impossible to correctly play back the bass if it was not reduced by the cutter, and then boosted by your preamplifier when playing back. Simply put, the squiggle would require too great a wiggle for the stylus to track. Similarly, without EQ in the treble, record noise would be unbearably loud.

EQ was not new, having been around since the 1930s. But by the time the RIAA standard became the accepted form, every record label out there seems to have had a different idea of filter turn over points, and the cut and boost levels. Mathematically based, the RIAA is perfect in theory, but almost impossibly to fully implement in practice. On playback, 40 dB of gain is lost in sorting it out. On cutting the disc, it is even worse of course, with the need to compensate for the mechanical losses mentioned earlier! Pity the poor recording engineer.
45 RPM discs don’t suffer the mechanical losses, but of course lose out on playing time. Audiophiles should embrace the 45 RPM album, even if it does extend to six sides! On either format it is simply not possible to ‘cut’ the same level in the bass, mid and treble. Half-speed mastering (a process developed in Japan as a way to ‘cut’ the 4 channel ‘carrier’ signal in CD4 quadraphonic discs) can get around a lot of problems. Although cutting at 16RPM will exaggerate the mechanical losses at high frequencies, the fact you are unlikely to be cutting much past 8Khz at these speeds makes it a whole lot easier for the cutter head and engineer. The cutting lathes themselves are pretty robust and gargantuan things, and the energy required to cut the groove in to the blank lacquer disc is enormous.

Once the delicate master disc is cut, it has to go through a series of chemical processes. The disc is ‘silvered’ then, making it conductive, and a layer of copper called a ‘shell’ is grown on it (electroplated). The lacquer is then separated, leaving a copper ‘master’ disc, which is a positive of the lacquer. This is oxidised with a hard surface, and popped back in to the copper plating tank and another copper shell is grown, this time a solid copper version of the original lacquer called the ‘mother’ is made. The ‘mother’ is then oxidised and placed in another electroplating tank, and is given a coating of nickel. From this the third copper ‘shell’ is grown, called the final ‘stamper’ (or matrix disc) – before this can be used as a stamper, the copper disc is first nickel plated, then given a very hard, and beautifully shiny coat of chromium. Once these processes are completed twice, one for each side, you are ready to stamp out your hot vinyl records in a very sophisticated, and hard to find press.

It is obvious the amount of skill involved in making a stamper from an original lacquer ‘cut’, and also the potential losses in fine detail at every stage. Direct Metal Mastering, DMM, is an alternative. By cutting directly in to copper you can skip straight to growing a stamper off the disc. However, DMM discs cannot be ‘cut’ as loud or as dynamic as a conventional lacquer. And cutting direct in to metal creates its own characteristic ‘sound’ to the disc.

Whichever process is used, highly skilled engineers are required at every point in the process of manufacturing discs. It’s blatantly obvious that no flaws can exist in the cut lacquer, or the subsequent master, mother and stamper.

The way records are made has barely changed since the early 1930s. Certainly, it has been refined, but the whole process is a fantastic compromise. It’s a real miracle the things sound as delicious as they do!
Haunted Heart

By Juan Ayllon

We’ll occasionally present brief reviews by our staff, contributors and readers—and invite your contributions like this one from reader Juan Ayllon—Ed.

Jim Ferguson and Mundell Lowe: Haunted Heart — An Intimate Take on the Treasures and Pleasures of Standards

Haunted Heart : Mundell Lowe and Jim Ferguson.

The high tenor vocals of Jim Ferguson, 65, conjure Chet Baker, but with richer harmonics and emotion. A singing bassist, the Nashville native has played with a diverse crowd, from Charlie Byrd to Al Jarreau and country/pop artist Crystal Gayle. When I posted on Facebook that I’d downloaded an album of country superstar Brett Eldredge for my 23 year-old daughter, Ferguson quipped, “I’ve worked with Brett. The guy has pipes!” Turns out, so does Jim Ferguson.

At 93, Mundell Lowe is an accomplished jazz guitarist, conductor and composer and has performed with a litany of giants, including Frank Sinatra, Miles Davis, Charlie Parker, Lester Young, Billie Holiday and Ella Fitzgerald. Known for his minimalist, musical style, his style melds well with Ferguson on this, the latter’s third CD. A sampling bears witness to their success.

First, there’s “Detour Ahead”. Written by Herb Ellis, John Frigo and Lou Carter in 1947 (and sang later by Billie Holliday in 1949), it showcases Ferguson’s emotive, soft, high vocals against the backdrop of Lowe’s hollow bodied guitar. As such, it is exquisitely understated. There’s no bass present here, but it works. A tasty guitar solo, followed by Ferguson’s wistful strains rounds out a satisfying aural appetizer.

Second, the title track, “Haunted Heart”, by Howard Dietz and Arthur Schwartz for a Broadway review, Inside USA (1948), is served up fresh in a Bossa Nova tempo, meshing Ferguson’s soft-spoken vocals and bass with Lowe’s guitar in a delicious dance. Their instruments serve as perfect counter-
points to one another as they trade leads.

Third, “I Don’t Worry About a Thing”, a cheeky, light-hearted song written by Mose Allison (1971), teases, featuring Ferguson’s deft, ethereal bass solo and highlighting Ferguson’s ability to sing with sarcasm and irony.

Fourth, in Victor Young and Ned Washington’s “My Foolish Heart” (1949), Ferguson’s bass pulses slowly, contemplative and cautious, while his voice betrays the realization that infatuation has morphed into love — with all the wonder and potential pain. And with a deft and sensitive hand, Lowe’s guitar alternatively swirls and ponders the moment.

Fifth and finally, Sammy Fain and Irving Kahal’s “I’ll Be Seeing You” (1938) wraps up their artful union in tender, thoughtful and understated brilliance.

A touch melancholic, it turns out that this song served as a rallying anthem for Americans and British troops during World War II, communicating hope in the face of trials and adversity.

With today’s economic turbidity and the erosion of traditional sanctums like marriage and the family, Jim Ferguson and Mundell Lowe prove masterfully apt at conveying the simple pleasures and hope contained in standards from bygone eras.

Don’t believe me? Get their CD, pop it in a player or, if you’re like me, rip it to a digital file and play it over your hi-fi system, and let them work their magic.

Note: You can get the CD directly from Jim Ferguson’s website.
By Mike Chaszczewski

Life can be so cruel. After being a hardcore audiophile for 45 years, it’s only now that I can finally afford a home with a dedicated sound room...at an age where hearing diminishes, and fading eyesight hinders the proper placement of a stylus on our valued vinyl. Oh, the horror!

In any case, my room is about 18' by 20’; the back wall is actually a large opening into another room. Equipment includes McIntosh C47 preamp, McIntosh MPV871 CD player, Oppo Blu-ray player, Sony HapZ1-ES ‘server’, McIntosh MT-5 turntable, with Wilson Sophia 3s fed by a pair of Bryston 4BSST-2 amps (I am Canadian after all--eh?), through Transparent Audio cables. All equipment is plugged into a couple of PS Audio Quintets.

‘Warped Side of the Moon’ fused glass plate by Fantasy In Glass holds my remotes.

Really love your approach with Copper. Keep it up!
Wyoming by
Paul McGowan
Badlands