Newsletter

June 2026

In this issue:

President's Message

By John Harvell

Most of us in this hobby want to experience music reproduction that, in the ideal, sounds like a high-quality live musical presentation. To that end, it is periodically helpful to get out and participate in live music events hosted in the music genres that we prefer. This gives us a calibration process, as it were, to understand and reacquaint us with what honest-to-goodness live music sounds like. To that end, the steering committee recently received a nice recommendation from a long-time club member that we should consider hosting an event at a local establishment, "The Ravenscroft," which is known to host

high-quality performers with a superior acoustic environment. So, the steering committee took that suggestion to heart and researched the options that were available to us at the Ravenscroft. We arrived at a chamber music presentation with 6 accomplished musicians: 2 bass, 2 violas, and 2 violins. So, we scheduled and promoted participation in this live music event during May. However, only two club members participated in this event. So, that left us in a quandary. Do our club members like to go to live music events? If so, what live music events do they prefer? If not, what alternative club events should we be considering?

So, I'm requesting a brief effort on your part to fill out and submit the following survey:

1. Have you participated in any live music events this year?
    a. What venues did you attend live music at?
2. What music genres do you prefer?
3. If you would like to go to live music events as a club, what price point is acceptable for tickets?
4. Would you like to participate in a club event at the Music Instrument Museum (MIM)?
    a. Would you like this event to include a social gathering for dinner? What type of food?
    b. Would you like this event to include participation in a live music presentation too? Music genre?
5. What other types of club events would you like to see us host?
6. Would you like to have more social events where we get together and talk with music playing in the background? Should those types of events have proposed topics for discussion?

Please email your answers to jharvell_1@cox.net. We want to do things you're interested in.

Thanks for taking the time to help the steering committee and me create program events that interest you, the club members.

Wishing you all the best,

John

June Meeting Tube vs. Solid State Amp Comparison Event

LMC Tempe will host our club for a tube-versus-solid-state amp comparison.

When: Thursday, June 18th, 2026, at 6 pm

Where: LMC Tempe Store at 1705 W Ruby Dr, Suite #109, Tempe, AZ 85284

FINAL Electrostatic Speaker Demo

At 2026 THE SHOW (June 26 - 27)
Hilton Orange County
Costa Mesa. Southern California.

By Ravi Velnati (AAVC club member, distributor, and dealer)

Dear fellow members of the AV Club,

Thrilled to invite all of you to my planned demonstrations at the 2026 THE SHOW – The Home Entertainment Show in Costa Mesa. Southern California.

Come join me at the show and have a great, memorable time with dedicated club-only listening sessions!

Looking forward to meeting you at THE SHOW.

- FINAL electrostatic speakers, the brand that I represent in the US as a distributor, as well as STARKE SOUND, that I represent as a dealer, will be demonstrating at the Southern California show, also known as THE SHOW - the home entertainment show in Costa Mesa, CA
- FINAL will be demonstrating in both Stereo and Dolby Atmos Multi-Channel in the large 2000 plus square feet Bristol 3 ballroom
- Final is partnering with:
    - TRINNOV Audio, the industry reference in digital room correction and immersive sound processing technologies, with their Altitude 32, Reference Processor
    - Valerion VisionMaster Max | Professional Grade 4K Home Theater Projector with its matching 200-inch screen
    - Starke Sound Halo Series of Premium audio speakers and components
    - Coda Technologies (from the legendary Threshold Corporation heritage), with their Model 16 offering 100 Watts of Pure Class A

stereo amplification optimized for low-impedance speaker systems to drive any speaker on the market, as well as the 07X reference FET-based preamplifier.

- o ArgentPur with premium, solid, pure-silver cables using 9995 pure-silver wire.
- o Galion Audio with their ultra-affordable line of amplification.

Now represented in 55 countries and with over 8,000 high-performance installations worldwide, Trinnov is uniquely involved in all aspects of audio production. Trinnov processors are found in the world's most advanced professional music and film studios for production, mixing, and playback; in thousands of commercial cinema screens; and in the finest residential home theater and stereo systems. Trinnov processors are found in the laboratories, demo rooms and trade show presentations of many of the industry's top manufacturers.

LMC Wilson Audio Autobiography Event

Review by David Das

I had the pleasure of attending the Wilson Audio Autobiography Event at LMC Scottsdale on May 22nd, 2026.


LMC Home Entertainment
LMC
High End Audio & Home Cinema
PL PREMIER LIGHTING


WILSON AUDIO
PRESENTS:
Autobiography
SPECIAL GUEST:
DARYL WILSON
LMC
LEGENDARY MUSIC & CINEMA
MAY 22, 2026
5:30-9:00 PM
LMC SCOTTSDALE SHOWROOM
15507 N SCOTTSDALE RD SUITE 135,
SCOTTSDALE, AZ 85254

The Autobiography Demo

Daryl Wilson, President and CEO of Wilson Audio, came in early in the day to fine-tune the setup.

What a sight to behold!

These Wilson Audio Autobiography Speakers in Quartz finish looked majestic and blended in seamlessly with the associated electronics:

- Burmester 159 Monoblock Amplifiers
- Burmester 077 Dual Box Preamplifier
- Burmester 175 Turntable
- dCS Varese Stack
- Transparent Magnum Opus Cables

Club President **John Harvell**, Club Vice President **Paul Johnson**, and Steering Committee Member **Joe Roberts** were in attendance.

Kazuya Ohtake, editor of Audio & Visual Catalog, flew in all the way from Japan to document this event.

This photo shows how tall these speakers are relative to Daryl's 6'4" stature.

The Autobiography stands 81 3/16 inches tall without spikes, just 3 inches shy of the WAMM.
Each speaker weighs 821 lbs, 79 lbs lighter than the WAMM.

Daryl welcomed us all in with a beaming smile. He has a charming personality. He gave us 10 minutes to talk before getting into the rhythm of the demos. He pointed out that the machine lines on the inside of the gantry differed from those on the outside. The way all the drivers are aligned is like a camera lens for focusing on a subject. Just as when the focus is not perfect or your drivers are not time-aligned, you can tell the difference – the image appears blurred.

Daryl had the speakers focused on the sweet spot, which was the center seat in the 2nd row, right behind me. The drivers in the Autobiography can be time-aligned to account for the exact listening *distance* and listening *height*.

The entire woofer section is housed in a V-material enclosure that prevents vibrations from reaching the crossover section. The Autobiography is composed of X material, V material, and aluminum.

I commented that the drivers on the Autobiography were closer together compared to the WAMM. Does that make a difference? Daryl began answering my question, stating that Wilson Audio had 3 goals in designing the Autobiography.

> **Goal #1** was to be the most accurate, time-aligned loudspeaker ever conceived. The WAMM is accurate down to 2 microseconds. The XVX has the same precision as the WAMM.
>
> **Goal #2** was to make it shorter than the WAMM while having the same number of drivers.
>
> **Goal #3** was to keep the footprint as close as possible to the XVX. Because of the size of the woofers, the width had to be 2.5" more on each side as the XVX. This generated the extra volume that was necessary to accommodate the 12" and 15" drivers.

The Autobiography brings the 7" lower and upper mid-range drivers 6 inches closer than the WAMM.

The accuracy of the Autobiography is similar to that of the XVX and the WAMM. However, the precision and time alignment of the MTM array are ZERO at the listening position. Both 7" midrange drivers are independently adjustable.

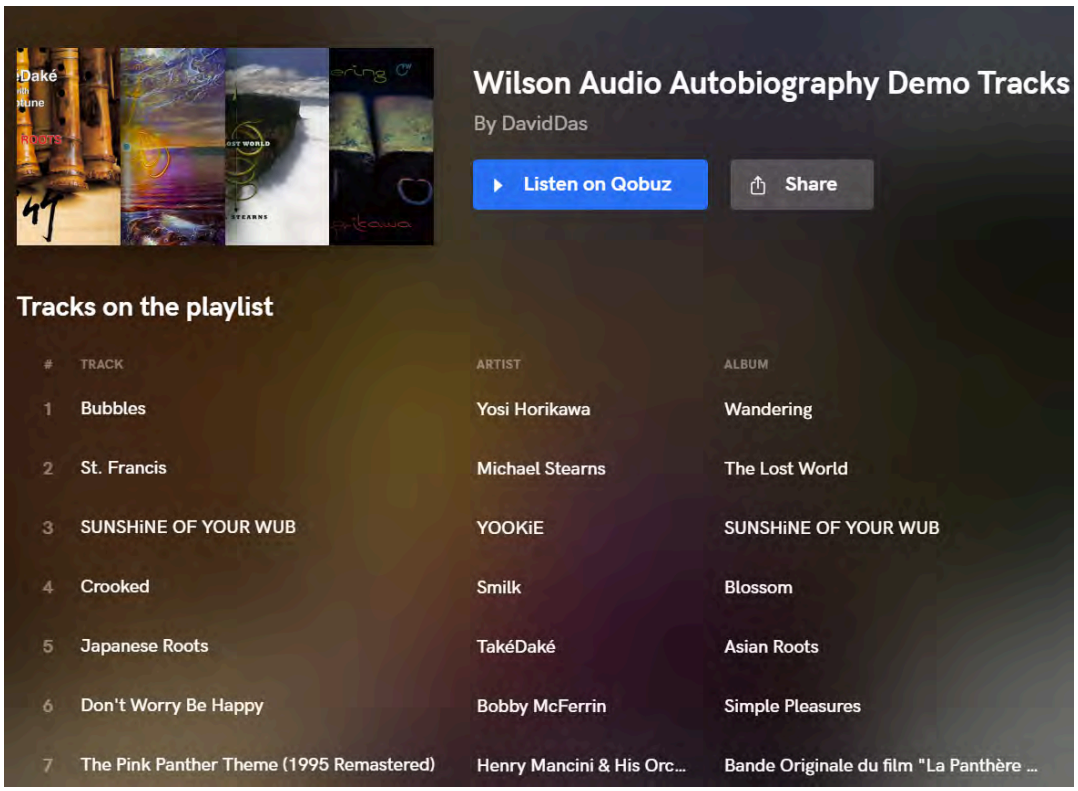
With that brief introduction, Daryl began his official demo.

Daryl stated, *"Some people have thought that this is Daryl Wilson's Autobiography. I don't want anyone to assume that is the case."*

Every single element of the Autobiography tells the story of Wilson Audio's history, the story of its development over time.

Daryl proceeded to play 7 Demo Tracks, each one carefully selected to bring out specific strengths of his speakers.

Here is the Qobuz Playlist of the seven Demo Tracks:



Here is Kazuya's video coverage of the entire event, including a tour of LMC Scottsdale.

Kazuya will be bringing a comprehensive coverage of High-End Vienna, June 4-7, 2026, on his YouTube Channel.

His mini-documentaries are the next best thing to being there in person. It was such a pleasure to meet him again at LMC Scottsdale.

Closing Thoughts

This was a religious experience for me!

The Autobiography speakers' precision, power, transparency, and resolution shattered my frame of reference. The height, width, and depth of the sound stage these speakers projected had me in suspended disbelief. I felt I was no longer passively listening to the music. Rather, I was *inside* the performance within a holographic sonic bubble enveloping me.

The realism, texture, dynamics, and imaging of every instrument and vocal were uncanny. This is something you just have to experience in person. No YouTube video can convey the magic these speakers can bring into your living space. They are a sight to behold even when standing silent. They represent the ultimate expression of 52 years of Research and Development at Wilson Audio. It is a testament to what can be achieved when 60 passionate craftsmen pool their skills together.

Daryl Wilson was the special guest for the evening. He is an engaging storyteller. He wove the story behind the development of the Autobiography between the seven demo songs. Each song was selected to highlight specific strengths of this speaker. Daryl's commentary gave us a deeper insight into the product, which I have tried to paraphrase in the previous section.

I have heard the Wilson Audio WAMM Master Chronosonic speakers at LMC Scottsdale on many occasions, augmented by a pair of WAMM Master Subsonic subwoofers. I think the Autobiography excels at that setup in one specific area – its liquid-smooth midrange. There is something magical about those two 2" midrange drivers. You can listen to music for hours without fatigue.

The WAMM was priced at $685K a pair when unveiled in 2016. That would be $950K in today's dollars. The Autobiography has brand new drivers, new materials, double the number of parts, higher accuracy, and faster setup time, and retails for $788K. This offers a better value.

The Autobiography is a gift to the audiophile world. It is my new reference. It sets a new benchmark in speaker design.

Here is my full 29-page review.

Best regards,

David Das

Paul Johnson's Audio System

Review by David Das

I had the pleasure of auditioning Club Vice President and Treasurer **Paul Johnson's** Audio System on May 24, 2026.

As I walked into Paul's comfy living room, I was awestruck by the presence of two tall, slender towers reaching almost to the ceiling. These are Bohlender-Graebener Radia FS-880 speakers featuring a line array of Hybrid Planar Magnetic drivers.

The moment Paul played his first demo song, I was impressed by the sheer height of the soundstage. You cannot recreate this effect with shorter speakers. Paul had these towers positioned well clear from the front wall. This helped to create an illusion of depth, which is otherwise impossible to achieve when the speakers have too little clearance from the front wall or when there is a flat surface like a TV between the speakers.

With this ideal speaker placement, which I guess Paul figured out after months of experimentation, I heard a seamless sound field that was tall, wide, and deep, and extended
far beyond the boundaries of the speakers.

Unlike electrostatic speakers, which require you to listen on-axis, these speakers were more forgiving, allowing two people seated on a couch to enjoy the stereo image.

Each tower stands 7' tall and has 16 ribbon tweeters and 6 ribbon midranges. Paul has replaced the four 8" woofers with better performance, which I have described later.

I was stunned by the multi-layered textures on both male and female vocals revealed by these majestic towers. The system had effortless dynamics with no compression even during loud passages, thanks to the powerful amplification driving the towers.

I was impressed by how the system resolved every instrument in a dense arrangement and precisely positioned them on the sound stage, giving you the feeling that you were listening from the best seat in a concert hall. If you enjoy live music, Paul's den is the best place to experience it in all its glory. It is such an exhilarating feeling to hear reproduced music without compression, without any bass boominess, without any digital glare.

Newsletter Editor **James Welby** had a chance to listen to Paul's system before he left for his summer home in Minnesota. James was very impressed, and I share his sentiments.

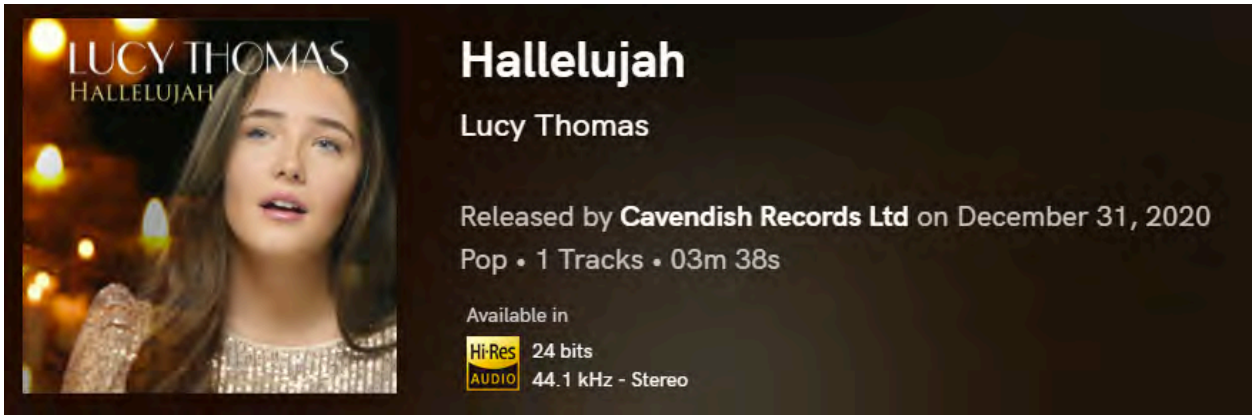
This is Paul's impressive front end, which I have described in my full 24-Page Review along with his Equipment List and some of the songs he played to showcase the strengths of his system.

Listening Session

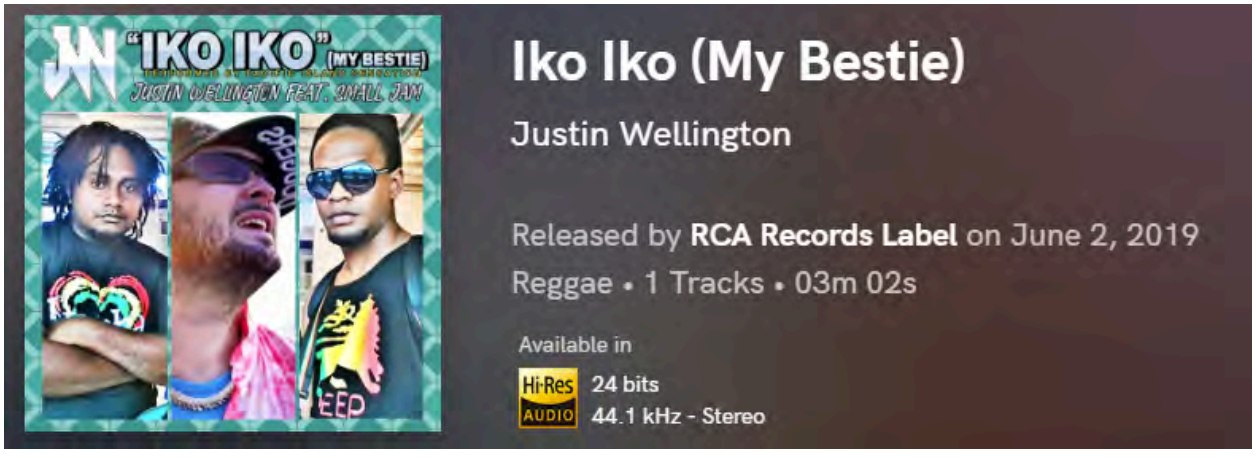
Paul has the most comfortable listening environment with plush Italian Leather sofas everywhere that feel so relaxing. They are perfect for long listening sessions where you never feel like getting up.

After Paul gave me a detailed rundown of his entire setup, the first song I asked to hear was "*Hallelujah*" by Lucy Thomas. I am intimately familiar with this track, which has become my reference recording to evaluate how well a system renders the purity and sweetness of Lucy's voice. There is a reason why this specific recording has been streamed over a billion times.

I was startled by how well Paul's system portrayed the clarity and texture of her powerful vocals. I heard absolutely no compression during the louder sections. The powerful amplification made the presentation effortless.

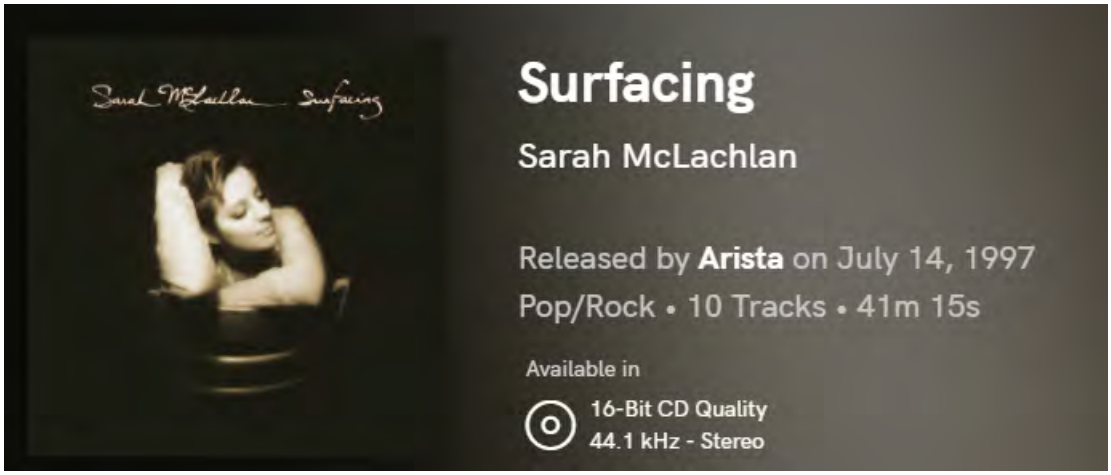


Next, I played "*Iko Iko*" by Justin Wellington. This is a good test track to evaluate the tightness of the bass. It passed this test in flying colors. There was no boominess. The bass was tight, fast, and controlled.



My next test track was "*Wish You Were Here*" by Pink Floyd. I was floored by the 3-dimensionality of this recording.

My final test track was "*Angel*" by Sarah McLachlan. Her voice sounded serene and breathtaking.



After listening to these first 7 demo tracks, I was completely sold on Paul's system. It took Paul over 40 years to build a system of this caliber through careful component matching and constant modifications. He is not done yet. He is building an even better one. He plans to generate FIR Filters in Acourate and add them to the Convolution Engine in ROON. He has purchased an Acourate License and a UMIK-2 measurement microphone.

The moment you enter Paul's living room and inspect all the high-end gear he has accumulated over the years, you are left with only one conclusion – this is a

work of passion! This is not a casual hobby. This is a journey in the pursuit of sonic perfection.

After being thoroughly impressed with Paul's setup, I let him play all his favorite tracks while I relaxed in the sweet spot and completely immersed myself in the glorious music.
Paul's system exceeded all my expectations. I would strongly encourage every music lover to pay a visit. It would be an enchanting evening.

Here is my full 24-Page Review

Best regards,

David Das

Dave's Record Reviews

Championing worthy albums from the past that should not be forgotten...

For the AZ Audio Club ~ June 2026 **#40**

Lone Justice – **Lone Justice** (LP & CD, Geffen Records, 1985)

Editor's Note: Congratulations to David Hjortland's fortieth album review for the AAVC newsletter!
If your musical tastes do not extend to include serious rock'n'roll it's possible you may want to forgo this review, though of course I hope you won't. The

variety of my reviews will attest that my musical tastes are eclectic, but good rock'n'roll is close to my heart. And from the opening shout of Maria McKee and guitar and drums of this album, you will know this is serious rock'n'roll indeed. "*East of Eden*" kicks off the album with some of the most earnest R'n'R you are likely to come across.

Lone Justice was formed in Los Angeles in the early 1980's by lead singer Maria McKee and guitarist Ryan Hedgecock. They added a bass player and drummer, developed their sound and paid their dues in the music scene of that city. Initially starting out as a cover band, they evolved both their musicianship and writing skills to high levels. Their live shows became popular and known for their energy and blending of country, rockabilly, and punk-rock elements. The most outstanding characteristic of the band's sound was unquestionably the dynamic, powerful, and immediately identifiable vocal pipes of Maria McKee. Their fans included some well-known names in the music biz. Dolly Parton called McKee, "*The greatest girl singer any band could ever have*." Bob Dylan wrote a song for this debut album, though for some reason it was not included.

Following that amazing opening song the next one, "*After the Flood,*" slows the tempo down just a tad but not the intensity. This is a more complex, memorable cut that for me is one of the highlights of the album.

> *"My folks own the land round here, And our big old house now for some fifty odd years*
> *We'd all seen a few rough days, But I never dreamed I'd watch it all get swept away"*

The intensity resumes/continues with "*Ways to be Wicked*." Written by Tom Petty & Mike Campbell, it is addressed to a lover who seems to enjoy pain. A couple other favorite cuts of mine are also up-tempo; "*Sweet Baby (I'm Falling)*" and "*Soap, Soup, and Salvation*."

> *"Soap, soup and salvation, Tired hearts sing in jubilation*
> *Restoration at the rescue mission, Soap, soup and salvation*"

But I don't want to give the impression that this is all hard-driving, pedal-to-the-metal stuff! There are slower, more spare songs that are also well done and also convey the emotion and passion that the harder cuts do. One such is "*Pass It On*," that speaks to the need to pass on values between generations. Another closes the album, "*You Are the Light*," a fine love song that McKee delivers with her sense of genuine feeling.

This debut album was released to much hoopla and anticipation in the spring of 1985. On its release it received many good, highly positive reviews from critics.

Many placed it on their lists of best records of the year, some eventually on lists of the best of the decade. So, how did it do on the charts and in terms of sales? Well, not so great. Most sources I have referenced place the blame for that on the pre-release hype. It's said that the expectations were raised so high that no album could possibly live up to it. That fault sounds a bit weak to me, but the couple singles that were released didn't do well and the album itself didn't rise high in either the country or rock charts.

After the major disappointment of sales of this first album the other band members departed, and McKee and Hedgecock were forced to enlist other members to carry on the band. They released a second album under the Lone Justice name, **Shelter**, in 1986. It did even less well, and with that the band was basically done. McKee called it quits in 1987. She went on to pursue a... well, moderately successful solo career that has resulted in 10 studio and live albums.

So why am I holding up ***Lone Justice*** as a "worthy album from the past that should not be forgotten"? I'm glad you asked. Primarily because that initial enthusiastic judgment of critics has been vindicated over time! The work of the band is now regarded as being – if not exactly trailblazing – very influential on much rock music that has come since, and important in the development of "indie-rock" *and* of that great, wide, somewhat ambiguous classification that has come to be known as Americana.

As evidence in support of that judgment, I offer the fact that since the group (ahem) dis*band*ed – after only two albums, mind you! – there have been no less than *six* additional albums of Lone Justice material released! Two were of live performances and three were compilations. The sixth and most recent, ***Viva Lone Justice***, was released just in 2024, and consists of recordings made by McKee and two other band members in 1993 and not previously released. It has received positive reviews, and though it has a few decent cuts it does not have the edge, intensity, or the sound quality of their 1985 debut.

Though now over 40 years old ***Lone Justice*** is a fine album that still sounds pretty doggone fresh and listenable today. It is available from Discogs quite inexpensively, in both LP and CD formats. I would – ahem – recommend the analog format, for my part. And for those of you who may be physical format-disadvantaged, it is of course available via streaming...

WASTING TIME ON THE INTERNET

By Jim Welby

I recently read an article on Headphonesty titled: *"192 kHz Is Worse Than 44.1 kHz for Most Music, According to Experts."* I was skeptical of the headline, but

also intrigued enough to read the article. My experience has been that high-resolution files generally sound better than a Redbook CD (16-bit/44.1 kHz). This inspired me to dredge through my digital music personal history and engage with club member David Das. See the article below titled **Are High-Resolution Files Really Better Than CDs?**

Are High-Resolution Files Really Better Than CDs?

By Jim Welby, with Technical Contributions from David Snyder

Highlights:

- Most consumer audio equipment can't handle better than CD quality
- The human ear can't hear better than CD quality
- Most recordings are merely CD quality repackaged as high resolution
- With the proper compute power and configuration (for example, club member David Snyder's Diretta configuration), your system can deliver on the promise of high resolution
- However, the promise of high resolution is subtle (it is not as profound as VHS to DVD): a significant reduction in listening fatigue, a more organic "realness" in vocal and instrument timbres, and a highly enveloping, blacker soundstage

The Backstory

I recently read an article on Headphonesty titled: *"192 kHz Is Worse Than 44.1 kHz for Most Music, According to Experts."* I was skeptical of the headline, but also intrigued enough to read the article. My experience has been that high-resolution files generally sound better than a Redbook CD (16-bit/44.1 kHz).

My introduction to digital music was when I purchased a Hitachi CD player in 1985. I was already a musichead with a decent stereo and a collection of around 1,000 LPs. I selected the Hitachi because it was the cheapest CD player on the market (my recollection was it cost about $400, which is about $1,200 in 2026 dollars - which was a lot of money to me at the time).

Mid-80s Hitachi CD player

For the first few years, I was pretty infatuated with CDs. They seemed like a major improvement on vinyl LPs: no surface noise, a full album on a single disk - up to 80 minutes (so no flipping), and most importantly, better sound (or at least it seemed better).

A CD has 96 dB of dynamic range, capturing the quietest whispers and loudest crescendos without limits. Vinyl is limited to roughly 50-70 dB, requiring mastering engineers to compress the audio so the needle doesn't jump out of the groove. So those were the facts that backed up my perception that CDs sounded better. I started collecting CDs vs. LPs in the second half of the 80s. An anecdote from the era: the vinyl edition of a new release would often come out months before the CD, and so for a while I still bought vinyl. Fortunately, I never got rid of my vinyl collection.

After a few years of collecting and listening to CDs, I noticed what I called "*ear fatigue*." I would get tired of listening to CDs (especially on headphones) in a way that never occurred with vinyl. It turns out it wasn't just me, and that ear fatigue is a widely documented phenomenon in the audiophile community. It turns out that the flawlessness of CDs makes them physically taxing to listen to for long periods. There are lots of reasons for this that I won't get into right now.

Fast forward to the mid-2000s when SACD players became affordable (the first player, Sony SCD-1, was $5,000 in 1999 - $10,000 in 2026 dollars - way out of my price range). I picked up an inexpensive (a mere $200 in 2005) Toshiba universal player (DVDs, CDs, SACDs, and DVD-A). I cobbled together a 5.1 surround system. The first SACD I picked up was Pink Floyd's ***Dark Side Of The Moon.*** I

was more impressed by the 5.1 surround sound mix than the DSD high-resolution stereo. As I picked up more SACD's and DVD-A's, I was unimpressed by the high-resolution stereo disks. The higher the fidelity of these formats compared to CDs was barely noticeable, if at all. I found surround to be more of a novelty than an innovative way to be immersed in sound - I preferred the sweet spot in a good stereo setup. I quickly gave up on SACDs and DVD-As. I was expecting a leap, as I saw with VHS-to-DVD or heard with vinyl-to-CD. The extra resolution was just not worth it (SACDs were more expensive than regular CDs). Also, the format wasn't catching on, as there were few releases. High-resolution disks were not replacing CDs like CDs replaced vinyl and cassettes.

Mid-00s Toshiba SACD player

By the mid-00s, I was downloading MP3s, but I was disappointed with the sound, but who can complain about free music (even if it was stolen)? Fortunately, I had never gotten rid of my vinyl LPs, and I started listening to them again and was enchanted by how much better they sounded than the MP3s and how they did not cause ear fatigue like CDs. I realized that, except for surface noise, vinyl actually sounded better than CDs.

About this time, the vinyl revival started, and I pretty much stopped buying CDs and went back to collecting vinyl. I had stopped downloading MP3s when Spotify entered the US market in the early 2010s. Spotify was so much better

than downloading MP3s: titles were easy to find, I wasn't stealing, it was relatively cheap (less than the cost of an album a month), and I was not risking infecting my computer with a virus. My music habit was to listen to it on Spotify and, if I liked it enough, buy it on vinyl.

In 2011, I got my first tube amp and an inexpensive DAC (Jolida FX DAC Mini). The DAC sounded better than my laptop's built-in DAC, but given I was playing MP3s and streaming Spotify, it was not a significant upgrade.

Jolida FX DAC Mini

In 2014, I got an Oppo 105 on the theory that between streaming and the vinyl renaissance, CDs would go extinct. I wanted to make sure I had a decent CD player for my vast collection. The Oppo made my CDs sound better than ever.

Oppo 105D

My Minneapolis-based CD and vinyl collection

As the 2010s came to a close, I discovered Tidal - it was like Spotify, but with high-resolution streaming up to 24-bit, 352.8 kHz using Master Quality Authenticated (MQA) technology. I would use Tidal via my laptop using the inexpensive DAC (Jolida FX DAC Mini) I mentioned earlier.

What I liked about Tidal was:

- It sounded better than Spotify
- Tidal's high-resolution streams were not significantly better than CDs, but I noticed significantly less ear fatigue
- Although I didn't have an MQA DAC, Tidal decoded the MQA files into 24-bit/96 kHz or 24-bit/88.2 kHz audio streams that my DAC could handle

Somewhere along the way, I used Spotify and Tidal with Bluetooth - the fidelity was like an MP3, but the convenience was worth it.

In early 2021, I picked up a dedicated streamer (Bluesound Node 2i). Its DAC chip (Texas Instruments Burr-Brown PCM5242) was better than Jolida's (Texas Instruments Burr-Brown PCM2702) in that it could handle 32-bit/192kHz digital-to-analog conversion and MQA. I could control content from my smartphone like I was with Bluetooth, yet the fidelity was way better than

Bluetooth.

It was at this point that I became sold on the idea that high-resolution streaming was better than CDs: better soundstage, more detail, and less (to no) ear fatigue. Best of all, the interface was great: I could DJ from my phone vs. my laptop - the ease of Bluetooth, but with high fidelity. I had found a happy place!

Tidal abandoned MQA in August of 2023 in favor of FLAC files (up to 24-bit, 192 kHz). I didn't notice the difference.

Recently, I started experimenting with an external DAC for the Node, and I have even better sound. For my Minneapolis rig, I am running both my Node and Sony Blu-ray (for CDs, SACDs, and DVD-As) through a Schiit Mimir (which combines an ESS Sabre ES9028 DAC chip with Schiit's proprietary filters) - I love the sound - very analog.

Minneapolis rig

For my Phoenix rig, I am running a Bluesound Node (Model N130) through an Orchard Audio Pecan-Pi (revision 3.0), which uses dual Burr-Brown (TI) PCM1794A DAC chips. I play CDs, SACDs, HDCDs, and DVD-As via an Oppo 105D using its native DAC (ESS Sabre ES9018 Chips and supports PCM files up to 24-bit/192kHz and native DSD playback). Again, I love the sound - very analog.

The Expert Consensus vs. Anecdotal Experience

So it is with this long preamble that I provide context for my reading of the Headphonesty article, which suggests I am delusional for preferring high-resolution formats over CD quality. The gist of the article is that many top engineers and audio experts believe that high-resolution formats like 24-bit/192 kHz offer no audible benefits over CD quality (16-bit/44.1 kHz) and can even degrade playback with distortion, not to mention high-resolution is a waste of storage. Here is their argument:

- Most people can hear sounds between 20 Hz and 20 kHz.
- Per the Nyquist-Shannon sampling theorem, you only need to sample at twice the highest frequency we can hear (20 kHz) to fully cover everything we can hear - CDs are at 44.1 kHz.
- Most audio equipment is not designed to handle frequencies above 20 kHz, and higher sampling rates can introduce distortion audible to the human ear.
- Higher sample rates place a heavier load on CPUs, which can compromise audio equipment workflows and playback quality.

In summary, high-resolution formats often lead to greater system strain, more distortion, and reduced clarity, as they create frequencies that no human can actually hear. Great sound comes from mix quality, mastering skill, and the source—not the sampling rate.

It should be noted that not all high-resolution recordings are created equally. When a recording is released, the assumed physical formats are vinyl and CD. Given the limitations of vinyl, you can not press a vinyl album from a CD-quality file, so the mastering engineer has to deliberately master for the vinyl edition (which is a downgrade in resolution). The main master is for CD quality, as this is what the bulk of what is now on streaming services and the roughly 40% of physical releases that are CD. The mastering engineer's job is to optimize,

compress, and limit the master for a 16-bit/44.1 kH (CD quality). Often, they take a shortcut and simply save the CD master as a 24-bit/96 kHz file (or higher), which is called an upsampled or "fake" high-res file. It doesn't contain any additional musical data; it just places a small container inside a larger box. How often does this happen? We don't have a definitive answer, but Gemini AI estimates that for new recordings it's 40% to 60% of the time, and for older catalogs from the late 1980s through the 1990s, it is likely 80% to 90% of the time. To get a true high-resolution master, the mastering engineer must go back to a stage in the production process where that extra data actually exists (whether digital or analog). This is why I assume some high-resolution releases sound better than others.

Regular readers have picked up that I am not technical and more of a musichead than an audiophile. I didn't know what to make of the article, so I reached out to AAVC club member David Snyder, who has forgotten more about digital playback than I will ever know, to get his thoughts.

A Technical Perspective from David Snyder: Processing Noise and the Case for Network Deceleration

> While I agree with the general conclusion that sampling rates above DSD64 or 96 kHz PCM are counterproductive to achieving the best sound quality in a high-fidelity home environment, my underlying technical reasoning differs significantly from standard acoustic theorems. To understand why extreme bitrates compromise sonics, we must examine the intersection of hardware computation and digital signal integrity.
>
> ### *The Dual-Edge of High Sample Rates: Legacy vs. Modern DACs*
>
> Jim's anecdotal experience—that "Hi-Res" files frequently sound more open, relaxed, or detailed in certain configurations—is not an illusion. Historically, high-resolution source material offered legitimate sonic benefits when paired with older digital-to-analog converters (DACs). Legacy DAC designs often lacked sophisticated, steep digital interpolation filters or failed to perform internal oversampling effectively. By feeding these legacy units an already high-sample-rate stream (such as 192 kHz or higher, if supported), the digital aliasing artifacts were pushed

significantly higher in the frequency spectrum, relieving the burden on rudimentary analog reconstruction filters and reducing audible high-frequency glare.

With modern, high-performance DACs, however, this paradigm is entirely obsolete. Contemporary delta-sigma and advanced R-2R architectures integrate highly sophisticated internal noise-shaping algorithms and ultra-precise oversampling filters. They handle the mathematical heavy lifting of reconstruction flawlessly right at the chip layer. Consequently, incoming input sample rates exceeding 96 kHz are structurally contraindicated; they offer no practical conversion advantages while simultaneously introducing a severe, insidious vulnerability into the audio chain: computational processing noise.

The Hidden Enemy: Computational Processing Noise

Here in 2026, almost every digital transport or streaming endpoint is fundamentally a computer—whether it is a specialized mini-PC, a Raspberry Pi running a real-time kernel, or an integrated microprocessor. Shifting massive files at 192 kHz or DSD256 forces these microprocessors to work significantly harder. This elevated data throughput spikes CPU utilization, accelerates internal clock cycles, and multiplies the sheer volume of network hardware interrupts that the operating system scheduler must handle.

This surge in processor activity manifests as high-frequency electrical noise—specifically Radio Frequency Interference (RFI) and Electromagnetic Interference (EMI)—alongside instantaneous low-frequency fluctuations in current demand. Common network audio protocols exacerbate this by delivering data in aggressive, intermittent "bursts." When a transport's CPU rapidly spikes to process these bursts, the sudden variations in current draw create low-frequency noise that easily evades a DAC’s internal Power Supply Rejection Ratio (PSRR). This noise contaminates the sensitive analog output stage, masking low-level detail, shrinking the soundstage, and injecting a subtle, fatiguing glare into the presentation.

The Streaming DAC Integration Risk

This processing-noise phenomenon poses an existential threat to fidelity in the context of an integrated "Streaming DAC." When the network computer and the ultra-sensitive digital-to-analog circuitry are forced to share the same physical chassis—and often the exact same internal power transformer—there is no escape path for electrical pollution. The computational noise from network ingestion and high-bitrate file unpacking bleeds cross-chassis directly into the clocks and analog conversion stages, instantly bottlenecking the performance of even five-figure reference components from MSB and dCS.

Stabilizing Current Draw via the Diretta Protocol

To fundamentally address the root cause of this bursty processing noise, my ongoing architectural work implements a three-tier topology based on the Diretta protocol. Rather than allowing a standard player to flood the network with irregular, high-volume data bursts, a dedicated Diretta Host captures the audio stream from the Roon Server and re-transmits it across an isolated point-to-point Ethernet link in an absolute, continuous, and synchronized flow of small, evenly spaced packets. By spacing out the data transmission into tight microsecond cycles, we successfully "average out" the processing load on the endpoint (the Diretta Target). The Target's CPU operates at a completely flat, predictable cadence, entirely eliminating the massive current-draw fluctuations that poison local power rails.

The "Super Purist" Method: Network Deceleration to 10 Mbps

The ultimate manifestation of this philosophy is an optimization level I engineered called "Super Purist" mode. Standard Gigabit Ethernet uses a high-frequency carrier signal of 62.5 MHz, mapped through complex multilevel encoding schemes, radiating intense RFI inside the chassis. In Super Purist mode, we intentionally decelerate the dedicated physical link from 1 Gbps down to a strict 10 Mbps limit using a rigid 10BASE-T configuration.

While counter-intuitive to standard computer networking, this forced

deceleration achieves profound acoustic breakthroughs:

- Carrier Frequency Suppression: Dropping to 10 Mbps transitions the hardware to a beautifully simple Manchester encoding scheme running at a native carrier frequency of just 10 MHz. This creates a substantial reduction in the electromagnetic noise floor inside the chassis.
- Interrupt Overhead Throttling: A 10 Mbps link physically acts as an analog equalizer for data flow. It prevents high-speed packet ingestion spikes, which drastically curtails the volume of CPU network interrupts the Target's operating system kernel must schedule.
- Mathematical Constraint: This intentional restriction forces a hard ceiling on format throughput—capping playback at a maximum of Native DSD64 and 32-bit/96 kHz PCM. Extreme high-bitrate files are rejected entirely.

By deliberately restricting the system bandwidth to match the mathematical bounds of a 96 kHz stream, we trade empty ultrasonic bandwidth for an instantly recognizable drop in digital glare. The system achieves a wider, completely relaxed soundstage, deeper micro-dynamic expressions, and an overall sense of analog calm that high-bandwidth solutions simply cannot replicate.

Optimization Mode	Carrier Frequency	Maximum Format Support	Target CPU Interrupts	Primary Acoustic Benefit
Standard (Gigabit)	62.5 MHz	32-bit / 384 kHz & DSD256	High / Bursty	Full format compatibility; standard noise floor baseline
Purist Mode	31.25 MHz	32-bit / 384 kHz & DSD256	Moderate / Balanced	50% frequency reduction; minimized

Optimization Mode	Carrier Frequency	Maximum Format Support	Target CPU Interrupts	Primary Acoustic Benefit
				low-frequency power supply noise
Super Purist Mode	10.0 MHz	32-bit / 96 kHz & Native DSD64	Low / Synchronized	68% lower frequency than Purist; maximum micro-dynamics and absolute analog calm

> In summary, so-called “Hi-Res” audio solves problems we no longer have in exchange for creating new problems that have a greater negative impact on the blissful and engaging listening experiences we prize.

Jim Welby's Closing Thoughts

I don’t question David’s ideas, but I am too ignorant to understand the complexities behind them. I trust his expertise as an audiophile and network engineer, and that he knows what he is talking about. I have demoed his system, and it sounds fantastic!

My takeaway is that with the right equipment and configuration, you can leverage high-resolution formats to enjoy sound that is better than CD quality, but with inadequate equipment and a poorly designed configuration, that high resolution can actually sound worse than CDs.

I may be deceiving myself, but I think I am getting better sound from high-resolution formats on my systems. If not better sound, high-resolution formats at least result in less ear fatigue.

I also know that great sound depends on the specific recording. I have selections in my collection that sound “the best” across a variety of formats (vinyl, CD, SACD, etc.) -I restate that great sound comes from mix quality, mastering skill, and the source, not the format.

I plan to pursue David’s Diretta project. My next step is to take David up on his offer to AAVC members to help me implement Diretta. In future AAVC newsletters, I plan to update you on my journey with Diretta.

Paul Johnson’s Playlist

Bruce Springsteen & The E Street Band | Live From Asbury Park (2024)

Neil Young And The Chrome Hearts | As Time Explodes

The Black Keys | Peaches

Elton John | 11-17-70

Ryan Bingham And The Texas Gentlemen | The Call Us The Lucky Ones

U2 | Easter Lily | Days of Ash

Fink | Beauty In Your Wake | Wheels Turn Beneath My Feet | Bloom Innocent (Acoustic)

Lizzy McAlpine | Five Seconds Flat | Older (and Wiser) | Give Me A Minute

Sierra Ferrell | Live @ Third Man Records

Noah Kahan | The Great Divide: The Last Of The Bugs | Stick Season (Forever) | Busyhead | Live From Fenway Park

Various Artists | Everyone's Getting Involved: A Tribute to Talking Heads' Stop Making Sense

Various Artists | Midnight In The Garden Of Good And Evil (Music From And Inspired By The Motion Picture)

Son Lux | Tomorrows I, II, III | Everything Everywhere All at Once (Original Motion Picture Soundtrack) | Brighter Wounds

Paul McCartney | The Boys of Dungeon Lane

William Prince | Further From the Country | Reliever | Earthly Days | Stand In The Joy

Roger Glover | The Butterfly Ball and the Grasshopper's Feast

Maggie Rogers | Notes from the Archive: Recordings 2011-2016 | Heard It In A Past Life | Don't Forget Me

Takeo Moriyama | Green River | Yatagarasu | Tokuzo (Live) | Live At Café OTO
Roberta Flack | With Her Songs: The Atlantic Albums, 1969-1978 | The Montreux Years | Killing Me Softly

Donny Hathaway | Someday We'll All Be Free (France Release) | Live (Jealous Guy is the highlight) | Never My Love: The Anthology

Red Mitchell | Red'N Me | Days Of Wine And Roses | Home Suite... | Presenting Red Mitchell

Linda Perry | Let It Die Here

Ken Pomeroy | Cruel Joke | Look At Miss Ohio (First track from her next album; Tonight's News) A Gillian Welch Cover song (one of my favorite artists)

Gillian Welch | Soul Journey | Time (The Revelator) | Hell Among The Yearlings | The Harrow & The Harvest

Emmylou Harris & Rodney Crowell | Old Yellow Moon

Rodney Crowell | Airline Highway (Deluxe) | Then Again

James McMurtry | Complicated Game | The Black Dog and the Wandering Boy

Kathleen Edwards | Back To Me | Asking For Flowers | Billionaire | Failer

Laura Veirs | Year of Meteors | The Lookout

Laura Gibson | Goners | Empire Builder | If You Come To Greet Me

Dealers Corner

As always, we want to recognize and thank the local retailers who graciously support our club.

Editor's Note:

I have made a few edits to this month's Dealer Corner - deletes are crossed out and adds are in red. Next month, deletes will be removed, and adds will not be highlighted.

Equipment Dealers:

Acoustic Designs Group https://www.adgroupaz.com/

Arizona HiFi http://tubeaudio.com/

Audio Video Excellence https://www.audiovideoexcellence.com/index.html

Cinematic Home AV https://www.cinematichomeav.com/

~~Woolson Audio https://www.woolsonaudio.com/~~ retired and is out of business

Dedicated Audio https://www.dedicatedaudio.com/

LMC Entertainment https://www.lmche.com/

USA Tube Audio https://www.usatubeaudio.com/

Mythic Home Theater https://mythicsls.com/

Vinyl/CDs:

In-Groove Records https://www.theingroove.com/
They also sell audio equipment per the store's website.

Zia Records https://www.ziarecords.com/ Zia has several stores throughout The Valley.

Stinkweeds https://www.stinkweeds.com/

Vinyl Record Dude https://vinylrecorddude.com/

Repair Work: The editor recently contacted these repair providers to confirm they are still in business. As of the newsletter's publication, he has not heard back from all the companies.

Tim Hoffman is an AAVC member and the owner of Arizona Audio Video Electronics (http://www.azvideoelectronics.com).

James Koch- Sadly, James recently passed away.
~~james@highendrepair.com~~
~~480-398-7362~~

Audio Doctor - active website
http://www.audiodoctor.biz/
602-741-0730

Turntable Set-up and record cleaning:
Richard Jensen confirmed still in business
602 717 2399 | worksbau@gmail.com

Scott Cohen- geared more towards vintage gear, email **VintageAudioReview@proton.me** with device info and problem(s), and I will let you know if it is something that I think I can help you with. Located in Tucson. Your device might even be featured in a YouTube video. Confirmed in business.

Jeff's Professional Audio Repair 602-274-0794 - Also, Car Stereo work was emailed on 9/9/24 to confirm if still in business - did not hear back jparepair@yahoo.com

Re-foaming Speaker Surround Service:
Michael Mitchell 480-749-7003
mmiller43228@yahoo.com emailed on 9/9/24to confirm if still in business - did not hear back