Cover: violinist Jascha Heifetz (1901 - 1987). Many consider him to be the greatest violinist ever. He was one of the most influential performing artists of all time and in his later years became a teacher and an advocate of causes he believed in, including clean air and the establishment of 911 as an emergency phone number.

Stay safe. Be careful out there. Maintain social distancing. Wash your hands frequently. Familiar phrases in these tough times.

To those I’d add: listen to music. Read a book or magazine. Watch a movie. Play your instrument. Surf the web. Don’t let the endless barrage of TV news make you crazy. Ignore (except to debunk) misinformation on Facebook and social media. Call or video chat with a family member, friend or loved one. Though we may be temporarily separated, we’re all in this together and we’ll help each other stay strong.

In this issue: Anne E. Johnson gives us incisive looks into two of the modern era’s greatest artists: Frank Sinatra and the Kinks! John Seetoo contributes his CanJam NYC 2020 Part Two report. J.I. Agnew continues his series on linearity in audio, with clear explanations of this technical topic. Tom Gibbs gives unrestrained opinions on Brandy Clark, King Crimson, Charlie Parker and Tame Impala. Professor Larry Schenbeck enthuses about Sanctuary Road, a new oratorio. Dan Schwartz asks: why don’t musicians use audiophile speakers?

Veteran broadcaster Bob Wood shakes his head over the state of today’s commercial radio. Wayne Robins provides a step by step operating manual for Miss Anthropocene by Grimes. Ivan Berger
peers into the state of the audio art - 80 years ago, I say the audio shows must go on. Rich Isaacs looks at unusual cover versions of well-known songs. Rudy Radelic takes us through a journey to electrostatic ecstacy. Finally, our A/V department asks if ewes are listening, contemplates a silent audio partner and toasts a former music landmark.
"It’s a quarter-to-three and there’s no one in the place except ewe and me."
"IT'S A QUARTER-TO-THREE AND THERE'S NO ONE IN THE PLACE EXCEPT EWEN AND ME."
This guy likes to relax while listening. From *Audio*, November 1958.
Man, this guy really likes to relax while listening. From Audio, October 1958.
You can MacKit if you try! Yes, McIntosh offered kits at one time. From Audio, November 1960.
Toward the end of my tenure in radio, which happened around 2004, automation came into widespread use - and helped ruin radio.

Originally the idea behind using automation was called “hub and spoke.” The plan was to use technology to put the best “hub” talent onto the air in “spoke” markets, replacing local people. Computerization allowed the computers to play the music, commercials and so on, which was supposed to free up the on-air talent from essentially being file clerks, and get to spend more time planning what they were about to say on the air.

It didn’t work that way.
It allowed the “hub” talent to pre-record their shows, which could then be inserted into the “spoke” stations via computer. Record and insert. This could, and did, happen across markets. Soon, locals were fired and replaced by someone on the wide area network. The replacements would be paid a fraction of the former full timer’s salary. (Example, A $30,000 a year plus benefits employee expense would be reduced to $5,000 with no benefits.) Local talent was lost for all but the very best remote-location DJs who actually prepared and studied for the markets they would do voice tracks for.

Air personalities were told that if they talked more than eight seconds, they’d lose audience. Yet the stations would play as many as eight minutes of commercials in a row, usually 30-second ads. When the music stopped twice an hour, there could be 12, 14, or 16 commercials in a row. Hypocrisy. Then some stations would play long sweeps of music at prime times, only to have to make up for the lost spots in the following hours, so there would be even more commercials then.

People always ask why radio plays the same songs over and over, when there are so many other songs they could play. The answer is simply that when people tune in, they want to hear their favorites. We spent a lot of money to find out what those songs were, then tried to mix them so they’d repeat in a way to “stretch plays out” – for example, if played in the morning, the songs would be then played in the evening, then the afternoon, before returning to being played yet again in the morning.

Air personalities were told that if they talked more than eight seconds, they’d lose audience. Yet the stations would play as many as eight minutes of commercials in a row, usually 30-second ads. When the music stopped twice an hour, there could be 12, 14, or 16 commercials in a row. Hypocrisy. Then some stations would play long sweeps of music at prime times, only to have to make up for the lost spots in the following hours, so there would be even more commercials then.

Every station that tried to add songs beyond the favorites lost ratings.

You might think people want variety, but if that leads to unfamiliar music, or polarized songs, it doesn’t.

Think of radio station playlists this way. You go to a concert for a group you like. Steely Dan? Don’t you want to hear “Hey Nineteen?” “Gaslighting Abbie,” maybe not so much.

When life intrudes, people’s interest in music is displaced. The music they grew up with becomes a marker back to those good old days. New music doesn’t have that magnetism, even if it’s good. Radio is about instant gratification, or the listener will move on. So you can’t count on listeners paying attention deeply enough to get into a song they don’t know.

Programmers know how long a station’s core audience listens – and at what times. Those heavy listeners comprise 80 percent of the station’s audience at any minute. You can then calculate how many times to play a current song (or power library cut) to hit the largest percentage of your daily/weekly audience.

We had research groups of likely listeners who would rate each song. Some songs would turn out to be “universals,” liked by everyone. Some would be peculiar to a certain age group or sex within the target audience. We could also get the song-by-song playlists of virtually any other station to see if they had discovered some songs we hadn’t tested.

Hit songs are like endorphins.

Oldies, for seniors or older folks mostly, are like a serious dose of endorphins for them.

Christmas music: big squirt of endorphins. When stations go all-Christmas they can triple their audience. Think of what that music takes you back to...presents, family, happy happy.

Since the early 2000s, corporate control has increased. Local program directors now have little power compared to my days when my on-air freedom was virtually unlimited. Corporate “initiatives” rule the formats now. Vice presidents of formats (and yes, there are VPs for each format) force
obedience. Freed from previous government regulations, the large companies bought so many stations on shaky financial terms that debt became a major factor. Bankruptcies ensued. Then competition for advertising from digital media like streaming and internet radio sucked even more blood from radio. 

These days I find it hard to listen to radio because as a former program director, I know what’s wrong, and a lot is wrong. I can’t listen as an audiophile because most stations hammer their audio with multiband automatic gain controls, limiters, compressors and clippers. Theory says listeners prefer the louder sound. Perhaps not the loudest distortion. And as popular music is compressed to death to start with, the audio largely sucks.

Today, corporate radio is pretty much a morning show followed by a jukebox. iHeartMedia recently completed another round of layoffs and is building a number of “AI-enabled Centers of Excellence.”

I went into a station multi-station cluster on a weekend some years back. There were six stations broadcasting. And not a soul in the building.

Since 1976 I have been doing voiceover work – acting or announcing in commercials, being the “voice” of TV stations, radio stations, and a variety of other types of work. In subsequent articles I will touch on that.
1. Go to YouTube. Watch video for “Delete Forever.” Grimes’ multihued but definitely orange-ish hair is parted in the middle, with huge balls of pigtails on either side. Consider these globes to be planets. When in doubt, consider any shape in a Grimes video a planet: Earth or elsewhere, as we are surely not alone in the universe. The “Delete Forever” music is engaging and smells like tomorrow: heavy beats, acoustic guitar, even what sounds like mandolin. This is not the Montreal rave scene she started her career with in 2011, but it does feel like an organic evolution.

2. Read Pitchfork review of Miss Anthropocene in which writer Anupa Mistry describes it as “her first album as a bona fide pop star.” Discuss this notion with your class of Writing About Music students and ask if anyone thought of Grimes as any kind of pop star. No hands go up, although a few were slightly familiar with the name. None confused her with the UK grime music, electronic
dance music with hip-hop, though there is probable cause to detect some alliance between Claire Boucher, the artist known as Grimes, and the musical style. Not much, but some.

3. That would seem to be a recurring non-motif in the music of Grimes, which is that there are many points of inflection but no commitment to any one style. People who live in boxes find this troubling; those who like to color outside the lines, who drew purple cows in grade school art class and didn’t see anything wrong with that, find Grimes appealing.

4. Grimes is not without roots in a fixed time and place. Listen to or especially watch her 2012 video for “Oblivion” at the start of her career, then listen to Donna Summer’s “I Feel Love.” You can get here from there.

5. She’s got everything she needs, she’s an artist, and she looks to the future, though surviving to live in any kind of future is a serious concern. The title “Miss Anthropocene” names her as a woman, perhaps The Woman, of her time: We are living in the Anthropocene age, “the period during which human activity has been the dominant influence on climate and the environment.” Underlying her approach to art is the sensible notion that unlike the environmentally aware musicians of a previous generation, who gave benefit concerts for whales, African famine, against nuclear power and for farmers, the species under direct attack is us. Our home planet has too many pressure faults, and we have to fix it now. That much of the world’s leadership is in denial about this was anticipated in the 1930s, when Jerry Siegel and Joe Shuster created the first Superman If you remember the plot basics, scientist Jor-El predicts doom for his imploding planet, while planet Krypton’s ruling class and science skeptic doom-deniers say nonsense. He builds a rocket to get his infant Kal-el to Earth just before Krypton explodes, as Jor-El predicted. The kid lands in Kansas and becomes Clark Kent.

6. Now watch the video to “So Heavy I Fell Through the Earth.” Asteroids and huge chunks of the third stone from the Sun are flying off into space. An avatar of a woman with a sword or similar is engaged in a battle with a raptor. There’s a definite erotic charge as the woman with the sword gets close to the raptor’s mouth, parry and thrust, in and out, approach and withdraw. By the end of the
six minute mini-movie you’ll wonder of there is some sort of copulation/capitulation. Are she and the raptor enemies or dueling and flirting, for sport, engaged in a friendly sex game as we await the same fate of flying dinosaurs: extinction.

http://www.youtube.com/watch?v=iH0kfH04U68

7. In an interview, Grimes tells The Face that she has created an avatar called WarNymph. The avatar has allowed her to keep working through her pregnancy. Vogue magazine shows her pregnant, complete with self-written diagrams written on her bulging belly. The father is Tesla man and successful civilian rocketeer Elon Musk. Las Vegas bookmakers say that the chance of their child being named James or Jane, or John or Susan, are a bazillion kazillion Krypton dollars to one. Grimes worries that her online fan base has already mentioned a few of the unusual names that mom and dad had considered.

8. Go back and listen to some tracks from Grimes’ last album, Art Angels from 2015. The cover features two animated characters: a cute anime character and a larger three-eyed creature, conventionally “alien,” with tears of blood coming through the eyes. Whoever she is, she has her eyes on the prize. It’s a really impressive album of sophisticated synth pop, though strangely, Grimes now regrets it. In April 2019, she told Stereogum, which had named it its No. 1 album of 2015, “a piece of crap...a stain.” What she meant was, it was a pop record, which I think means she was experimenting with pop, and it came off more pop than experiment: “a genre exercise,” as she puts it. Note that “genre exercise” is a phrase used almost exclusively by rock and pop critics, when a band explores a singular style, or reverts to an earlier one: the Rolling Stones blues album Blue and Lonesome could be “a genre exercise”; the Byrds’ country album Sweetheart of the Rodeo was not a genre exercise, since it solidified a new genre: country-rock. I nevertheless see Art Angels as a “seminal album” (Quotes or air quotes mine to indicate that this too is a pop critic cliché best avoided). What I want to say is that it is a transitional album, still anchored in dance pop but displaying her powerful multi-octave range, contrasts not often heard in clubs: check out “California” with heavy bass and drums and ethereality, and a sort of rebellious vision, as if Mariah Carey had Laurie Anderson’s irony and IQ. But maybe calling a song “California” is too obvious for Grimes. And “Kill v. Maim” has a relentless intensity that may be, in retrospect, a genre-exercise in 1990s Madonna. The video, as always, is great, created by Grimes and her talented brother Mac Boucher. It takes place in the ruins of an abandoned or just filthy subway station, with plenty of women menacing women wearing fishnet everywhere. (Grimes is wearing a VERSACE sweatshirt). Our current pandemic fears are anticipated by many wearing protective medical masks, and at the end of this otherwise typical zombie apocalypse are the words: YOU DIED.

9. Back to the new album. Among other necessary songs are “My Name is Dark,” an electro-rocking “Sympathy for the Devil” featuring computer swooshes rather than electric guitars, and “4 AEM,” an elegant hymn to loneliness and desire.

10. To the degree that the “Delete Forever” video reminds you of Katy Perry, be aware that Grimes is conscious of the thin line between imitation and the sui generis for which she strives. She is in on the joke.

http://www.youtube.com/watch?v=gvzC8MmC850

11. There are two video versions of “Idoru,” the “slightly longer version” (almost seven minutes) and
the “slightly shorter version” at 5 minutes 19 seconds. The videos have an Asian motif long loved by Grimes (see “Realiti” from 2015). “Idoru” is a Japanese word that resembles “idol,” but it refers to a specifically Japanese kind of teen idol. According to the Rice University neologisms database, an Idoru is a “young pampered female Japanese pop icon,” especially a manufactured one. In other words, an idoru is sort of like a solo woman artist version of the boy bands so popular in Japan and Korea, although young girl and mixed groups are becoming increasingly popular in K-pop. It is also noteworthy that Idoru is also the name of the second book of novelist William Gibson’s cyberpunk trilogy “Bridge Trilogy.”

http://www.youtube.com/watch?v=oCrhTU9HkVQ

12. All resemblances to Gibson’s book are intentional. In the video (maybe just the shorter version) Grimes is seen holding a copy, that is dedicated to her (“Claire”). One of the characters in Gibson’s book is a virtual reality superstar idolized in Japan named Rei Toei. Oh, and both Gibson and Grimes live in Vancouver.

13. In the “Idoru” video flower petals (cherry blossoms? Or giant pollen clusters) drift down. Grimes is wearing a vintage wedding dress, wielding a sword with a white flag attached. Her plentiful makeup is applied asymmetrically: big ball of rouge on one cheek, smaller, off-color rouge on the other. Her fingernails are like talons. The pigtails she wears are rooted so high on her head that she is essentially bald at the top of her head. During the video, according to the online webzine Fact, there are also scenes from a 1990s anime Revolutionary Girl Utena, as well as references to a futuristic dystopian videogame, NieR: Automata.

14. The melody is gorgeous; the lyrics, sincerely moving. The singing, magnificent. She has a warmth that is lacking in say, Bjork, whose art pop is a natural point of reference. (Except those who find Bjork tedious might revel in Grimes.) Her musical ambitions and abilities are more Lady Gaga than Lana Del Rey, more cyberpunk Streisand than android Mariah Carey. With her musical, video and VR skills, and a limitless budget for her imagination, there’s no stopping her. My old school fortune teller sees her headlining the Super Bowl halftime show in 2025, if not sooner, in person, in 3D, or as her own hologram that will appear directly in your living room.

Header image courtesy of Wikimedia Commons/Caitlyn Ridenour.
I never thought I’d have to write a piece like this. Well, none of us can keep our heads in the sand, comforting as that may be at times.

This also may seem like a trivial consideration compared to what’s happening to the world at large, but on the other hand, the subject is a microcosm of the bigger picture. How is the coronavirus going to impact the world of audio? Specifically, audio shows?

I’m no epidemiologist, so whatever is expressed here should be viewed as something resembling (hopefully) reasoned speculation and philosophizing.

On the other hand, we have plenty of facts to deal with. The Munich High End show has been canceled. AXPONA has been postponed until August. The people behind Montreal Audiofest have announced they’ll make a decision whether to postpone or cancel by the end of the month, but the show will not be happening this March. A state of national emergency has been declared in the US.

Certainly, cancelling or postponing these shows is prudent. For decades people in the audio and music industries have been joking about the “CES Flu” and “NAMMthrax.” These jokes wouldn’t be made if they weren’t based in reality. And in fact every year some attendees get sick after these shows (including me, and a number of industry friends, after CES 2020). But with the specter of coronavirus in the air the risk factor is obviously much higher.

Not to downplay this very serious consideration, but there are other challenges involved in putting on and attending audio shows. It’s often difficult for the exhibitors to get good sound, let alone show off their gear at its best. The rooms may be deficient acoustically, with some speakers being too large for the space they’re in. The combination of equipment may not be synergistic. (I’ve mentioned this before - sometimes manufacturers co-exhibit to save money, and may not even have tried their equipment in combination before. It’s a big gamble.) The AC power might be sub-optimal.
It costs a lot of money for exhibitors to ship their gear, travel, staff their rooms and deal with other expenses, and many shows aren’t free for attendees either. Sometimes the rooms get so crowded that show-goers can’t get a good listening seat, or even get into a room. Hotel logistics can be challenging, with big distances between rooms, or rooms too close together and intruding on each other sonically, to say nothing of crowded (or broken) elevators or lack of parking in some venues.

So, why bother? Because we need these shows. And they offer a number of tremendous advantages. Nowhere else can attendees, journalists and reviewers get to see and hear hundreds of audio components under one roof. Of every variety – analog, digital, tubes, solid state, affordable setups, cost-no-object ultimate-statement systems and literally everything in between. Show-goers have the opportunity to meet the designers and the people behind the products. We in the industry have a chance to meet our friends in the industry and kibitz with them – in fact, for many of us these shows are the only times we get to see our friends in the business.

A less uplifting reality is that, with the diminishing amount of specialty audio dealers, audio shows are becoming the only place where someone can personally experience a large amount of audio gear at a single location. (See our Issue 105 Industry Viewpoint: Are Audio Dealers in Trouble?) If this trend continues, audio shows will continue to grow in importance.

But there’s another, perhaps more fundamental consideration. As editor of Copper, one of the things I’ve been thinking about is: is writing about music and audio trivial considering we’re in the midst of a coronavirus pandemic right now?

Part of me thinks, yes, compared to the very serious issues we’re now facing.

But the bigger part thinks, no, absolutely not.

Music is vitally important. It’s a fundamental aspect of humanity. Look at the evidence that history provides – or sit down and listen to a favorite song. We need music. And I think we need it more when times are tough than when we’re cruising along. Music provides joy, solace, pleasure, excitement, an emotional connection with our lives and those of others.

Therefore, so do audio systems. And the better the system, the better the music can be heard, and its emotional meaning conveyed. (The fact that music can be listened to at home, and can be a great comfort or even a welcome distraction for those who may be isolated during the current outbreak, hasn’t been lost on some of us.)

Since I’m not a doctor or a soothsayer, I can’t predict when the current crisis will peak and then diminish. But I don’t think I’m going out on a limb to say that it will, and when it does, we’ll be out and about again, if perhaps a little more apprehensively than before. Humans are resilient. Normalcy will return, if perhaps a little more tempered than before. When it does, so will the audio shows, and we’ll need them more than ever.
A New American Oratorio

Too Much Tchaikovsky

Written by Lawrence Schenbeck
It’s been a while since we featured any oratorios in this column. Maybe the last time was 2016, when the subject was Craig Hella Johnson’s Considering Matthew Shepard (Harmonia Mundi HMU 807638/39). Yet oratorio continues to be one of the most viable genres in the classical tradition. A hybrid form itself—opera-minus-costumes-plus-church-music—it’s lately been subjected to further hybridization: for example, Britten’s War Requiem (1962), which combines the Latin liturgy with a soldier’s poems from the Great War. Thus, vivid first-person narratives (sung by palpable characters, if you will) perch alongside the words of the Catholic Mass for the Dead; the texts inform each other.

I like the way online Britannica reminds us that “oratorio derives from the oratory of the Roman church in which, in the mid-16th century, St. Philip Neri instituted moral musical entertainments.” [emphasis added] That explains Leonard Bernstein’s Mass (1971), the Latin of which was, like the War Requiem, enhanced with added texts—in this case by Stephen Schwartz (of Wicked fame) and the composer himself. Through those additions, the moral component of Bernstein’s entertainment received extra emphasis. That included not only his characters’ crises of faith but also critiques of the Vietnam war and certain elected officials; Nixon refused to attend.

Mass was billed as a “theatre piece,” but today many older pieces are being successfully retrofitted for the stage. Handel (1658–1759) helped us by actually writing theatrical directions in the scores for some of his oratorios; Semele and Saul practically cry out for theatrical presentation. And why not? As words-and-music, not much separates something like John Adams’s multi-textual, multimedia “nativity oratorio” El Niño (2000) from the Christmas Oratorio by J. S. Bach (1658–1750). Or from Bach’s Matthew Passion, recently staged for the Berlin Philharmonic by Adams collaborator Peter Sellars, who has also staged at least one Handel oratorio, Theodora.

All of which brings us to today’s topic: Sanctuary Road (2018), music by Paul Moravec (b. 1957), libretto by Mark Campbell (b. 1953). A Naxos recording of the premiere was released in January, gaining a well-earned spot on Billboard’s Top Ten Classical chart for several weeks. Well-performed and well-engineered, it’s a “live at Carnegie Hall” keepsake worth hearing and owning.

Librettist Mark Campbell has become known as the go-to guy for great opera books. He scripted Silent Night (2012; music by Kevin Puts), The Shining (2015; music by Moravec), and The (R)evolution of Steve Jobs (2017; music by Mason Bates). Plus 35 others! Some have won high honors, like a Pulitzer Prize or a Grammy; many have received multiple productions from different companies.

Campbell’s collaboration with composer Paul Moravec, himself a Pulitzer awardee, is ongoing. Besides their work on Sanctuary Road and The Shining, they are polishing another oratorio, A Nation of Others, for its premiere in May by the Oratorio Society of New York, which also participated in the creation of Sanctuary Road. (Disclosure: I have written program notes for several OSNY performances, and I am currently working with composer and librettist to assemble notes for the May 2020 premiere of A Nation.)

Sanctuary Road owes its birth to a member of the Oratorio Society who had grown up in segregated Kentucky and wondered whether the group could find a way to focus light on America’s troubled racial past. She had sung in Moravec’s The Blizzard Voices (2008), first of what he now calls his “American historical oratorios.” Her experience with that work, which depicted stories from a legendary snowstorm that devastated the Great Plains in 1888, inspired her to commission a new oratorio. Moravec and Campbell proposed a project based on William Still’s The Underground Railroad Records, published in 1872. Still had served as a “conductor” on the Railroad before the Civil War, keeping meticulous records of his passengers’ experience. Eventually he helped some 800 fugitive slaves escape to the North; their stories would form the textual basis for the oratorio. Campbell came up with a title that linked the dream of safe passage to a better land with a term...
resonant once again in American life.

Five soloists do the storytelling. Bass-baritone Dashon Burton portrays Still himself, interviewing Railroad passengers and emphasizing the significance of the written record:

His narration is woven around a handful of individual stories that provide the most arresting drama in the fifty-minute work. My personal favorite was the tale told by fugitive Ellen Craft, sung by mezzo-soprano Raehann Bryce-Davis, a 2018 winner of the George London Award. Craft disguises herself as an elderly, ailing white gentleman in order to catch a train to Philadelphia and freedom. In the next car, her “valet” accompanies her on this journey. But, as she explains, he’s not really her valet. As she lets us in on her secret, the music, skittish at first, gradually and effortlessly moves closer to Dvořák or Stephen Foster:

_They see me as a sick, white gentleman,_
_Who has his own valet—a black man who sits with the other slaves,_
_In the other car._
_But he’s not my valet . . .
He’s the man I will marry,_
The man I will marry in Philadelphia._
_He’s in a different car._
_But we’re on the same train,_
_Humming along like a hymn,_
_All the way to Philadelphia,_
_To Philadelphia._

Moravec also deftly captures the grim humor in Henry “Box” Brown’s story, sung by Malcolm Merriweather. To escape, Brown had himself nailed into a crate and shipped from Richmond to Philadelphia:

_They can’t seem to read._
The don’t seem to know.
The crate I’m in,
It says:
“THIS SIDE UP WITH CARE”
_In big, big letters._
To clarify:
“This Side Up” is above me,
Not below.
Been on a cart,
On a train,
On a steamer,
And on a train again . . . .
My brain may burst from being
Upside down.
And my eyeballs may explode.
But it’s worth every second,
Every second of those twenty-six hours . . . .

The chorus doesn’t get to show off quite as much, but they do a terrific job when called upon, as in
the triumphant hymn that ends the work. There’s more complicated choral singing in a movement titled “Reward!”, where the choristers impersonate a raging collection of slaveowners, offering money for the apprehension of “property” who have somehow gotten away. More than anything, the music makes it clear that fugitives came in all shapes, sizes, ages, genders, and skill sets, united only by their desire for freedom.

It’s a compelling set of stories, heightened by the skills of the composer, librettist, and performers. Ably recorded and mastered, too, by Carnegie Hall’s Leszek Wojcik and Joseph Branciforte. If you’re in New York City in early November (and if our current national dilemma has abated), you may be able to catch its sequel, A Nation of Others, which chronicles the American immigrant experience. Like Sanctuary Road, it will be conducted by the Oratorio Society’s magisterial music director Kent Tritle.

Should be a night to remember!

http://www.youtube.com/watch?v=ImDoW6P_AHM&list=OLAK5uy_l09IUrV77NMF4ZenSFLHJmiblmQ1gdvj4

(The above link provides all of Sanctuary Road plus a ten-minute “making of” audio featurette hosted by WQXR’s Terrance McKnight. You may want to have a libretto handy, which you can get right here.)
Well, actually, they do – sometimes.

I’m writing this in response to a recent “Ask Paul” video, where he was asked the question, “why don’t musicians use audiophile speakers?” [https://www.youtube.com/watch?v=w2iAgepNnow]. When it comes to live sound, keyboard players tend to use full-bandwidth systems for onstage monitoring, as did drummer Bill Kreutzmann during the Grateful Dead’s “Wall of Sound” moment. But generally, Paul is right. Guitar players, bass players, we tend to use a very specific bandwidth. Howsoever, once upon a time... let me regale you with a story of yesteryear.

In 1984 I was one of two consultants to a man who wanted to build a better bass amp. Was he successful? OMG – unbelievably so. By a decade later, everyone was copying him: even Fender and Ampeg. Good for him.

Anyhoo, along about 1986 or 1987, I started experimenting with plugging my bass into my hi-fi system. At the time I used Thiel 03As. This was before I got the Snell “refrigerators” – really large Snell Type B prototypes that are flat to at least 16 Hz. I liked the sound – a lot. I connected a bass amp of my friend’s design up, and still liked it. It was wide-bandwidth for a bass amp.

So I hauled one of my Thiel 03As out to his place for him to have the experience. I showed him what happened to the top end of the bass when heard with a 3-way system with a soft-dome tweeter. It sounded very much like my bass unplugged; a nice, easy upper mid-range going on out to a natural
roll-off. He “got” what I wanted to hear and I thought we were in agreement, but he ultimately refused to build me a cabinet that would do that.

However – the next year, his company introduced a speaker with a really ugly-sounding “bullet” tweeter built into it (so named because the center of the cheap piezo tweeter looked like a bullet). This was, for them – and most other people – now full-range bass, and of course they felt that one tweeter would suffice and handle the power required – and be cheap. Soon after, just about every other company followed – bass amps and cabinets with these tweeters were super popular and ubiquitous as all hell. For me it was disastrous – nothing like I had heard or been looking for.

I had been hoping this guy’s company would build me a box with half-a-dozen-at-least-probably-more soft-dome tweeters in it. But...no. Dream on, kid. And after hearing what bass sounded like through a speaker cabinet with a bullet tweeter, I lost all interest in it.

However, my pal Henry Heine of Bag End Loudspeakers understood the difference, and for a while was the designer of the cabinet parameters for this company – a small bass amp that used two 8-inch woofers which he sourced from speaker manufacturer Eminence and a 5-inch cloth-dome tweeter from MTX, but sort-of based on the tweeter that Bag End originally used – the same JBL 2105 that the Grateful Dead used so unbelievably many of in the "Wall of Sound" (http://www.lansingheritage.org/html/jbl/specs/pro-comp/2105.htm). It’s still one of three great products that this company ever produced (which is better than most companies can claim). And given the sonic connection with the Dead, it’s no surprise that I liked the sound of the Henry’s original design for the cabinet. Again – too bad it changed. I’m not privy as to why, but it was probably money.

Eventually the company I was consulting for gifted me a speaker cabinet, which I used to use frequently, and it does have one of those horrible bullets in it. But it also has a volume control for the bullet tweeter and it’s never once been turned up from “0.”

I suppose it’s a sign that I was so turned off by the ugliness of the sound of a bass through a bullet tweeter that I never thought to just go to Henry and Bag End and ask for what the local company wouldn’t make – that cabinet of multiple drivers that I wanted.

Nor did I make the mental connection with the Dead’s Wall of Sound (though not Phil’s bass amp, which used four Alembic F-2B tube preamps, four McIntosh 2300 power amps, and 36 JBL D140 speakers. If I had I might have realized what do to – I was looking for a system like their designers
(Owsley Stanley, John Curl, Rick Turner and Ron Wickersham) had designed for piano or drums.

Ah well. Live and don’t learn. Nobody ever said bassists aren’t stubborn.
Audio Minus 80

BACK TO BASICS

Written by Ivan Berger
Books on audio weren’t plentiful 80 years ago, but the 1940 edition of *Audels New Radioman’s Guide* gives a glimpse of everyday audio back then. As the title suggests, the book is basically devoted to
the theory, construction, and servicing of radios, including aircraft and marine radio, and even television. Many of its 34 chapters cover such fundamentals as power supplies, vacuum tubes, coil calculations, test instruments, and batteries. Only four directly concern audio: Physics of Sound, Loud Speakers, Phonograph Pick-Ups, and Public Address Systems. Skimming the radio chapters, I see no mention of FM except for one FM radio schematic in the chapter of radio schematic diagrams. (FM broadcasting had already begun, but FM radios weren’t very common.)

It’s an interesting look into the state of audio back then, parts of it surprisingly modern and other parts emphatically not. Here are some highlights:

**Speakers:** I was surprised to discover that the book covered electrostatic as well as magnetic speakers—and even more surprised that it covered five other types little known today. Most common of those was the electrodynamic type, basically the same as the magnetic, but using electromagnets rather than permanent magnets.

Balanced-armature construction (now found on many earbuds), said author E.P. Anderson, completely eliminated “chattering on loud signals, usually encountered in the magnetic type.” However, making it sensitive required such small air gaps between the voice coil and magnet that the coil might strike the magnet on loud bass notes, “emitting a rattling sound.” This is probably not a problem for earbuds, due to the much lower signal levels they handle.

Piezoelectric speakers used crystals that expanded and contracted with the signal’s fluctuations. They were “often used in connection with high-frequency reproduction.” “Metal strip” speakers (presumably what we’d call “ribbon” speakers now) and “induction” speakers were merely

---

**Dynamic Speakers.**—A speaker of this type illustrated figs. 4 and 5 consists principally of the following parts: 1. Field coil; 2. voice coil; 3. cone.

![Dynamic Speakers Diagram](image)

**Fig. 4—**Cross-section view of a dynamic type loud speaker with a magnetic field driving a cone type diaphragm. Details of the various units are here clearly represented.

The field coil is connected to a d.c. source, effecting a sinusoidal magnetic field across an air gap in which the voice coil is inserted. The signal current from the output terminal of the receiver flowing through the voice coil causes it to vibrate, thereby moving the cone and producing sound waves.

---
The book explains why baffles are needed and how to calculate their size, but doesn’t discuss anything but flat-plane and backless baffles – no sealed or ported enclosures.

**Phonographs:** This being a “radioman’s” handbook, it considers a phonograph as a device converting needle vibrations into audio “for reproduction through a radio receiver.” The “modern phonograph pick-up unit” illustrated looks clunky by today’s standards, but not much more so than the Webcor changer my Dad bought in the early ’50s.

Of the four pickup cartridge types mentioned (condenser, carbon resistance, magnetic, and crystal), I’d expected piezoelectric crystal pickups to be emphasized. Crystal and, later, ceramic piezo cartridges predominated on simple phonographs for decades (our 1956 Webcor had one) because they were inexpensive and produced reasonably musical results without equalization. However, moving-coil magnetic pickups were covered in more depth; I guess moving-magnet types had to await stronger magnetic materials than were then available.

Styli were straight needles, held in by a set-screw for easy replacement. They must have needed replacement often: needles weren’t diamond-tipped, back then, and records were “made of hard materials, and . . . possess abrasive qualities sufficient to grind the needle point at the beginning of its travel in order to reduce the pressure of the needle.” More expensive radio-phonographs also had scratch filters.
Most records were 78 rpm, with 10-inch discs playing for 2-1/2 minutes and 12-inch discs playing 4 minutes. But some turntables also played at 33-1/3 rpm for 16-inch discs ("employed in sound picture work," ) that played for about 14 minutes.

Fidelity? What's that? Nowhere did I see any mention of distortion—even push-pull amplifiers are touted as producing higher power, not cleaner sound. The lone frequency-response graph, for “a typical radio receiver,” shows audio response down about 15 dB at 5 kHz for the upper reaches of the AM radio band, and -25 dB at a station frequency of 600 kHz. (Not that “kHz” wasn’t in use, yet—they said “kilocycles per second,” back then.)
But though the Guide doesn’t mention it, progress toward higher fidelity had been going on for years. Stromberg-Carlson, for example, offered console radios with acoustical labyrinth speaker enclosures, essentially bass-reflex designs partitioned to form a long, folded tube that delayed the rear-wave from the speaker to prevent low-frequency cancellation. The U.S. Radio model 10-C was “equipped with 2 dynamic speakers (one tuned for bass—one for treble);” both speakers were the same size, though, which would have restricted off-axis treble propagation. E.H. Scott Radio Laboratories (no relation to H.H. Scott) boasted “high-fidelity reproduction,” adding “you will hear tones you did not realize were there . . . . music . . . . can now be heard with a faithfulness that will thrill every fibre of your being.” Companies such as E.H. Scott and Capehart were predecessors of today’s audio high-end, with exacting attention paid to audio, radio performance and (in Capehart’s case) exquisite cabinets.

Interest in improved home audio didn’t become widespread until after World War II, when thousands of people educated in electronics by the military came home, and war-surplus electronics were on sale all over. Soon, there was a hi-fi industry, based on specialized components rather than console systems. By the 1950s, the term was so well-known that Max Factor brought out a “Hi-Fi Lipstick.”
In suburban North London circa 1960, two talented brothers, Ray and Dave Davies, taught themselves guitar so they could play skiffle and rock and roll. In high school they formed the Ray Davies Quartet, which performed in and around London for a few years. When Ray went to art school, he started making connections in the music scene and playing with other bands.

But he kept the quartet going, and a few name-changes later they became The Kinks. Pete Quaife was on bass guitar and Mick Avory on drums.

They signed with Pye Records and put out a few singles in 1964, all of which tanked. The record studio’s skepticism evaporated, however, when “You Really Got Me” made it all the way to No. 1 in the U.K. later that year. *Kinks* (1964) was their first LP, and the band would go on to release 23 more studio albums. Since the Kinks released so many, it’s impossible to cover them all, so I’ll touch on some highlights.

They scored another U.K. No. 1 single with “Tired of Waiting for You,” from *Kinda Kinks* (1965). A little-known track from those sessions was “Never Met a Girl Like You Before,” which was eventually released as a bonus track with a 1998 digital remaster of the album.

There’s evidence here of what would become the classic Kinks love of uneven rhythms inspired by the rhythm of the words. Not that the meter is irregular, but the lyrics come tumbling out in fits and starts. What’s missing is the quintessential Kinks wit, which would start showing up very soon. What they do have is a slightly wild, unkempt sound, which some critics refer to as their “raunchy” period. This ain’t the smooth-groove Everly Brothers.
In 1966, the single-only song “A Dedicated Follower of Fashion” brought humor and keen social commentary to the front and center. Later that year, *Face to Face* became arguably the first-ever concept album, with Davies’ observation of his fellow humans providing the theme. The band had toned down its rough edges and was going for a softer, gentler style that was also more intellectual.

One of society’s more dismal aspects – falling back down life’s ladder after you’ve made your way to the top – is the topic of the grimly humorous “Most Exclusive Residence for Sale.” Davies, who was recovering from a nervous breakdown as he wrote this album, had become the band’s voice, not just through his songwriting but through his plaintive solo singing. Gone are the days of the ragtag skiffle quartet sound. The term “baroque pop” shows up in descriptions of this Kinks period.

The non-album single “Autumn Almanac” came out in 1967 and did very well in the U.K., if not the U.S. The British pressing had a song called “Mr. Pleasant” as its B-side. It’s another quirky character study, this one about a man who can afford to keep a smile on his face because he’s got plenty of money. But dig a little deeper into his life, and maybe things aren’t so pleasant after all. The relentlessly cheerful barroom piano is the crowning touch.

Because the band wanted more control over its sound, Ray Davies became The Kinks’ record producer starting with *Something Else* (1967). However, Davies has since expressed his chagrin at his own novice work on the album and wonders if someone should have stopped him from taking over before he was ready. Nevertheless, this fan favorite supplied the beloved Kinks track, “Waterloo Sunset.” Brother Dave provided another hit with his song “Death of a Clown.” While “Waterloo” was an exercise in urban nostalgia and “Clown” a cry of desperation, Ray Davies’ bizarre touch for characterization makes a solid showing with the song “David Watts,” a half-joking homage to a schoolboy who seems to be perfect in every way. How about that rhythm section’s opening riff! Avory rolls out a huge range of sounds and patterns as the song progresses, but then, stunningly, stops playing at around 1:52, letting Quaife’s bass take over as percussion for a while. Those are distinctive and unpredictable textures worthy of The Who.

Soon after they completed *Something Else* and before the release of *The Kinks Are the Village Green Preservation Society*, the band released *Arthur (Or the Decline and Fall of the British Empire)*, a concept album for a TV show that was never produced. It had disappointing sales but met with critical acclaim. [Small wonder, thanks to songs like the single “Shangri-La,” a brilliant commentary on middle-class life in 1960s Britain and the human condition in general. - Ed.]

Davies was already starting on what Davies called his “village green” project, a set of songs portraying vignettes of small-town English life. It turned into *The Kinks Are the Village Green Preservation Society*, released in 1968 and disappointing the band with its low sales.
The single “Village Green Preservation Society,” which failed to chart, rekindles the quartet-vocal sound of the earliest albums. The big difference, though, is that this later effort is no boiler-plate love song. The distinctively Davies-style lyrics presents in a litany of specific details to illustrate a particular slice of old England.

http://www.youtube.com/watch?v=lc7dmu4G8oc

And that was the last time Quaife recorded with The Kinks. He was replaced by John Dalton, who stayed through 1976. John Gosling also joined on keyboards, making a memorable first outing on the hit single “Lola,” a song that daringly broke ground for its exploration of gender fluidity.

From the album *Lola vs. Powerman and the MoneyGoRound, Part One* (1970) comes “This Time Tomorrow,” a wistful and imaginative number with a meandering vocal that might be mistaken for Jefferson Airplane. Gosling’s Hammond organ, layered against quick arpeggios on the electric keyboard, is a wonderful contribution.

http://www.youtube.com/watch?v=qwVJ7FWc4rQ

In 1973, Davies turned the “village green” concept into two theatrical albums, which he then turned into a touring show, replete with costumes, a dozen actors, and a horn section. The albums flopped, but the U.S. tour of the show got good press.

Unfortunately, depression and drug problems plagued Davies at this time, which can’t have helped - or been helped by - the band’s struggles to sell albums and tickets. RCA declined to renew their five-album contract. They signed with Arista, and the prog rock went out the window, as did all the horns and actors. It was now just five men, rebranded for arenas. The gambit worked for quite a while, and they slid successfully into the MTV era.

After the 1983 hit “Come Dancing,” the band’s luster inevitably started to fade, although they released four more records. Their final album, *Phobia*, from 1993, yielded no U.S. singles, so folks who weren’t hardcore fans might have missed it altogether. This is the only record made with a different player on drums (Bob Henrit), although Avory did play on a couple of tracks.

“Hatred (A Duet)” has a fast southern-rock energy and a non-stop, wordy lyric style reminiscent of early Dylan.

http://www.youtube.com/watch?v=kHAFMddytTs

The Kinks officially broke up in 1996. One of the saddest moments I’ve ever seen in a rock star interview was Davies telling a reporter that he still dreamed that a limo would someday pull up to his house and take him to one more gig. For a long time, it was only a dream. Now there’s reliable word that there might be a new album coming soon!
Another common usage of the term “linearity” in electronics refers to linearity in amplification at different levels; this can be called “dynamic linearity.”

As an example, let us take an imaginary amplifier, which is meant to have an amplification factor of 10. This means that if we feed a 1 kHz sine wave having an amplitude of 1 volt RMS at its input, we shall expect to see a 1 kHz sine wave having an amplitude of 10 volts RMS at its output, without any additional elements.

[See sidebar with illustrations of oscilloscope traces at the end of this article.]

Before going further, let’s review frequency and phase linearity, which we covered in Part One. Frequency linearity in the 20 Hz - 20 kHz bandwidth would mean that if we feed any frequency from 20 Hz to 20 kHz at 1 volt RMS to the input of our amplifier, we shall see that same frequency at 10 volts RMS at the output. Phase linearity in the 20 Hz - 20 kHz range would require that the phase of a sine wave at any frequency from 20 Hz to 20 kHz would be exactly the same at the output, as it was at the input. (This would imply a linear frequency response over a much wider range than the specified 20 Hz - 20 kHz.)

So, frequency linearity looks at the relative amplitude of different frequencies. Phase linearity looks at the relative phase between different frequencies.

Dynamic linearity investigates the linearity of the amplification process itself at different amplitudes (signal levels).

So, our theoretical amplifier will amplify 1 Vrms into 10 Vrms, 2 Vrms into 20 Vrms, 3 Vrms into 30
Vrms and so on. But can it be expected to continue this relationship between input and output, in a linear fashion, regardless of how high or low we go? If we feed 1,000 volts RMS to the input, will we get 10,000 volts RMS at the output?

The answer of course is no. Practical electronic circuits cannot remain linear indefinitely. There are limits imposed, both at high levels and at low levels.

Not only will we not get 10,000 Vrms for our 1,000 Vrms input, we also won’t be getting 0.000001 Vrms for our 0.0000001 Vrms!

All real-life electronic circuits have noise. This results in the ultimate limit for dynamic linearity capability at low levels. If the signal is lower than the noise floor of the amplifier, then it will remain buried in noise and there will not be any meaningful amplification. On top of this, various non-linear mechanisms in amplifier circuits may prevent linear amplification below a certain point. This would mean that if 1 Vrms becomes 10 Vrms, 0.1 Vrms may only become 0.9 Vrms instead of the expected 1 Vrms that the amplification factor of 10 would produce.

At high signal levels, there are power supply voltage, current and bias limitations. The amplifier can only supply so much voltage or current. So, while 1 Vrms becomes 10 Vrms and 3 Vrms becomes 30 Vrms, 4 Vrms may only become 32 Vrms, ruining the linear relationship.

A deviation from linearity is any change in the usual amplification factor of the circuit, at different amplitudes (signal levels). This usually results in distortion, which produces additional frequencies within the amplifier that are not present in the input. The type of distortion and the linear range of operation depend on the circuit design and amplification devices used.

We shall now leave our theoretical amplifier aside and see how dynamic linearity works in a real triode tube circuit. We will connect the cathode to ground and bias the grid at – 20 VDC to set the operating point. The audio signal fed to the grid will move upwards of – 20 VDC during the positive peaks of the wave and will move lower than – 20 VDC at the negative peaks. As we approach 0 VDC during the positive peaks, the grid starts to attract electrons and draws current. If the circuit supplying the grid with the audio signal cannot deliver this current, the positive peaks of the wave will be compressed and eventually chopped off! This reduces our amplification factor and results in second harmonic distortion (distortion that occurs at twice the fundamental frequency).

At the opposite extreme, as the grid voltage is lowered below – 20 VDC during the negative peaks of the audio signal, the electron flow is reduced. At a sufficiently negative grid potential, the current flow between anode and cathode is cut off. As the negative peaks of the audio signal approach this “cut-off region,” they are compressed and eventually chopped off. The amplification factor is reduced and second harmonic distortion is produced.

If the onset of grid current is at 0 VDC and cut-off is at – 40 VDC, then a symmetrical audio signal exceeding 40 volts peak to peak would reach both limits simultaneously. Both positive and negative peaks will be chopped off, resulting in third harmonic distortion, along with a reduction in the amplification factor.

But, even if we keep the input signal within the aforementioned grid bias limits, there are more creative ways to ruin linearity!

During the negative peaks of the audio signal, the current through the triode and its load is at a minimum, while during the positive peaks, it reaches its maximum.
A resistor is a fairly linear load, provided that the appropriate type of resistor is selected for its place in an audio circuit. However, resistors are wasteful of power and as such, their use is limited to small signal stages rather than power/output stages. At maximum current, the voltage drop across the resistor reaches a maximum and provided that the resistor is generously rated to not burn out from excessive power dissipation and that inductance/capacitance effects are not allowed to affect performance, the only major consideration in designing an audio circuit is if the power supply can actually supply the current being drawn, without an excessive voltage drop in the supply circuit itself! A voltage drop would compress the peaks of the wave, while a hard current limit would chop them off, again resulting in second harmonic distortion and a reduction in the amplification factor.

At minimum current, the voltage drop across the resistor is at a minimum and the peaks of the amplified signal can swing to nearly the supply voltage. This defines another hard limit, as any attempt to swing higher than the supply voltage will be simultaneously met by cut-off in the triode tube and the peaks will once again be chopped off.

Note that the power supply circuit is as important as the amplifier circuit topology and the amplification device itself in all of this, since all an amplifier does is modulate its DC supply voltage!

The quality, stability and linearity of the power supply at different frequencies and amplitudes of signal passing through the amplification device is what defines the ultimate performance capabilities of an amplifier.

While the resistor itself in theory, shouldn’t have any effect on this process, its resistance value will rise with rising temperature, and temperature will increase with rising current. A resistor will therefore produce thermal non-linearities through thermal modulation of its resistance value, particularly at very low frequencies.

However, at higher frequencies, the thermal inertia of the resistor will prevent “thermal tracking” of the signal waveform and will instead shift the value of resistance to a “thermal averaging” point.

Electromagnetic loads, such as transformers and inductors, are the norm for power/output stages. These are made by coiling wire around an iron core. They are some of the most useful components in audio but are extremely difficult to design, manufacture and implement, potentially opening up an impressive number of mechanisms for introducing non-linearities. Yet, if done right, they can sound fantastic and display enviable linearity.

The iron core can saturate at low frequencies, have losses at high frequencies, display magnetic hysteresis and its magnetic permeability can vary with the signal level and frequency. The coils have capacitance between adjacent turns and layers of wire, then there is leakage inductance on top, as well as wire resistance increasing with temperature.

The design of a high quality audio circuit is a delicate balancing act. What could improve performance in one aspect could degrade performance elsewhere, so everything needs to be taken into account at the same time. Electronics theory blends with mechanical engineering, particle physics, chemistry, thermodynamics, magnetism, acoustics, neurophysiology and psychology, requiring a multidisciplinary approach when designing audio equipment of the highest caliber.

It is part engineering, part art.

In the next episode, we will discuss linearity in more complex circuits, measurements and how it all relates to music.

Sidebar: Dynamic Linearity in Pictures
The following pictures are of oscilloscope traces (plotting amplitude against time) and spectrum analyzer traces (plotting amplitude against frequency) of a 1 kHz sine wave through a multiple-stage triode amplifier without feedback, using tubes of questionable linearity in a circuit intended to produce plenty of distortion for musical instrument amplification. It was chosen to clearly demonstrate the lack of dynamic linearity.

The scope trace (on the right) shows a sine wave, close to the limit of the linear region of the circuit. The analyzer trace (on the left) shows the fundamental at 1 kHz (to the left of the screen) and a second harmonic component at 2 kHz, around 30 dB below the fundamental (3% second harmonic distortion, 10 dB/div on the vertical scale).

As the amplitude of the 1 kHz sine wave is increased to exceed the linear region of operation of the amplifier, the scope trace shows a waveform with the negative peaks squashed, which is no longer symmetrical, due to the amplification not being linear. The analyzer trace displays the increase in the second harmonic distortion (the fundamental is displayed at the same level as before for an easy
comparison), with the 2 kHz component now only about 14 dB below the fundamental (20% second harmonic distortion).

For clarity, traces with no signal input (the 1 kHz sine wave oscillator being turned off) are also shown. The scope trace is a straight line along the middle of the screen, representing the “zero” voltage line. The signal consists of positive peaks (rising above zero) and negative peaks (below zero). On the analyzer, however, the zero line is at the bottom of the screen. The sign denoting a positive or negative peak is discarded and we only see the absolute value of amplitude at each frequency. With no fundamental present at 1 kHz, there is also no distortion component at 2 kHz. An ideal, perfectly linear amplifier, would only show the fundamental component as presented at its input, with no additional components. In practice, even laboratory grade oscillators will have some residual distortion components.

All real-life devices and circuits produce distortion to some extent.
In Hoboken, New Jersey, in the year 1915, two Italian immigrants welcomed a baby boy who would grow up to be one of the best-selling and most recognized artists of all time.

Frank Sinatra started out listening to big band singers like Bob Eberle, Bing Crosby, and Gene Austin. Armed with a ukulele, he began singing professionally in high school. His group, the Hoboken Four, won some contests and got airtime on radio and TV. Soon bandleader Harry James noticed the blue-eyed lead singer and hired him.

But Sinatra wasn’t happy with the James band, and switched to the Tommy Dorsey Orchestra after a couple of years. That’s where he really started to make a name for himself. He performed and recorded with Dorsey from 1940-1942, at which point he was longing for a solo career. It took a legal battle (and possibly a Mafia-connected threat) to get out of his contract, but he did so and went on to unprecedented success in the recording studio, concert hall, and movies.

After a long and stellar career, Sinatra died in 1998. There’s no question that he was one of the most important musicians of the 20th century, and his influence is far from over.

With many of his tracks burned into the cultural consciousness (do you really need me to point you toward his recordings of “My Way” and “New York, New York”?)), I tried to find some songs that even a fan might not be so familiar with. I’ve purposely left out his late-career collaborations with pop stars, which is not to say they aren’t important or worth listening to.
There are so many great Sinatra cuts to choose from, I might as well have closed my eyes and picked at random! But I think I found some nice ones. Enjoy these eight tracks by Frank Sinatra.

1. Track: “Why Shouldn’t I”  
   Album: *The Voice of Frank Sinatra*  
   Label: Columbia  
   Year: 1946

Originally issued as a collection of 78s, *The Voice of Frank Sinatra* is his debut. The youthful voice is silky and full of nonchalant longing, the perfect crooner’s paradox: Don’t show too much nuanced emotion, but always sound like you’re dreaming of something beyond our daily drudgery.

“Why Shouldn’t I” is a lesser-known Cole Porter number which had enjoyed only a handful of recordings between 1935 and this 1946 track. The sweet orchestral sound comes at the hands of arranger/conductor Axel Stordahl, who had also been with Tommy Dorsey and left at Sinatra’s urging. Here Stordahl is leading a small group that, for at least one of the sessions, included the oboe played by Mitch Miller, a groundbreaking arranger in his own right.

http://www.youtube.com/watch?v=65M9IhqQCK4

2. Track: “Sunday”  
   Album: *Swing Easy!*  
   Label: Columbia  
   Year: 1954

You can hear a striking change between “Why Shouldn’t I” and this track eight years on. It’s not just the rich texture of Nelson Riddle’s orchestral arrangements (Riddle would remain one of Sinatra’s favorite collaborators, helping to define his sound). It’s also Sinatra’s singing. His style is more forceful and confident now, and his voice has greater dimension.

The melody of the 1926 song “Sunday” is by Chester Conn, setting lyrics by Jule Styne. It had a resurgence in popularity in the mid-’50s thanks to this Sinatra recording and one the following year by Bing Crosby.

http://www.youtube.com/watch?v=kONKxEql_Hs

3. Track: “Pocketful of Miracles”  
   Album: *Sinatra’s Sinatra*  
   Label: Reprise  
   Year: 1963

In 1960, Sinatra left Columbia to start his own record label, Reprise (still in operation, now owned by Warner), through which he created many hit albums. One of those was *Sinatra’s Sinatra*, beloved for tracks like “Call Me Irresponsible,” “All the Way,” and “Witchcraft.”

Less well remembered is the charming “Pocketful of Miracles,” a Sammy Cahn and Jimmy Van Heusen tune. This is an example of the numbers Sinatra sometimes did with a children’s chorus (the most famous being “High Hopes”). One of Sinatra’s many gifts was knowing what musicians to surround himself with, and here he’s relying on the great Billy May for arrangements and
conducting.

http://www.youtube.com/watch?v=LbbtAMzr3dc

4. Track: “Wives and Lovers”
   Album: *It Might As Well Be Swing*
   Label: Reprise
   Year: 1964

While his albums of pop duets in the 1990s might have put Sinatra on the map for a new generation, he did some fantastically fruitful collaborations earlier in his career. On *It Might As Well Be Swing*, he shares the limelight with master pianist/composer/bandleader Count Basie. You simply can’t go wrong with this pair-up. In fact, this was their second project together; they made *Sinatra-Basie* in 1962.

A young Quincy Jones provided the arrangements. The track list, as you might guess from the album title, comprises songs from non-jazz genres, including Broadway and pop. “Wives and Lovers” is a pop tune by Burt Bacharach and Hal David that had won a Grammy for Jack Jones the previous year. Sinatra clearly felt he had something to add, that something being Count Basie and a whole lotta swing.

http://www.youtube.com/watch?v=owujpzDOqjo

5. Track: “Oh, You Crazy Moon”
   Album: *Moonlight Sinatra*
   Label: Reprise
   Year: 1966

First, I tip my hat to whoever came up with this album title. Besides being an excellent pun, the title refers to the theme: Every song has to do with the moon. So there’s “Moonlight Serenade,” “Moonlight Becomes You,” “Reaching for the Moon”—you get the idea. (Not “Fly Me to the Moon,” however, which was included on the *It Might As Well Be Swing* Basie album above.)

Jimmy Van Heusen and Johnny Burke wrote “Oh, You Crazy Moon,” and this sax-heavy arrangement is by Nelson Riddle.

http://www.youtube.com/watch?v=WvIt7IErIW4

6. Track: “Yellow Days”
   Album: *Francis A. and Edward K.*
   Label: Reprise
   Year: 1968

What a fantastic album this is! Sinatra teamed up with Duke Ellington and His Orchestra for some truly magical music-making. Billy May did the arrangements.

“Yellow Days” was originally written (and often recorded) as a Latin jazz standard, a bolero to be
exact, by Álvaro Carillo. Sinatra squares up the rhythm of the vocal part, setting up a great contrast with Ellington’s sultry accompaniment.

http://www.youtube.com/watch?v=Hh6Gz_hzg-U

7. Track: “Drinking Water (Aqua de beber)”
   Album: *Sinatra-Jobim*
   Label: Reprise
   Year: 1969

Speaking of Latin jazz, Sinatra had had a big hit with his 1967 collaboration, *Francis Albert Sinatra and Antonio Carlos Jobim* (which included their hit version of “Girl from Ipanema”), and they tried to recapture that lightning with this second album. Although sales were poor, a trend that Sinatra had to suffer through for the coming decade, there’s some nice stuff here.

Jobim co-wrote “Drinking Water” with Vinicius de Moraes and Norman Gimbel. It’s interesting to hear Jobim’s bossa-nova scat against Sinatra’s crooning.

http://www.youtube.com/watch?v=thS3uO9pnPA

8. Track: “The Best of Everything”
   Album: *L.A. Is My Lady*
   Label: Qwest/Warner Bros.
   Year: 1984

The 1980s saw the resurgence of Sinatra’s career, and he never let up until his passing. This, however, was to be his final solo studio album, although he did those famous duet records almost ten years later. *L.A. Is My Lady* features Quincy Jones and His Orchestra, only the second time Sinatra worked with Jones.

“The Best of Everything” was composed by John Kander and Fred Ebb (who also wrote “New York, New York”); as far as I can tell, they wrote it specifically for this record. Sinatra’s voice is craggy from age, and the bright sound of the Jones orchestra is a big change from the deep-toned Ellington or sweet-toned Riddle arrangements of old. But that distinctive Sinatra delivery is the same – there’s no one else it could be.

http://www.youtube.com/watch?v=gGLfpoUX7EY

Header image courtesy of *Wikimedia Commons/William P. Gottlieb.*
Three Winners and One Clear Loser

TO BE DETERMINED

Written by Tom Gibbs
Brandy Clark - Your Life is a Record

Brandy Clark may not be a household name to many other than country music fans, but she’s one of Nashville’s elite songwriters. A six-time Grammy nominee, she’s penned several number one hits on the country charts and several that have come very close to the top. And written for (and with) a litany of notable acts like Kacey Musgraves, Miranda Lambert, The Band Perry, Reba MacEntire, LeAnn Rimes, Toby Keith, and Sheryl Crow, among many others. She did her time on Nashville’s famed Music Row, cranking out the consistent hits in the early 2000’s for many of country music’s first-line acts. Your Life is a Record is her third album, and her often poignant and insightful songs are brought to life on a record that mostly seems less like dyed-in-the-wool country music. And more like a really good album by a great and upcoming singer/songwriter who’s reaching her peak.

Growing up in rural Washington state (Morton, population 900!), Brandy was steeped in traditional country music from the likes of Dolly Parton, Merle Haggard, Patsy Cline, Ronnie Milsap, and Dwight Yoakam. But she also explored the music of popular singer/songwriters, including James Taylor, Carole King, Mary Chapin Carpenter, and Randy Newman (who makes a guest appearance on the track “Bigger Boat”). She first picked up a guitar at age nine, dabbling with songwriting at the encouragement of her mother. Also a talented athlete, she received a full scholarship to play college basketball at Central Washington University. But eventually left to pursue her dreams of a life in music, when she moved to Nashville and enrolled in a music business degree program at
Belmont College. She played in several local bands and in the college’s annual music showcase, and upon graduation, landed a job with a music publishing firm. Her talent as a performer was hard to conceal, and in no time she’d signed a publishing contract and quickly became one of Nashville’s go-to songwriters.

The album is a truly great listen; Brandy Clark has a great voice, and she sings entertaining, but literate and well-written songs that tell remarkably compelling stories. Many of them about her experiences in the music industry—it’s no wonder that she’s in such high demand as a songwriter in Nashville. But only on a couple of songs do you get the hard-sell impression that this is even a country album. The album is somewhat sparsely orchestrated, with only guitars, drums, bass, and keyboards, with strings and brass accompaniment brought in on a couple of songs for good effect. All my listening was done through Qobuz’s 24/48 high res stream, and the sound was sheer perfection. Highly recommended!

Warner, CD (download/streaming from Amazon, Tidal, Qobuz, Google Play Music, Apple Music, iTunes, Deezer, Spotify, Pandora, YouTube)
King Crimson had enjoyed a remarkable level of success with their debut album, *In the Court of the Crimson King*, which charted at number five in England and number 28 in the USA. Not too shabby for a debut record, but the aftermath of the tour that followed the album’s release found the band in discord and disarray. Ian McDonald and Michael Giles split shortly after the tour’s conclusion, and Greg Lake was keen to join his future bandmates Keith Emerson and Carl Palmer in ELP. Lake was basically bribed to stay and contribute vocals to Crimson’s follow up album, *In the Wake of Poseidon*; if he stayed, he’d be given the band’s PA equipment as payment. The finished album, while stylistically similar to its predecessor, wasn’t quite as memorable and somewhat more muddled in its execution. Despite that, *In the Wake of Poseidon* managed to better the chart performance of *In the Court of the Crimson King*, landing at number four on the British charts and number 31 on the US charts. That said, ask most people to name a song from *Wake*, and most anyone will say “Cat Food.”

A heavily jazz-influenced ditty, “Cat Food” intros with a smooth walking bass line accompanied by some wildly stylistic piano playing from newest band member Keith Tippet. And soon segues into a howling guitar signature from Fripp; Greg Lake’s screaming vocal is just sheer perfection. The song is in such strong contrast to the rest of the album thematically, it just begs you to remember it above all the others, and showed how wildly creative King Crimson could be at their peak. Especially with a band that was essentially held together with some string and wires, and maybe a bit of studio trickery.

Qobuz has been rolling out a series of King Crimson maxi-singles over the last year or so; the band hasn’t (until recently) authorized much in terms of full catalog albums for release on any of the streaming sites. Thankfully, that’s been mostly rectified, but the maxi-singles still have a considerable amount of interest to the collector or die-hard Crimson fan. The four songs here compile three different versions of “Cat Food,” including the 45 rpm single release, a live version of unknown provenance (but sounding very good, and very much from the era of the album release), and of course, the album version of the song. But the really compelling reason to check this music out is the instrumental fourth song, “Groon,” which was the “B” side of the “Cat Food” 45, and has basically taken on a life of its own in King Crimson lore. For years, unless you happened to have the 45, you didn’t have access to “Groon,” and you maybe never heard it until much later in King Crimson’s career, when it popped up on an occasional Japanese compilation LP or CD. And eventually much later as a bonus track on the 30th and 40th anniversary releases of *In the Wake of Poseidon*.

The version of “Groon” that appears here is the three and a half minute original take; divinely inspired Crimson madness, with some remarkable guitar work by Robert Fripp and Michael Giles’ (who returned only as a hired gun and not a member of the band) superb, jazzy-animated drumming. And the song seems to end about four times, only to have Fripp and Giles kick back in maniacally and repeatedly until the tune’s close. It’s simply breathtaking! If you have a Qobuz account, it’s well worth checking out, and is also available from British label Panegyric as a CD and 10-inch single.

Discipline Global Mobile/Panegyric, CD/10-inch single (download/streaming from Qobuz)
The Savoy 10-Inch LPs that Charlie Parker recorded from 1944 to 1948 are among the cornerstones of his work, and contain some of his finest and most inspired playing on record. Bird was one of—if not the—most influential sax player(s) of all time; his amazing work set the standard for everyone who would follow. And he was surrounded on these sessions by the likes of Miles Davis, Dizzy Gillespie, John Lewis, Bud Powell, and Max Roach—could it possibly get any better? Good luck trying to find—or possibly trying to get financing—for mint originals.

The real problem with any later reissues of these seminal sessions is that the sound quality of either: a) the original recordings, or b) any subsequent releases has always, always been highly variable. I mean highly variable to the point of darn nearly unlistenable! Lots of bootlegs, lots of really bad CD remasterings. Craft Recordings has done a very commendable job of presenting these sides in what is quite possibly the finest sound they’ve ever been made available in. I’m willing to bet that these new digital remasters sound superior to even mint originals. It’s mono, of course, but it’s shockingly good and spacious mono; the bass is surprisingly deep and firm, and the horns sound impressively great. With very little of the screechiness that you often associate with remasterings of material of this vintage. Parker’s sax is especially tuneful with a superb instrument tone; for fans of this repertory, it’s quite literally a dream come true. And there’s barely a hint of groove noise throughout, even at close to reference levels.
I did all my listening via Qobuz, but an audio compatriot got the LP box set, and he just raved about it, saying it’s probably the finest reissue of its type he’s ever encountered. The attention to detail in the outer box and the LP sleeves (which replicate the originals for the first time since their original issue) is off-the-charts, crazy good. And the supplied booklet has new liner notes and tons of really cool vintage photos of Bird and all the other jazz legends who were part of his regular ensemble. He also raved about the LP’s mono sound; if you can swing the $90 asking price for the box, I’d definitely go for it. Highly recommended.

Craft Recordings, 4-LP box set (download/streaming from Amazon, Qobuz, Tidal, possibly others)

Tame Impala - The Slow Rush

Tame Impala is basically Australian Kevin Parker’s one-man band; the new album *The Slow Rush* comes five years after his previous release, *Currents*. Which essentially made Tame Impala a household name, and found him touring incessantly, filling arenas and headlining festivals. The time in between albums saw him confabbing and co-writing with luminaries like rapper Travis Scott, neo-soul singer SZA, Kanye West, and Lady Gaga.
The title of *The Slow Rush* reflects Parker’s nature as a dabbler and tinkerer; he wanted to release the album last year closer to Coachella, but felt it needed more work—hence the long delay. Even at an unofficial release party last November, he kept hearing things that he felt needed more work, and immediately went back into the studio for more tweaking. Parker strikes me as a bit of a control freak; he plays every instrument on the record, and is completely responsible for every aspect of every sound that appears on the production. I can’t even begin to imagine how he manages to recreate these soundscapes live in a packed venue. Tame Impala appeared on one of the late night shows last week; unfortunately, I missed the performance, but would have liked to have seen the translation to a live show.

This album came highly recommended to me; I have to be honest—this type of overblown production isn’t really my cup of tea. And Parker’s breathy, overly-processed falsetto vocals don’t push any of my buttons either. This album has been described as “shimmering disco,” “gleaming synth-pop,” and “epic neo-prog balladry.” I love a lot of current music, and I can get down with some heavy beats, but I’m not really getting the shimmer or the gleam here, and *neo-prog??* I’m generally really struck by records that seem nearly indispensable to me—I just can’t get enough of them. I didn’t feel like I could get away from this one quickly enough. Sorry, Frank. YMMV.

Universal Music, CD/2 LPs (download/streaming from Amazon, Qobuz, Tidal, Google Play Music, YouTube, Spotify, Deezer)

*Header photo (cropped; see link for original format) courtesy of Wikimedia Commons/Lisa Gansky.*
CanJam NYC 2020 Show Report, Part Two

INDUSTRY NEWS

Written by John Seetoo

Part One of this report appeared in Issue 106. CanJam NYC 2020 took place on February 15 - 16 at New York’s Marriott Marquis and was well-attended by a diverse range of people young and old. The global CanJam shows are focused on headphones and associated gear – portable players, headphone amps, DACs, cables and accessories.

The following are descriptions of some of the products that left the biggest impressions on me, along with a selection of product shots:

**Tube Amp Retro Chic**

While microprocessors and miniaturization of components has led to smaller DACs and headphone amplifiers, with some about the size of a pack of cigarettes, CanJam NYC 2020 had a surprisingly
large number of exhibitors promoting dedicated tube amps for headphone listening.

Hearkening back to the 1950s and 1960s, vacuum tubes were largely replaced by transistors, semiconductors, and op-amps by the 1970s. Among the few industries still using vacuum tubes are high-voltage RF, select military technology equipment, guitar and other musical instrument amplifier manufacturers, some pro audio gear, and some high-end audio companies like McIntosh, Audio Research, VAC, VTL and a number of others. Eastern Europe and China are the only two regions remaining with any large-scale tube manufacturing factories, as Communist countries kept much of their tube-powered equipment in circulation long after tubes were mostly phased out in the West.

I’ll admit that the presence of tube-powered headphone amps at CanJam NYC 2020 was a surprise to me, as this was my first CanJam. But given the more focused listening demanded by wearing headphones, the desire for the warmer sound of tube amplification to counter the brittle sterility of some digital music sources makes logical sense.

In addition to its headphones, ZMF’s Pendant Amp ($1,999.99), sporting EL-84 and 12AX7 power and preamp tubes similar to a Vox guitar amp, was a somewhat appropriate, rather than anachronistic complement to the furniture-quality hardwood ZMF headphones on exhibit. The Pendant seemed to have a relatively transparent sound with a nice dose of tube warmth. The Pendant served as a high quality neutral sound source reference, with its volume knob being the only variable control on the unit.

Well known for their audiophile tube amps, Serbia’s Auris Audio showcased its latest product, the Euterpe ($1,699). A multi-functional unit that can serve as a pure tube headphone amp, a DAC, or a preamp, the nearly 1-watt Euterpe comes housed in an attractive wooden base that can also double as a headphone stand. With USB, RCA, and 6.3mm stereo input and output jacks, the Euterpe can connect to computers, other DACs or other sound sources.

The warmth of the tube-powered Euterpe was evident from the get go. The only criticism I had was that the sound source was a notebook computer with a jazz Muzak playlist, so listening to other genres of music for the basis of comparison was not possible.

Auris also was promoting a new spinoff brand subsidiary: EarMen. Located in Chicago, EarMen is a marketing arm for Auris’ portable DACs and headphone amps in a more affordable price range. The EarMen $249 Tr-Amp (a headphone amp/DAC) and humorously named Donald DAC ($99) standalone DAC gathered a small crowd waiting to try them out.

Based in Maryland, Corsonus is the brainchild of young entrepreneur Justin Chow. A former youth orchestra violinist, Chow became interested in headphones while in high school and got his start in electronics and DIY audio customization while in college. He only started learning the craft of machining in 2018!

The Kodachi ($3,600) is a fully DC-coupled, tube/solid state hybrid amplifier. In the driver stage, it uses two 6SN7GTB tubes (and variants such as the Psvane CV181-Z). The power supplies including the tube heater supply are all fully-regulated, low-noise designs. The amp is available with a number of power tube, gain and other options.
The chassis for both the amp and the separate power supply are designed and milled by Chow out of a large block of billet aluminum. The power supply starts out at 15lb. and the amp is about 12lb. The separate chassis allow better thermal stability and heat dissipation.

The Kodachi is designed with special consideration to being able to drive electrostatic headphones. Comparing the different tube configurations available for the amp yielded very discernable differences in the same music references, which included excerpts from orchestral recordings, jazz from Snarky Puppy, and Led Zeppelin's "Achilles Last Stand." Transparency in the highs, midrange depth, and bass response and impact were all refined but altered for different tastes, not unlike using a Pultec Tube EQ-1 graphic equalizer to shape the sound in a recording studio.

Overall, a praiseworthy debut from a talented designer who clearly loves what he does.

**The Dragon in the Room**

One indication that a noticeable trend in an industry sector that has become too big to ignore is when it gets covered by conventional news outlets. In *The Wall Street Journal*'s February 22, 2020 “Gear & Gadgets” section, the entire article by Matthew Kronsberg was devoted to “Chi-Fi” - the constellation of Chinese-branded gear that focuses on headphones, IEMs, DACs, headphone amps, and associated accessories. Although "Made in China" high quality levels are usually only associated with Western brand name electronics, CanJam featured many Chinese brands whose design, features, and performance easily rivaled those of their more expensive, better known competitors.

CanJam NYC 2020 had several rooms that were managed by Chinese dealer reps who were fluent in Chinese and English. They literally had so many tables festooned with the latest gear from so many different Chinese manufacturers that even the reps got momentarily confused as to which information went with which of their brands, due to their similarities of some of the products in appearance and use.

At least a dozen different smartphone-sized or smaller rechargeable DAC/headphone amps were on one table and they all looked like their chassis all came from the same factory, despite having different specs and subtly different sounds.

No stranger to the audiophile arena, Head-Fi.org sponsor HIFIMAN was launched in New York 13 years ago by Dr. Fang Bian. HIFIMAN’s Reference line of audiophile products, including electrostatic and planar magnetic headphones, tube amps, and streaming audio devices, have been favorably reviewed in *Stereophile, Forbes, HiFi+, WIRED*, and *TIME*. The HIFIMAN product line also includes portable players, dynamic-driver closed- and open-back headphones, IEMs (in-ear monitors), digital-amplifier motherboard cards, and digital amps and DAC units in their Reference, Premium and Hi-Fi product lines. Prices range from $49 for the RE300i, RE300a and RE300h earbuds to $6,000 for the SUSVARA over-ear planar magnetic headphones. (The flagship SHANGRI-LA electrostatic headphone system, which includes headphones and a tube amplifier, doesn’t have a published price.)

Obtaining a private listening appointment, I was able to meet with Dr. Bian to listen to his SHANGRI-LA Jr. electrostatic headphone system and tube amp package unit ($8,000). With a range of classical and jazz SACD files from which to choose, the smoothness, detail and sense of presence from the SHANGRI-LA Jr. system was stunning. Every note was articulated and the three dimensionality of the space was natural and free of DSP artifacts.

Perhaps even more remarkable was HIFIMAN’s latest product, the DEVA planar-magnetic over-ear
Bluetooth headphones at $299. Designed as HIFIMAN’s entry-level audiophile headphones, its bang for the buck quality impressed me in the same way as the AME Custom J1-U IEM (see Part One of the CanJam NYC 2020 show report). Punching way above their weight class, the open-backed DEVA comes with a 6.5mm cable connection and a dedicated Bluetooth dongle for wireless use.

The DEVA easily rivaled comparable Bluetooth headphones from the more established European and American brands in sound quality, even those at higher prices. Listening to a mix of ambient rock from David Sylvian, solo jazz piano from Keith Jarrett and hard rock from the Foo Fighters, the DEVA complemented the music across all three genres with none of the sterility that some Bluetooth models sometimes exhibit due to signal compression or other factors. The dongle itself is a remarkable design. It supports hi-res LDAC and aptX HD and up to 24bit/192 kHz (via USB) and 24bit/96 kHz (from Bluetooth). Its built-in 2-channel DAC/filter and 1-watt per channel amp are probably a big part of its sonic excellence. Dr. Fang will have a likely winner on his hands with DEVA, given the popularity of Bluetooth and what I and others are seeing as a new trend back towards improved fidelity.

For high-end headphones in general one of the newer driver materials being touted for its sterling audio reproduction qualities is the rare earth metal beryllium. At roughly $50.00 per gram, it is a difficult and costly metal to shape, due to scarcity and associated toxicity in processing. Nevertheless, beryllium is yielding the results that many headphone designers are seeking: significantly reduced distortion due to the metal’s stiffness to thickness ratio, while having the potential to deliver superior sound reproduction over conventional driver materials.

China’s global supremacy in the rare earth metals mining industry is unchallenged. Through its domestic deposits and exclusive international mining contracts in other countries, China controls close to 90% of the world’s rare earth metals deposits. This is a strategically enormous advantage for Chinese headphone manufacturers utilizing beryllium in their designs.

While ZMF’s $2,500 Vérité headphones use vapor-deposited beryllium drivers and AME uses beryllium coated drivers on some of their IMEs, Head-Fi.org sponsor Dunu created a big buzz at CanJam with the release of their LUNA ($1,699) IEM. The LUNA contains a single sheet diaphragm made entirely of pure “acoustic grade” beryllium. Dunu’s past 17 years as an audiophile headphones manufacturer have established its reputation for excellent products. But it soon became clear to me that the LUNA was an engineering and design achievement comparable to the 1969 Apollo 11 moon landing.

Dunu’s Executive Director of Global Strategy and Management Tom Tsai spoke in detail about the R&D work that contributed to the making of the LUNA. In addition to the beryllium diaphragm, the earpiece shell is constructed of titanium alloy. Tsai explained that the inspiration for the aesthetic design of LUNA came from the Apollo 11 moon landing. The asymmetric lip shape, circular faceplate, concentric topographic map-like swirls and coloring were all related to the “moon” theme, with even the colors selected to match NASA photos of phases of the moon.

The LUNA sounded, not surprisingly, like an IEM version of the ZMF Vérité: lush, enhanced and richer sounds from familiar musical source content. If this is a common characteristic of beryllium (and not merely the result of design similarities between the two models), it is no wonder why the metal is so highly regarded for audiophile earphones design. The fact that Dunu can sell a pure beryllium driver-equipped LUNA IEM at $1,699 reflects, at least in part, the reduced access cost Chinese companies have to rare earth metals over their international rivals.
The aggressive dedication to R&D from Chinese companies like Dunu and HIFIMAN may likely result in new industry standards, much like the way Samsung’s Galaxy phones set the Android standard. These advances should continue to prosper, even in the wake of international emergency setbacks like Covid-19 that can halt trade.

CanJam NYC 2020 was an experience that certainly exceeded my expectations. It gave me a new and greater appreciation for how old and new tech can be combined for better listening experiences than what either old school tubes or cutting-edge digital might achieve individually.
Sometimes an artist is so taken with another artist’s song that they just have to do their own performance of it. These cover versions can range from faithful portrayal of the original to something else entirely. Here are some of my favorites that fall in the latter category:
Arthur Brown - “We’ve Gotta Get Out of This Place” (The Animals)

You probably only know him as “The God of Hellfire” from his 1968 hit, “Fire.” Possessed of a multi-octave vocal range, he has continued to record and perform (at age 77) to this day. I’ve been a fan from the beginning, and will do a feature on him in Copper at some point. In the mid-1970s, after three wild, spacy, progressive albums with his band, Kingdom Come (not the metal band of the late ‘80s), he took a detour back toward pop. The album, Dance, was much more subdued, but featured this bouncy version of the Animals’ hit.

http://www.youtube.com/watch?v=atEzLhIn9Zg

Shaun Cassidy - “It’s My Life” (The Animals)

Yes, I said Shaun Cassidy - 1970s teen idol, brother of David Cassidy (another teen idol). Apparently, Shaun wanted to jettison that image, and in 1980 enlisted the help of rock legend Todd
Rundgren. With production by Rundgren and musical accompaniment by members of Rundgren’s band Utopia, Cassidy played chameleon, shedding his previous sound like so much dried skin as he ran through cover songs that included David Bowie’s “Rebel Rebel” and Ian Hunter’s “Once Bitten, Twice Shy.” This is a track to put on and stump your friends – I’ll bet at least one will guess Iggy Pop...

http://www.youtube.com/watch?v=cF-dEA-BXTo

Burton Cummings – “You Ain’t Seen Nothing Yet” (Bachman-Turner Overdrive)

Following the massive success of The Guess Who’s American Woman (both album and single) in 1970, guitarist and founding member Randy Bachman fell ill and converted to Mormonism. This led to a rift with co-founder Burton Cummings, and Bachman left the group after a 1970 gig at the Fillmore East. He went on to have a number of hits with Bachman-Turner Overdrive, including “You Ain’t Seen Nothing Yet.”

Evidence of the bad blood between Bachman and Cummings was on full display years later in this quote from a 1974 Rolling Stone interview with Cummings: “When I see Bachman and Fred Turner, both 250-odd pound guys, slinking and sashaying around onstage...it just doesn’t work for me. It’s like seeing the f*ckin’ hippos on ice skates doing Nutcracker Suite in little frilly skirts.”

The animosity was still festering when Cummings released his self-titled solo album in 1976. Pay particular attention to the solo in the middle.

http://www.youtube.com/watch?v=M1bijvblzEE

DREAD ZEPPELIN – “Your Time is Gonna Come” (Led Zeppelin)

Is it cheating to include this? I don’t think so. Imagine some guys sitting around, and one of them says, “Let’s form a Led Zeppelin cover band, but let’s do the songs reggae-style, and get an Elvis impersonator for our lead vocalist!” Good drugs, right? Well, Dread Zeppelin pulls it off with superb musicianship and a great sense of humor.

http://www.youtube.com/watch?v=aNBFy4C8Vuc

BRYAN FERRY – “It’s My Party” (Leslie Gore)

Roxy Music’s lead singer put out his first solo album of cover songs in 1973, when his vocal style was still, shall we say, “mannered.” Nearly ten years later, Ferry’s smooth, melodic crooning on Avalon, Boys and Girls, and Bête Noire would earn him a large following. Note that he doesn’t bother to change the lyrics here to fit his gender.

http://www.youtube.com/watch?v=X6fqDVe863o
**Lone Star** – “She Said, She Said” (*The Beatles*)

Despite the Texas reference, *Lone Star* was a Welsh hard rock band. Formed in 1976, they counted among their personnel guitarist *Paul Chapman* (a cousin of rocker *Dave Edmunds*), who would go on to join *UFO*. Here they give the *Beatles* track a spacy, heavy treatment.

http://www.youtube.com/watch?v=jg7Dud55qlE

**Monsoon** – “Tomorrow Never Knows” (*The Beatles*)

Indipop (not Indie Pop) group *Monsoon* featured *Sheila Chandra*, a London-born singer of Indian descent. This album came out in 1982. She went on to record more traditional Indian music on the *Indipop* label as well as solo albums for *Peter Gabriel’s Real World* imprint.

http://www.youtube.com/watch?v=VcER0OonPy0

**Elton Motello** – “I Can’t Explain” (*The Who*)

What a great name – obviously playing on *Elvis Costello*. *Elton Motello* (née Alan Ward) had a hit in 1977 with “Jet Boy Jet Girl” which, itself, was later covered by *The Damned*). The backing track for that song formed the basis of the international hit “Ça Plane Pour Moi” by *Plastic Bertrand*. Here, Motello goes full-on *Devo* with this cover of an early *Who* song.

http://www.youtube.com/watch?v=xetXJvevz_M
Cyndee Peters – “House of The Rising Sun” (traditional - The Animals)

Cyndee Peters is an American-born gospel singer who has spent much of her life in Sweden. This compelling arrangement is from an album on the Swedish Opus 3 label, known for its minimalist approach to audiophile recording.

http://www.youtube.com/watch?v=i-h3qqIbULE

Rabbitt – “Locomotive Breath” (Jethro Tull)

Hailing from South Africa, this was one of Trevor Rabin’s earliest outfits. He would go on to join Yes as part of their 90125 lineup, as well as composing film soundtracks. Rabbitt keyboardist Duncan Faure would later join the Bay City Rollers in their post-hit incarnation as The Rollers. Note the change in lyrics (“God” becomes “Charlie”).

http://www.youtube.com/watch?v=UdVYPzO9hUQ
Stewart & Gaskin - “Subterranean Homesick Blues” (Bob Dylan), “Levi Stubbs’ Tears” (Billy Bragg)

Dave Stewart (not of the Eurythmics) and Barbara Gaskin were veterans of the Canterbury progressive rock scene in the ‘60s and ‘70s. Stewart had played keyboards in quite a few bands, including Egg, Khan, Hatfield and the North, National Health, and Bruford. Gaskin was a singer with Hatfield, credited along with vocalists Amanda Parsons and Ann Rosenthal as “The Northettes.”

Stewart and Gaskin teamed up in the 1980s to produce three pop-oriented albums for the Rykodisc label, but had little success outside of England. Those albums featured a large number of cover versions, two of which are included here.

“Subterranean Homesick Blues” is given a very quirky rap/hip-hop treatment. At the start of the track, a quiet voice can be heard saying, “So, still no luck in the music business, eh guys?”

http://www.youtube.com/watch?v=7MYgjgrZ8ts
Seeing as British singer-songwriter **Billy Bragg** is not exactly a household name, I’m including his original recording of “Levi Stubbs’ Tears” for comparison purposes. His is a stripped-down, demo-like track, typical of much of his recordings.

http://www.youtube.com/watch?v=I4v8VJ0LRgA

The Stewart/Gaskin version is a complete re-imagining with a massive arrangement. These two versions make a great demonstration of what “production” means in recordings.

http://www.youtube.com/watch?v=Df_yKtbu9Y4&list=PLQ0_3KQ4DZ-puuD5APHesVd_FE_HbVPxB

Of course, this is just a small sample of what’s out there (pun intended). If you have any favorites that I might want to include in a follow-up, please share them in the comments section.

Header image courtesy of [Wikimedia Commons/Eva Rinaldi](https://commons.wikimedia.org/wiki/Category:Music).
I can trace my audiophile roots back to a certain Admiral hi-fi console in my parents' basement, back in the mid-1960s, when I first started stacking records on the changer at the tender age of three. My entire journey from then to now has been a series of steps large and small, with a few revelatory steps along the way that woke me up to what good audio was all about.

Back in the early 1980s, I had already owned a couple of Grado cartridges I was fond of. They sounded OK, but I had just read a review of a new cartridge in *Stereo Review* that sparked my interest. I mail-ordered it from the now-defunct Lyle Cartridges, installed it with the built-in alignment jig, and was glued to the turntable for weeks in a state of disbelief.

This cartridge tracked *everything*. No more bright percussion splattering between the speakers. No more sibilance. No more percussion sounding like it was being shredded. My hot-cut 12-inch singles played so cleanly! The distorted mistracking of the inner grooves of LPs and especially 45s was gone completely.

This was the Shure V15 Type V, when it was first introduced with the HE (Hyper-Elliptical) stylus. I
also learned within weeks how insanely brittle the cantilever was. Yet to this day, even after having spent too much on replacements, I have yet to find anything that can track my “hot” records anywhere near as well as that V15. My Audio-Technica AT-ART7 comes close, but I need a serious turntable upgrade. (I can’t say I’m all that impressed with the build quality of Pro-Ject’s nearly top of the line model.)

My next revelatory moment was speakers. I’d gone through a few pairs in my day. The Grafyx SP-10 pair from the late 70s was something I’d saved up my lawn mowing money as a teenager to purchase from a local audiophile store named Absolute Sound. I still own that pair, and a second pair in a nicer finish I purchased a few years later on closeout. They served me well for decades.

Then came the day in 1987 that the manager at Absolute Sound quickly caught our attention and dragged me and my buddy into the listening room to hear something new that we “just had to hear.” I’d never seen him so animated about a product before—this had to be good! After a few tunes, I totally got it. This pair changed my perception of what speakers could do. The bass wasn’t quite so deep, but I’d never heard such clarity, transparency, speed, attack and decay…and that imaging! I was smitten. They were properly set up and singing. The price, of course, out of reach. But that started my decades-long quest to find a pair of electrostatic speakers. These were the MartinLogan CLS II.

Only in the past couple of weeks did I finally locate a pair of MartinLogan Spire loudspeakers. The timing was right, the price even better, and despite a 616-mile drive and eight-and-a-half hour drive each way, they are residing happily in my system. The moment I queued up a recent favorite (Michael Franks’ “As Long as We’re Both Together” from The Music in My Head), it was goosebumps all over again.

My digital revelation came in two steps, by way of an upgrade from a handful of mass-market players (including a pile of dead Sonys) and a nasty sounding Pioneer Elite DV-45A “universal” player to an Oppo BDP-105. I had only heard minor changes in digital sources up to that point. I couldn’t believe how much better the Oppo sounded! That soundstage bloomed magnificently, and that smoothness…so much nicer than what I was used to with the Pioneer.

Yet, digital through the Oppo needed a little further refinement, and I was still getting some harshness I didn’t particularly like. The icing on the cake was upgrading from the Oppo to a PS Audio DirectStream Junior, which has made me like digital playback again! Moving to the DS Jr. was more of an evolution than a revolution for me, while at the same time showing me what digital was truly capable of.

I’ve had no major revelatory experiences with amplification. When I jumped from the Realistic SA-1000A integrated amp of my early teenage years to the Hafler DH-101 preamp (which I assembled from the kit), the clarity was quite improved and that proved to be a near-revelatory moment. Over the years, however, I would change power amps to little effect beyond adding more power. Some were better than others. Of the solid state amps, the Nakamichi PA-7 (a Nelson Pass “Stasis” design) was by far the best, and was the last solid state amp in my system.

When I caught the upgrade-itis bug again and wanted to get into tubes, I found myself buying a Conrad-Johnson preamp, and then got a killer local deal on a spotless Premier Eleven power amp. The EV1 phono stage came last year. They were the final pieces in my audio puzzle to fall into place.
and now I have a full C-J “stack” thanks to my careful shopping.

The sound with the C-J amplification and the MartinLogan Spires, I believe, finally has me at an end goal with most of my system. I can listen to any source with effortless sound for hours. That final revelatory moment is when everything falls together and you realize your system sounds like you dreamed it should, synergy kicked into overdrive, and tunes flowing effortlessly for hours on end. These are good times!
Lee's Liquor Lounge, Minneapolis. Once a vibrant music venue, it closed in 2019 after 62 years.