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Maybe it’s just me, but the music on Bob Dylan’s new record feels old—almost as old as Dylan himself. What’s modern on Modern Times (CD, Columbia 82876 87606 2) is the sound—dynamically compressed to the hilt, with no top-end air or detail, muddy bass, and a soundstage leaner than Paris Hilton’s talent. In the Rolling Stone interview, Dylan includes Modern Times in the long slide to sonic oblivion: “Even those songs probably sounded ten times better in the studio when we recorded ‘em.”

I believe him. Dylan’s rasping vocals are way too prominent in the mix and, worse yet, a thick veil separates Bob from his band. I wish I could blame a hack producer for the lackluster sound, but Dylan’s alter ego, Jack Frost, produced Modern Times. The new music is comparable with his last few highly praised releases, Time Out of Mind and Love and Theft, and Modern Times’s sound is more or less on a par with them.

According to Dylan, the “small” sound of the Compact Disc might account for the rush to download music for free. He figures the sound is already trashed, so the downloaders aren’t missing much. But Dylan could still make a great-sounding record if he wanted to. More than most commercially oriented pop artists, Dylan is free to make recordings with the sound he wants, work with any producer and engineer, and record in any studio in the world. Over the course of the Rolling Stone interview, Dylan never spells out exactly what constitutes good sound. I’ve read elsewhere that he rates Highway 61 Revisited and Blonde On Blonde as his best, and I couldn’t agree more. Those albums capture Dylan at the peak of his creative powers, and their sound is completely in sync with the music.

When I’ve queried nonaudiophile friends about the sound quality of Modern Times and other recordings, they don’t get more specific than “I like that, it sounds good” or “Geez, take that off, it sounds like crap.” It doesn’t take too long to see that most people, my musician friends included, can’t describe why they like the sound of a particular recording. “Sounds good” is what sounds good to them, and that’s cool with me.

I like records that sound as if they were made with musicians playing “live,” and the singer was actually singing with the band. That’s rarely the case anymore, but when a recording conveys at least that illusion, I’m happy. It’s just that now that most recordings are assembled on Pro Tools workstations, the chances of transferring the musical essence of the original performance to the final product—LP, SACD, CD, or iTunes download—are getting smaller all the time. Few studios even bother to deliver the finished tape or hard drive to the mastering house anymore; they’re content to send the music over the Internet. To the record company, the music is a product—a collection of zeros and ones that might make them lots of money. Something’s going on, but they don’t know what it is, or was.

Most of our favorite recordings aren’t particularly transparent, and don’t have wide bandwidth, unlimited dynamic range, or remarkable soundstage depth—that audiophile stuff isn’t an indispensable part of the mix. The sounds of Led Zeppelin’s first two records still get my mojo workin’, and Motown’s biggest hits are loaded with distortion. I’ve listened to those great recordings over countless high-end systems and have always loved the sound and the music. That said, you don’t need a set of Wilson Audio MAXX 2 loudspeakers to hear the immediacy of any decent recording from the 1950s, ’60s, or ’70s. Compare, say, Roy Orbison’s “Oh Pretty Woman” to any of the tunes on Modern Times. Sorry, Bob, the spark is missing.

Why? Besides the fact that the Orbison tune was recorded with vintage microphones feeding an all-analog, all-tube recording chain, his engineers had fewer opportunities to mess with the sound. Sure, they added reverb, probably from a bona-fide echo chamber (ie, a tiled room with a speaker at one end and a microphone), and used a tube compressor to hold Orbison’s vocal to the right level in the mix. Otherwise, the sonic diddling was minimal. I’ve read that Patsy Cline’s greatest hit, “Crazy,” was laid down in a single take. No overdubs, no pitch correction, no fixes in the mix were required—just a great singer wrapping her pipes around a great tune.

Dylan recorded Bringing It All Back Home in three days—January 13, 14, and 15, 1965. Legend has it that he wanted to lay down “Mr. Tambourine Man,” “Gates of Eden,” and “It’s Alright, Ma (I’m Only Bleeding)” in one continuous take, and he almost nailed it. One thing’s for sure: during those sessions, no veil separated Dylan from his band—the connection between singer and songs was total. While I have no idea how long it took to record, mix, and master Modern Times, I’d bet the production stretched out for more than a few days. Not to put too fine a point on it, but when the technology no longer serves the music, it obscures it. Maybe that’s why recorded music can no longer hold the attention of most nonaudiophiles. Music has been relegated to a background soundtrack to other activities: jogging, washing the car, frying eggs—anything but active listening.

Out in the real world, Modern Times will be enjoyed over $20 computer speakers, the freebie earbuds that come with Apple iPods, and expensive car audio systems with knee-level speakers. Listening at home over any sort of decent stereo or home theater system has become, unfortunately, the least likely scenario.

But even against those odds, if Dylan truly wanted to make great-sounding records again, he could. That’s my fantasy: Bob Dylan making music that moves people and stirs their souls. If that happened, who knows? They might start really listening again.
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Steve Guttenberg wonders if a good Bob could make people really listen again.

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Industry Update
High-end audio news including dealer-promoted seminars, plus: The late Glenn Gould performs live in Toronto and news from Britain's Hi-Fi News Show. Want to know more? Go to the "News Desk" at www.stereophile.com for up-to-the-minute info.

Sam's Space
Sam goes shopping for some cool gear this hot holiday season!

Analog Corner
Michael Fremer brims us the Transfiguration Orpheus and Blue Angel Pink Ivory Mantis phono cartridges and the TW-Acustic Raven AC turntable.

Listening
Art Dudley goes for the funk with Funk Firm turntable modifications.

The Fifth Element
John Marks has all kinds of great stuff in his holiday bag... just in time!

Record Reviews
For the final "Recording of the Month" for 2006, we've chosen Jerry Lee Lewis' star-studded new album, Last Man Standing. In Classical, we have a review of string quartet, Ethel's latest recording. In Rock/Pop, there are reviews of Gov't Mule and Lambchop. And in Jazz and Etc., there are recordings by Branford Marsalis and Ali Farka Touré.

Manufacturers' Comments
This month Furutech, Pathos, Transfiguration, Blue Angel, TW-Acustic, Funk Firm, and PrimaLuna write in about our reviews of their products.

Aural Robert
Ray Charles' voice rescued from an old recording overlain with the playing of the current Basie Band? Robert Baird explores the story behind the new Ray Sings, Basie Swings project.

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CONTRIBUTING EDITORS (AUDIO)

CONTRIBUTING EDITORS (MUSIC)
Larry Bishnom, Daniel Buckley, Jason Cohen, Timothy Conrad, Daniel D'Amato, Ben France, Matthew Pitch, Bob Goldy, Robert Levine, Fred Mills, Dan Quillen, Craig Rankin, Lenard Ruder, Scott Schieler, David Selke, David Patrick Stearns, John Summers

Graphic Design: Nadine Brown Basa, Elizabeth Donovan
Cover Photo: Eric Summers

ADVERTISING SALES
Associate Publisher Keith Pray, ME, NH, VT, MA, RI, CT, NY, MI, WI, MN
(212) 229-4848 • Fax (212) 886-3649 • e-mail: Keith.Pray@primedia.com
Advertising Manager Elizabeth Mey, Canada & International
(617) 491-0878 • e-mail: elizabeth.mey@primedia.com
Advertising Manager Christine You, IL, MO, AR, LA, MS, AL, GA, FL, KY, WA, IA, MO, NC, SC, TN
(212) 716-8469 • Fax (212) 716-8462 • e-mail: Christine.You@primedia.com
Advertising Manager Ed Dlnnafll, NJ, PA, DE, OH, IN, IA
(212) 716-8464 • Fax (212) 716-8462 • e-mail: Ed.Dlndamet@primedia.com
Advertising Manager Laura Lecheid • Lecheid Associates, Central West Coast Mfg & National Retailers
(718) 745-5025 • Fax (718) 745-5076 • e-mail: Laura.Lcncdie@bk@global.net
Advertising Manager Kimberly Daniels, West Coast
(562) 436-6377 • Fax (562) 436-4225 • e-mail: Kimberly.Daniels@primedia.com
National Online Sales & Classified Manager • Laurie Hardy
(212) 886-3664 • Fax (212) 886-2810 • e-mail: Laurie.Hardy@primedia.com
Group Sales & Marketing Associate Jaime Row
(212) 886-3657 • e-mail: Jaime.Row@primedia.com

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Senior VP/Group Publisher Rob MacDonald
Editor John Atkinson
Music Editor Robert Baird
Managing Editor Elizabeth Donovan
Production Manager Sherron Corwin
Senior Contributing Editors Sam Tegli, Martin Collins, Michael Fremer, Wes Phillips
Editor At Large Art Dudley
Web Producer Jim Jaron
Assistant Editor Stephen Majic

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Editorial fax . (212) 229-3889
John Atkinson • john_atkinson@primedia.com
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Good work!
Editor: Until not too long ago, Stereophile used to devote much more coverage to classical music. However, I am very glad to see that your most recent issues have offered us once again a glimpse of the good old days, with Jason Victor Serinus' heartfelt tribute to the late Lorraine Hunt Lieberson in September (p.15); veteran Robert Levine's feature article ("Arias Unbound") on two recent operatic DVD releases, also in September (p.68); and John Marks’ ongoing series devoted to great American organs. Please keep up the good work!

Lawrence Lock
Toronto, ON
lawrence.lock@rogers.com

A slam dunk!
Editor: Wow! I think your September issue was a slam dunk! I was delighted, first, to find a lead article ("Arias Unbound," p.68) on two current-release DVD operas. The author, Robert Levine, speaks as authoritatively as any critic I've read in years on opera, in this case about Verdi's La Traviata and Handel's Giulio Cesare. And he is right: in fact, the beautiful Russian soprano Anna Netrebko, whom he praises as "as fine as can be seen and heard at this time in operatic history," appears on the cover of the current BBC Music magazine next to the title "The Greatest Living Soprano." Congratulations on Mr. Levine trumping "The World's Best-Selling Classical Music Magazine" on this subject! I would encourage Stereophile readers to obtain and watch these two DVDs—they are both entertainment and sonic revelations.

Similarly, Richard Lehmer's CD reviews of Wagner's Die Walküre and Siegfried were exceptional. I can't remember reading such informed reviews of the performance and recording of classical music since the glory days of High Fidelity and the pantheon of great critics like Harris Goldsmith, Alfred Frankenstein, etc. Wow! These reviews are worth the whole subscription to Stereophile regardless of the equipment stuff. They totally distinguish your magazine from the perfunctory "this record sounds good (it, I don't know classical music but I know what I think sounds good)" of your competitors. Bravo!

Foster Atson
Alexandria, VA
highcastle1@verizon.net

P.S. I am an original Stereophile subscriber from Vol.1 No.1, and own about 130 stereo and multichannel components (including, most recently, an Esoteric DV-505 SACD player).

Way out of touch
Editor: I'm a new, young audiophile. I've recently started reading Stereophile and love it. I've noticed that, in almost every issue I've bought in the last year, someone writes in to complain about the prices of audiophile gear you review in your magazine. True, the prices for most of the products you write about are well beyond the price of working stiffs like myself, but I'm glad you review them. Ultimately, the gear should aspire to ultimate perfection, and cost should not be an object.

But the working stiffs have a point. There are many who feel left out because they can't afford these products. Average music lovers may give up on the audiophile pursuit and go back to the MP3 players. This leads to decreased subscriptions to your magazine and lower sales for your advertisers.

I think I may have a solution. I've been surfing Craig's List and eBay for "vintage" gear. I've been using an old Sony ES pre (TAE-1000ESD), old B&K amp (ST-140), old Paradigm speakers (7se Mk.2), and old sub (Mirage PS-12). I pieced this system together for about $700 and have been very happy. I'm still on the lookout for gear, but for now, I'm satisfied.

My solution is for Stereophile to start a "vintage" column. There are tons of folks out there who could afford to buy an older piece of audiophile gear if only they knew what to look for. Advice on buying vintage audiophile gear, specifically aimed at the starter or low-budget audiophile, could stop the whining and bring a whole new generation into the audiophile world.

Terry Watts
twatts@kci.com

We have been publishing occasional reviews of classic gear and will be doing more. But I also think it fair to point out to the following correspondent that "Recommended Components" does include a large number of affordable products, and we do highlight those products that we feel "punch above their weight"; ie, offer higher performance than might be expected at their price. It's just that the highest-attaining products do tend to be the highest-priced.

-JA

Way scary
Editor: The latest "Recommended Components" (October 2006) really leaves me wondering what substances Stereophile's editors are sniffing in the back room. Just looking at the A+ and A turntables (just one of the offensive categories), I come up with an average cost of $30,511 for a stinkin' turntable—the cost of a year's tuition at one of America's better liberal arts colleges. If that's the kind of stuff you want to review and recommend, wouldn't you be better doing niche publishing to reach the handful of folks with deep pockets buying at those prices? Otherwise, us little folk are subsidizing the high rollers, eh?

Stereophile has lost its grip on reality, and when my subscription ends, I won't be missing anything—unless, of course, you start doing real audio journalism and features like "Cartridge Shoot-out: Best Bang Carts for $50 or Less."

Me, I'm content with a Denon DP-45F that I found at a church rummage sale for five bucks and a bag full of MIT Transformer interconnects and speaker cables that I bought for $3 at a thrift shop. I didn't chintz on my preamp or amp—I went with a very nice Odyssey system and matched Nightingale speakers that leave me plenty satisfied. My Yamaha tuner, a $5.50 eBay purchase, does very good work with a home-brew cubical quad antenna.

The stuff you guys are writing about is way scary.

Sam Alcorn
Lewisham, PA
sealcom@depzcc.com

Well-written?
Editor: I have to tell you how much I enjoy reading Stereophile. It is a pleasure to read articles written by people who not only have a passion for the subject but, more important, can write. After growing up reading car magazines written at a level
to appeal to a pimple-faced 16-year-old, it is nice to read sentences from people who can actually turn a phrase. However, I must tell you that I am slowly losing interest in the hobby. Several things are conspiring to suck the joy out of it. First, the equipment is too expensive. More is not better. Economics of scale can never be achieved when so many manufacturers attempt to sell a very few units. How many companies do we need out there making some sort of amplifier? Is every guy who has a soldering iron making them? It seems that for every audiophile in existence, a company exists to sell them a unit. Yet the industry does not consolidate. Clearly, the barrier to entry is too low.

Second, the differences between certain products and the differences between certain price ranges are often extremely subtle. Discovering and exploring these differences may appeal to the lunatic fringe, but many of us just want to listen to music. Do I really need to spend $12,000 for a preamp when a well-designed one at a fraction of the price will do? I am finding that I do not seem to have much in common with either the editors or the readers of the audiophile magazines. What's more, I think that there is a very sizable group of folks who have reached similar conclusions. Let me tell you briefly what has been happening in my audio world over the last decade. I no longer think of audio as something isolated and apart from other activities. Instead, I view audio as simply one aspect—albeit a very important one—of the home electronics world. It seems to me that, wherever possible, "convergence" is what is natural. Some five years ago I stopped playing CDs, for example. No, I have not gone over to MP3s! I simply bought an Audiotron, took my entire CD collection, made WAV files out of them, put them on big hard disks on a server, and proceeded to play music from the Audiotron. With a high-quality TosLink cable, the sound was not shredded, despite it being a cheap device. I have more recently migrated to Sonos, so at least I am happy that you recognized it as an important product in October.

But video, Ethernet LAN, lighting control, security systems, and other aspects of home electronics are nowadays also in harmony with audio in my house, not apart. This is modern life, in my view—audio is a very important part of home electronics, but it would be counterproductive to treat it in isolation. Both the specialist manufacturers and the magazines, however, have totally diverged from where the population is. No, I am not interested in $90,000 turntables or flea-power amplifiers using 1202 tubes, or much of the other stuff that is now "hard-core audiophilia." And I would think that there are a lot more vastly more—enthusiasts with my priorities than there are in the hard-core group. I think the magazines will continue to suffer greatly for catering mainly to the hard-core audience and rejecting the convergence crowd. There are serious consumer dollars out there being spent on home electronics. While the most expensive individual purchases are obviously made by the people who buy $90,000 turntables, the fact is that the group of these potential buyers is minuscule. Consequently, even if each purchase is astronomically priced, the entire market is small. The convergence home-electronics market is not small, but we need some magazine publishers to cater to us who do not insist on our intelligence.

One final point: While the market for kits has nearly disappeared, publishers have incorrectly surmised that readers care nothing about technology and simply want black-box products. I think one of the most important forces that drive an enthusiast field such as audio/video/home electronics is technical knowledge. Publishers do themselves a disservice when they get rid of the technical content in an ill-considered effort to "broaden the appeal." The outcome is actually the opposite: loss of interest in the publications.

—Jon Iversen

Long-term satisfaction
Editor:
As a long-time reader of Stereophile, I have learned much about this hobby over the last 10 years. However, to my surprise the greatest musical satisfaction I ever achieved was to pick up a $200 turntable, mount it with a Shure M97 cartridge, and buy an armful of used LPs at Randy's Records in Salt Lake City. I got rid of all my records in the early '90s when CD came along—till now I never realized how much musical and emotional joy I was missing. I have had more musical enjoyment from this cheap system than I've had in years. It makes me listen to the music, not the equipment it's played on.

Dave VanHouten
davewyli@hotmail.com

Erratum
John Marks' review in the August 2006 issue of Steve Harris and Ken Kessler's book, Sound Bites, credited Edgar Villchur for having invented the dome tweeter. It has since been pointed out that the patent for the soft-dome tweeter was awarded to Bill Hecht, founder of United Speaker Systems, Inc., the parent company of speaker builder Phase Technology (www.phaseitech.com/history.html). In view of the likelihood of confusing Hecht's breakthrough soft-dome design with Villchur's dome tweeter—which is more accurately described as a cone speaker with a large, dome-shaped dustcap—we regret the way this was stated in the review.

—JA
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Attention All Audio Societies: We now have a page on the Stereophile website dedicated entirely to you: www.stereophile.com/audiophilesocieties. Check it out and get involved! If you'd like to have your audio-society information posted on the site, e-mail Chris Vogel at vgl@atlantic.net and request an info-pack.

Please note that it is inappropriate for a retailer to promote a new product line in “Calendar” unless this is associated with a seminar or similar event.

CALIFORNIA

• Saturday, December 2, 12–4pm: The Los Angeles & Orange County Audio Society will host its annual holiday party, “ExtraordinEAR,” at the Buena Park Holiday Inn. Entertainment includes a holiday buffet and door prizes. David W. Robinson, editor of Positive Feedback Online, will be present to receive the Society’s 2006 Founder’s Award. Guests and new members are welcome. For more info, visit www.laoacudiosociety.com or call Bob Levi at (714) 281-5850.

FLORIDA

• Wednesday–Thursday, December 6–7, 10am–5pm: Audio Visions South (Tampa) will offer Linn Sondek LP12 owners the opportunity to have their LP12s completely rebuilt and serviced, free of charge, by Linn’s Steve Carroll and Alistair Steel, to ensure maximum performance. A current Sondek LP12 will be on hand for auditioning. For more info, call (813) 871-2989.

• Thursday, December 7, 7–9:30pm: Audio Visions South (Tampa) will

CANADA: TORONTO

Robert Deutsch

Glenn Gould is alive and well and living in Toronto.

If only it were so. Alas, the eccentric genius of the piano died of a stroke on October 4, 1982, shortly after his 50th birthday. But had you been in Toronto at noon on September 25, 2006—it would have been Gould’s 74th birthday—in the Canadian Broadcasting Corporation’s Glenn Gould Studio concert hall, and had you closed your eyes during the performance of Bach’s Goldberg Variations, you might well have concluded that it was Gould himself playing the piano on stage. The concert—which came about largely through the efforts of Jim Hayward, past president of the Toronto branch of the Audio Engineering Society—featured a Yamaha Disklavier Pro 9 concert grand reproducing piano, with software developed by North Carolina’s Zenph Studios.

The Yamaha Disklavier Pro uses technology based on that of the Bosendorfer Reproducing Piano, invented by Wayne Stahnke, which has been used by a number of artists, including Robert Silverman (his recording of the complete Beethoven piano sonatas, engineered by John Atkinson; OrpheusMasters KSP 830). Yamaha licensed Stahnke’s patent in the 1990s and hired him to help with further development of the technology. The result was the Disklavier Pro, not to be confused with the regular Disklavier found in many homes and hotel lobbies. The difference lies in the precision with which the actions of the piano are encoded: the regular Disklavier uses 7-bit MIDI encoding and two MIDI events for each key press, whereas the Pro uses 10-bit encoding and seven MIDI events for each key press, resulting in approximately 10 times the resolution of the regular Disklavier. This is not your great-grandfather’s player piano.

The Yamaha Disklavier Pro Concert Grand is ready for the performance. Zenph Studios’ Anatoly Larkin (currently completing his D.M.A. in piano at the University of Minnesota) and noted audio engineering researcher Stanley Lipshitz are looking at the microphone setup for the recording being made by CBC Radio.

John Q. Walker makes the acquaintance of Glenn-on-the-Bench, the sculpture by Canadian artist Anne Aremethy.

Recording the mechanics of a pianist’s performance and then reproducing it with enough precision to give a convincing facsimile of the original performance is challenging enough, but it’s child’s play compared to translating the sound data of an audio recording into a set of instructions for the reproducing piano. The software must analyze the digital dataset representing the recording of a piano performance and determine what the pianist must have been doing: which keys were pressed, with what intensity, for how long; the exact sequencing of various notes; the precise dynamics and timing of each note; what pedals were used, and for how long, etc.—the myriad microdetails that create a musical performance and allow the listener to identify the style of playing of a specific pianist in a specific performance.
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host a demonstration of Linn’s latest two-channel Majik system, comprising a Majik CD player, Majik Kontrol preamplifier, and Majik 2100 power amplifier. For more info, call (813) 871-2989.

ILLINOIS

• Saturday, December 9, 1–5pm: Essential Audio (Barrington) will host Scot Markwell of Elite AV Distribution and TheMusic.com to discuss analog playback and Kuzma turntables. For more info, call (847) 382-8433.

• Sunday, December 10, 2–5pm: The Chicago Audio Society will host Classic Records’ Michael Hobson for a demonstration of new recordings. For more info, visit www.chicagoaudio.org or call (847) 593-7790.

It’s what John Q. Walker, president of Zenph Studios, calls “data mining,” and since 2002 his company has worked on developing the software to do this task. Holder of a PhD in software engineering and having done master’s-level studies in piano performance, Walker has assembled a team at Zenph that includes two software engineers who are also graduates of the Moscow Conservatory of Music. Walker is also a confirmed audiophile (he says he’s bought every issue of Stereophile since August 1987) whose dream is to re-create great performances of the past that are currently available only in the form of recordings, which have the limitations of the recording technology of their time.

The selection of Glenn Gould’s 1955 recording of the Goldberg Variations seemed particularly appropriate: It’s one of the most popular piano recordings of all time, but its sound quality, while good for its era, is not up to the best current standards. Gould himself was very interested in technology, and, as is well known, abandoned live performing in preference for the recording studio fairly early in his career. People who knew him say this is exactly the kind of thing that would have attracted his interest.

As for the performance itself, I’m no expert on Gould, but I do have his 1955 and 1981 recordings of the Goldberg, and it sure sounded like Gould to me. The invited audience of over 300, which included AES members, musicians, and media representatives, sat rapt for the duration of the concert, then exploded into thunderous applause. Listening to snatches of conversation at the reception that followed, I got the sense that people felt they had witnessed a momentous event.

How much would it cost to have this type of experience in your home? Well, a 9’ Yamaha Disklavier Pro will set you back $180,000, and in any case, the software developed by Zenph Studios is proprietary and not for sale. But there’s good news: Zenph has signed a contract with Sony BMG for 18 discs of historic classical and jazz piano performances. Gould’s 1955 Goldberg Variations is first on the list, and will be released as a hybrid multichannel SACD. They’re also planning to record a binaural version, using microphones placed in the ears of a dummy head; listening on headphones, you’ll hear what Gould would have heard sitting on the piano bench. Only Gould’s famous humming will be missing.

UK: HEATHROW AIRPORT, LONDON

Paul Messenger

The Hi-Fi News Show, the annual September hi-fi show sponsored by Hi-Fi News, has been Britain’s premier such event for some 20 years, and has usually been held at two hotels close to London’s Heathrow Airport. However, declining visitor attendance and exhibitor support in the last few years led to a decision to restrict the 2006 show to the original venue, the Renaissance Hotel—whereupon rival show organizer Roy Bird, of Chesterfield Communications, announced The London Sound & Vision Show ’06, sponsored by Hi-Fi World magazine, which would run concurrently, across the street at the Park Inn, long the Hi-Fi News show’s overflow venue.

The gossip and politicking ran for months, with exhibitors choosing one show or the other, or both—major high-end distributor Absolute Sounds had at least three good-sized rooms in each. Exhibitors found they could save money by playing one show off against the other, but for some poor visitors it was more a case of having to pay separately for each entry.

Indeed, confusion about the rival shows was presumably one reason for the absence from both shows of several leading brands. B&W has pulled out of UK shows altogether, while more mainstream brands—Arcam, Denon, Tannoy, Pioneer, Sony, Cyrus, KEF, Cambridge Audio, etc.—instead signed up for the Central London Staff/What Hi-Fi? event at the beginning of November. But that still left dozens of brands at the Heathrow events, these tending to be more specialist, upmarket firms.

Although the trade-only day, Friday, seemed very quiet at both venues, those exhibitors I spoke to on Sunday felt things had gone rather well over the weekend. After two full days I still hadn’t managed to visit all the rooms, so the total of both shows’ exhibitors was significantly larger—and a lot more interesting—than the 2005 Hi-Fi News show, which occupied both venues. The new Sound & Vision show seemed to have more exhibitors (around 60), but the Hi-Fi News Show seemed the busier. However, as a journalist with no ties to either side, I’m inclined to treat the distinction between the shows as purely political and largely irrelevant to the reporting process.

Judging by the enthusiastic reaction on Stereophile’s website blog (http://blog.stereophile.com/hifinews2006), the
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reincarnation of the remarkable full-range ribbon loudspeakers from Apogee in a room at the Park Inn was, by a comfortable margin, the hottest news at either show. The original Apogees were one of relatively few loudspeakers that genuinely deserved cult status, and their disappearance was widely regretted. Some may regret that this quintessential US high-end product has been left to the past. Apogee models, and is putting the pictured Synergy model into production at a UK price of £13,000/pair ($26,500). What I heard in the undamped demo room was rather bright, though I understand a better balance was eventually reached. Graz claims to have achieved dramatic improvements in efficiency over the original Apogees. He also makes replicas of the original models on request.

At the Park Inn show, veteran dealer Howard Popeck is now distributing a gigantic (14 square feet) panel speaker, the Podium 1. He told me that its inventors and makers wished to remain anonymous, but further investigation revealed the involvement of Paul Burton, who was responsible for the 1990s Sumo speaker and, in part, the Cyrus NXT-hybrid design. Closer inspection of the Podium 1 itself suggested that it probably includes a very large NXT panel. The good news is that the speaker delivered a very generous and convincing sense of scale, is only about 0.5" deep at the edges (a bulging rib, presumably covering the actuators, runs down its spine), and will cost a relatively modest £3000–£4000/pair with money-back guarantee. The room was far too small for such large panels, so the bass might have been tauter, and the imaging seemed a bit vague, as you might expect, but the Podium 1's impressive dynamics were intriguing and persuasive.

The Park Inn's largest demo rooms featured massive full-on systems from McIntosh, Krell, Wilson Audio–Audio Research, and mbl, but I also enjoyed the more modest sounds made in the Rogue Audio room by the tiny Amphion Ion and compact Marten Miles III loudspeakers. Vivid Audio's stylish speakers, engineered by ex-B&W designer Laurence Dickie, now include the compact V1 stand-mount model is two sizes, and the larger K1, with four bass drivers. Hitherto restricted to budget models, Mike Jewitt has come up with a chunky new two-box, three-way Cygnis floorstander that's altogether more ambitious than previous Revolver designs, with a 10" bass driver and an asymmetrically shaped head unit made from a composite material.

Among solid-state electronics, Creek Audio exhibited two new ranges. The new Destiny CD player and amplifiers (at £1200 each) are the company's most ambitious to date, while at the same time Creek has sought overseas partners to create its new entry-level EVO components (at £500 each). Naim Audio used the event to show its new SuperNait, a two-channel, 85Wpc integrated amplifier with a 400VA power supply and a built-in digital input and DAC alongside its six regular analog inputs.

I'm willing to bet that there was more to this than solid-state gear at the Park Inn this year, along with greater style and configuration diversity. Alongside tube amps from the US, Germany, Italy, China, and Japan, there were also plenty of UK models, several showing respect for the British heritage seen at the Museum feature in the Hi-Fi News show. Onetime journalist and Heybrook founder Peter Comeau, who has taken over the kit-oriented World Designs operation, told me of his plans to revive the re-doubtable Radford STA25 tube amp. Not long after, I bumped into Ole Christiansen, who'd told me exactly the same thing a year before. I introduced Ole to Peter, happily, they already knew each other and now plan to work together, first to create a replica STA25, and then an improved version with superior performance.

Perhaps the most interesting trend revealed at these shows is British designers working with Chinese manufacturers to create high-quality tube amps at much lower prices than would have previously been possible. Guy Sergeant has brought his past experience with Audio Innovations to bear on several models flying the Pure Sound banner, including the 30Wpc Bewitch A30 (£1100), based on Russian-made 6550 output tubes. David Shaw of Icon Audio has developed a large roster of surprisingly affordable models, including the KT88-based Stereo 60 (£1300), its front end inspired by the famous D.N.T. Williamson design. A facsimile model based on Leak's famous "triple-loop" TL50 is also on the drawing board.

Over the road at the Hi-Fi News show in the Renaissance, another 120-odd brands were distributed around 40 or so more rooms and booths. If the show itself was somewhat smaller, its organizers had worked hard to make up for this with extra demonstrations, live music, and guest speakers. Time didn't allow me to cover these, but I was entranced by a wonderful Audio Museum room displaying dozens of historic components. The complete history of Lowther-Voigt seemed to be on display, and a Voigt Corner Horn was actually playing music, sourced from a "vintage" (first-generation) CD player via a compact Pye tube amplifier.

After several hours of tramping corridors and pressing flesh, it was good to take a time-out in the Audiofreaks room. Audiofreaks' cunning combination of Kuzma and Zanden sources, Conrad-Johnson preamp, Karan power amp, and Avalon speakers always seems to add up to the Renaissance's most musical and relaxing hideout. If the Ypsilon room was anything to go by, Greece could be about to join the High End Club. Although Ypsilon has been around for some 12 years, they have only recently developed suitably serious products—such as the massively heated SET-100 hybrid monoblock power amp, which has a tube input stage, a class-A MOSFET output stage, and generates about 300W of waste heat. To reduce the grain generated by resistors, the Ypsilon preamp uses an attenuator...
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If the Ypsilon kit is anything to go by, Greece could be about to join the high-end community. Engineering Director Dimitris Baklavas explained that his 12-year-old company has only recently developed products that could take on the international High End.

Chord's John Franks stands by his new ultra-low-noise CPA5000 Reference preamplifier.

Another megasystem could be found in the Linn room, where analog and digital sources were supplying an all-active pair of five-way Komris—not the prettiest speaker in the world, but undoubtedly an effective one. PR manager Brian Morris said that it had been a decade since Linn had last been at a Heathrow show, and the company was well pleased with the results. Other familiar British brands included Chord Electronics, showing their new, very tasty-looking CPA5000 Reference preamplifier, whose high-speed switching supplies deliver a claimed noise floor of -148dB! Low noise floors are also important to Leema Acoustics: their Antila CD player has no fewer than 20 Crystal DACs. By generating an antiphase datastream, buffering and precision clocking out of memory, the inherent DAC noise can be canceled and the floor lowered by some 10-12dB, they claim.

One of the most interesting experiences I had at the Renaissance was in Hi-Fi News' own room, where Karl-Heinz Fink, Lampos Ferekidis, Dr. Graham Bank, and John Vizor treated me to a demonstration of their remarkable prototype BMR speaker (see Stereophile, December 2005). Licensed from NXT, the BMR (for Balanced Modal Radiator) technology is an attempt to synthesize the best characteristics of pistonic and modal sound radiation. The prototype, using a 3.4" BMR unit via an active crossover upward from 400Hz, showed considerable potential, with a complete absence of the usual 2-4kHz crossover difficulties, and wide dispersion to the very highest frequencies.

It has a cute name and an even cuter appearance, but the Lizard Wizard amplifier remains something of a mystery to me. It constitutes a radical and compact approach to amplification, but it's also Hungarian, and the language barrier proved insuperable to my understanding of just what a ParaMagnetic Current, or a virtual-coil 60W amplifier with a specified output impedance of 0-36 ohms? Huh?

The Hungarian Lizard Wizard is a "virtual-coil 60W amplifier with a specified output impedance of 0-36 ohms."

Just what will happen over the next 12 months, politically speaking, is impossible to guess. However, 2006 unequivocally proved that Heathrow Airport remains a good place to see and hear interesting and serious quality hi-fi each September. I expect we'll all be back again in 2007.

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**Vinyl:** Sure, digital has gotten very good (and we’ll get to that in a minute) but vinyl is organic and liquid-sounding, and just happens to be a very cost efficient way to get a balanced source -- not to mention it provides hours of platter picking pleasure at indie record stores, too. The coil in a phono-cartridge is naturally balanced, and if you run it to a balanced phono amplifier, voila, you’ve got a truly balanced source. (Tape heads make great naturally balanced sources, too---but if you thought vinyl was obscure try finding source material on 15-inch reels!)

**Digital:** The proper way to get as close to perfectly balanced digital source as possible is to create the inverted channel by flipping while it’s still in the numbers stage. Normally, DACs (Digital to Analog Converters) run with 0000... giving a low voltage to 1111... giving it’s maximum voltage. In this case the output with digital audio is non-inverted (or improperly but commonly called, “in-phase”). But with a simple toggle of a pin, the DAC inverts its word sequence and runs from 0000... giving the maximum output to 1111... giving it lowest voltage, which inverts the audio signal---pretty much perfectly.

In our latest generation of HeadRoom balanced headphone amplifiers you’ll find a number-crunching sweetheart of a balanced digital front-end for our fully-evolved balanced headphone amp circuits. We use two Cirrus Logic’s flagship CS4398 stereo DACs, each running a channel and creating a normal and inverted audio signal, followed by discrete hand-matched circuit paths which allow our DAC boards deliver exquisitely matched pairs of balanced stereo signals to all four channels of our balanced amps. The result of this pure and very short path to your ears in HeadRoom balanced headphone systems is audio performance that can only be equaled by supremely hyper-expensive speaker-based systems.

We could end right here with you thinking about how your noggin can be transformed into a world-class listening room for a mere couple of thousand bucks, but there’s something else. Our DAC boards have USB inputs, as well as digital TosLink optical and digital co-axial inputs. That means your laptop could be a perfect digital source for a high-end listening system; that means your Airport Express or Squeezebox (A’s new fav) is a perfectly good front-end anywhere in your home or office... That means most anywhere you are, you can be perfectly balanced, Right Between Your Ears.
Pathos Acoustics takes the unorthodox approach," Paolo Andiolo told me when I visited the company in Vicenza, Italy, several years ago.

Walking the streets of Vicenza, we were too preoccupied for Sam to scribble notes. You can't vroom through Vicenza: the entire city center is an architectural museum. This was the home town of Palladio, great architect of Renaissance Italy. Palladio virtually reinvented—and reinvigorated—the architecture of the West by returning to its classical roots in ancient Greek Rome. (Thomas Jefferson was inspired by Palladio.)

I think Paolo and his team at Pathos Acoustics would like to do something similar for audio: remove the clutter, return it to its roots—or at least rethink conventional assumptions. And it's true: so much hi-fi is the same old same-old. When you buy a Pathos product, the promise is that it will be unorthodox, unconventional, and original.

Pathos was founded by three unconventional personalities. Paolo Andiolo takes care of industrial design and marketing. Gianni Borinato, an electrical engineer by profession, is the engineering guru. Gaetano Zannini, a former hi-fi dealer, handles the day-to-day business of running the firm. Their very different personalities seem to complement one another: Paolo is intellectual, intense, austere; Gianni is outgoing, easy, always ready with a joke or another beer; and the quiet, serious Gaetano loves family, food, music, and a glass of grappa after dinner.

**Pathos Acoustics Classic One Mk.III integrated amplifier**

The Classic One, Pathos's entry-level integrated amplifier ($2750), is rated to deliver 70Wpc into 8 ohms or 130Wpc into 4 ohms. That's in stereo. Would you like more power? A pair of Classic Ones can be bridged to provide a fully balanced 270Wpc into 8 ohms.

The Classic One uses two Sovtek 6922 tubes in its fully balanced preamp stage, and two pairs of MOSFET transistors in its power-amp output stage. The tube preamp stage is described as "a real balanced network that works in pure class-A." In stereo, the output stage is unbalanced, like me. When you bridge amps, things get interesting. Paolo explained: "The balanced signals (+ and -) come from the vacuum-tube preamplifier stage to the right-channel power amp (+) and the left-channel power amp (-). The load, which is to say the speaker, is then connected between the + output of the right-channel power amp and the - output of the left-channel power amp...In bridged mode, the whole machine works in real balanced mode from the input to the output, including the speaker."

Paolo does not encourage customers to buy two Mk.IIIs "if they need to drive huge speakers at loud volume in a large theater. In the end," he wrote, "the machine has been designed and dimensioned for being a domestic integrated amp, so that high power in bridged mode gives users the freedom from peak compression, yet within the parameters of normal domestic use."

No photograph does justice to the Classic One. It may be the most beautiful piece of hi-fi gear ever made—small, elegant, exquisite. Its long, narrow shape is unusual: 9" wide by 5.5" high by 18" deep (including the front knobs). The twin tubes are protected by two Palladian tube cages. The amp runs just slightly warm and needs open-air ventilation. Who would hide an amplifier this beautiful inside a cabinet?

There are no frills: just four line-level inputs (one of them is balanced) and a tape loop. There's no balance control, nor is there a line-level out for a powered subwoofer. No headphone jack. The matching remote is made of wood and has just four buttons: volume up and down, mute, and unmute. The Classic One is absolutely free of annoying complexity and clutter. It is...Palladian. Minimalist. The parts quality looks to be very high: pure silver internal wiring, gold-plated RCA terminals, etc.

But despite the care taken with the power supplies (separate supplies for the pre and power sections), the Classic One is still a small, modestly powered amplifier. If you require gut-wrenching, lease-breaking bass from very large speakers, if you have a large room and like your music very loud, this is not the amp for you.

The Classic One would be perfect for an apartment in Manhattan—or in Boston or Chicago—or for an office. It's the ideal product for the burned-out 'phile who wants to quit the audiophile rat race in style. In this regard, the Classic One is an entry-and an exit-level product.

There have been some circuit and parts refinements since the Mk.II. Paolo filled me in:

• New "high-quality" op-amps to drive the MOSFET power amplifier: one per channel between the preamp stage and the power-amp section. Yup, op-amps. Integrated circuits (ICs). Op-amps aren't supposed to sound good, and often they don't. Here? No problem. There's unconventional wisdom for you. Paolo said that the new op-amp is "ultra low noise with high linearity and very low distortion." The result, according to him: "higher definition." I agree.
• A new volume control with a Burr-Brown IC that Paolo says is more linear than what was used before.
• A new power transformer that's less sensitive to voltage variations from the AC mains. Apparently, this was more of a problem in North America than in high-voltage Europe.
• A circuit that protects the output transistors against a short circuit on the speaker connectors, along with new speaker connectors that do more to avoid a short circuit in the first place.

A Classic One Mk.II can't be upgraded to a Mk.III "because we made so many changes, in the power supply, for instance, and we had to change the entire circuit board." If I owned a Mk.II, I wouldn't be too tempted to sell and switch. The improvements are incremental, not dramatic.

It's been three years since I heard the Mk.II. Memory can play tricks, and since then many things have changed in my systems. Still, I'll hazard a guess that not much about the Classic One's sound has changed. It might be cleaner, cleaner—faster—more detailed than its predecessor, and more controlled in the bass. It's definitely more dynamic.

Nothing of the Mk.II's transparency and sweetness has been lost. This is an amplifier to make your speakers sing. What else did you expect from Italy? It's not new, however, overly warm and romantic. There's something slightly austere about the sound, as there was about the Mk.II's. Call it Palladian. Call it Paolo. Or maybe just call it truthfulness.

I keep thinking that one reason the Classic One sounds the way it does is that it uses a single pair of output transistors per channel. It's when you try to match multiple pairs that you often lose something: definition, detail, immediacy, timbral timing (harmonics in register).

I had on hand a new Cary CDP 1 CD player with balanced outputs. The Pathos Acoustics Classic One Mk.III did seem to perform better in balanced mode—something to keep in mind when choosing a CD player to pair with it.

I tried the Classic One with several different speakers, and both in our living room and my listening room. The speakers didn't sound bad straight out of the box, but I gave them 100 hours or so of break-in. If I'd waited longer, I'd have missed a deadline—ed longer, I'd have missed a deadline—

**SAM'S SPACE**

**DESPITE THE CARE TAKEN WITH THE POWER SUPPLIES, THE CLASSIC ONE IS STILL A SMALL, MODESTLY POWERED AMPLIFIER.**

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**Triangle Comete Anniversaire loudspeaker**

Remember the Triangle Comete Anniversaire speaker, which I reviewed in October? (In the photo accompanying that review, I wore one of these speakers' yellow chamois bags over my head.) The speakers didn't sound bad straight out of the box, but I gave them 100 hours or so of break-in. If I'd waited longer, I'd have missed a deadline—and a scoop.

But the Comete Anniversaire sounded even better after 500 hours: faster, smoother, sweeter; tighter, more...
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The affordable G06: "...assured, detailed and refined... this is a really music-loving piece of hi-fi equipment. Meridian has achieved a high and consistent standard with this player... a highly recommendable item."
—Richard Black, Hi-Fi Choice (UK), July 2006

The impressive G08: "I've not heard a more elegant sound emanate from a transistor-based system in quite some time."
—Sue Kraft, The Absolute Sound, February/March 2005

The incomparable 808: "I've had a Meridian 808 in my reference system for about three months and frankly, I can't imagine my system without it."

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tuneful bass; improved timing; more power, more impact, more punch. Its 6.3" (160mm) bass/midrange driver may need a very long run-in to limber up. Je ris mon mauvais rire (I laugh my evil laugh).

The Comete Anniversaire offers exceptional speed, finesse, imaging, and truth of timbre. The ability of a pair of them to resolve fine details and the ambience of recordings is phenomenal—assuming you have source components of the highest quality. This is one of the finest monitors available, regardless of price. At $1595/pair plus $395 for the obligatory Boomerang stands, it's a steal. It's like getting a $30 bottle of wine for $12.

The Comete Anniversaires worked equally well close to a front wall, or well out into the room for nearfield listening. With the speakers 6' in front of me, 8' apart, and toed in slightly, I could hear right through them. The speakers "vanished"—music filled my entire room, as if the room were the recording venue. Sam loves space!

Triangle will produce 1000 pairs of Comete Anniversaires, with 100 pairs or so allocated to the US. Expect them to be gone by Christmas, if not sooner.

The speakers' real-wood, gloss-finish cabinets are breathtakingly beautiful— as the French might say, endimanché (suited in Sunday best). The regular Comete Es, in vinyl-clad workday attire, will continue to be produced.

Sam's Own Product of the Year: Quad ESL-2805 loudspeaker
Stereophile named Quad's ESL-989 the Product and Loudspeaker of the Year for 2003. This being the month for awards, I wonder how Quad's ESL-2805 speaker will do. (The larger ESL-2905 is yet to be reviewed in this rag.)

I caught up in July with the ESL-2805, a much-improved, far-better-built version of the venerable ESL-63. There are the same three horizontal panels per speaker, and the same time-delay arrangement for the center panel, designed to re-create a point source. It works. The ESL-2805's frame is far better constructed than the ESL-63's, and can be tensioned—made more rigid—by tightening the brace or pole that extends from the top plate to the base. Be careful not to overtighten!

The parts quality, too, has been improved: things like the internal wiring, the components in the time-delay network, the speaker connectors, the base (now made of metal rather than injection-molded plastic). When made in England, the ESL-63 was never manufactured to its full potential.

With the ESL-2805, distortion is eliminated—perhaps more so than with any other speaker. Its timing is so quick that it sounds just like live: the clash of cymbals, a drum's rat-a-tat. This lack of distortion is undoubtedly one reason harmonics sound so real: everything is in register; the sound is never smeared.

The price is $9000/pair—a bargain in today's high-end world. You don't need stands for the ESL-2805, or a muscle amp to drive them—60-80Wpc is probably enough, especially from tube amps; anything more than 150Wpc or so will probably be wasted. With the exception (in my experience) of single-ended-triode amplifiers, Quads take kindly to tubes.

Sam's Own Digital Component of the Year: Rega Apollo CD player
This one's easy: the Rega Apollo CD player, which Art Dudley reviewed in June. At $995, it gives some of the competition at twice the price a very hard time. What's more, this top-loading player is fun to use. I never did like sliding drawers.

The Apollo offers exceptional information retrieval, seeming to squeeze more bits from the pits, more juice from the orange (as shown in a Rega ad running in the French audio rags). It does this, in part, by analyzing each disc before playback and choosing among four levels of error correction. In other words, the machine optimizes itself for each disc.

The Apollo is not just about information retrieval. The sound has weight, authority, power, punch. This is part of why it sounds so much like a far more expensive player, or a combination of costly digital separates.

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Plain text version:
Sony ICF-M1000 FM/AM table radio (aka the radio)

If you're looking for a nice table radio—something sleek, modern, not retro—Sony has something for you: the ICF-M1000, otherwise known as the radio. It sells for about $150.

The radio measures 11.7" (300mm) wide by 4.7" (120 mm) high by 6.6" (170 mm) deep, "not including projecting parts." That's about as tall as a Tivoli Model One radio, but wider and less deep.

The cabinet is vinyl-clad MDF, finished in a handsome piano-black lacquer.

I talked with Hemant Jha, of Sony's Los Angeles Design Center. An architect by training—a graduate of Yale, no less—Hemant was the radio's industrial designer. "We aimed for the most elegant and straightforward design possible," he told me. "Very few controls. We concentrated on what a radio needs to be." In other words, not an alarm clock, not a substitute for a hi-fi system, but an easy-to-use table radio.

The radio's design is elegant. There are just three buttons and three knobs. Unlike the Tivoli Model One, Sony's radio has a tone control: a single knob that boosts the bass when turned to the left, the treble when turned to the right. "You need this," Hemant explained. "The sound quality of radio stations varies—even NPR stations.

"The other thing to note is that this is a thoroughly engineered product. Every aspect was carefully considered, including—and especially—the power supply." The idea, said Hemant, is that the radio is something you can keep for a very long time.

I told Hemant about a Sony table radio I'd bought for my office at Time in 1973. It had excellent sound and lasted 30 years. True, at the end, I kept it in my basement workshop, where it was splattered with paint, turpentine, solder, whatever. It still worked. Finally, the volume control became so noisy that I threw it out. Great radio.

FM antenna, or, for better reception, the 75 ohm external antenna connection. (A small FM antenna is included, but you can connect something more serious.) The AM antenna is internal only, which means you might find yourself turning the radio from side to side for the strongest signal.

The radio has a single 3 3/8" (77mm) speaker and a power output of 4W at 10% total harmonic distortion. But hey, it's a table radio. Like all other table radios, the Sony sounds better at low to moderate volume settings.

Features are few. No station memory settings. There's a clock, but no alarm or snooze function. As you manually tune the radio, the frequency is indicated in a small illuminated display.

Aside from the simplicity of its controls and its sleek, nonretro styling, the radio offers excellent FM sound that I marginally preferred to the Tivoli Model One's, probably because of the tone control. The radio's AM reception is okay—probably not an issue where signals are strong, but I live in the country, and most AM signals here are weak. If you need to pull in distant AM stations, and/or if you like to surf the AM band at night, a better choice would be Music Hall's RDR-1, which has superior AM reception and a connection for an external AM antenna. The RDR-1 is also an excellent clock radio.

But Sony's the radio has a lot going for it: excellent sound, very good FM, ease of use, and elegant, unboxy styling. It would make a fine Christmas present. Don't tell Marina. Hers (for the office) will be under the tree.
The early part of the 21st century will be looked back on as the second golden age of phono-cartridge design. Vinyl-haters will say it was also a time of a religious revival that threatened the preeminence of science and the survival of rational thought (not to mention the world) and will see a parallel. But who cares what they’ll think? We’ve won the war of ideas: Ask kids today, and an amazingly large percentage will say they know that vinyl sounds better. A decade ago? No way. Kids are spinning LPs more, too.

The sophistication of cartridge designs continues to increase, enhancing performance to levels unimaginable during vinyl’s heyday. I’ve spent the last few months auditioning some new cartridges, and am floored by what I hear. This is the second golden age of analog. I hope it continues to build, but that it has bounced back this high is amazing.

**Transfiguration Orpheus MC phono cartridge**

I’ve always been a fan of Transfiguration cartridges. The designs, by Immutable Music’s Seiji Yoshioka, have always excelled at producing musically coherent, harmonically convincing presentations. The yokeless Temper and Temper W cartridges offered exceptional midrange performance, with an overall “correctness” that let them step out of the way of the music.

The Transfigurations have never been about producing a sonically distinctive sound—not the enveloping midbass, lush midrange, or flashy top end of some other designs. Instead, they’ve aimed for an almost colorless musical solidity that, to me, is a positive attribute. Spatially, they’ve always given up widescreen aural images to some other designs while excelling at soundstage depth. Instrumental separation and ultrafast transient response have never been their strong suits.

The result, in my opinion, has been a line of reliably musical cartridges worthy of great respect and guaranteed to serve over the long haul but delivering little immediate wow factor, even as each new model is claimed to and doesn’t. You don’t tire of their flavor.

The build quality of Transfiguration cartridges has always been high, and the new Orpheus ($5000) is no exception. Inside, the patented yokeless ring-magnet system has been retained. Outside, the Orpheus looks dramatically different from earlier Transfiguration models, a rounded top plate having given way to an angled one reminiscent of those made by Lyra Audio, and the front surface of the machined, one-piece body is now squared-off instead of curved. The new body better exposes the cantilever, which makes alignment easier.

Orpheus’ cantilever is made of boron, like the W, its compliance is slightly lower (13x10⁻⁶ cm/dyne vs 15), its mass slightly higher (9gm vs 7.5gm), its internal impedance lower (2.5 vs 7.5 ohms), its optimum tracking force up (from 1.85 to 1.92-2.0gm), and its output is 0.48mV instead of 0.55mV.

Bob Graham’s Nightingale cartridge, built to his specs by Immutable, retained the Transfiguration line’s most beguiling sonic qualities and made them sound more exuberant and focused while adding vividness and transparency. The result was a cartridge that was less schoolmarm and more pole dancer, though to the best of my knowledge the Nightingale retains the basic Transfiguration construction.

Likewise the Orpheus. All of the relatively small changes in materials and application from Immutable’s basic yokeless, dual-ring-magnet design have yielded fairly startling results. The Orpheus was the liveliest Transfiguration I’ve heard, and I don’t mean “bright.” The smooth, meaty midband and overall coherency remained, but there was a transient snap, clarity, and focused image three-dimensionality I hadn’t heard in earlier Transfigurations. Backdrops sounded quieter. Image specificity and soundstaging were more reminiscent of Lyra’s better efforts, while the bottom octaves through the lower midrange had shape and appropriate density: they sounded solid, not fat.

Using the Transfiguration Orpheus on Continuum Audio Labs’ Caliburn-Cobra-Castellon combo of turntable, tonearm, and stand, I made a mostly acoustic compilation on CD-R and sent it around to friends. The cartridge’s contributions to making that set sound so exceptionally transparent and open yet fully fleshed out were apparent even when I listened to it in the car.

The Orpheus didn’t exactly combine the Lyra Titan’s transient and spatial performance with the Dynavector XV-1s’s richness and weight, but it leaned that way. Some distinctive-sounding cartridges mesmerize you until you “get” the coloration, after which you hear it all the time. The Orpheus wasn’t like that. It was insistent without having to shout, and covered its tracks as well as any cartridge I’ve heard. (I got the same results running it on a number of different turntables other than the Continuum, in case you’re wondering.)

When cartridge enthusiasts talk about their favorites, it’s usually a Koetsu or Dynavector or Grado, or even a Denon Rarely is it a Transfiguration—the Rodney Dangerfield of cartridges. No respect. Of course, naming a model “W” didn’t help sales in the Northeast, I tell ya.
The new Transfiguration Orpheus is easily Immutable Music's best-performing, most exciting-sounding cartridge yet. It has pulse and soul without sacrificing the refined, evenhanded demeanor of earlier top-of-the-line Transfigurations. A super cartridge. Seiji Yoshioka is at the top of his game.

**Blue Angel Pink Ivory/Ruby Mantis MC phono cartridge**

Jimmy Durante's catchphrase was "Everybody wants a hot potato." If you're saying to yourself, "Who's Jimmy Durante?" you're depressing me. South African watchmaker, music lover, and audiophile André Hanekom (the press blurb says he refers to himself as "AJ," but I figure that two AJs in this arena, van den Hul and Conti, are enough) got into the cartridge-making business a few years ago after deciding that he was sufficiently adept at working with and assembling the small parts required to build one.

Inspired by a Supex cartridge he owned, Hanekom designed a uniquely constructed moving-coil cartridge. Most MC cartridges get their spring from a solid piece of wire bonded to one end of the cantilever, and a tiny cylinder at the other that's secured to a magnetized pipe via a grub screw. In the Blue Angel Pink Ivory/Ruby Mantis, finely stranded wire is attached to the cantilever at one end, and a tiny, hollow aluminum cylinder at the other is crimped to a tiny Allen screw terminated with an equally tiny ball and socket. In between is a cross-shaped coil former and a damper.

The entire assembly is tensioned from the rear by turning a 0.9mm Allen key counterclockwise, which draws the screw into a threaded, cylindrical plastic carrier, which pulls the armature and coils precisely against the damper and into the neodymium magnet cavity behind—all without rotating the assembly as it's drawn back.

Hanekom's original metal-bodied Mantis costs $3995. The wood-bodied Pink Ivory/Ruby Mantis, with aluminum top plate ($4995), has the newest cartridge using Hanekom's design, has a solid-ruby cantilever mated to a Gyger FG 11 stylus, a claimed frequency response of 15Hz–30kHz, ±2.5dB, puts out 0.35mV, and has a vertical tracking force (VTF) of 1.8–22gm. The resistive loading isn't specified. While "homemade," like the Jan Allaerts cartridges, the Mantises don't look homemade (no slam against the Allaerts carts, which do sort of look that way). The design has three somewhat unusual aspects: the cartridge weighs only 5.5gm, it's somewhat short in stature (I know the feeling), and its pins are of exceptionally small diameter.

I had to move the counterweight of my Graham Engineering B-44 Phantom tonearm all the way to the pivot to achieve 2gm balance. Fortunately, the Mantis's low profile required me to reinstall it using one of Graham's special spacers, to achieve satisfactory vertical tracking angle (VTA), and the extra weight bought adjustability throughout the cartridge's 1.8–22gm VTF range. On the Phantom, despite the cartridge's low weight, the horizontal and vertical resonant frequencies were ideally located at around 10Hz, which is above warp and wow and below the music. Consider these issues if this cartridge piques your curiosity.

Most tonearms' cartridge-lead sleeves will require a careful squeeze to get a tight fit with the Mantises' unusually skinny pins. Insert a round toothpick into the sleeves before squeezing so you don't collapse them. I learned that trick from a turntable-setup DVD.

**Sound:** I ran the Pink Ivory Mantis/Ruby on three different turntables and found it capable of communicating each "table's sonic particulars. At the same time, thanks to the Graham Phantom's interchangeable armwands, I was easily able to compare the Mantis to a few other cartridges with which I'm more familiar.

What spells success for a cartridge (as well as for a loudspeaker) is not necessarily its frequency extension or its soundstaging abilities, but its coherence and balance. Is it cut from whole cloth? There's plenty of stiff (well, moderately compliant) competition at the $5000 price point. While a fast transient performer, the Pink Ivory Mantis neither carved out space like a Lyra Titan nor did it have the bottom-end heft and midbass lushness of a Dynavector XV-1S. It did have a coherent, enticing, harmonically refined sound that produced a silky, smooth, continuous, ultimately addictive midband, and an overall effortlessness and transparency that pleased over the long term. The bottom end sounded more like tubes than solidstate, and was better at reproducing subwoofer bass textures than ultimate weight. In that regard it reminded me of the $8000 Clearaudio Goldfinger that I wrote about in October.

The Pink Ivory produced a widescreen, somewhat forward-project-
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ed acoustic bubble in which images were presented not as sharply defined entities but as delicate, ethereal transparencies. This was particularly suited to voices and acoustic instruments, and what it did with David Gilmour's soaring electric guitar on On an Island (LP, EMI 55695 1) was positively liquefying to his guitar and my brain. I don't think this is the ultimate cartridge for rockers, but its pleasingly neutral balance made it more suitable for a mixed musical bag (including amplified music) than some lusher, warmer cartridges. In many ways I was reminded of the purity, cleanliness, and speed without etch of Grado's top-of-the-line wood-bodied models, but with a less polite, more detailed top end.

I liked this clean, open-sounding, tonally honest cartridge. I enjoyed listening to it for quite a long time, and hope it finds a place at this luxury price point. But the Blue Angel Pink Ivory/Ruby Mantis is going to have a difficult time competing with the likes of Immutable Music's Transfiguration Orpheus and some of the others. It took Seiji Yoshioka two decades to reach this exalted level of performance. That André Hanekom has produced this gem so quickly portends well for his future designs.

**TW-Acoustic Raven AC turntable**
Designer Thomas Woschnick’s striking-looking Raven AC turntable ($10,000) is probably the densest I’ve yet encountered, and that includes the Continuum Audio Labs Caliburn. While measuring only 18” by 16”, it weighs almost 170 lbs without its platter, which itself weighs 22 lbs. This is one mass-damped turntable that lives up to the name.

Adding to the mass is a pedestal of milled stainless steel that houses a large-diameter inverted bearing of the hardest Rockwell steel, plus an assembly of a solid-bronze armboard and a stainless-steel spacer. Each of the four corner caps can accommodate a tone-arm—a mighty crowded plinth! The composite platter, topped with %-thick copper plate, sandwiched with a viscoelastic glue and tensioned by six screws, incorporates a thick brass bearing sleeve and a Teflon thrust plate. No ball bearing is needed, and a simple spray of Teflon on the capillary-lubricated bearing before the platter is placed on top should suffice for the life of the ‘table.

The cantilevered armboard, reminiscent of the type used by Nottingham Audio, allows for easy adjustment of the pivot-to-spindle distance. One of the reasons I’ve been unable to get a Basis Vector tonearm for review is AJ. Coñti’s belief that cantilevered armboards provide insufficient rigidity. Based on my experience mounting numerous arms on the Simon Yorke and Nottingham, ‘tables, and now the Raven AC, I don’t buy that argument.

The plinth, made of a composite material invented and manufactured by Woschnick and machined smooth to the touch, rests on three cones; Stillpoint feet are available as an option at extra cost (the review sample came so equipped). The composite incorporates copper, Delrin, and materials Woschnick won’t disclose.

An outboard power supply with programmable speed controller feeds a quartz-referenced, microprocessor-controlled, high-torque DC motor built by Woschnick (who supplies motors for more than 20 other turntable companies).
I was told). The motor is fitted with a crowned pulley drive and housed in a heavy base of damped stainless steel. The flat drive belt loops around the platter’s circumference. The control unit has buttons for 33⅓ rpm and 45 rpm play, and toggle switches to adjust the speeds. The settings are then stored in memory by simultaneously pushing both speed-control buttons. Once set, the Raven AC maintained precise speed (it’s claimed to be accurate to 2 nanoseconds per minute).

Setting up the Raven AC took but a few minutes, including leveling it via its threaded feet, making sure the belt rode centered on the motor’s crowned pulley (the motor’s height is adjustable), setting the belt tension, and finally dialing in the speeds. I switched my Graham Engineering Phantom arm from the Caliburn to the Raven AC in less than five minutes and, a few adjustments later, began playing LPs.

TW-Acoustic’s North American importer, High Water Sound, had brought along two record mats: a Harmonix TU-800EX and a Millennium Audio Vision Carbon LP Mat with record puck, the latter coated in Zircon carbon steel. While each mat slightly changed the Raven AC’s sonic character, both easily passed along the table’s essentially rock-solid personality. If you appreciate weight, solidity, and an unshakable musical foundation, you’ll fall in love with the TW-Acoustic Raven AC. It sounds as it looks: it gets down to the business at hand.

The tap test is not necessarily a good indicator of how a turntable will sound, but it does tell you something about how well it isolates the record/stylus interface from outside vibrations, and how it might deal with the considerable energy created at that juncture, which can make its ways down into the platter and up through the armtube and into the armbase. Though it lacks a suspension, the Raven AC proved to be among the most effectively isolated, if not the most intrinsically isolated turntable, I’ve yet encountered. I’m not sure how much the Stillpoint feet contributed to this, but lightly tapping the Finite Elemente Pagode platform on which they sat resulted in zero impulse reaching the stylus sitting in the grooves of a stationary record, and zero movement of my loudspeakers’ cones. Incredibly, tapping on the plinth itself
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resulted in equally effective isolation, as did tapping on the side of the platter. Only tapping on the surface of the LP itself got a rise from the speakers, and not much of one at that. That's impressive. Nor did my stethoscope pick up any noise transmitted by the motor to the plinth or armboard. The Raven AC was equally quiet, motor on or off.

It's been pointed out to me that tapping is not a condition likely to be encountered in the real world, and that not hearing acoustic breakthrough is not as critical as the quality of what is heard. Those who think this say that a fast-dissipating, high-frequency impulse is of no consequence because it indicates that the design is moving energy out of the system quickly—which, they claim, is as effective as damping it by absorption. That's Rega's philosophy of turntable design, as I understand it.

For whatever reason, the Raven AC delivered a massive attack with a foundation that dug deep down, to music's molten core. The bottom end was clean, deep, and thankfully too tight to produce even a hint of bloat or excess, nor did the weight come at the expense of coherence in the higher frequencies. Bass never sounded too heavy or thick. Perhaps a bit of some other turntables' nimbleness has been sacrificed to get this sort of weight, but on the other hand, those 'tables attain such deftness by jettisoning the weight and foundation the Raven AC so effortlessly delivered. On the bottom, the Raven AC easily matched the weight and solidity of the SME Model 30/2 (which I reviewed in March 2003, Vol.26 No.3), and that's saying something.

I'm not a yin/yang kind of guy, but if the Raven AC is yang, the Avid Acutus (another great turntable) is yin. The original Acutus, which I reviewed in May 2003 (Vol.26 No.5), was fast, agile, and crystalline on top, but not bright. Its bass performance was as fast and agile as the Raven AC's, but it couldn't compete with the Raven AC's weight and solid foundation. Nor could the Raven AC compete with the Acutus's transient sparkle and airy top end (though I got more of these by using the Raven AC's bare copper platter without a mat). That's why each is a great turntable. Both feature impeccably drawn top-to-bottom balances that are seamless and complementary.

The Raven AC's balance has a Merlot-like finish, with a personality slightly soft but pleasingly rich. The Acutus is more of a fruit-forward Pinot Noir with a light, almost refreshing follow-through. Or (if wine's not your thing) I'd match the Acutus with a richly finished cartridge such as the Dynavector XV-1s or Benz Ruby, and the Raven AC with a somewhat leaner, more analytical Lyra or Transfiguration. I'm told Woschnick uses the Dynavector.

I spent more than a month marveling at the Raven AC's weighty, three-dimensional presentation, rhythmic solidity, harmonic completeness, and jet-black backgrounds. It reminded me more of the SME 30 and less of the Brinkmann or Avid Acutus, though all three are in the same league in terms of sound and build quality. Admittedly, the Raven AC tends to sound a bit thick, as can the SME 30, while the Avid Acutus tends to sound thin and bright. But with the proper choice of cartridge, the Raven AC is a turntable that effortlessly stops time and glides on ice at the same time.

No wonder Thomas Woschnick can't build Raven ACs fast enough. Put a Graham Phantom or other top-shelf tonearm on it, and you're set for the long haul. Like the SME 30, to which it bears a striking sonic similarity, the Raven AC is one of the world's top turntables—at least that I have heard. In that company, its price of $10,000 makes it an absolute bargain.
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People love it when audio reviewers reach for that highest of all compliments: "I enjoyed the thing so much, I decided to keep it." Manufacturers love it for obvious reasons. Readers love it because nuance is out of style at the moment, and the ambiguities implied by less decisive conclusions can be frustrating to adults who read with their mouths open. Publishers love it because strong, declarative statements have been scientifically proven, in double-blind reading tests, to attract subscribers.

But things aren't always that simple, as I learned early in 1998, when I wrote about a product called the Pink Link for Listener magazine. The Pink Link was a modification kit for the Linn LP12 turntable, from a perennially interesting and edgy English company called Pink Triangle, and it consisted of a new drive motor, new metal top plate, and new outboard power supply. I was crazy about the Pink Link. I gave it a rave review. And I tried to buy it—but the actual review sample belonged to a Pink Triangle dealer in the Midwest, as did the LP12 to which it was attached. It was that fellow's personal record player, and he wanted it back.

I spoke to the Pink Triangle distributor, who had arranged the loan in the first place: a decent, kindly fellow, even if he didn't seem terribly enthused about the product. He had exactly one Pink Link kit in stock at the time, so I ordered it for myself. When the new Pink Link kit arrived, I installed it in my Linn LP12.

But the motor was defective right out of the box—it made a loud clicking noise (one that didn't go away after a few days, as some noises do). Then, within a week, the power supply went on the fritz. I boxed it all up and sent it back, hoping to exchange it for a new kit. But the new kit never came. I was told that Pink Triangle was developing a new version of the Pink Link—and then, a few months after that, I was told that Pink Triangle had discontinued the product. Soon after, it became apparent that Pink Triangle had ceased doing business altogether.

At last, almost a decade later, one of Pink Triangle's founders has returned to the commercial hi-fi scene with a new company, The Funk Firm. "I enjoyed the thing so much, I decided to keep it" actually means "I enjoyed the thing so much, I left it in my garage for six years and stopped taking the manufacturer's phone calls."

Almost a decade later, one of Pink Triangle's founders has returned to the commercial hi-fi scene with a new company, The Funk Firm. Pink Link is out of style at the moment, and the ambiguities implied by less decisive conclusions can be frustrating to adults who read with their mouths open. Publishers love it because strong, declarative statements have been scientifically proven, in double-blind reading tests, to attract subscribers.

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I spoke to the Pink Triangle distributor, who had arranged the loan in the first place: a decent, kindly fellow, even if he didn't seem terribly enthused about the product. He had exactly one Pink Link kit in stock at the time, so I ordered it for myself. When the new Pink Link kit arrived, I installed it in my Linn LP12.
LISTENING

ing, inner platter, outer platter, armboard, and tonearm—all hang from a thin sheet of stainless steel, which is held to the wooden frame by a combination of two long bolts fastened from below, and two small wood screws fastened into hardwood blocks from above. The motor is firmly attached to the left-rear corner of this plate, and three additional, long bolts form the axes for the three suspension springs. Hardly the sort of thing that cries out for a remake—or so it would seem.

But over time, Arthur Khoubesserian determined that the LP12’s top plate has the drive motor in the wrong place: If one were to accept that even the best motor will transmit unwanted vibrational energy along its drive belt, and if one were to also accept that the cantilever of a phono cartridge is least susceptible to current-inducing vibrations in its front-to-back plane of movement, then it would make sense to ensure that the drive-belt path is in line with the cantilever (to whatever extent is possible, given that the cantilever’s position varies over an arc of 30° or so).

One surely wouldn’t want the drive-belt path to be perpendicular to the cantilever, in which case unwanted vibrations originating at the motor would have the greatest possible effect on the output signal. But in the LP12—and, in its defense, virtually every other turntable—that’s just the way things are.

The solution was simple, and Khoubesserian offered it for sale: a metal plate, finished in black, textured, semigloss paint (think: old-fashioned coffee percolator), with openings for the motor’s drive pulley and mounting hardware at the left-front rather than left-rear corner.

The other two elements of the original Pink Link kit were somewhat more daunting to realize. One was a smooth, quiet, and altogether expensive DC motor, fitted with a tachometer and topped with a slender brass pulley. The other was an outboard power supply for that motor, with an advanced servo controller—and a battery and charger. For most of the time during record replay, a Pink Link-modified LP12 was disconnected from the household current.

The benefits of battery power are obvious, of the DC motor somewhat less so: After years of being told that DC motors exhibit unacceptable levels of cogging, and that servo circuits only make motors hunt (if not peck) for the right speed, how can we-the-sheep be expected to change our minds? As I noted in my column on the British turntable company Origin Live (Stereophile, May 2005), even an AC motor driven by a pure sinewave will exhibit noise that is mathematically related to the frequency of that wave. Driven by US current, a typical 24-pole motor will produce a noise signal at 5Hz, as contrasted with the 4.1667Hz produced by the same motor when driven by British electricity. (Again, I delight in noting that altering the size of an AC motor pulley is not enough, and that a directly driven AC-powered turntable won’t sound at all the same in the UK as it does in the US.)

As I also mentioned in that earlier column, a 24-pole motor’s 5Hz noise is just the fundamental: Sidebands related to various motor characteristics—the number of poles, the varying size of the internal air gap, and so forth—will also occur. The most significant of those is at 120Hz in turntables used in America (5Hz times 24 poles), or 99.98Hz in Europe. You may also recognize 120Hz as the second harmonic of the 60Hz AC hum we all know and love. Yikes.

Consequently, Arthur Khoubesserian is among the growing number of turntable designers who’ve chosen to go the DC route—and who suggest that a modern DC motor, coupled with an equally modern power supply and control circuit, will exceed the performance of an AC motor in every

3 In the late 1980s, that changed to three.
It has been said that the most demanding challenge is to follow up success with another. If so, Vienna Acoustics has passed with flying colors. The all-new Grand Series from this first-rank speaker house builds upon their previous offerings in every way.

From crisp, clean veneers—a Viennese hallmark—to sound quality that is the foundation of their carefully crafted reputation, these new Grand offerings are lovely in every sense of the word.

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meaningful way.

Which brings us to the present day, and to Funk Firm's brand new Vector Link. Like the Pink Link, the new modification kit uses a DC motor, in this case a decidedly expensive European jobbie with an ironless rotor. But the old-style Pink Link power supply and its chunky battery have been done away with, in favor of a new electronics design called the KR-Shunt control. As Khoubesserian explains, the new motor is so steady and noiseless that it eliminates the need for a relatively complex charging/isolating system.

The metal top has also been replaced—by a very sleek-looking plate made of carbon fiber. As with the Pink Link, this one is equipped to hold the drive motor at the 7 o'clock position, but there's also an opening for a motor pulley at 9 o'clock (along with a few other interesting details). The improved motor position is provided only as an intermediate stage, for LP12 owners who wish to take a more gradual upgrade path. The Funk Firm's ultimate modification is centered—almost literally—around an entirely new subchassis of carbon-fiber laminate, on which the DC motor is intended to sit ( ), for reasons I'll explain by and by. The Vector Link subchassis also comes with a set of "load distribution" rings for mounting one's LP12 platter bearing (both Cirkus and pre-Cirkus turntables can be accommodated), and a pair of stationary bearing axles for mounting a pair of idler pulleys...but let's come back to those later, lest we get too far ahead of ourselves.

Black top

I decided to exploit the Vector Link's multifront approach by applying the various mods incrementally rather than all at once: If nothing else, it was a good chance to learn what sorts of mechanical changes have the most or least impact on the player's electrical output. It was also a perfect opportunity to tweak my LP12s' setup—and, no, that apostrophe isn't misplaced: I have two of the things, and decided to rework them both, building up one as a single-speed, AC-only "control" sample, and using the other as a platform for the Funk Firm's suite of mods. (I've always rather enjoyed working on Linn LP12s, although I admit it's become more of a chore with increasing age: I have to lie on the floor, face up, under the setup jig, with my glasses removed so I can see the parts clearly from a few inches away.)

The first step was to tear down each LP12. labeling the various fasteners as I went along. (After my Quad ESL rebuilds of last year, I'm surprised there were any Ziploc bags left in Cherry Valley.) I began by unplugging the power and signal leads, removing the dustcover, outer platter, and mat, and carefully removing the Naim Aro tonearm. Then I secured the plinth in my setup jig and removed all of the following, in order: the subplatter and bearing axle; all of the various nuts, washers, and ground leads that were fastened to the frontmost of the two main bolts; the nuts, washers, and tonearm cable clamp fastened to the rearmost main bolt; the tonearm board; the AC cable clamps; the four wood screws holding the main strap in place, and the strap itself; the nut that holds the left-rear bolt to that corner's wooden gusset; and, finally, the nuts, washers, and grommets that hold the three suspension springs in place—and, consequently, the subchassis itself. The stainless-steel top plate was the only thing left, and I got rid of that by removing the two wood screws that secure it from above.

That done, I exposed the two hardwood blocks, each held in place with two screws, that support the top plate—and virtually all of the Linn's working parts. In every LP12 I've worked on, of any vintage, at least one of those screws has been loose, so I gave them each a good talking to with the Stanley screwdriver and Posidriv bits I found at Sears years ago. (The armboard screws and the two top-plate wood screws require a No.1 Posidriv bit; everything else requires a No.2. I won't say it can't be done, but I've never found a regular Phillips-head screwdriver that fits those screws quite as neatly.)

Next I attached five 2.5" bolts to the Vector Link's carbon-fiber top plate. The Funk Firm supplies hex-head bolts as a replacement for the Posidriv bolts that Linn uses, and the new ones required a 4mm Allen wrench plus a hollow-shaft % nut driver—the latter needed for a dozen other tasks in setting up the LP12. After that, I installed my AC motor in its regular (left rear) corner, using the original Linn mounting hardware: two bolts, two nuts, and four domed spacers, with the smallest surfaces of the latter facing the motor flange. Getting the motor and spacers back together correctly is harder than hell to do with the top plate in situ, so I enjoyed my one chance to take the lazy way.

Then I snugged the new top into place—it fit like a glove—and tightly secured it with the two wood screws. Because my Vector Link was on loan, I chose not to take the Funk Firm's advice and hold the left-hand edge of the plate down with a bead of contact

Linn's AC motor at 11 o'clock (top of page) and at 7 o'clock (above). This motor has the small "60Hz" pulley.
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LISTENING

A cement— a mostly cosmetic consideration that Linn apparently got around by using a bit of force to "dish" their own top plate. (Carbon fiber, of course, is not as malleable as stainless steel.) From there, it was a simple matter of reversing the disassembly procedure—except, of course, that I had to pay strict attention to the Linn's various adjustments. In particular, I took care that the suspension bolts were centered in their grommets; that the tiny armboard screws were tight but not too tight; that the tonearm cable was dressed and tightened just so and did not foul the suspension; and that the motor pulley was tilted away from the center just enough that the platter turned at exactly 33.3rpm, according to Linn's battery-powered Speed-checker strobe. I attached fresh 3M polymer " bumpers" in the corners— I don't use Linn's bottom cover or screw-in feet—and reinstalled the player on my freshly leveled Mana Reference Table.

I sat down to listen— knowing, of course, that I had changed two things: The top plate was now made of carbon fiber instead of stainless steel, and the setup was freshly ( re)done. Because the latter is an unavoidable part of any change to an LP12 that's been in service for more than a few months, I elected to change nothing else for this go-'round.

I heard what I more or less expected to hear: a slightly more engaging, tuneful version of the record player I already loved.

Beyond that, records were now simply easier to listen to: I found myself less fatigued after listening to records for two or three hours at a stretch, and more interested in carrying on. The new motor position didn't give me deeper bass or higher highs or a deeper "soundstage" or anything like that: It just gave me more music.

The only downside was an ergonomic glitch: The Vector Link top plate had no provision for attaching the standard Linn belt guide, and on a few occasions I powered up the motor only to have the consequent "torque shock" dislodge the belt from the pulley entirely. Mild cursing followed, after which I removed the outer platter and put the belt back on. No big deal.

Blue skies

Arthur Khoubesserian had my attention. I would have carried on happily with my much-improved LP12— if not for the carbon-fiber subchassis, DC motor, and high-tech control circuitry still sitting on my bench. And I haven't mentioned the one element of the Vector Drive kit that ( literally) caps it off: a high-tech platter surface called the Achromat, said to provide an even better match for your vinyl records than the machined acrylic platter that Pink Triangle pioneered almost a quarter century ago.

All right, then: I had my work cut out for me. In next month's installment, I'll tell you what it was like to install and enjoy the benefits of the Funk Firm's remaining modifications, including the very unusual Vector Drive system. In the meantime, dust off your setup jig, root around for those Posidriv screwdrivers, and buy an extra vial of bearing oil. Just in case.


Read the rest of Wes Phillips' review of the Portal Paladin Monoblocks:

www.portalaudio.com/paladin.html

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The right way to cover the waterfront

It is a rare and wonderful pleasure when something is done in the way it really should be done. Everyone who has read Ashley Kahn's previous books, on John Coltrane's A Love Supreme and Miles Davis' Kind of Blue, knows that he is the master of comprehensive and fascinating detail, intelligently organized and sensitively handled. The logistical advantage of those books is that you can easily acquire the one recording each discusses, and whenever you want to hear what Kahn is writing about, you merely cue up the indicated track. Peesacake.

The logistical challenge in trying to make sense of a book about the entire history of one record label, in contrast, is that unless you lived through those years and bought every new LP as it was released, your choices are: relying on unavoidably inadequate written descriptions of the music; or randomly buying a lot of records, some of which, on audition, might strike you as nothingburgers.

So here's what makes Ashley Kahn's latest book, The House that Trane Built: The Story of Impulse Records, such a standout. Verve Music Group, which now owns the Impulse! catalog, cooperated with Kahn in the selection and production of a four-CD retrospective compilation selected from Impulse!'s entire catalog, the tracks chosen to illuminate the book's treatment of the label's history. The sequence of the tracks is roughly chronological.

If laying out 50 bucks for the four-CD set seems too risky a proposition, relax. For a measly five bucks (even less on the used market), you can get a specially priced one-CD highlights disc of tracks selected from the four CDs. The single disc serves to introduce nine different artists.

If you want to go beyond the confines of either of these two label-wide compilations, Kahn and Verve have also put together 10 individual compilation CDs covering the Impulse! careers of 10 jazz greats: Albert Ayler, Gato Barbiere, Alice Coltrane, John Coltrane, Keith Jarrett, Charles Mingus, Sonny Rollins, Pharoah Sanders, Archie Shepp, and McCoy Tyner. Each CD is titled with the artist's name and then the series title; eg, Albert Ayler: The Impulse Story. I've listened to most of them, and the selection, remastering, and liner notes are excellent. (A small degree of overlap with the label-wide compilations is inevitable.) If you want total comprehensiveness, nearly all the important Impulse! recordings have been reissued in their original form.

That, friends, is how to do it. Start with a great book about music, then offer consumers not one, but a choice among four levels of increasing depth in getting to know that music. Bravo.

From 1961 to 1977, Impulse!, which was founded as a division of the ABC media empire, was one of the most important jazz labels, if not the most important. Certainly, it was the "prestige" label in terms of budgets and support and production values, such as gatefold album covers and excellent photography and liner notes. However, as shown by the course of Impulse! founding producer Creed Taylor's later label, CTI, great cover photographs and the most expensive LP jackets in the industry can't save you if a lot of the music you put out is forgettable, lame, or both. (To be sure, CTI hit a few out of the park, Jim Hall's Concierto among them.)

The music on Impulse! was anything but lame. From Ray Charles to Gil Evans, from John Coltrane to Archie Shepp to Sonny Rollins, from Sun Ra to Keith Jarrett, Impulse! launched—or captured the defining moments of—a dizzying array of careers and styles. Over the course of more than 300 information-packed pages, Ashley Kahn manages to put the most important Impulse! releases (36 albums, each covered in its own two-page mini-chapter) into the context of not only the evolving music scene, but also into the web of business and marketing practicalities and personalities and, equally important, the context of changes in society as a whole. As per Kahn's usual high standard, there are a "discus personae," an encyclopedic discography, an in-depth bibliography, and a complete index.

To borrow Kahn's phrase, Impulse! thought like an independent and spent like a major. Does that mean that everything Impulse! put out withstood the test of time? Nope. Humans were human, even back then. Crass calculation or unchecked egos led to a few projects that perhaps should not have been released. But only a few duds out of more than 300 LPs is quite a batting average.

The Impulse! years spanned that time when jazz was most rapidly evolving, yet when many of the most important traditionalists—such as Duke Ellington, Count Basie, Benny Carter, and Earl Hines—were still making music with their creative and technical powers largely undiminished. Impulse! managed to do justice to them all, and didn't flinch from allowing its artists to use their releases to confront current events.

Unfortunately, those who are conceived by and live by corporate agendas also die by corporate agendas. By the 1970s, ABC's recording activities overall were too diffuse, and often
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RCA & XLR ins and outs.

No animals were harmed in the making of this ad.
were poorly managed. Selling 100,000 copies of an album is quite an achievement for a Gato Barbieri project, but such figures suffered in comparison to the numbers then being racked up by ABC artists such as Steely Dan, Jim Croce, and Chaka Khan. After keeping Impulse! on, in effect, life support for a few years while trying to figure out what to do with it, ABC Records itself was sold to MCA.

Impulse! is now a division of the Verve Music Group, a subsidiary of the Universal Music Group. Praise and honors to UMG for supporting Kahn’s book the way they have. If you want to give someone (especially a young person) a generous dollop of deluxe cultural literacy, it would be hard to do better than the combination of The House that Trane Built and the companion four-CD set. A new standard has been set for such ventures. Most highly recommended!

My Favorite Things: Hardware

I now feel like cueing up John Coltrane’s version of that song. Anyway, on to hardware. If you want to refresh your recollection about what I’ve written about something in the past, please just do a search, either within Stereophile’s website, or via google.com or ixquick.com.

Most days, I’m tempted to think that the darTZeel NHB-108 Model One power amplifier (Stereophile, September 2003, Vol.26 No.9) is in a class by itself. Then I remind myself that there are a couple of “contendahs,” such as the ASR Emitter, that I haven’t heard. The darTZeel’s drive limitations may mean that it is not the solution for every system, but it is just so lovely to listen to. However, [deep sigh] it ain’t cheap.


A teaser of a coming attraction: Bobby Palkovic, of Merlin Music Systems (www.merlinmusic.com), assures me that as soon as his back-order situation improves, he’ll lend me an evaluation sample of the little Ars Sonum Filarmonía tube integrated amp, which he’s been importing in a very low-key manner for a couple of years. Low-key, because for every one he sells, he gets two more orders. (Actually, that’s a figure of speech. If it were the literal truth, within two dozen order cycles Bobby would have 100% of the US amplifier market and a personal fortune larger than the GDP of most of the countries in the UN.)

The Filarmonía, which I admired and hefted at a Home Entertainment Show but have not yet heard hooked up, is pretty much a tribute to the Dynaco ST-70, maxed out with a very clean industrial design, premium capacitors, transformers, and wires, and Cardas binding posts. And it has a volume control. (Take a peek at www.arssonum.com.) The US price is a reasonable $3500. When it arrives, I will obtain three likely loudspeaker candidates.

Going beyond integrated amplifiers to the nearly extinct category of receivers, my fondness for Magnum Dynalab’s MD-208 FM-only receiver (October 2005, Vol.28 No.10) remains as strong as ever. It not only sounds eminently listenable, it is well designed in terms of operation, has fetching Nuevo Retro looks, and is very reasonably priced.

Digital is a bit tougher, because the highest end of the High End is a moving target. In the past year I’ve auditioned wonderful premium-priced digital products from Audio Aero, dCS, EMM Labs, Esoteric, MSB, and Daniel Weiss. There was not a bad apple in the basket. Any (comparatively slight) preference I might express would be so determined by my system, listening room, and personal biases that I think it would be the sheerest folly for anyone to zero in on one premium digital product just because I like it.

In affordable digital, I remain very impressed by Grace Design’s m902 combination DAC, line stage, and headphone amp. Previous affordable faves from Marantz, the SA-8260 and SA-14 SACD players, have both been replaced, but I have not yet heard the replacements.

In loudspeakers, my optimum all-rounder nod (taking economic practicalities into account), goes to Wilson Benesch’s ACT. The ACT could be the last loudspeaker for a lot of people. That said, I have not yet heard the new Quad electrostatic models, which should be worthy competition.

For more-affordable speakers, I retain a soft spot in my heart for the unique polyradial Shahninian Obelisk, despite the fact that the passage of years and the slide of the dollar mean that its list price is now $5500/pair. In my experience, the Obelisk gives the most bang for the buck to lovers of large-scale orchestral works and pipe organ. (Note: The partnering amp must have massive current and damping factor.)

As much as I like the Obelisk, judicious listeners Ken Kessler and John Atkinson don’t quite share my enthusiasm. As JA allowed in giving the speaker a place in “The Hot 100” products on the occa-
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There's no shortage of Grappelli-

**SOURCES**


The House that Trane Built: The Story of Impulse Records, various artists. Impulse! 6680 (4 CDs).


In Spiritum, music of César Franck. Olivier Latry, organ. Deutsche Grammophon 00289 477 5418 (SACD).

Organ Fireworks Vol. XI. Christopher Herrick, organ. Hyperion CDA67577 (CD). www.hyperion-records.co.uk


Vaughan Williams, *An Oxford Elegy*, other works. John Westbrook, speaker; Choir of King's College Cambridge, Jacques Orchestra; Sir David Willcocks. EMI 5 67221 2 (CD).


Clifford Brown, *Clifford Brown and Strings*. With Richie Powell, piano; Barry Galbraith, guitar; George Morrow, bass; Max Roach, drums; strings arranged, conducted by Neal Hefti. Emarcy/PolyGram 558078 (CD).

Menuhin original jazz recordings, remasterings, and compilations, on LP and CD, from the mid-1970s on. The recently released two-CD set I recommend in the "Sources" sidebar collects 41 tracks at a budget price. Highly recommended for the musicianship, but sonically these studio recordings are nothing to write home about—they're not exactly terrible, but what a missed opportunity. The violinists are hard left and hard right, and the other players are in a largely dead acoustic. But don't let that stop you—this is great stuff, played by guys who lived and played during the time this music was coming hot off the presses.

Back when I was living in Nashville, I heard Grappelli on two occasions, fronting bands most of whose members were far less than half his age. The second time, I was in the company of a few classical string players I had bludgeoned into attending, and they were stupefied at the purity of his technique, both going up the fingerboard and the showers of harmonics he could summon at whim. Both times, he happened to exit by walking right past our table, and both times he was kind enough to shake hands with me. To have shaken hands with someone who played with Django Reinhardt. Priceless memories.

If you don't have Clifford Brown's *Clifford Brown and Strings*, you are really missing out. Even if you don't usually listen to jazz. Really.

My request to my readers: This season, at least once, when you see a Salvation Army collection pot, drop a $20 bill into it. You'll be amazed at the sound it makes. Or donate $20 online at www.salvationarmyusa.org. jmrcds@jmrcds.com

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Stereophile picks 2006’s best-sounding products

BY STEPHEN MEIJAS

THIS IS THE PERFECT TIME—the time of year we love most. Madison Avenue’s confounding street signs are suddenly dressed in green and red wreaths, the city’s weary scaffolding blinks happily with golden light, the ordinary clamor of traffic and jackhammers is magically transformed into jingle bells and drummer boys. There is music everywhere and nothing to get in our way: A look down the avenue in either direction throws open a window to all that is past and all that is to come.

Let us take a moment now to stop and admire the view, for this has been an extraordinary year in hi-fi. We saw the number of great titles available on LP grow endlessly, giving guys like Michael Fremer all the more reason to buy that Continuum Audio Labs Caliburn turntable. At the same time, real advancements in the digital world made listening to small, silver discs a bit (or two) more enjoyable—that is, if you still own any of those small, silver discs. You were able to “squeeze more bits from the pits,” as Sam Tellig might say, and without having to refinance your home. For those who’ve abandoned physical media altogether in favor of server-based systems, companies such as Sonos and Slim Devices proved that there is no limit on how often, when, or where we listen. Yes: There is music everywhere, and nothing to get in our way. This is the perfect time to announce Stereophile’s “Products of the Year.”

This is our opportunity to recognize those components that, we feel, provide musical pleasure without boundary, far beyond our formal review period. We break it down into categories: “Loudspeakers” (including subwoofers),
2006 DIGITAL SOURCE COMPONENT

dCS P8i SACD player
($13,995; reviewed by John Atkinson, Vol.29 No.4, April 2006 WWW)

RUNNERS-UP (in alphabetical order)
Ayre CX-7e CD player ($2950; reviewed by Art Dudley, Vol.29 No.2, February 2006 WWW)
Classé cdp-202 CD/DVD player ($6500; reviewed by John Atkinson, Vol.29 No.8, August 2006 WWW)
HeadRoom Desktop D/A headphone amplifier ($2095; reviewed by Wes Phillips, Vol.29 No.4, April 2006 WWW)
Musical Fidelity kW DM25 two-box CD player ($6500; reviewed by Art Dudley, Vol.29 No.7, July 2006 WWW)
Naim CDSX CD player with Naim FlatCap power supply ($4000; reviewed by Art Dudley, Vol.28 No.11, November 2006 WWW)
Rega Apollo CD player ($995; reviewed by Art Dudley, Vol.29 Nos.6 & 9, June & September 2006 WWW)
Slim Devices Squeezebox WiFi D/A processor ($299; reviewed by John Atkinson, Vol.29 No.9, September 2006 WWW)
Sonos ZP80 & ZP100 WiFi music systems ($748–$1297/system; reviewed by John Atkinson, Vol.29 No.10, October 2006 WWW)
Sound Devices Model 722 portable digital recorder ($2650; reviewed by John Marks, Vol.29 No.10, October 2006 WWW)

Receiving five first-place votes and an overwhelming 18 votes overall, the dCS P8i SACD player simply ran away from the digital competition. DCS is getting pretty familiar around these parts; the company’s Verdi La Scala SACD transport and Delius D/A processor shared last year’s “Digital Source Component of the Year” prize with the Ayre C-5xe universal disc player.

The two-channel P8i adorned the cover of our April issue under the headline “As GOOD as SACD can SOUND.” Though still expensive at just under $14,000, the single-box P8i is the first in a series of less-extremely-priced products from dCS, each housed in an attractive aluminum-faced chassis. It uses dCS’s Ring DAC, a discrete, 5-bit converter running at a 64x oversampling rate: 2.822MHz for both DSD and CD data.

Due to the P8i’s analytical character, caution is recommended in selecting ancillary gear; matching it with similarly methodical products might get you searching for a warm sweater and woolly socks—we’re talking Bm. However, the richness of the dCS’s tonal presentation with classical music proved addictive. JA: “For a classical music lover, the dCS P8i used straight into the power amps is almost as good as it gets.”

The Ayre CX-7e, a fave of JA, AD, and WP, came in a distant second, while the temptingly affordable Rega Apollo CD player and the supremely enjoyable Sonos WiFi music system each received two first-place votes, landing them in a three-way tie for third place with Classe’s stylish cdp-202 CD/DVD player.
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2006 JOINT ACCESSORIES

AKG K 701 headphones ($450; reviewed by Wes Phillips, Vol.29 No.8, August 2006 WWW)
Ultimate Ears UE-10 Pro in-ear headphones ($900; reviewed by Wes Phillips, Vol.29 No.10, October 2006 WWW)

RUNNERS-UP (in alphabetical order)
Apple iPod Hi-Fi docking station ($349; reviewed by Wes Phillips & Michael Fremer, May eNewsletter, WWW, & Vol.29 No.6, June 2006)
Ayre Myrtle Blocks ($5 each; reviewed by Art Dudley, Vol.29 No.3, March 2006 WWW)
Finite Elemente equipment rack & Ceraball feet (Rack, $6195; Feet, $135.4; reviewed by Brian Damkroger, Vol.29 No.2, February 2006 WWW)
Halcyonics active vibration isolation system ($7990; reviewed by Michael Fremer, Vol.29 No.6, June 2006)
Meridian MRC room correction (reviewed by Kalman Rubinson, Vol.29 No.7, July 2006 WWW)
Nordost Heimdall interconnects and speaker cables ($600/1m pair, $1500/2m pair; reviewed by Art Dudley, Vol.29 No.10, October 2006 WWW)
Velodyne SMS-1 subwoofer equalizer ($699; reviewed by Kalman Rubinson, Vol.28 No.11, November 2005 WWW)
Wallytractor tonearm alignment gauge ($149; reviewed by Art Dudley, Vol.28 No.12, December 2005 WWW)

The AKG K 701 and the Ultimate Ears UE-10 Pro, joint winners of this year’s Accessory category, are both headphones, but there the physical similarities end. Resident true stereophonic reproduction.”

2006 MULTICHANNEL MUSIC COMPONENT

Meridian 861 Reference multichannel preamplifier-processor ($17,000-$19,000; reviewed by Kalman Rubinson, Vol.29 No.7, July 2006 WWW)

RUNNERS-UP (in alphabetical order)
Bryston SP2 multichannel preamplifier-processor ($4995; reviewed by Kalman Rubinson, Vol.29 No.9, September 2006 WWW)
Denon DVD-5910 universal player ($3500; reviewed by Kalman Rubinson, Vol.29 No.1, January 2006 WWW)
Denon DVD-3910 universal player ($1499; reviewed by Kalman Rubinson, Vol.29 No.3, March 2006 WWW)
Linn Chakra C3100 & C4100 multichannel power amplifiers ($2675 & $3000; reviewed by Kalman Rubinson, Vol.28 No.11, November 2005 WWW)

Our “Music in the Round” columnist, Kal Rubinson, believes that multichannel music is the future. In our 2006 Buyer’s Guide, he wrote, unequivocally, “The two-channel reproduction that we have enjoyed for the past four and a half decades is but the first step from monophonic sound to true stereophonic reproduction.”

If multichannel music really is the future, then Meridian has been way ahead of the times. Their 861 Reference surround controller first appeared on the cover of our February 2000 issue, four years before we created the category of Multichannel Music Component. That year, the 861 won Runner-Up honors in our Digital Source category. Now, six years later, featuring software that replaces pages of configuration options with a simple drag-and-drop graphic user interface, and offering improvements over its already stellar clarity, resolution, and dynamics, the 861 is our clear winner, topping Denon’s DVD-5910 universal player by four votes.

Back in 2000, KR deemed the 861 “the most flexible and capable device in audio…. It offers as much insurance against the winds of technological change as is possible.” Perhaps Kal really does know a thing or two about the future. Meridian certainly does—still providing high-quality musical satisfaction after all this time, the company’s 861 Reference is the very definition of a Stereophile “Product of the Year.”
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Quad ESL-2805
($9000/pair; reviewed by Sam Tellig, Vol.29 No.7, July 2006)
Sonus Faber Amati anniversario
($27,500/pair; reviewed by John Atkinson, Vol.29 No.5, May 2006 WWW)
Vandersteen Quatro
($6995/pair; reviewed by Michael Fremer, Vol.29 No.7, July 2006 WWW)

RUNNERS-UP (in alphabetical order)
B&W 802D ($12,000/pair; reviewed by Kalman Rubinson, Vol.28 No.12, December 2005 WWW)
ESP Concert Grand SI ($40,000/pair; reviewed by John Marks, Vol.29 No.4, April 2006 WWW)
Lipinski Sound L-707 ($4590/pair; reviewed by Larry Greenhill, Vol.28 No.12, December 2005 WWW)
NHT Xd ($6000/system; reviewed by Kalman Rubinson & John Atkinson, Vol.28 No.11 & Vol.29 No.1, November 2005 & January 2006 WWW)
Revel Concerta F12 ($1498/pair; reviewed by Kalman Rubinson, Vol.29 No.7, July 2006 WWW)

B ack in April, when we were working on our July issue, I sent an e-mail to Sam Tellig, asking what he'd be covering in his column. He replied quickly with one exclamatory sentence: "The Quad 2805 electrostatic loudspeaker!" The man was excited. Elsewhere in this issue, Sam writes, "This being the month for awards, I wonder how the Quad ESL-2805 will do." It turned out to be Sam's personal Product of the Year. He'll be happy to know that it's also one of our "Joint Loudspeakers of the Year."

When Quad moved production to China, ST contends, their ESL line finally reached its full potential. The ESL-2805 gives the classic ESL-63 a rounded, steel top plate finished in piano-black lacquer, a stainless-steel base, improved spikes and speaker terminals, and a brace that extends from top to bottom and can be adjusted to make the speaker absolutely rigid. Supreme transparent, absolutely free of coloration, phenomenally quick, and utterly nonfatiguing, the ESL-2805 may be "the world's greatest loudspeaker," raved ST.

I wonder, though, what John Atkinson has to say about that. He fell in love with our next winner, the absolutely gorgeous Sonus Faber Amati anniversario, which led all loudspeaker voting with four first-place nods. Indeed, we're getting used to seeing Sonus Faber atop this list; their Stradivari Homage stood tall in last year's poll.

An updated version of the Amati Homage, the anniversario celebrates the 500th anniversary of the birth of violin maker Andrea Amati. Whereas the original used a 28mm soft-dome tweeter and first-order crossover filters, the anniversario has a 25mm silk ring-radiator tweeter, and internal wiring that features pairs of silver-palladium ribbon conductors with electrical connections coming from a single pair of binding posts. JA noted impressively clean and grain-free treble, tight and well-extended bass, an uncolored midrange, and excellent stereo imaging, all resulting in first-rate reproduced sound. The anniversario provided a clear avenue to the music. "Simply superb," said JA. "For me, a loudspeaker doesn't get much better than this."

For $20,000 less, however, we have the Vandersteen Quatro, reviewed by Michael Fremer. It may not be as easy on the eyes as the exquisite Sonus Faber—the Quatro comes dressed in what is basically a black sweat sock—but it presents music with "exceptional clarity, transparency, and three-dimensionality." Its four-way design includes a subwoofer system of two 8", long-throw, carbon-loaded cellulose-cone units powered by a 250W amplifier, and produced an "extraordinarily detailed and musically convincing" sonic picture.

The Quatro's magic brought fresh life to old, familiar records. "Getting a 'wow' experience from a recording you've been enjoying for 35 years is one of the most pleasurable aspects of this hobby," said MF. Thank you, Richard Vandersteen.

Congrats should also go to B&W, whose 802D made a fine showing, and to relative newcomer Lipinski Sound, whose extremely revealing L-707 earned two first-place votes.
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World Radio History
Six very different components were each awarded at least one first-place vote in our Amplification category, among them the battery-powered, four-box ASR Emitter II integrated, the powerful and quiet Simaudio Moon Evolution W-8, and the absolutely neutral VTL S-400. However, it was the three-box McIntosh C1000 preamp that just barely edged out the Conrad-Johnson ACT2 preamp and Halcro dm88 monoblock for the highest honor. While the Mac had slightly more votes overall, the C-J and Halcro each won more first-place votes, and finished so close that we thought it only fair to crown all three.

The Mac system, comprising the C1000C controller/power supply and two separate, fully balanced preamplifiers, is built to cover all your audiophile needs. The solid-state C1000P and the tubed C1000T preamps are nearly identical and sounded remarkably similar: the tubed unit produced the total balance and neutrality commonly associated with transistors, while its solid-state partner delivered a bloom usually associated with tubes. Though the C1000’s flexibility is almost unlimited, Mikey was sometimes frustrated by the configuration options. "If you like puzzles, you’ll enjoy playing with it," he said. But, in the end, he was more impressed by the Mac’s way with music: “The C1000 was like a great dish whose individual ingredients you can’t taste—you just enjoy the blend of flavors without wanting more or less of anything.”

Like a fine wine (and even a few good audiophiles), the Conrad-Johnson ACT2 only improves with age. While it made an impressive showing in last year’s voting, it couldn’t quite match up with the inimitable darTZeel NHB-108 power amp. This year however, and despite imminent replacement by a Series 2 edition, the ACT2 was awarded three first-place votes, more than any other contender in this category.

Boasting a retro-futuristic look, its Russian 6N3OP tubes displayed and protected behind three Lucite rings and topped off with a vented circular cap, the ACT2 is “a work of art as beautiful to behold as it is to listen to.” Even Madison Avenue can’t keep up with that kind of gold. But what most captivated our man Wes Phillips was how well the ACT2 communicated the essence of music: “It was a revelation—as was every recording I listened to through it.” WP closed his original review with a sigh: “I’m sure glad I’m not Conrad-Johnson. This will be a tough ACT to follow.” We’ll just have to wait and see how the ACT2 Series 2 competes.

The Halcro dm88 is another amplifier with a fine pedigree. Its elder brother, the dm58, was 2002’s “Amplifier of the Year” and “Product of the Year.” Indeed, it was the star of that show, sweeping away all other competition. If the dm58 had a flaw, it seemed to be one dealt by its own firm hand: the amp’s overwhelming neutrality and purity could sometimes leave us wanting a bit of pleasant tonal richness. Sometimes, even the most analytical audiophile needs a gentle hug.

The changes rung on the revolutionary dm58 to create the dm88 include revised voltage-amplifying and power amplifier stages, improved magnetic shielding between the input and output stages, new power-supply circuitry, and updated power generation. The result? Now all of the dm58’s neutrality is complemented by the dm88’s bit of warmth and sweetness. “The dm58 was Kansas, the dm88 was Oz,” said lucky reviewer Brian Damkroger. “The realism, and the way the system melded my listening room to the performance and space, were eerie.” That’s the kind of magic we love.
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ARCAM
2006 JOINT BUDGET PRODUCTS OF THE YEAR

Left to right: Rega Apollo CD player, Revel Concerta F12 loudspeakers, Slim Devices Squeezebox WiFi D/A processor

REGA APOLLO CD PLAYER
Revel Concerta F12 loudspeaker
Slim Devices Squeezebox WiFi D/A processor

RUNNERS-UP (in alphabetical order)
Apple iPod Hi-Fi docking station
Monitor Audio Silver-RS6 loudspeaker ($999/pair; reviewed by Robert J. Reina, Vol.29 No.3, March 2006 WW/W)
Music Hall RDR-1 table radio
Outlaw RR2150 receiver ($599; reviewed by Michael Fremer, Vol.29 No.3, March 2006 WW/W)
Pro-Ject Debut III turntable
Sonic Impact Super T Amplifier ($159; reviewed by Wes Phillips, Vol.29 No.10, October 2006 WW/W)
Sonos ZP80 & ZP100 WiFi music systems
Wharfedale Diamond 9.1 loudspeaker ($350/pair; reviewed by Robert J. Reina, Vol.28 No.11, November 2005 WW/W)

We've come to my favorite category: "Budget Products of the Year"! Here's where you can have a little fun, dreaming of what you can do with your hard-earned cash. You can take, for instance, the combined cost of all three of our winners, multiply it by 25, and find you still have $30,000 to spend on LPs for your Continuum Callum turntable. That's great news! Right?

Who says hi-fi has to cost a fortune? I've read so many raves of the Rega Apollo CD player ($995) that I can hardly wait to get my hands on one. In this very issue, rogue melomane Sam Tellig named it his personal Digital Component of the Year. And when it came time to rate products for the October 2006 edition of our "Recommended Components," ST enthused that the Rega "smokes players that sell for twice the price!" Art Dudley, too, is a big fan: "The Apollo endeared itself to me—no other word for it—by cheaply doing well a great many things I consider crucial to music playback." Both scribes noted a strong rhythmic performance matched with a cleanliness of overall sound that made listening to music easier and, consequently, more enjoyable.

While you're having fun with the Rega, why not partner it with a pair of Revel Concerta F12 loudspeakers ($1498/pair)? For this three-way, rear-ported floorstander, Revel cut costs without sacrificing quality by using outsourced components and moving assembly to Mexico. "Their fit'n'finish were impressive," said Kal. "Considering their heritage, the prices almost seemed too low!" While they lacked the soundstage depth of some more expensive loudspeakers, the F12s' excellent midrange rivaled that of much more expensive designs. "Compared directly with speakers costing in excess of $10,000/pair," KR summed up, "the difference was striking only until I put on some music and closed my eyes." John Atkinson was also impressed: "The Revel Concerta F12 raises the bar for what should be expected from a design in this very competitive price region."

What really got JA dancing, though, was the Slim Devices Squeezebox ($249-$299), a WiFi D/A processor that allows music files to be played on a conventional audio system and comes with a handy-dandy remote control. The Squeezebox soon became JA's primary source for leisurely listening, and the sound it produced while driving a high-end DAC from its digital output persuaded him to buy the review sample. In our mid-April eNewsletter, JA shouted with glee: "Physical discs seem so 20th century!" And, in a recent www.stereophile.com poll, 51% of participants said that our coverage of the music-server market is a sure sign that we're "on the trail of the next audio revolution." Slim Devices seems poised to be a part of that revolution.

The wildly-popular Outlaw RR2150 receiver and the very impressive Sonos WiFi system (featured on our March and October covers, respectively) fell short of winning by just a hair, coming in with eight votes apiece. Perhaps we'll see more from these companies next year.
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2006 ANALOG SOURCE COMPONENT

Continuum Audio Labs Caliburn turntable with Cobra tonearm and Castellon stand
($99,500; reviewed by Michael Fremer, Vol.29 No.1, January 2006 WWW)

RUNNERS-UP (in alphabetical order)
Brinkmann EMT Titanium phono cartridge ($2850; reviewed by Art Dudley, Vol.29 No.8, August 2006 WWW)
Graham Engineering Phantom B-44 tonearm ($4300; reviewed by Michael Fremer, Vol.29 No.1, January 2006 WWW)
Music Hall RDR-I table radio ($200; reviewed by Sam Tellig, Vol.29 No.8, August 2006)
Pro-Ject Debut III turntable ($299–$329; reviewed by Mu lawr Frcmr, Vol.29 No.5, July 2006)
VPI TNT HR-X turntable ($10,500 with tonearm; reviewed by Brian Damkroger, Vol.29 No.5, May 2006 WWW)

Ladies and gentlemen, it's a landslide. With seven first-place votes, and more total votes than any other component in any other category, the Continuum Caliburn outscores our runner-up, VPI's TNT HR-X turntable, by a remarkable 13 votes.

For what it's worth, I got to hear this wonderful machine in June, at the Home Entertainment 2006 Show in Los Angeles, and was completely sold. That short time spent with the Caliburn stands out as one of my special moments in hi-fi, and is something I'm sure I'll never forget. The way the turntable brought Ibrahim Ferrer into the listening room was truly fascinating. Even now, I can imagine him clearly, clutching the mike and chanting warmly, "Dos gare-nias para ti." I, like many others, envy Michael Fremer for being able to live with the Caliburn every day.

While the Caliburn's only serious competition is the Rockport System III Sirius, Mikey decided that "The Caliburn beat the Rockport's overall performance by a considerable margin," adding an "emotional majesty" that made the Rockport seem analytical. We all know just how much that emotional majesty is worth.

The $200 Music Hall RDR-1 table radio also received one first-place vote. I wonder who was responsible for that. Heh-heh-heh. (I laugh Sam Tellig's evil laugh.)

2006 PRODUCT OF THE YEAR

Continuum Audio Labs Caliburn turntable with Cobra tonearm and Castellon stand

RUNNERS-UP (in alphabetical order)
B&W 802D loudspeaker
Conrad-Johnson ACT2 preamplifier
dCS P81 SACD player
Graham Engineering Phantom B-44 tonearm
Halcro dm88 monoblock power amplifier
Lipinski Sound L-707 loudspeaker
 McIntosh C1000 preamplifier
Musical Fidelity kW750 power amplifier
NHT Xd powered loudspeaker system
Quad ESL-2805 loudspeaker
Sonus Faber Amati anniversario loudspeaker
Sound Devices Model 722 portable digital recorder
Vandersteen Quatro loudspeaker

A whopping eight different products received at least one first-place vote in our "Product of the Year" category, further proof that this has been one heck of a year in hi-fi. Despite this heavy competition—among all nominees, there were two preamplifiers, six loudspeakers, two power amps, a tonearm, a portable digital recorder, and an SACD player—our winner, ladies and gentlemen, is...a turntable.

And, whaddaya know, it's the Continuum Audio Labs Caliburn! This $99,500 feat of technological sophistication has been the subject of endless debate, online and otherwise, since it first shimmered and shined its retro-chic self all over our January cover. In the Stereophile.com forum, for instance, a thread that began with one member criticizing us for proclaiming the Caliburn the world's best—"Stereophile has reached the pinnacle of absurdity," he wrote—was still sizzling and burning nearly five months later. As we go to press, that thread has grown to nearly 5000 views and 60 responses.

Have we reached the "pinnacle of absurdity"? Michael Fremer thinks not. He went deep into his pockets and way into hock in order to keep the Caliburn in his system. Permanently. Poor Mikey. He's had to endure a lot of finger-pointing for following his love. Now, a year later, he might be getting close to paying it off.

The Caliburn is worth every penny, we're sure—at least to Mikey, who wrote: "What I marveled at most was not any particular sonic parameter in which the Caliburn performed well, but the unforced believability of almost everything I played." Like the other winners on our list, the Caliburn brings music to life. Congrats to Continuum Audio, and congrats to Mikey!
Overture and Meridian present an extraordinary musical achievement... The Meridian 808/808i Reference CD Playback System.

"When you invest in a Reference quality CD player, you want it to come from a world-class company with a history of excellence in Digital playback designs. Robert Stuart and the Meridian design team have spent more than 20 years pioneering, creating and refining high-end Digital playback systems. The award-winning 808 Reference CD Player Series is the culmination of their relentless effort to create a Digital playback system that will please even the most demanding 'analog' enthusiast."

- Terry Menacker, President of Overture

New Digital formats have come and gone, and more are on the way. We can't predict the future with 100% accuracy, but we do know that new playback technologies used in the Meridian 808 Reference Series are finding more musical information on CDs than previously imagined, resulting in playback quality far superior to the newer formats. With tens of millions of titles available, and the huge investment that has been made in CD collections by music enthusiasts, the need for a Reference quality CD player is essential. The 808s' "Resolution Enhancement" provides true upsampling from the original 44.1kHz, 16-bit audio up to 176.4kHz, 24-bit resolution. The results are simply stunning. With the Meridian 808 Reference CD Player & 808i Player/Preamp, both older and new CD recordings are a revelation!
Following the furrow plowed by last year's "Editor's Choice," Apple's Airport Express, my 2006 pick makes it even easier for audiophiles to distribute CD-quality sound throughout their homes. In a poll on our website last September (http://cgi.stereophile.com/cgi-bin/showvote.cgi?481), 25% of respondents felt that the magazine was "losing the plot" with its coverage of music-server devices such as the Squeezebox. Rich Foster's response was typical: "I don't mind you covering things like [the Sonos gear] or iPod-related gear, as long as they are kept in perspective. These items are nice for convenience or portability, but they are not high-end equipment. Stereophile has always been about sonic purity."

But "sonic purity" is indeed the point of these devices, in that they are not restricted to nasty-sounding, devitalized MP3s; they also handle lossless-compressed audio files and even uncompressed, "CD quality" files. And the fact that they feature digital data outputs means that they can feed the D/A processor of a true high-end rig. In my auditioning of the Squeezebox used in this manner, any sonic compromises resulting from the use of my WiFi network to transmit audio data around the home were minimal, and vastly outweighed by the sheer convenience of being able to access the music library residing on a remote server from the comfort of my listening chair.

The Squeezebox nicely complements a high-end, LP-based system by offering convenience and CD-quality sound for those times when the busy audiophile can't give his or her full attention to the music. The "open-source" nature of the Squeezebox's SlimServer software allows it to stay abreast of new developments, and the Squeezebox itself is an elegant piece of kit. At $299 for the WiFi model and just $249 for the hardwired Ethernet version, what excuse does an audiophile need not to join the 21st century?

In that same website poll, Dave Mueller nicely summed it up: "At its core, the magazine is about helping us enjoy our music with the best possible quality.... [T]he digital realm needs that sort of direction probably more than other mediums."
“Bad news for unregenerate manufacturers means good news for you!”

Talk to the folks who make power conditioners, and in a private moment they may tell you what they’ve told others. If it were possible, they’d choose pure AC power regeneration over the passive conditioners they currently offer.

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There lies the disc

WES PHILLIPS ON THE SESSIONS

One of the enduring myths of audiophilia is that of the recording as a true and honest picture of a musical event—a sonic “snapshot” that captures a unique moment of time the way a photograph captures the light of a day long since past.

This is not to say that recording can’t capture the magic of a musical event, or freeze a particular musical moment for all eternity, of course. We all have discs that transport us to what we think of as a single instant when the muses supped among us—such moments are what make audiophiles. Our search for more of those occasions when an engineer managed to capture lightning in a bottle pretty much defines our obsession.

But here’s the dirty little secret behind recording. Music exists in an uncertain state somewhere between genius and jellopolo, and it is changed by the act of observ-
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ing, ie, recording it. Every great recording is probably the result of a musician, an engineer, and a producer all frantically attempting to avert catastrophe.

The real miracle is that records are made at all. That they do get made, and that they sometimes even approach greatness, is simply proof that God loves us and wants us to be happy. There Lies the Home is no different in this regard. It arose out of the loftiest principles, namely the choral group Cantus' love of men's singing and its traditions. Sometime in 2004, it occurred to the group that one of the profound wellsprings of male choral singing was the great age of sail. Cara-

As artistic director Erick Lichte recalls it, "We realized that we had the bare bones of a great thematic collection, especially since we were getting spectacular response from Tormis' Muistse mere laulud [Songs of the Ancient Sea], so we thought we could make a really good recording of sea songs—especially when we were able to commission "A True Heart Is Waiting" from Minnesotan composer Edie Hill, which gave us the point of view of the lover left waiting at home for the wanderer to return. That's when we knew we had a whole concept and not just an idea."

On June 18, 2005, John Atkinson and I set out for Sioux Falls, South Dakota, and the Great Hall of the Washington Pavilion of the Arts and Sciences, site of the recording ses-

Traffic, for one thing. In our heavily laden Land Cruiser, it took us nearly 90 minutes to cross the 7.7-mile Staten Island Expressway (I-278). In fact, our traffic woes had just begun: Four hours after leaving Brooklyn, we were stuck in stalled New Jersey traffic, the Manhattan skyline still in our rear-view mirrors. After half an hour of parking-lot conditions, John switched off the ignition. When traffic finally began to move again, he turned the key: silence. We'd vapor locked, and had to roll the Toyota downhill and back-

Funding for this recording was generously provided by Josephine Iserman (in memory of Vern Iserman), Robert Marshall, Beth Swedes, and an anonymous donor.

We spent the next day and a half driving the remaining 1300 miles, trying to make our deadline: a one-hour window of Saturday-evening load-in we’d scheduled at the Washington Pavilion. By dint of scant sleep and eating while driving, we were on schedule, so as we approached Sioux Falls we called Erick Lichte, who was to let us into the loading dock at the Pavilion. But no dice—a wedding was running late, and we’d have to wait till it was over to offload our recording gear.

“Well, that’s a good thing,” I joked as John and I cruised down the deserted streets of Sioux Falls. “We experience the disasters up front, so it’s smooth sailing from here on in.” In the next moment, we goggled in horror as we passed a series of signs proclaiming the closing of Main Street for the next week, and a phalanx of potentially noisy earthmoving and street-grading equipment parked in front of the Washington Pavilion. This was going to be interesting.

But load-in went smoothly, and when we showed up the next morning, there didn’t seem to be too much activity outside. Maybe we’d be okay.

**DAY ONE: MONDAY**

Erick had provided us with detailed work sheets. The morning was scheduled for rehearsal, while JA arranged his microphones, ran his cables, checked his polarities, and chewed his fingernails. Cantus sounded fabulous singing the new-to-them Marshall Bartholomew arrangement of “Shenandoah,” and Main Street was silent.

(You’ll note that my descriptions indicate that the recording sessions followed a sequence different from the disc’s, which is listed in the sidebar “There Lies the Music.” This is another example of how recording isn’t the same as a performance. The disc is sequenced to take you on a journey, from the quiet introduction of Edie Hill’s “Prelude (Before Dawn)” through Amy Beach’s setting of Masefield’s “Sea Fever” and the other material, until we end with Hill’s “A True Heart Is Waiting.” The sessions were sequenced to take the strain off the soloists—so that we wouldn’t, for example, blow out tenor soloist Brian Arreola’s pipes with one toughie after another.)

At 1:06pm, almost precisely on schedule, we slated take 1 of “Shenandoah.” At 1:44pm, in the middle of take 11, we heard the first pile driver through the omnidirectional mikes, with their extended low end. It goes without saying that the next song scheduled for recording was Sting’s quiet “Valparaiso.” “You can filter that out,” Erick said to JA, “can’t you?” “No problem,” said John through clenched teeth. That’s another part of recording strategy, at least as taught by John Atkinson: The musicians must never know that what they are asking is impossible. They make the music; the engineer makes it sound right.

After nailing “Valparaiso,” we decided to deviate from the schedule and break for dinner early in hopes of coming back to record after the road crew was done for the day. That strategy worked, and we reconvened at 7pm to record Alice Parker and Robert Shaw’s arrangement of “Lowlands.” Or that was the theory—one of the Metric Halo boxes didn’t at first lock to the dCS master converter, so we spent 15 minutes coaxing it to. We finally got 45 measures of “Lowlands” recorded, and the group called a meeting. Afterward, and after a quick run-through focusing on attack, we got a second take of those measures that was far more together—and far more energetic, which meant that the first take was essentially unusable for edits.

Things ran smoothly until 8pm, when WWIII broke out outside. We rushed to the lobby doors and were dazzled by a prairie-style gully-washer of a thunderstorm. It simply wasn’t possible to fix that in the mix, so we waited it out. Refreshed and juiced, the group nailed “Lowlands,” then attacked Tormis’ Innantio maris aestuosi in 16 takes in less than an hour.

**DAY TWO: TUESDAY**

Tuesday morning began auspiciously. Hal! First, the computer wouldn’t recognize the DACs, then John spent nearly an hour chasing down a hum in one microphone channel, which necessitated first a switching out of cables, then of preamplifiers. Once recording began, the group burned through the works featuring pianist Charles Kemper—“Sea Fever” and Stanford’s Songs of the Sea, Op.91: “Drake’s
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World Radio History
Drum,” “Outward Bound,” “Devon, O Devon,” “Homeward Bound,” and “The Old Superb”—who was only with us for the one day. There were no disasters or dramas. An uneventful day—meaning that Cantus was performing at the top of its level and the recording gods seemed temporarily appeased. This, of course, was deadly for John’s cuticles—he strongly believes that only through creative worrying can disaster be kept at bay.

**DAY THREE: WEDNESDAY**

John apparently forgot to worry about baritone Adam Reinwald’s health. Adam caught a cold, which dropped his range and necessitated some scrambling of the schedule in the hope that, by the last day, he’d be able to hit his notes. (Trouper that Adam is, he was and he did.) Wednesday, however, was a busy day, and we escaped serious catastrophe. When we broke for dinner, we discovered that Sioux Falls had scheduled a classic car show along its downtown shopping district, and we all wandered around gazing at beautifully restored jalopies. Little did we suspect that this show would prove significant.

Back from dinner, John and I met Edie Hill, who had dropped by to hear Cantus record her two compositions. She charmed us almost as much as her music did. “A True Heart Is Waiting” is flat-out beautiful—deep and tuneful and full of mystery that resists your knowing it too well. Although Cantus had only had three weeks to master it, they were cooking—right up till sunset, when we heard what sounded like mortar fire downtown.

It was the classic car parade, accompanied by some glass-packed Harleys and a whole sky full of fireworks. We all strolled out for a Starbucks break, and by the time we’d returned, silence had fallen on Sioux Falls and we could resume recording. One more day and we’d be through.

**DAY FOUR: THURSDAY**

June 23 was slated to be a busy day, and as much as I wanted to get on the road on Friday, I couldn’t see how we could get everything we had left to do recorded in just two sessions. Yet the group burned through Musistre mere laulud, which is incredibly difficult, as well as Peter Schickele’s “Jonah’s Song,” “Rio Que Pasas” (for a future CD), and Alan Dunbar’s arrangement of Gordon Lightfoot’s “The Wreck of the Edmund Fitzgerald.”

This last called for Alan to play guitar and Mira Frisch to join in on cello (as she did later that evening for Brian Arreola’s setting of Tennyson’s “Break, Break, Break”).

“No,” said John and Erick, who of course were listening for different things—tonmeister John for balance, artistic director Erick for performance issues. What I was hearing—what it was my job to hear—was the carpet cleaner outside the concert hall. Apparently the Pavilion staff had forgotten to cancel that for the evening.

“Great,” muttered JA. “Just one more freaking thing I have to fix in the mix.”

**DAY FIVE TO FOREVER:**

Listen as hard as you like—that whoosh isn’t there any more. It’s fixed. Nor will you hear the tension, the thunder, the equipment malfunctions, or Adam Reinwald’s cold. What I hear when I listen to There Lies the Home is an enchanting performance that freezes forever a single point in time—a point actually made up of many other moments.

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—Wes Phillips

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As I had recorded Cantus in the Washington Pavilion’s Great Hall in Sioux Falls back in 2003, for the group’s Deep River CD, I had a good idea of where I was going to place the three distant microphone pairs for my main pickup. An almost coincident ORTF-arranged pair of DPA cardioids would capture the soundstage, a wide-spaced pair of Earthworks omnidirectional would add boom and spaciousness, and a more distant pair of high-voltage DPA omnis, mounted either side of a Jecklin Disc and fitted with their special acoustic equalizers, would allow me to balance the direct and reverberant soundfields in the mix. (For details about how and why I record Cantus the way I do, see my earlier articles, reprinted at www.stereophile.com/musicrecordings/1105cantis.)

An added complication for this project resulted from the fact that for six of the works, Amy Beach’s Songs, Sea Fever, and /465.)

At the last minute, as I was about to load all my gear into my wife’s Land Cruiser, I lost my nerve and packed three two-channel recorders, which I would use to back up the three main pairs of mikes as we went along. This way, if the external hard drive went bad (as they have been known to do) or the laptop misbehaved (also not unknown), I wouldn’t lose what we’d done. A DCS 904 converted the outputs of the cardioids to digital and supplied a master 88.2kHz word-clock signal to the two Metric Halo converters: the feed to the MIO 2882 carried the cardioid channels, the feed to the ULN-2 a reference clock signal (without any audio data). A second AES/EBU output on the DCS converter backed up those channels on an Alesis MasterLink hard-disk recorder.

Although all the input channels of both the ULN-2 and the MIO2882 showed up in the Metric Halo software’s Record Panel, I wasn’t confident that I could get error-free data from the ULN-2 with the OS X generation I was running at the time, so I used it only as a low-noise mike preamp, taking a feed from its analog outputs to two of the MIO 2882’s eight analog inputs. (I did use the ULN-2’s own converters to feed one of the backup recorders via AES/EBU, however.)

The signals from the third pair of mikes were fed from the MIO2882’s AES/EBU output to a Tascam DA-38 multitrack tape recorder, using a combination of a DCS 972 digital-digital converter and a PrismSound MR-1024T multiplexer to spread the two channels of 24-bit/88.2kHz data over the recorder's output.

Microphones: two DPA 4011 cardioids (ORTF pair); two Earthworks QTC40 omnis (wide-spaced pair); two DPA 4003 omnis with acoustic equalizers (on Jecklin Disc); DPA 4006 omni (spot mike, cello); two Neumann M147 tube cardioid (spot mike, voice, guitar); two Neumann TLM103 cardioids (spot piano mikes, as ORTF pair).

A/D Converters: DCS 904 (master), Metric Halo ULN2 (slave), Metric Halo MIO 2882 (slave), all operating at 88.2kHz sample rate and 24-bit word length.

Recorder: Apple 667MHz Titanium PowerBook with external 120GB Wibetech FireWire drive, running the Metric Halo Console beta Record Panel software.

Cables: Cardas, Beyercynamic, Canare, AudioQuest.


Session Monitoring: Stax Lambda Pro, Sennheiser HD580 & HD600, Sony MDR-7506 headphones; HeadRoom Blockhead headphone amplifier; Benchmark DAC1 D/A headphone amplifier.

Editing & Mixing: Sonic Classic v.5.3, Adobe Audition v1.0, Bias Peak v.4.

Mastering: Bias Peak v.5, Metric Halo MIO 2882+DSP (equalization), DCS 972 (88.2-44.1kHz sample-rate reduction), POW-R algorithm running on a Z-Systems rdp-1 (24-16 bit word-length reduction and re-encoding), Sonic Studio PreMaster v1.1.

1 After an unfortunate but unavoidable delay, this CD, described in the May 2006 issue of Stereophile, became available from the magazine’s secure “Recordings” page (http://ssl.blueearth.net/primediehome.php) in September 2006.

2 A groundless fear, it turned out, but when you’re on location in what, to a New Yorker, is the back of beyond, you become really cautious regarding what will work.
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eight 16/44.1 channels. These mikes were the high-voltage DPA omnis, which I was amplifying with a Millennia Media HV3B. The hum problem that developed on Day Two of recording turned out to be due to a voltage regulator going bad in the power supply of the other HV3B, which was being used to amplify the cardioids. The problem was terminal, so as the tubed Forssell M2a didn’t have low enough noise to be used for the distant mikes and my Earthworks preamp was a single-channel unit, I used the working HV3B for the cardioids and replaced it with a DPA unit to power the high-voltage omnis. Like the Millennia, this supplies the necessary 130V to the mikes but has a fixed gain of 20dB rather than the Millennia’s maximum of 60dB. I therefore had to make up the rest of the necessary gain with the Metric Halo 2882. That the workaround didn’t introduce any sonic compromises was a gift from the recording gods. That I could manage all the wiring changes and equipment substitutions in an hour with the singers waiting—and without messing up anything else—was a miracle.

Other than that single equipment failure and the unavoidable noises, the sessions were relatively uneventful. I continue to marvel at the Cantus singers’ ability to retain their enthusiasm and their musical chops for up to four hours at a time, particularly in a work such as Edie Hill’s “A True Heart Is Waiting,” which, because of its length and complexity, had to be tackled in sections, in a total of 56 takes. On the other hand, it took just four takes for the band to nail Peter (P.D.Q. Bach) Schickele’s whimsical “Jonah’s Song,” with its piratical rolled mrs.

One highlight of the sessions was on Day Three, when, before the start of the evening session, the Washington Pavilion’s management threw a reception for Edie Hill, Cantus, and the mayor of Sioux Falls and his guests. After being treated to a live performance of Incantatio mares actusus by contemporary Estonian composer Veljo Tormis, producer Erick Lichte lined up the visiting artists in a series of drawn-out whistles, some going up, some going down. In postproduction, I mixed these whistles in with the final assembled performance of Incantatio to add an eerie, otherworldly feeling. (The work was written in commemoration of the September 1994 sinking of the MV Estonia ferry in the Baltic Sea. I understand that the whistles represent the souls of the 852 passengers and crew who drowned.)

Gordon Lightfoot’s “The Wreck of the Edmund Fitzgerald” also commemorates a wreck at sea—or at least in one of the Great Lakes—and I initially prepared two mixes of this. The first was as I described above, where the sonic picture was painted with the three pairs of distant mikes, the spot mikes added in at a low level to add focus to the sounds of the solo voice, guitar, and cello. (This was the mix that ended up on the CD.) But I also prepared a “pop” mix, for which I used the spot mikes to create the primary image, then added in the distant mikes to flesh out the soundstage. I felt the sound of this mix was more vivid, with an appealing immediacy. However, it got an immediate thumbs-down from Erick: “The cello sounds too close and the balance with the choir is off. Alan sings the verses with the choir differently than his solos. You can hear the energy peter out on those verses in this mix, which it doesn’t on a broader mix.” I tried to preserve the dynamic range of the original takes, but some gain trimming was inevitable. When Adam Reinwald turns his back on the mikes and cups his hands around his mouth to shout “Ankur legoo” (Anchors aweigh) in the middle of Tormis’ Muisitse mere laulud, that used up the top 6dB of the CD’s dynamic range all by itself. (A big voice, Adam’s.) Figuring that no one would miss what they didn’t know was supposed to be there, I cut the level of just those two words to allow the rest of the CD to be brought up by the same 6dB.

I grew to love all the songs on this CD, especially Kelvin Chan’s interpretation of Stanford’s haunting “Homeward Bound,” the lyrics of which give the album its name. But perhaps my favorite of the set is Timothy C. Takah’s arrangement of “Valparaiso,” from Sting’s 1996 CD, Mercury Falling. The original has Sting singing in a fake-folk style, but in Tim’s arrangement the song is transformed into an entrancing lament. At dealer evenings last winter, I played the 24-bit files of various works off this album in various forms of completion, but I would always start by playing “Valparaiso” as the audience took their seats. By the time the song ended, the listeners were held in rapt silence, their attention captured.

I thank the staff of the Washington Pavilion for their willingness to chase down and eliminate sources of noise emanating from inside the building. However, there remained the various noises from the outside world, listed by Wes Phillips, that intruded on the Great Hall’s stillness. Fortunately, the frequency content was generally low enough, and the tessitura of the music generally high enough in frequency, that I could use a relatively benign high-pass filter. Still, there were some passages in which the only take on which the singers soared was one with the thud of a pile driver or a crack of thunder or the boom of a passing boom car. In those cases I applied a much more aggressive filter, but only for the minimum amount of time. I then reinserted the extra-filtered music into the master file. And using the high-quality filters that can be achieved with the Metric Halo MIO 2882’s internal DSP engine kept the fleeting sonic degradation to a minimum. As always, I did all the mixing, gain adjustment, and equalization with 24-bit resolution, reducing the word length to the CD’s 16 bits at the very last stage before assembling the master to be sent to the pressing plant.

There Lies the Home is available from Stereophile’s secure “Recordings” page (http://ssl.blueearth.net/primedia/home.php), as are the previous five CDs I have recorded for Cantus. I hope you enjoy listening to it as much as I enjoyed its genesis.

—John Atkinson
Usher Dancer II Beryllium

- 2005 “Golden Ear Award” The Absolute Sound
- 2005 “Editor’s Choice Award” The Absolute Sound
- 2005 “Best Show at CES” Jimmy Awards SoundStageAV.com
- 2004 “Most Wanted Component” Stereo Times
- 2003 Home Entertainment Show “Best of Show” The Audiophile Voice
- 2002 CES “Most Recommended Flagship” Stereo Sound
That the music business is in a state of change has never been more apparent than in the sudden avalanche of reissues tumbling into the market this holiday season. It’s no secret that many new records (as opposed to reissues) did not perform as expected this past summer and fall, a situation that has led to an overload of reissues that the labels are hoping adults—the only ones still buying physical product—will simply have to have, or will want to splurge on for a gift. Whether this wave of reissues—many of which are still too expensive, no matter how you slice it—will provide the financial boost the biz is looking for this Christmas remains an open question, but there is much indispensable music in this year’s desperation crop of boxed sets and single- and double-disc collections.

Happily, reissues are one area where the major labels may have finally learned some lessons. Most of them, remasterings and bonus tracks are standard features. Even the manufacturing is better: these days, fewer boxed sets self-destruct than in the past. Is this Christmas the last roundup for the boxed set, long the ultimate cash cow for the LP- and CD-based music business? Perhaps not; quite yet, but it’s certainly a season of decision for the music business. Thankfully, amid all the turmoil there’s still music—much of it old, it’s true, but, as you’ll see as you read on, much of it still possessing the power to move, inspire, and save.

_**BIG BILL BROONZY**_

_Amsterdam Live Concerts 1953_

Performance **
Sonics ****

_Big Bill Broonzy was introduced to the white listening public in December 1938, at John Hammond’s historic From Spirituals to Swing concert at Carnegie Hall. At that event he was identified as a farmhand from an Arkansas plantation, but the Mississippi-born Broonzy had actually left Arkansas for Chicago in 1920. One of the most popular and widely imitated bluesmen of the 1930s, Broonzy cut hundreds of commercial singles, accompanied by jug bands, jazz bands, or just a piano and his own guitar. After Carnegie Hall, Broonzy performed solo for white patrons at Greenwich Village nightclubs, but did not become a full-time folk singer until the 1950s, when his R&B career petered out._

Before his death, in 1958, Broonzy cut some two dozen folk-style LPs, among them several recorded during tours of Europe. _Amsterdam Live Concerts 1953_ includes two shows, separated by a day, taped by Louis van Gasteren but never released until now. The pristine sound is remarkable for its time, and Broonzy gives a pair of triumphant performances, but their ultimate value is more sociological than musical._
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Embracing the role of folk icon, Broonzy poses here as an artless rustic, but his theatrical vocals and virtuosic guitar belie his stumbling, aw-shucks stage patter. Abandoning the dance rhythms of his earlier records, he often pauses for dramatic effect, alternates between singing and playing guitar instead of doing both at once, and holds loudly hollered notes in a quasi-operatic manner. His repertoire is also modified, with older, folkier material substituted for his previously usual songs about whiskey and women. You've got to admire this middle-aged artist's ability to adapt his style to the naïve expectations of a "refined" audience, but his subservient demeanor is less admirable.

The first concert begins with "Going Down the Road Feeling Bad," a traditional, anonymous folk song that, like the similar "Crawdad Hole," is associated mainly with white country musicians and was not recorded by Broonzy until the 1950s. Broonzy sings both of his civil-rights songs, "Just a Dream," which he'd premiered at From Spirituals to Swing, and the more pointed "Black, Brown and White," which he'd recorded in Paris in 1951. He also sings the African-American spiritual "Down by the Riverside," and plays a brief instrumental version of the Tin Pan Alley standard "The Glory of Love." But he does just three songs from his commercial repertoire—two from his final pre-folk studio date in 1951, and one from his debut session in 1927. Stripped of their dance beats, "Five Foot Seven" and "Makin' My Own Business" go limp, but "House Rent Stomp," showcasing Broonzy's brilliant ragtime guitar technique, improves on the poorly recorded original.

Broonzy seems befuddled in the second show, speaking less coherently than before and playing "John Henry" and "Trouble in Mind" twice, but his musical abilities are unimpaired. This time he reprises only two of his commercial recordings: "Guitar Rag," which he'd cut in 1930 as a member of the Famous Hokum Boys; and "Louise, Louise Blues," a cover of Johnny Temple's 1936 hit. He does perform two songs associated with Leadbelly, "Midnight Special" and "Good Night Irene," doubtless aware that the latter had been a No.1 pop hit for the Weavers in 1950.

With concerts like these, Broonzy influenced a generation of folk singers and helped inspire the British blues scene that produced the Rolling Stones and Eric Clapton. Yet his performances here, however skilful, ring false. To hear the real thing, check out the reissues of Broonzy's urban blues material on labels such as Document and JSP. —Larry Birnbaum

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**ELECTRIC LIGHT ORCHESTRA**

**Three Reissues**

**On the Third Day**

Performance ****
Sonics ****

**Face the Music**

Performance ****
Sonics ****

**A New World Record**

Performance ****
Sonics ****

Now that time has passed and the sound of the Electric Light Orchestra's many ubiquitous radio singles of the 1970s has faded, the Jeff Lynne debate has divided into two camps. There are those who believe that Lynne's musical universe, the one filled with bombastic rock-with-strings ambitions, spaceship imagery, and homages (if not outright lifts) from the Beatles, was a welcome if far-out musical flavor during an era (the 1970s) of unprecedented riches in rock music. His Traveling Wilburys gig, with George Harrison, Roy Orbison, Bob Dylan, and Tom Petty, was more proof that here was a rock visionary.

Then there are those who feel that Lynne represents all that is bad and overblown about rock music of that or any other era. To them, his music is overwrought fluff, the ramblings of a Beatle-obsessed ego gone mad. For them, he was the one person who stuck out like a sore thumb in the Wilburys—a B-
I love music and I love high end audio. Even after 28 years of selling and installing the finest high end audio equipment in the world, I still get a tingle down my spine when I hear a system which makes the music come alive and forces me to listen to the instruments, not the equipment. I have had this experience almost exclusively when listening to systems using really expensive speakers ($5,000 per pair or more), and looking back over the last 15 years I have never had it with a pair of speakers that sold for less than $2,000 a pair. So, I was more than a little surprised when the Focal JM Lab Chorus 800V series of loudspeakers crossed my threshold.

Starting at $795 per pair for the Chorus 806V bookshelf speakers and going up to $2,795 per pair for the 836V 3-way, 5-driver tower, the Chorus 800V series of loudspeakers really gets the music. Take the Chorus 816V ($1,795/pair), the 2 1/2 way base floorstanding loudspeaker which was the first model I listened to. Unlike the other $2,000 per pair high end audio loudspeakers which I have auditioned, the 816V really grabbed me from the beginning both with the immediacy of its dynamics and wonderfully proportioned harmonic structure. Soon I forgot about the speakers and just started listening to the music. Hoping that this was not an isolated phenomenon I set up each and every other pair in the line and put them through their paces. The results were equally impressive.

More than impressive is the fact that this new "lifestyle" line of speakers from Focal JM Lab has none of the limitations typical of many tweaky high end speakers in their price range. They are beautiful to look at, they have plenty of bass, they play as loud as you can possibly want to play them and they don’t require a lot of power. Truly a line of speakers for the 21st century.

Andrew Singer

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grade talent who didn’t belong. He’s also damned for being heavy-handed in his producing efforts since, making even “Free as a Bird,” the “new” track from the Beatles’ Anthology I, and which he coproduced, sound like a Jeff Lynne record.

Whatever side of the divide you’re on, there was a brief period in the mid-1970s when Lynne and his partner in ELO, drummer Bev Bevan, had a firm grip on their multifaceted universe of writing, arranging (often for strings), recording, and then actually taking the whole thing on the road. It is this ELO we hear on these three recently reissued albums, each of which comes with bonus tracks.

As a writer, Lynne has never before or since reached the heights found on Face the Music (1975) and A New World Record (1976). The first album, perhaps the most coherent the band ever made as well as Lynne’s best-knit collection of tunes, is the gem among the dozen or so official albums the band released between 1970 and 1988. Tunes like “Nightrider,” which starts out with keyboards plaintively squeaking like strings before launching into a varied rock tune that includes such touches as a fluttering wind motif among the high strings, a playful pause between verse and chorus that features descending strings and voices, as well as Lynne’s towering falsetto and an unexpected but masterful quiet ending, are as close to fulfilling his ambitions as Lynne ever got. The hits “Strange Magic” and “Evil Women” remain listenable despite radio overplay, and the album’s pair of sweet-and-sour in-spi- cia numbers, “Waterfall” and “One Summer Dream,” were both utterly unlike anything else in rock music at that time. In a bizarre twist, Face the Music went platinum in the US, yet failed to even make the album charts in the UK.

The US success of Face the Music embodied Lynne to use an even grander string arrangement on A New World Record’s Lennon-esque opener, “Tightrope.” One of his strongest vocal performances on record comes in what may also be his most accomplished single, “Telephone Line,” whose key chorus line, “Oh telephone line / give me some time / I’m living in twilight,” is delivered over Lynne’s saddest section of chord changes. “So Fine” and “Living Thing” are vintage ELO doing what it does best: combining bouncy bouncy sections with accessible, uptempo, doo-wopish rock tunes. And finally, Lynne pulls out the rock-guitar riff of his career in the obvious but ridiculously catchy “Do Ya.”

Released in 1973, On the Third Day is the sound of Lynne trying to perfect his mind meld of orchestra and rock band. The forces are often too powerful, as in “New World Rising/Ocean Breakup Reprise,” in which Lynne’s almost shrieking voice, layers of keyboards, and too many plucked strings make for a loud, annoying mess. The very next track, the right-from-the-first-note “Showdown,” swings the band’s gifts back into sharp focus.

Each album’s bonus tracks consist of alternate mixes, none of which is earth-shattering. While these record’s original sound was passable, the remasters seem to have honed some edges—but Lynne’s method of building super dense tracks resists any overwhelming changes.

The Electric Light Orchestra sounds less exotic now than they did originally, and were never anywhere near being a truly new musical form—like, say, the music of Pink Floyd. Nevertheless, when Lynne and his bandmates had all the elements in balance, as they did on two of these records, they gave mainstream rock fans something very different to taste. —Robert Baird

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JEFF BECK
Truth & Beck-Ola

Truth

Beck-Ola

Both:
Mickie Most, prod. AAD.
Performance ****½
Sonics ****

After Jeff Beck finished his 18-month tenure with the Yardbirds, producer Mickie Most signed him to a management deal, thinking that Beck, the best-looking and most intriguing member of the band, could have a career as a pop star. How wrong he was. Not only did the introverted Beck have no such desire, he had much grander musical ambitions, most of which had to do with wreaking utter havoc with his Les Paul. Still, despite his charge’s intentions, Most hung with Beck for his first two efforts, Truth and Beck-Ola, two albums of enormous blues-rock potency, both recently reissued and remastered by Epic/Legacy. I won’t discuss here these recordings’ relative spottiness—how they don’t measure up to work from the same period by the Who, Led Zeppelin, and Cream, for example, or how the band (Beck, Micky Waller, Ronnie Wood, Rod Stewart, Nicky Hopkins) underachieves by acutely suffering from a lack of first-rate material. This feature is more concerned with the sonic quality of the remastering and the additional tracks.

Truth (1968) has eight bonus cuts comprising five out-takes or alternate takes and three non-album singles: “Tallyman,” “Love Is Blue,” and Beck’s first hit, “Hi Ho Silver Lining,” the song that convinced Mickie Most that Beck would be a pop star. The other two are also uncharacteristically pop, and a little humorous. In fact, Most exerted
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http://showroom.acousticsounds.com
most of his influence on the singles and essentially gave Beck and the band control of their albums. But not only was Most’s influence misguided, it held Beck back from truly discovering himself as an artist. Beck-Ola has only four extra tracks: “Sweet Little Angel,” an experimental version of B.B. King’s tune with some questionable bass playing by Ronnie Wood; “Throw Down a Line,” a lightweight melodic chestnut by Hank Marvin and eventually performed more famously by Marvin and Cliff Richard; and two early versions of album tracks. Most amusing is the band’s shoddy outtake of “Jailhouse Rock.” Legacy’s remastering is excellent on both discs, the emphasis going to Beck’s guitar pyrotechnics and Wood’s elastic bass.

From here, Jeff Beck would leave his pop roots in the dust and speed to fame as an instrumental genius. Rod Stewart, overwhelmed here by material simply too heavy for a soulful singer, would be the one to achieve stardom—which is just as it should have been, despite what Most expected.

—Bob Gulla

JOHN COLTRANE

Fearless Leader

John Coltrane, tenor sax; Johnny Splawn, Donald Byrd, Freddie Hubbard, trumpet; Wilbur Harden, trumpet, flugelhorn; Sahib Shihab, baritone sax; Mal Waldron, Red Garland, piano; Paul Chambers, Earl May, bass; Albert “Tootie” Heath, Arthur Taylor, Louis Hayes, Jimmy Cobb, drums


Performance *****

Sonics ***

The relationship between the jazz art form and historical time has always been unique. In jazz, history is condensed, even collapsed. It seems impossible that it took only 30 years to get from Louis Armstrong to John Coltrane. It is also difficult to accept that John Coltrane has now been gone for as long as he was here—40 years—and that his public career, with its defining influence on 20th-century culture, lasted little more than a decade.

These reflections are prompted by a new six-CD set, Fearless Leader. It contains all 48 tracks that Coltrane recorded under his own name for his first label, Prestige, in a concentrated time period between May 1957 and December 1958. Further reflections follow:

Fearless Leader will not create the stir (or the sales) of two Coitane releases from 2005, Thelonious Monk with John Coltrane at Carnegie Hall (Blue Note), and One Down, One Up: Live at the Half Note (Impulse!). They contained Coltrane music that had never been heard before on record. This Prestige set offers no previously unissued material, not even alternate takes.

Some of the 11 LPs on which this music originally appeared were famous in their day. In the 1960s, records like Soultrane and Lush Life were simply around, as much a part of the musical zeitgeist as the scent of cannabis and the logos of Dual, AR, and Marantz. But LPs released later, such as Bahia and The Last Trane, attracted less attention. Much of this music, while not newly released, has not been widely heard. His Prestige period is often described as “early Coltrane.” It was not that early. Coltrane was almost 31 at the time of his first Prestige session, and was already a virtuoso who had achieved a technical mastery of “vertical” improvisation. His creative calculus, obsessive and sublime, stacked chords, played three chords to the rhythm section’s one, drained every harmonic implication from a song, and careened majestically through scales. The critic Ira Gitler famously described Coltrane’s torrents of notes as “sheets of sound.” They could make you dizzy. With or without cannabis, they could make you high.

But ridiculous saxophone technique was only the medium. The message was about spiritual passion expressed with articulate clarity and naked aggression. No jazz before or since has provided moments more riveting than Coltrane’s clarion entrances on these tracks. On “Bakai,” on “Traneing In,” on “Black Pearls,” on “Like Someone In Love,” on performance after performance, he announces himself like a cavalry officer, sword drawn, leading the charge, in full cry.

He was a virtuoso in May 1957, then he got better. Around the time of the first Prestige session he kicked heroin and alcohol, began to spend his waking hours practicing, and joined Thelonious Monk’s quartet, where he stayed six months. Over the course of these sessions he gets faster, more adventurous, and more orderly.

The speed (“Soft Lights and Sweet Music,” “Lover,” “Russian Lullaby”) is exhilarating. The blues (“Slowtrane,” “By the Numbers”) are deep and definitive. The ballads (“I See Your Face Before Me,” “Something I Dreamed Last Night”) are urgent with tough love.

Red Garland’s piano is the bright, buoyant contrast that completes this music. The greatess of Garland, who had faded into obscurity long before his death, in 1984, becomes more manifest with every reissue of his work. (Check out At the Prelude, from 1959, released in 2005, also on Prestige.)

The sound on these six CDs brings 1957 and 1958 back alive. It is a testament to the skills of recording engineer Rudy Van Gelder (then) and remastering engineer Joe Tarantino (now).

The 64-page booklet that accompanies this compilation contains many rare photographs, mostly soulful session shots by producer Esmond Edwards. There is an interesting biographical sketch by Richard S. Ginell, and a detailed road map to the music by knowledgeable Coltrane scholar Lewis Porter, of Rutgers University.

The primary significance of this collection is that it gathers all of Coltrane’s Prestige recordings as a leader into one place, and organizes all nine sessions into chronological order. Experienced in quantity, this music makes it apparent that Coltrane’s Prestige period was neither “early” nor “formative.” Its hard, austere purity provides intellectual, spiritual, and physical fulfillments that can be obtained nowhere else.

—Thomas Conrad
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The popular perception of the Bee Gees has long been dominated by the sibling trio’s massively successful disco-era comeback, with images of Barry, Robin, and Maurice Gibb as the white-suited dance-floor smoothies of Saturday Night Fever burned deeply into popular culture. That image does a major disservice to the English-Australian threesome’s body of work, particularly the remarkable string of albums with which they launched their international career in the late 1960s. Their work during that period coincided with the tail end of the British Invasion and the early flowering of psychedelia, but even by ’60s standards, the Bee Gees were eccentric visionaries.

In contrast with the more conventional pop they’d recorded during their apprenticeship as teen pop stars in their adopted homeland of Australia, the Gibbs’ first three international releases—Bee Gees First, Horizontal, and Idea—boasted a wholly original vision, and are as inventive and rewarding as any music made during that era. The band, by then a quintet including guitarist Vince Melouney and drummer Colin Petersen, filtered the progressive impulses of swinging London through their own quirky sensibilities to achieve a unique blend of impassioned melodrama and playful whimsy. Their adventurous, elaborately orchestrated tunes were carried by the brothers’ unearthly harmonies, and by Robin’s poignant, melancholy leads and Barry’s tender, mellifluous vocal turns.

While it may be difficult to discern the literal meanings of such outré Bee Gees numbers as “Red Chair, Fade Away,” “Please Read Me,” and “Birdie Told Me,” that doesn’t detract from their lyrical passion or melodic craftsmanship. And the fact that songs as fundamentally odd as “New York Mining Disaster 1941,” “Massachusetts,” and “I’ve Gotta Get a Message to You” became major hits says much about the convergence of the Bee Gees’ idiosyncratic talents and the spirit of the times.

The Studio Albums 1967–1968—the first installment of a long-needed overhaul of the Bee Gees’ catalog—is a lovingly packaged six-CD set combining the stereo and mono mixes of their first three albums, each augmented by an additional disc of concurrent outtakes, alternate versions, and non-LP tracks. Although prior archival Bee Gees collections have been light on rarities, this one boasts a wealth of memorable left-field goodies. That material as distinctive as “Gilbert Green,” “Ring My Bell,” and the incredible “Mrs. Gillespie’s Refrigerator” didn’t make the cut during a period when the group was turning out two LPs a year is a persuasive indication of how prolific and creative the band was at its peak. Elsewhere, four Christmas songs and a pair of much-bootlegged Coca-Cola jingles demonstrate how the brothers Gibb routinely brought abundant craft and emotional commitment to even the most mundane assignments.

As welcome as any reissue in recent memory, The Studio Albums 1967–1968 redresses the reputation of one of pop’s most tragically misunderstood acts.

—Scott Schinder

Disc 2, all rarities, has several highlights. A heated three-song bite from a live show taped at the Paradise in Boston shows what a powerhouse live band R.E.M. could be, and both sides of the band's first single on Hib-Tone records—an earlier, less forward “Radio Free Europe” b/w the more tuneful and sedate “Sitting Still”—are also here. Several of the six previously unreleased studio tracks are interesting, including “Just a Touch,” which shows the band at their loudest and most rocked-up.

The separately packaged companion DVD, *When the Light Is Mine: The Best of the IRS. Years 1982–1987*, is less thrilling. A couple of television appearances, from *The Tube* and *Old Grey Whistle Test*, show the band still hungry and are worth a look. But interest is limited by overly serious interviewers and amateurish music videos and interviews that don’t add much to the story.

Outside unyielding forces such as Bob Dylan, few artists can be expected to sustain high levels of creativity forever. Whatever R.E.M. has become, these are the albums to own by Stipe, Buck, Mills, and Berry. —Robert Baird

WAYLON JENNINGS
*Nashville Rebel*

*Columbia/Legacy 82876 70705-2, 02 (4 CDs), 2006. Richie Albright, Chet Atkins, Wendell Bagwell, many others, prods.; Rob Santos, reissue prod.; no engs. listed; Vic Anesini, reissue mastering, AAD. TT: 4:30:68*

*Performance **** Sonics *** to ****

While Waylon Jennings was best known for singing about being a rebel (hence the title of this extensive and overdue set), a close listen to the songs he wrote and/or sang reveals that he was a pop guy. That’s right—big ol’ craggy Waylon, who eschewed the gloppy strings and saccharine production of “the Nashville sound,” had his own brand of softy populism, which, as it turned out, worked better than the old-fashioned version. And that may be, in the end, why folks in Nashville considered him such a rebel.

The charts bear this out. By the mid-1970s, Jennings’ albums routinely appeared on both the country and Top 50 pop album charts. His secret was to mix great tuneful material, much of it tender and accessible, with a stripped-down, honky-tonk studio band (as opposed to rote studio cats) and a grizzled, rough’n’ready image. Despite some fiddles and steel guitars, his was country music with a small c. Looking back—Jennings passed in 2002—it was genius in a rare form.

With this set, embossed on the outside like Jennings’ famous guitars, the marriage of Sony and BMG has borne what is perhaps its finest catalog collaboration yet. With 92 tracks spread across four discs, lack of breadth will never be a concern here; if not for the extraordinary spirit in many of these tunes, Waylon fatigue might be. Given this much material, the inclusion of three bonus tracks, none that interesting, is less disturbing. Despite some variations in volume and compression between tracks (think: mixed for AM radio), the sound deserves special mention for being unusually transparent for a pop-music collection. RCA boss Chet Atkins, who signed Jennings and kept an eye on all RCA sessions, is an obvious part of why.

As country singers go, Jennings’ voice had more modes than most, ranging from a bad-boy growl on songs like “Lonesome On’ry and Mean” and the strained but triumphant push used on a tune like “(Don’t Let the Sun Set On You) Tulsa,” to the tender ballad singer of “Dreaming My Dreams with You,” and finally—in a throwback to his youth, when he gave up his seat on Buddy Holly’s final, doomed flight so he could do his laundry—a revved-up, almost funky croon in tunes like “Slow Rollin’ Low.” This kind of vocal range gave Jennings the freedom to choose tunes from a wide variety of sources and, throughout his career, few had his ear for material.

*Nashville Rebel* begins with his first single, a 1958 recording of the Cajun classic “Jole Blon,” produced by Holly. Jennings was famously the first to record (on the Outlaw Movement’s high-water mark, *Honky Tonk Heroes*), and so shone the spotlight on, the tunes of fellow Texan Billy Joe Shaver. This set includes most of his Shaver covers, including “Black Rose,” “We Had It All,” and his immortal rendition of “Honky Tonk Heroes.”

Late in his career, Jennings began to range ever further afield in his search for songs. Even in his covers of Los Lobos’ “Will the Wolf Survive,” the Eagles’ “Take It to the Limit,” and, believe it or not, Otis Redding’s “(Sittin’ On) The Dock of the Bay” (the last two as duets with Willie Nelson), he almost manages to pull it off. Almost. While these are nowhere near his best work, they still have enough of the canny blend of country-music moves iced with singer-songwriter popular music to cross over to both the country and the pop/rock crowds. Forget the idiocy of his best-known ditty, “Theme from *The Dukes of Hazzard*”—for many years to come, Waylon Jennings is and will remain a giant of American music not far below his friend Willie Nelson. Unlike many, many more perfunctory boxed sets, this one does its artist proud. —Robert Baird
THE JESUS AND MARY CHAIN
Five Reissues

Psychocandy
Performance ****
Sonics **

Darklands
Performance ****
Sonics ***

Automatic
Performance ****
Sonics ***

Honey's Dead
Performance **
Sonics **

Stoned & Dethroned
Performance 
Sonics ***

History is kind to its monoliths: Stonehenge, the Great Pyramids, Psychedandy. With Rhino’s reissue of the first five albums by the Jesus and Mary Chain, the Scottish group’s 1985 debut is being rediscovered and reaped like an alt-rock touchstone. Psychedandy can be rightfully described with that most musty of album adjectives, seminal •

Psychocandy can be rightfully described with that most musty of album adjectives, seminal •

Duties are more evenly split between Jim and William, and the Chain had drained and (1.17Pd from baking in the desert sun, the Chain had

new-wave visual veneer, and their second album, Darklands (featuring the single “Happy When It Rains”), attracted the goths. The more sedate, clean-sounding Darklands not only peeled away unnecessary layers of noise, it introduced JAMC to the drum machine. A presumed lack of experience with the synthetic rhythm section—they used it to keep simple, mostly midtempo time—works in the Reids’ favor, and understated pop tunes such as the title track and “April Skies” play like New Order’s more solemn moments. Few bands influenced JAMC (Black Rebel Motorcycle Club, Raveonettes) actually replicate the stinging, tinny guitars of Psychedandy; it’s the stormy mood of Darklands that everyone is after.

Commercialism—or at least a greater awareness of the outside world and American college radio—creep in on the recluse Reids with 1989’s Automatic and 1992’s Honey’s Dead. The former’s cover features the brothers inside a five-pointed star, Jim making a gun symbol with his fingers. The danger-rock posing on Automatic provides immediate thrills (the drum machines are louder, the guitar riffs more swaggering) that turn out to be empty gestures. Still, it contains the band’s best-known blast, “Head On,” which would be covered by the Pixies only two years later. Honey’s Dead also falls victim to outside influence, in this case the burgeoning Madchester movement led by the Stone Roses and Happy Mondays. Here, the baggy dance beats scrap for attention with the guitars, and the result is a sneering maelstrom rather than the loved-up vibes preferred by the rave scene. JAMC’s mock-shock posturing continues on leadoff track “Reverence,” with Jim singing “I wanna die just like Jesus Christ...I wanna die just like JFK.”

For the first time, JAMC’s bravado sounds like a cry for help. Stoned & Dethroned (1994) sounds the retreat: In the midst of the grunge era, the Reids ditched the drum machine and offered an elegantly wased album of laid-back acoustic strummers. Echoing Jagger-Richards’ most plaintive moments (it’s unclear whether the title is meant to reference the Stones or is the result of the Reids’ latest self-prescription), this 17-song effort is a long, slow comedown. Mazzy Star’s Hope Sandoval injects energy by playing Nancy Sinatra to Jim’s Lee Hazlewood on “Sometimes Always,” and the Pogues’ Shane MacGowan contributes vocals to “God Help Me.” Sounding drained and dazed from baking in the desert sun, the Chain had already started to break apart on Stoned. Songwriting and vocal duties are more evenly split between Jim and William, and the two reportedly recorded the band’s swan song—1998’s harder-rocking afterthought, Munki—in isolation from each other.

—Matthew Fritch
Talk about going from the ridiculous to the sublime. One day I'm reviewing the $139 Sonic Impact Super T power amplifier, and the next day Krell Industries delivers their $10,000 Evolution 505 SACD/CD player, $15,000 Evolution 202 preamplifier, and their $30,000/pair Evolution 600 monoblocks.

And I whined. "I don't like to review complete systems," I moaned to Krell's Randy Bingham. "That's too many changes, and it takes forever to do comparisons."

"We don't want to impose, but with the CAST current gain system, the only way you can evaluate how good any individual component is to hear it in concert with the other components running CAST. That way, from source to output, the system consists of a single gain stage, which is about as simple as it gets. Besides, we don't want you to review the universal player—we promised it to Fremer."

"Okay, but I'm going to listen to my reference Ayre C5xe player, Conrad-Johnson CT5 preamp, and Musical Fidelity Nu-Vista 300 in the system, not just the other CAST gear."

"Actually, we insist on it—and while you're at it, disconnect the CAST cables and hear the Evolutions in balanced and single-ended modes. We're convinced that even an

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audio reviewer—um, I mean, especially an audio reviewer—will hear the difference.”

Oooh, a challenge. I love a challenge—especially a cheeky one.

**Evolution of a technology**

The Evolution 202 and 600 are jam-packed with technological buzzwords (not to mention the technology that drives them), so I’ll just surf the highlights and point you to Krell’s website, www.krellonline.com, for the complete list.

The 202 is a two-chassis design; the power supply, with its quad-rectified 170VA toroidal transformer and 39,600µF of filter capacitance, is housed in its own shielded chassis. The volume is controlled through a balanced 16-bit resistor ladder. The signal path is a zero-feedback, high-bandwidth, 1.5MHz open loop in a balanced Krell Current Mode design, terminating in Krell CAST (Current Audio Signal Transmission).

CAST uses Krell’s Current Mode Technology (CMT) to transmit the signal as current rather than voltage. Normally, you’d want a system’s preamp output to be low and the power amplifier’s impedance to be high, but that creates a situation in which the interconnect’s impedance could affect—even distort—the signal voltage operating the amplifier. CAST, says Krell, transfers current from a high-impedance source to a low-impedance load, essentially eliminating the cable’s effect on signal transmission. And, if you’re using a CAST CD player, the signal can be taken straight off the DACs without going through a current–voltage conversion stage.

That, says Krell’s CEO and chief
designer, Dan D'Agostino, is crucial. When D'Agostino was working on Krell's CMT, "I noticed that every time we did an I-to-V conversion, the converter added noise and grain and messed with detail, so I just said, 'Wouldn't it be wonderful if we didn't convert this at all and ran it as a pure current signal from input to output?' Once we thought of it—well, it would be wrong to say it was simple, but getting out of the voltage-gain mindset was the 'ah-har moment, and the rest was just engineering. And engineering is what we do."

Of course, to run CAST, you need to use CAST cables ($500/m), which are thin and flexible and sport four-conductor LEMO connectors. The Evolution 202 has two CAST inputs, three single-ended RCA inputs (and a tape loop), and two balanced XLR inputs. There are four outputs: one single-ended (SE), one balanced, and two CAST.

The Evolution 600 monoblock, obviously, also employs CAST, but also has SE and balanced inputs. It puts out 600W into 8 ohms (1200W into 4 ohms) and employs Krell's Active Cascode Topology. ACT is not precisely the same as conventional cascode technology, which generally means combining a transconductance amplifier stage with a current buffer stage.

Krell's technical support manager, Jim Ludoviconi, likens Krell's ACT to the saying "many hands make light work." Cascoding is a simple method of doubling the amount of devices per rail in a push/pull configuration for linear operation. With our FPB amps, we split the audio waveform and assign an output stage to each phase. Where typical push-pull designs divide up the current, ACT splits the voltage as well—but here's where it gets unusual for Krell: We're not in class-A anymore. "Class-A is a needy technology in terms of space, heat management, and MEASUREMENTS

I don't have the necessary equipment to test the Krell components in their current-mode (CAST) operation. Therefore, I performed all the technical tests using conventional voltage-mode drive, in both balanced and unbalanced operation.

With its volume control set to "151," the Evolution 202 preamplifier offered maximum voltage gains of 11.8dB in full balanced mode, 5.75dB in unbalanced mode. Both modes preserved absolute polarity; ie, were noninverting. The volume control's unity-gain setting was "101" for balanced operation, "124" for unbalanced. The unbalanced input impedance was a usefully high 38k ohms in the bass and midrange, dropping slightly but inconsequentially to 33k ohms at 20kHz. The balanced input impedance was exactly twice the unbalanced, as expected. The output impedance...
efficiency, which nobody knows better than Krell. The problem with not using class-A is notch distortion, which is where our driver stage comes in. The driver stage, designed like a mini-output stage, takes over and shoulders the load, just bulling the output stage through the area where notch distortion would occur if it weren't being controlled by the driver. The pre-driver stage is designed to deliver massive throughput—Dan D'Agostino calls it "Hoover Dam"—and the input stage is a triple-cascoded current mirror, which is very low distortion, which means we aren't introducing errors at that point that get amplified down the line."

The guts of the 600 are its 5000VA power supply, which is electrically and magnetically shielded to keep radiated interference out of the signal paths. The 600 also sports internal high-current line-conditioning filters, which Krell says not only remove AC noise but compensate for asymmetric power waveforms and DC on the mains. Additionally, the rails that power the amp's low-level and gain stages are dual-regulated.

Each Evolution 600 has a single pair of high-quality T-type binding posts, best suited for bare wire (banana) or spade-lug connections. They are a joy to use. Whether you choose the silver or satin black color schemes, the fit 'n' finish of the Evolution products is superb.

Evolution of a review
There were a few practical considerations in setting up the Evolution system. First, it's heavy. The 600s weigh 135 lbs each, and while I can lift 135 lbs in barbell form, I found it darned awkward to manipulate same in Evolution 600 form, with most of the weight behind the front panel. You'll need a friend to set them up—better yet, a dealer.

The Evolution components run hot, was low, at 45 ohms balanced, 22.5 ohms unbalanced.

The Evolution 202 offered a very wide bandwidth, its response down by just a quarter of a dB at 200kHz (fig.1). This didn't vary with volume-control setting or load impedance, and was identical in the balanced and unbalanced modes. There is a small rise in output at infrasonic frequencies, presumably a function of the DC servo. DC offset was negligible. Channel separation (fig.2) was superb, at better than 110dB below 5kHz (balanced) and 198kHz (unbalanced), with the volume control set to its maximum. Note, however, the slight peaks at 180Hz and 300Hz in this graph, possibly due to magnetic coupling from the power supply, which had to be placed directly under the preamp chassis for the testing due to the short umbilical cable. Even so, the levels of these spuriae are way too low to be audible, though they did reduce the worst-case, unweighted, wideband signal/noise ratio to a still good 82.2dB (input shorted, volume control maximum, ref. 1V output). A-weighting increased this figure to a superb 95.7dB.

The Krell preamp could swing very high output voltages, even into low impedances. Fig.3 reveals that the balanced output didn't clip (defined as 1% THD) into 100k ohms until 16V RMS, with the unbalanced output clipping at 8V. These figures are significantly higher than that required to drive the Evolution 600 power amplifier into clipping. More important, you can see in this graph how the actual distortion remains below the noise floor until 4V (balanced) and 2V (unbalanced), which suggests that the preamp's gain architecture has been sensibly optimized. I plotted the balanced THD percentage against frequency at 4V, the level suggested by fig.3, but there was no difference in the preamp's behavior across the audioband, and the THD remained very low even into the punishing 600 ohm load (fig.4). And even with its very low level of distortion, the spectral content of that distortion was benign, with only the second and third harmonics rising above the residual level of my signal generator (fig.5). Intermodulation distortion was also low (fig.6).

I preconditioned the Evolution 600 power amplifier by running it at 200W into 8 ohms for an hour. At the end of that period, the THD+noise percentage had dropped from 0.0159% to 0.0064%, but the internally housed heatsinks were too hot to touch. The chassis itself was around 55°C at the rear, but cooler than that toward the front. Like the Evolution 202, the Evolution 600 monoblock was measured only in voltage mode. Its voltage gain (into 8 ohms) was a little lower than average, at 25.25dB, meaning that it needs almost 4V RMS from both its balanced and unbalanced inputs to be driven to its maximum output power. It preserved absolute polarity, and the input impedance

![Fig.5 Krell Evolution 202, unbalanced spectrum of 1kHz sinewave, DC–10kHz, at 1V into 8k ohms (linear frequency scale).](image1)

![Fig.6 Krell Evolution 202, HF intermodulation spectrum, DC–24kHz, 19+20kHz at 1V peak into 8k ohms (linear frequency scale).](image2)
too—even the SACD/CD player. Krell delivered the Evolutions on the first day of 2006’s heat wave, and they turned my living room into a sauna, forcing me to choose between listening to the Krells and running my air-conditioning. Fortunately, I did an end run around that problem by having an electrician install a dedicated circuit for the hi-fi.

If you can spend $55k on components, spend a few hundred more on a dedicated circuit to run them on. The difference was not subtle—I thought the Evolution stack was dead quiet before I got the separate line for the hi-fi. After, I heard far deeper into every recording. There was less noise, less grain, and more of everything else: space, dimensionality, and dynamics.

You probably think that by dynamics I mean the loud end of the spectrum. Well, I kind of anticipated that myself, but the Evolution 600s were already powering my system to levels that pretty much maxed out the room’s acoustic ceiling. The differences I heard were at the silent end of the dynamic continuum—beyond the point that lesser systems define as silence. There’s more stuff going on down there! I had no idea.

This was most noticeable with everything connected in CAST mode: Music was grain-free, liquid, detailed, and full of jump. Disconnecting the CAST interconnects and running the same components as balanced caused the Evolution system to sound ever so slightly rougher in texture, less detailed, and somewhat more curtailed at the extremes. Not a lot, but enough that I wanted to go back to CAST immediately.

CAST works—and it’s addictive.

**Evolution of a sound**

Running the Evolution stack—including, for now, the Evolution 505 SACD/CD player—in CAST mode through the Canton Vento Reference 1 DC loudspeakers, I cued up *El Canto de la Sibilla II*, by Montserrat Figueras, La Capella Reial de Catalunya, and Jordi...
clipping with continuous drive at 610W into 8 ohms (27.85dBW), 1190W into 4 ohms (27.75dBW), and 2.2kW into 2 ohms (27.4dBW). I don't hold my AC wall voltage constant for these tests; at 125.8V with the amplifier quiescent, it had dropped to 121.8V with the amplifier clipping into 4 ohms, 119V with it clipping into 2 ohms. With its S/N ratio (input shorted, ref. 1W into 8 ohms) of 81.7dB (wideband, unweighted) improving to 92.3dB when A-weighted, the Evolution 600 offers a superbly wide dynamic range that well exceeds that of the 16-bit CD medium.

I plotted the 600's THD+N percentage against frequency at 11V output, the level at which, as indicated in fig.9, the distortion harmonics begin to rise out of the (low) noise floor. Even so, as fig.10 reveals, though the percentage does rise with decreasing load impedance, it remains very low and constant with frequency at audio frequencies. And, as with the 202 preamplifier, the harmonic content of the 600's distortion remains low in order, almost entirely second- and third-harmonic in nature (fig.11), with no AC-supply spuriae visible even at high powers (fig.12). Intermodulation distortion was also very low, even at almost 800W into 4 ohms (fig.13)! Having had on my test bench in recent months a number of, shall I say, idiosyncratically engineered products, it was a pleasure to measure such a well-engineered pair of components as the Krell Evolution 202 and 600.

—John Atkinson

Fig.11 Krell Evolution 600, 1kHz waveform at 200W into 8 ohms (top), 0.005% THD+N: distortion and noise waveform with fundamental notched out (bottom, not to scale).

Fig.12 Krell Evolution 600, spectrum of 1kHz sinewave, DC-10kHz, at 213W into 8 ohms (linear frequency scale).

Fig.13 Krell Evolution 600, HF intermodulation spectrum, DC-24kHz, 19+20kHz at 790W peak into 4 ohms (linear frequency scale).
You only have two ears.  Treat them right!

99% of speaker designs are still compromised with high distortion and coloration, regardless of their price and size.

Introducing

the Adagio – from Acoustic Zen

A full transmission line system, with Under-hung voice coil linear motor drivers and a Kapton ribbon tweeter, which help to dramatically reduce the distortion and coloration to the lowest ever.

For the life of the music ... no compromise!
whack with reality. The Krells got it precisely—and uniquely—right.

Want to fry your ears with high-deci-
bel rock’n’roll? The Evolutions did that,
too, as clearly demonstrated by Stevie
Ray Vaughan’s Couldn’t Stand the Weather
(SACD, Indie 512). I don’t mean just
paint-peelingly loud (they can do that, 
but I can’t—not for long), but the 600s
did give that sense of physical/audible
attack that live amplified music has, and
that very little canned music delivers.

And "Stax's Swang" swung.

**Evolution of the Ayre**

Substituting the Ayre C-5xe universal player
meant leaving the realm of a
pure CAST system, although the Evo-
lation 202 did do an I/V conversion,
thus allowing me to keep the 202 and
600s connected in CAST. However,
switching to the voltage-domain Ayre did
insert, as advertised, small amounts
of grain—not so noticeable with Stevie
Ray, but irritating with El Sabio. I love
my C-5xe, and I suppose I was rooting
for it a bit (perhaps not the most pro-
fessional admission), but I wanted the
Evolution 505 SACD/CD player back
in the system. That couldn’t happen,
however, because I needed to keep that
point of familiarity when I substituted
the Conrad-Johnson CT5 for the Evo-
lution 202 preamp.

**Evolution of the tube**

Why Conrad-Johnson’s CT5 and not
their ACT2? Well, partly because the
CT5 is so close to the ACT2, and
mostly because C-J had my ACT2 at
the factory, preparing it for its third
act, so it wasn’t available.

The system of CT5, Ayre C-5xe, and
Evolution 600 was really, really
good, and very much what I’d grown
used to before the Evolution system
arrived at my house: dynamic, spacy-
cious, and tremendously easy to lis-
ten to. However, I felt it had added
some things and removed others.
Specifically, there was more noise
and electronic texture in the sound, and
less of that compelling below-
the-noise-floor detail I’d begun to
expect from the all-Evolution stack.
Could I live with that system? Oh
my gosh yes! As good as all of the
Evolution components are individu-
ally, perhaps the standout—at least on
its own—is the power amp, which has
more muscle and fewer of the side
effects of muscularity than pretty
near any big amp I’ve heard...

**Evolution of the hybrid**

...including, I’m sorry to report, my ref-
ference Musical Fidelity Nu-Vista 300,
which is itself quite a brute—not to men-
tion one of the most linear-measuring
power amps John Atkinson has ever had
on his test bench. But the Evolution
600s were—you know this is coming,
don’tcha?—quieter. No, I don’t mean
that the Nu-Vista hissed or buzzed (the
C-J didn’t either). I just heard deeper.
Not only did acoustic spaces seem more
distinct from one another and sounds
more intensely embedded in them, but
I could discern sounds and spatial cues
more easily, particularly at the quiet end
of the spectrum.

Let’s face it—one thing that separates
real live music from recordings is that we
frequently have to mess with recordings’
playlist gain to hear stuff that, at a con-
cert, we can effortlessly extract. That
means turning up the quiet parts and
turning down the loud parts, all so that
we can stay in the same room with our
electronic toys. The Evolutions are better
at extracting those quiet cues than any
device I’ve heard. They are scary real.
And they were with every speaker system,
large or small, that I connected them to.

I’ve lived with many Krell amps over
the years, from the KSA-50 to the Krell
Audio Standards to the FPB 600s. They’ve
always been impressive, and there has
been a clear progression from those early
amps to the later models in terms of finesses,
detail, and pace. The Evolution 600 put all of its foreheads to shame.

Is it the best power amplifier I’ve ever
heard? Quite possibly. Is that because
I’m a Krell junkie? No. As good as Krell
components have always been, I’ve
always admired more than loved them.
They’ve always been impeccably engi-
nereed, gloriously built, and not quite
my cup of tea—they lacked, to my way
thinking, lovability.

And here’s the rub. The low-level detail,
simous pacing, and sheer power of the
Evolution 600 amplifier captured music the way I hear it—and if the
whole system is running CAST tech-
ology, you’ve got something that’s
very close to perfection squared.

**Evolution of an idea**

The Krell Evolution 202 preamplifier
and Evolution 600 monoblocks are
superb bits of kit. While taste always
enters into such matters, I can’t imagine
any music lover not responding to their
performance, which is darn nigh flawless.

Yet buyers will have to accommodate the
Evolution gear on a few levels. It takes up
a lot of real estate—I had to completely
rearrange my equipment supports several
times before I had a scheme that support-
ed everything without actually imposing
on the soundstage (stacking the 600s
between the speakers created an acoustic
obstacle). It also consumes a lot of power
and throws off a lot of heat.

Reality check: Am I really suggesting
that the new ultra of high-end sound
starts with a system whose electronics
cost $45,000, not including the source.
Well, yes. It is an expensive system. I
can’t afford it, none of my friends can
afford it, and perhaps few of you readers
can afford it. But that doesn’t mean that
Krell shouldn’t be making the Evolu-
tions—or that you shouldn’t buy them if
you can afford them. The Krell Evolu-
tion components aren’t flashy faceplates
on empty boxes—those boxes are packed
with expensive parts assembled beauti-
fully, and the overall designs are based
on extremely advanced thinking. They
may be the best-engineered components
I’ve ever experienced—and I thought I’d
have some experience in that arena.

It’s only money. I can say that because
I don’t have any, but if you can say it
because you have lots, I can think of far
less attractive luxuries to spend it on
than the Krell Evolution components.
As for the rest of us, Krell has a history
of breaking new ground, then figuring
out how to downscale it into more
affordable components. That’s what I’ll
be telling myself next month, when I go
back to reviewing $139 amps.
The Cardas Conductor

Patented, Golden Section strand sizing,
Constant Q strand lay up,
pure Copper, Litz coated technology.
Audio Research Reference 3
LINE PREAMPLIFIER

Paul Bolin

EQUIPMENT REPORT

Audio Research Reference 3

Tubed, remote-controlled line preamplifier with full sets of balanced and unbalanced inputs and outputs, and Processor Loop. Tube complement: four 6H30P dual triodes, plus one 6550C and one 6H30P for power-supply regulation. Maximum voltage gain: main output (single-ended or balanced input), 11.6dB; balanced output, 5.6dB single-ended output. Frequency response: 0.2Hz–200kHz, +0/–3dB, at rated output (balanced, 200k ohms load). Distortion: <0.01% at 2V RMS balanced output. Input impedance: 120k ohms balanced, 60k ohms single-ended. Output impedance: 600 ohms balanced, 300 ohms single-ended main (2), 20k ohms minimum load and 2000pF maximum capacitance. Output polarity: noninverting. Maximum input: 20V RMS maximum balanced, 10V RMS single-ended. Rated output: 2V RMS (1V RMS single-ended) into 200k ohm balanced load (maximum balanced output capability is 30V RMS at <0.5% THD at 1kHz). Noise: 2.7μV RMS residual IHF-weighted balanced noise output with volume at 1 (106dB below 2V RMS output).

Dimensions 19" (485mm) W by 7" (178mm) H by 15.5" (394mm) D. Handles extend 1.5" (38mm) forward of front panel. Weight: 29.6 lbs (13.5kg) net, 43 lbs (19.5kg) shipping.

SERIAL NUMBER OF UNIT REVIEWED 15303114.

PRICE $9995. Approximate number of dealers: 50.

MANUFACTURER Audio Research Corporation, 3900 Annapolis Lane North, Plymouth, MN 55447-5447. Tel: (763) 577-9700. Fax: (763) 577-0323. Web: www.audioresearch.com.

In any category of product or service, there is a gold standard—one company that epitomizes the best in its field of endeavor. Consider the Rolex watch, the Ferrari sports car, the Steinway piano, the Dunhill pipe. All of these artisan manufacturers have spent decades, even centuries, earning their names' cachet with their histories of consistent excellence. While high-end audio boasts no names with a 60-year pedigree, such as Ferrari's—much less Steinway & Sons' +150 years—there is one firm whose storied past stretches back to the very emergence of the concept of high-end audio itself: Audio Research Corporation.

William Z. Johnson was building amplifiers long before he founded Audio Research. Should you be lucky enough to stumble on an Electronic Industries amplifier from the 1960s, consider yourself extremely fortunate. Electronic Industries was Bill Johnson's first nameplate, and in 1970 that enterprise evolved into Audio Research. Through the 1970s, when the transistor loomed monolithically over audio, it was Johnson and ARC that bravely, and at times solely, continued to fly the flag for the vacuum tube as a superior reproducer of sound. During those years, Johnson and ARC created a series of legendary preamplifiers and power amplifiers. Veteran audiophiles still recall with fondness the SP-3, SP-10, and SP-14 preamplifiers, and the D-79, D-150, and D-250 power amplifiers, to mention...
only a few of ARC's landmark components. A surprisingly large percentage of those units are still in service today, and ARC will still service every one.

When a marque is as storied as Rolex, Dunhill, or Audio Research, the introduction of a new top-line product is something of a double-edged sword. Any new "statement" design is eagerly anticipated by a large and loyal coterie of enthusiasts, but with that comes the expectation that it will not only live up to but surpass the legacy of excellence established by its many illustrious predecessors and thus set a new standard of performance. The burden of history can weigh heavily, but the design team at ARC remains unimimidated by the weight of expectations.

**THE BURDEN OF HISTORY CAN WEIGH HEAVILY, BUT THE DESIGN TEAM AT ARC REMAINS UNINTIMIDATED BY THE WEIGHT OF EXPECTATIONS.**

**Remake, remodel**
The Reference 3 line-stage preamplifier ($9995) was introduced at the 2005 Consumer Electronics Show, replacing the long-running Reference 2 Mk.II. The Ref.3 is not an update or a minor revision; the Reference preamp has been redesigned from the ground up, and Ref.2 Mk.IIs cannot be updated or retrofitted to Ref.3 status. On the outside, the obvious change is a major evolution in front-panel design. From time immemorial, ARC has favored, to put it gently, plain-Jane cosmetics. The Ref.3 breaks new ground and is a leap

**MEASUREMENTS**
The Audio Research Reference 3's maximum voltage gain, with its volume control set to "103," was 11.8dB from balanced input to balanced output and 5.75dB from unbalanced input to unbalanced output. These figures are sensibly suitable for use in practical systems. The preamp was noninverting; ie, it preserved absolute polarity in both conditions. The input impedance was to specification at low and midrange frequencies, at 58k ohms single-ended and 116k ohms balanced, these dropping slightly and inconsequentially to 48k ohms and 106k ohms, respectively, at 20kHz.

The output impedance was also to spec., at 635 ohms balanced and 326 ohms unbalanced in the treble and midrange, but rose to 1437 ohms and 625 ohms, respectively, at 20Hz. This rise in source impedance rolled off low frequencies a little early into the punishing 600 ohm load (fig.1, bottom pair of traces), with a –3dB frequency of 17Hz. As this is a relatively low frequency and the preamplifier will never be used with a power amplifier having an input impedance as low as 600 ohms, this rise in source impedance will not be a factor in practical use.

At the other end of the spectrum, the Reference 3 offered a wide bandwidth, with a –3dB point at 200kHz into 100k ohms with the volume control set to its maximum (fig 1, top traces). There was a slight decrease in ultrasonic extension into 600 ohms, and with the volume control set to unity gain or below, but the effect on the preamplifier's audioband response was negligible. Fig 1

![Graph](https://www.stereophile.com/files/200612/AudioResearchRef3x3.png)

**Fig.1 Audio Research Reference 3, volume control set to "103," balanced frequency response at 1V into (from top to bottom at 2kHz): 100k, 600 ohms (0.5dB/vertical div., right channel dashed).**

![Graph](https://www.stereophile.com/files/200612/AudioResearchRef3x2.png)

**Fig.2 Audio Research Reference 3, channel separation, from bottom to top: L–R balanced, L–R unbalanced (R–L dashed, 10dB/vertical div.).**

![Graph](https://www.stereophile.com/files/200612/AudioResearchRef3x1.png)

**Fig.3 Audio Research Reference 3, THD+noise (%) vs 1kHz output voltage into (from bottom to top at 1% THD): balanced into 100k ohms, unbalanced into 100k, unbalanced into 10k, balanced into 600, unbalanced into 600 ohms.**
into a graceful, almost Goldmund-like 21st-century minimalist aesthetic. The preamp's few controls and large vacuum-fluorescent display, easily readable from a considerable distance, make a striking impression. The soft green display can be adjusted to eight levels of brightness or turned off entirely, in which case it briefly illuminates when a control input is received from the front panel or the remote. (Turning off the display does result in marginally better sound.) At last, an ARC preamp can actually be described as "beautiful."

Inside, everything is new—pop the top and you see nothing but beefy construction and beautiful craftsmanship. Bill Johnson himself designed the power supply and all of the audio circuits. Four new circuit boards and two new transformers replace those used in the Ref.2 Mk.II. The audio circuit is all tube, fully differential, pure class-A, wholly free of negative feedback. As in previous ARC Reference preamps, two pairs of 6H30 twin-triode tubes provide gain, and the power supply is fully tube-regulated. Outside the signal path, FETs are used for constant current sources, and ARC states that the long-tailed pair used in the Ref.3's input stage provides identical performance (save for the amount of gain) using either the balanced or the single-ended inputs. ARC's chief listener, Warren Gehl, informed me that the storage capacity of the Ref.3's power supply is 50% greater than that of ARC's 55Wpc VS55 power amplifier. And, unusually for a preamplifier, the Ref.3 is fitted with a 20-amp IEC connector.

The full-function remote control offers a number of features not present on the sleek front panel, including mono summing and absolute-polarity inversion. While not overly fancy or weighty, the remote worked like a charm and was easy to use. It also gives access to a rare feature—the user can at any time check the number of hours shows the balanced response; the unbalanced response (not shown) was effectively identical. The unity-gain setting of the volume control, by the way, was "79" balanced, "92" unbalanced.

Balanced channel separation, assessed with the undriven channel's input shorted and the volume control set to its maximum, was excellent—better than 100dB below 1kHz—but less good for unbalanced operation (fig.2). You can also see in this graph that separation decreases with increasing frequency due to the usual capacitive coupling, but is still excellent at 20kHz for balanced operation. Unbalanced separation is 60dB at 20kHz, which is good rather than great. The unweighted, wideband signal/noise ratio for balanced operation, again taken with the input shorted and the volume control set to its maximum, was excellent at 80.3dB (ref. 1V output). Unbalanced operation reduced this to 70.2dB, but both figures improved significantly when A-weighted, to 94.7dB balanced and 88.4dB unbalanced.

The Audio Research Reference 3 could swing very high voltages with very low distortion into loads greater than 10k ohms. This is shown graphically in fig.3, which plots the THD+noise percentage in the preamp's output against balanced and unbalanced output voltage into loads ranging from 100k ohms down to 600 ohms. The actual clipping voltage (1% THD) into 100k ohms was 33V balanced but 8.2V unbalanced. Both figures are significantly higher than the maximum voltage the Reference 3 will be asked to deliver in practical use. However, fig.3 suggests that the preamp not be used with loads below 10k ohms. This is confirmed by the plot of the THD+N percentage against frequency at 2V output (fig.4), where the distortion percentage stays low into loads of 10k ohms or higher. Note, however, that the single-ended output performs significantly less well than the balanced, with a rise of THD at the top of the audioband.

The Reference 3's distortion may be very low at practical levels into sensible loads, but is also almost entirely second-order in content (fig.5), which will reduce its audibility. Into impedances much lower than 10k ohms, not only does the second harmonic rise in level, it is joined by the third harmonic, again suggesting that the power amplifier with which the preamp is used have an input impedance above 10k ohms. (Audio Research's own power amplifiers all have balanced input impedances of between 200k and 300k ohms, and the company recommends the Reference 3 not be used with amplifiers hav-
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the tubes have operated. ARC predicts a tube life of about 5000 hours, so this is more fun than strictly practical, but it did let me know with some accuracy that the lion’s share of break-in was complete by 100 hours, and that the Ref.3 had entirely settled in by 200 hours. About the only luxe feature the Ref.3 doesn’t offer is a way to offset and memorize each input’s level.

After a bit of twiddling around, the Ref.3 ended up sitting on my Ultra Resolution Technologies Bedrock stand, perched atop three Shun Mook IsoQubes. I can’t be absolutely sure, but things seemed consistently just a shade purer and more relaxed with the IsoQubes. During my many months with the Ref.3, it behaved perfectly.

**Ssssh!**

I had a suspicion that I was in for a special experience when I had a profound reaction to the Ref.3 before it had played even one note of music. The first time I turned it on and muted its CD input, I ran the volume control up about halfway and heard nothing—utter silence. Were I a cartoon character (quit snickering), thought balloons full of question marks and exclamation points would have appeared over my head.

I cranked the thing wide open. Again—total, textureless silence at my listening seat. Only when I got within a foot or so of the tweeter of one of my Wilson Audio MAXX 2 loudspeakers did I hear a very faint, strikingly fine-grained hiss. I can’t wait to see what John Atkinson’s measurements reveal, but subjectively, the ARC Ref.3 was the quietest tube preamp I’ve heard, and by a large measure. The nature of that silence was also intriguing. Like the Halcro dm10, the Ref.3 presented a live-sounding silence, not some dead, airless, deep-space void. This odd little tableau was but a precursor of what was to come.

**Eschewing obfuscations**

The truly great components I’ve experienced have grabbed me immediately, and from the first note I heard through the ARC Reference 3 it was evident that, like the Halcro dm58 amplifier, it would prove to be a paradigm-shifting component. From the get-go, the Ref.3 presented unprecedented amounts of information organized in a way previously unknown to me. With the first CD I played, there seemed to be so much going on, and in such a deep and richly detailed sonic picture, that I wanted to “look everywhere” at once. It took a while before I was able to focus on specifics.

The most immediately obvious quality of the Ref.3 was its way with spaces. Anatole Fistoulari and the Concertgebouw Orchestra’s recording of scenes from Tchaikovsky’s Swan Lake (UK LP, London CS 6218 blueback) is
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Whyte captured on John Antill's Corroborree (LP, Everest/Classic SBDR-3003) was confoundingly lifelike and forcibly impinged on my room.

After my first reaction of pleased shock, I noticed that the widths of these LP's soundstages did not diminish at all with the apparent increase in depth. Full upstage width was retained to the furthest corners at the stage's rear. The results were equally stunning with rock and electronic music. Pink Floyd's "Marooned," from The Division Bell (LP, Columbia C 64200), and "Prodemium," from Armin van Buuren's 76 (CD, Ultra L 1168-2), showed bogglingly wide and deep soundfields that sounded every bit as internally coherent as the gorgeous sound of the Amsterdam Concertgebouw.

Second, I noticed that the spatial relationships between instruments and voices in those soundfields were explicated in unusual and surprising ways. Every recording I played through the Reference 3 allocated more elbow room to each voice and instrument than any line stage I had previously heard. The distances between sound sources were defined with much more precision than I was used to hearing. Complex music of all kinds made more spatial sense through the Ref.3, and this clarified both the sonic and musical pictures to striking degrees.

I found nothing to even quibble about, and much to be awed by, in the Ref.3's dynamic presentation. Corroboree is a piece of explosive dynamic contrasts and percussive climaxes. The ARC delivered them all in full force, effortlessly and invisibly. In the first movement of György Ligeti's Apparitions, in a reading by Jonathan Nott and the Berlin Philharmonic (CD, Teldec 88261-2), there is a thunderous percussion outburst that emerges from complete silence. Even though I knew it was coming, I almost literally jumped out of my chair in shock when I heard it through the Ref.3. It wasn't just a big moment in the music—it was startling on the subconscious level.

The big ARC had the fast-twitch reflexes of an Olympic athlete, and its monster tube-regulated power supply was almost certainly the main reason why. I've always found there to be something special about components with big tube-regulated supplies. Their dynamics seem more fluidly continuous and less "stepped" from one level to the next. The Ref.3 certainly advances that tradition to lofty new heights.

Remember that silence I mentioned a few paragraphs back? It's the principal reason the Reference 3 had a resolution floor that had to be heard to be believed. Listening to the Quartetto Italiano's performances of Beethoven's "Rasumovsky" string quartets (Italian LP, Philips 6998 017), I realized that the Ref.3 seems to increase the music's complexity—music's natural complexity—by paring away a layer of distortions and limitations that I had taken for granted. Attacks and decays had a special clarity and individuality even when notes were softly played.

Timbrally, the Reference 3 was a clear advance over its predecessors. The Ref.2 Mk.II tended to be overgenerous in the bass and a little loosey-goosey in terms of low-frequency definition. The Ref.3 may not have had the last bit of iron-fisted bass control that characterizes the very finest solid-state line stages, but it combined the best of both in beautiful proportion. "Marakech" and "Henry," from Peter Kruder's Peace Orchestra (CD, G-Stone G-CD 004), had impressive weight and depth with no slop or overhang, only poised authority. Down in the depths, the ARC preamp exhibited excellent control without sacrificing its ability to let each instrument project sound into space in its own unique way. It did not sacrifice bloom on the altar of restraint. In the mid- and upper-bass ranges, the Ref.3 was exceptionally well balanced and authoritative with all manner of music.

The midrange has been a traditional Audio Research strength, and the Ref.3 represents its finest achievement in that area. Its fundamental neutrality was complemented by the sort of intensely saturated tonal colors heard almost exclusively from live music. It did so not by actively adding anything that wasn't on the recording—it didn't—but by allowing a higher level of completeness to at last be heard. In short, what the Ref.3 seemed to "add" was an extra level of clarity and resolution. Instruments and voices projected from my

THE REF.3 SEEMS TO INCREASE THE MUSIC'S COMPLEXITY—MUSIC'S NATURAL COMPLEXITY—BY PARING AWAY A LAYER OF DISTORTIONS AND LIMITATIONS THAT I HAD TAKEN FOR GRANTED.
What does *ne plus ultra* mean?

*ne plus ultra* \nay-plus-UL-truh; noun:
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2. The most profound degree of a quality or condition.

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ponent that can bring me to the edge of my chair with something as familiar and pedestrian-sounding as Linda Ronstadt’s cover of “You’re No Good” is doing something remarkable indeed. I'm not sure any word or phrase in the current audiophile vocabulary precisely describes it.

“I’d rather know than believe.”
—Carl Sagan

Audio reviewers are regularly excoriated for saying that the Cosmic Kaboom Z-1 is “the best,” only to say a few months later that the Planetsmasher Egomania 5000 is now the best of the best and the new state of the art. This is not evidence of conspiracy or caprice or bribery, but the inevitable result of the last decade’s advances in all aspects of audio design and manufacturing. Today’s finest audio gear is so good that ever-smaller or previously unheard differences are now much more apparent and important.

THE AUDIO RESEARCH REFERENCE 3 IS THE SINGLE MOST IMPRESSIVE AND THOUGHT-PROVOKING PIECE OF ELECTRONICS I HAVE HEARD SINCE THE HALCRO DM58.

One factor in this is the boggling increase in broadband resolution available from modern cutting-edge speakers. Higher-ups at both Wilson Audio Specialties and Audio Research Corporation have told me that the reason each of their companies' current products are so good is because of what the other company’s latest products are now able to reveal to them about their own efforts. Such symbiosis breeds improvement all around in an evolutionary loop of constantly increasing knowledge. Differences that would have been virtually inaudible with the best gear of only 10 to 15 years ago are now impossible not to hear.

Occasionally one hears a piece of gear that flat-out transcends its preexisting competition in one or more areas, whether it be reducing colorations or providing higher and deeper resolution or more lifelike dynamics. It provides performance not previously available and, in turn, will reveal relative weaknesses in components previously (and properly) thought to be the state of the art. One can’t recognize that the previous standard-setter has been bested until it is bested, and it doesn't mean that owners of the “old” best now need moan and wring their hands. The images produced by the Keck telescopes are still spectacular, even though the Hubbell telescope's are even better.

In his classic *The Structure of Scientific Revolutions*, Thomas Kuhn observed that a dominant paradigm holds sway until enough irregularities and inconsistencies emerge to require the old paradigm’s adaptation to or replacement by a new theoretical framework or paradigm. So it is in audio. Issues that were struggled with for decades have been resolved, and as a result, the next wave of improvements in music reproduction depends on getting correct a range of subtleties that were once irrelevant or, at most, peripheral.

As Brian Damkroger observed in his August 2006 review of the Halcro dm88 power amplifier, when the playing field is fundamentally changed, new things emerge as critical, and we struggle to precisely define and describe these new, nontraditional, qualities.

That said, the Audio Research Reference 3 is the single most impressive and thought-provoking piece of electronics I have heard since the Halcro dm58 (see my review in Stereophile, October 2002, Vol.25 No.10). Like the dm58, the Ref3 has radically changed my expectations of what is possible in the electronic arts. The Ref3 sets new standards for quietness in the realm of tube line stages, and in that respect is competitive with any solid-state design I have heard. In terms of resolution, timbral generosity and accuracy, soundstaging, dynamics, and the presentation of music as a whole thing, it is the best I have heard.

As I wrote about the Halcro, discovering the weaknesses of the Reference 3 will be possible only when it has been bettered. That it will inevitably be surpassed is the nature of a constantly evolving industry such as high-end audio. I do not envy those who will attempt to do so, for they have a steep and brutally challenging mountain to scale. That much—and that Audio Research’s well-earned reputation for excellence continues—I do know.

ASSOCIATED EQUIPMENT

**ANALOG SOURCE** SOTA Cosmos Series III turntable, Graham 2.2 tone-arm, Dynavector XV-1S cartridge.

**DIGITAL SOURCES** Plinius CD-101 CD player, Classe Omega SACD/CD player.

**PREAMPLIFICATION** Manley Labs Steelhead, Audio Research PH7 phono stages.

**POWER AMPLIFIERS** Lamm M1.2 Reference, Classe CAM-350 monoblocks.

**LOUDSPEAKERS** Wilson Audio Specialties MAXX 2 & Sophia, Legacy Audio Whisper.


**ACCESSORIES** Shunyata Research Hydra 8 (front end) & Hydra 2 (power amps) power distribution/conditioning; Grand Prix Audio Monaco stands, Ultra Resolution Technologies Bedrock stand; Ganymede isolation footers, Nordost Titanium Pulsar Points, Shun Mook Iso-Quibes; Caig Labs Pro Gold, Walker Audio SST silver contact enhancers; Disc Doctor, LAST Labs record-care products; Ayre/Cardas IBE system-enhancement CD, Cardas Frequency Sweep/Burn-In LP; Argent Room Lenses.

—Paul Bolin

1 So far I have heard the updated version of the VTL TL-75, my prior top-dog line stage, only at hi-fi shows, but will seek out a sample for review in the near future.
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EQUIPMENT REPORT

Robert Deutsch

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TUBE PREAMPLIFIER & MONOBLOCK AMPLIFIER

PROLOGUE THREE Tube line-stage preamplifier. Tube complement: two 5AR4, two 12AX7, two 12AU7. Maximum gain: 12dB. Frequency response: 4Hz–110kHz, ±3dB. THD: <0.2% at 775mV RMS output. Signal/noise: >93dB(A) ref. 775mV. Input impedance: 110k ohms. Output impedance: 2800 ohms. Power consumption: 46W. WEIGHT 23.5 lbs (10.7kg). SERIAL NUMBER OF UNIT REVIEWED 05060314. PRICE $1395.

PROLOGUE SEVEN Tube monoblock power amplifier. Tube complement: four KT88, two 12AX7, two 12AU7. Power output: 70W (18.45dBW). Frequency response: 20Hz–85kHz, ±1dB at rated power; 11Hz–120kHz, −3dB at 1W. THD: <0.1% at 1W, 10W; 1.5% at rated power into resistive load. Signal/noise: 101dB. Maximum gain: 28.5dB. Power consumption: 125W at idle, 225W at rated maximum power. WEIGHT 37.5 lbs (17kg). SERIAL NUMBERS OF UNITS REVIEWED 05100043, 05100044. PRICE $2695/pair.

Dimensions: Each: 11" (280mm) W by 7.5" (190mm) H by 15.5" (400mm) D. WARRANTY 2 years limited, 6 months on stock tubes. Approximate number of dealers: Sold direct.


PrimaLuna ProLogue Three & Seven tube preamplifier & monoblock amplifier

Everybody loves a bargain. No—make that: Most people love a bargain. Some just want the best, and they don't care about the cost. Some even distrust and reject out of hand any product that's not expensive enough. If you're one of these people, you might as well stop reading this review right now—the PrimaLuna ProLogue Three and ProLogue Seven are not for you. $1395 for a tube preamp? $2695 for a pair of 70Wpc tube monoblocks equipped with four KT88 tubes each? Must be based on old designs in the public domain using cheap parts carelessly assembled...

But in fact—and putting sound quality aside for the moment—these PrimaLuna products are serious, well-thought-out designs of considerable originality, in which are found such high-quality parts as Solen capacitors, Alps potentiometers, and fast-recovery diodes. The ProLogue Three and ProLogue Seven are claimed to have been made with “workmanship equal to or better than any product that you can buy at any price, period,” and I'm not about to refute that claim.

As for the sound... well, I'll get to that shortly.

Some background
PrimaLuna products represent true international cooperation. The company was founded by Herman van den Dungen, a high-end audio distributor in the Netherlands;
the designer is Marcel Croese, who held that position with Goldmund in Switzerland. The products are made in the People's Republic of China (at these prices, did you think they'd be Swiss-made?). International marketing and liaison with the Chinese manufacturing facility is handled by Dominique Chenet, who hails from France, where she worked for Jadis. US distribution is by Kevin Deal of Upscale Audio, known in some quarters as the "tube guru."

As Herman van den Dungen tells the story, his grandfather, also named Herman, was given the nickname "Maonje," which means "Little Moon" in Dutch, by his wife, and that's also now the name of van den Dungen's little dog. Herman's father's name was Cor, so he is called "Herman from Cor from Maonje van den Dungen." And so—I hope you're following all this—"that's why I thought of First Moon as a brand name."

And why an Italian name? Well, that's not really explained, except to say that there is a small town near Lake Como called Primaluna—but it has nothing to do with the audio business. My theory is that Herman van den Dungen just liked the sound of PrimaLuna, which does roll off the tongue in a very musical way.

**Description and design**

The ProLogue Three and ProLogue Seven share certain characteristics. They're exactly the same size and are built by hand with point-to-point wiring; the fully vented chassis are of heavy-gauge steel with five coats of finish, each coat hand-rubbed and polished. Premium parts are used throughout; supplier names include Alps, Nichicon, Solen, Swellong, and WBT. The ProLogue Three and Seven both have a SoftStart circuit to extend the life of components and reduce

![Image 1](https://via.placeholder.com/150)

**MEASUREMENTS**

The Prologue Three's maximum gain was to specification at 12.2dB, and the preamplifier preserved absolute polarity; ie, it was noninverting. The input impedance was usefully high, at around 100k ohms in the bass and midrange. It dropped, slightly but inconsequentially, to 77k ohms at 20kHz. The output impedance was also to specification in the midrange and treble at 2.7k ohms, which is higher than usual, but rose to a high figure of 11.5k ohms at 20Hz. This preamplifier really does need to be used with an amplifier having an input of 50k ohms or more if the bass is not to sound lightweight. At 77k ohms, the Prologue Seven's input impedance will be sufficiently high, I feel. DC offset was negligible.

The Prologue Three's frequency response didn't vary at all at high frequencies at different volume-control settings, but did extend a little lower in frequency—0.5dB down at 12Hz set to unity gain (2 o'clock) compared with -0.5dB at 20Hz at maximum volume. But as fig.1 shows, the high-frequency bandwidth increased significantly into low impedances. Note the premature low-frequency rolloff into the unrealistically low 600 ohm load in this graph, but also the excellent channel matching, which was equally good at other volume settings. Channel separation (fig.2) was good in the bass and midrange, at 69dB L-R and 77dB R-L, but worsened above that region due to the usual capacitive coupling.

With the volume control full but the input short-circuited, the Prologue Three's wideband, unweighted signal/noise ratio was a good 68.8dB, improving to 78.4dB when the measurement was restricted to the audioband, and to 94.7dB when A-weighted. Fig.3 plots the THD+noise percentage against output voltage into 100k ohms, 10k ohms, and 1k ohm. Into the higher imped-
thermal shock, and there's a removable protective metal cage that fits over the tube compartment. I kept these on for all my listening.

The ProLogue Three is a dual-mono design, with separate toroidal transformers for the left and right channels. Two 5AR4 tubes are used for rectification; there is no loop negative feedback or cathode followers. The ProLogue Three uses a choke-regulated power supply and DC tube heaters, which is said to make it less picky about tube choices. The ProLogue Three sports four sets of line-level inputs, one of them optionally convertible to an internal moving-magnet photo stage ($159). There are two sets of main outputs—a useful feature when you want to add a supplemental subwoofer and don't want the signal for the main amplifiers to go through any sort of crossover or switches. Controls are in the minimalist tradition of source selection and volume—that's it. There is no balance control, no mute switch. The power switch is on the left side of the chassis, near the front.

The ProLogue Seven, at the top of PrimaLuna's amplifier line, produces a maximum output of 70W. Its circuitry is "classical ultralinear," with dual-feedback topology: cross-coupled current feedback for gain stability, then an additional small amount of negative feedback to obtain low distortion and low output impedance. This design is claimed to produce all the benefits of feedback without any of its drawbacks. An interesting feature of the Seven is that, in addition to the supplied KT88s, it accepts a wide range of other tubes as well, including EL34, 6L6GC, 7581A, and KT66, the power output dropping slightly when using any of these tubes. This flexibility is made possible by the action of a circuit called Adaptive AutoBias, which monitors bias, adjusting

ances, the actual distortion starts to rise out of the noise at a few hundred millivolts, and rises linearly with voltage, not actually clipping as such until well above the 1% THD mark, which is our usual definition of clipping. The output voltage into sensible loads at 1% THD was >5V, well above that required to drive the Prologue Seven to its maximum power. Into 1k ohm, however, the output voltage was significantly restricted and the distortion high, again suggesting that the Prologue Three needs to be used with power amplifiers having a high input impedance.

At 1V output, the THD+N percentage remained around 0.2% into various loads, though the preaamp was a little less happy driving low frequencies into low impedances (fig.4), this presumably associated with the LF rolloff. However, even into the 8k ohms input impedance of the Miller Analyzer, the distortion was predominantly second- and third-harmonic in nature (fig.5), which will tend to be subjectively benign. And even into this low impedance, the Prologue Three didn't do too badly on the high-frequency intermodulation test (fig.6), the difference component at 1kHz rising to ~60dB (0.1%). This test was taken at 1V output, about the maximum level the preamp liked to put out with this demanding signal.

The input impedance of the Prologue Seven monoblock amplifier (fitted with KT88 output tubes, as noted above) was 77k ohms in the bass and midrange, this dropping to 53k ohms at 20kHz. The Seven was non-inverting from all output transformer taps, and the voltage gain into 8 ohms was 27.2dB from the 8 ohm tap, 26.5dB from the 4 ohm tap, and 25dB from the 2 ohm tap.

The Prologue Seven's output impedance was extremely high from the 8 ohm tap, at 8.5 ohms at treble and midrange frequencies, and rising to 9.1 ohms at 20Hz. It

![Fig.5 Prima Luna Prologue Three, spectrum of 1kHz sinewave, DC-10kHz, at 1V into 8k ohms (linear frequency scale).](https://example.com/image5)

![Fig.6 Prima Luna Prologue Three, HF intermodulation spectrum, DC-2kHz, 19+20kHz at 1V peak into 8k ohms (linear frequency scale).](https://example.com/image6)

A better way to get from here to there

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it as necessary to reduce distortion and to compensate for tube aging. Kevin Deal
sent me a set of EL34s to try in addition to the stock KT88s.

There are separate output terminals for speakers with impedances of 2, 4, or 8
ohms. My Avantgarde Acoustic Unos are an easy load, their impedance hardly dip-
ing below 8 ohms, so that was the setting I used. Like the ProLogue Three, the
ProLogue Seven’s power switch is on the left side, near the front, which is more
convenient than having a switch on the rear panel, as some other amps do.

Examining the ProLogue Three and Seven, I was impressed with the quality of
their construction and the general presentation. Nothing ostentatious, no sense that
a major part of the cost was spent on flashy industrial design—just an understated feel
of quality, with no rough edges or poorly fitted bolts. The package includes a pair of
white gloves for handling the tubes and to prevent fingerprint smudges on the finish.

**Sound**

As is my practice, my initial listening to the Primalunas was informal: I plugged
them in, made the appropriate connections, ensured that everything worked,
and started playing CDs. At this early stage, I try not to be analytical or critical in
any way; after all, the equipment may need some breaking in before reaching its
potential, so it would be unfair to evaluate it at this point. It also might need some
tweaking to optimize the sound quality. So I just listened to the music. As it turned
out, in addition to my Avantgarde Unos, I had on hand two pairs of speakers to be
reviewed: the Silverline Audio Preludes and the Fujitsu Eclipse TD-712zs. They,
too, were in need of break-in, so I spent some time listening to them as well.

As much as I try to put any critical attitude aside in this sort of informal listen-
ing, I can’t avoid forming some impressions, and it quickly became apparent that
I was dealing with some very good components. Determining exactly how good,
as well as evaluating the respective contributions to the sound of preamp and
amps, would take some analytical listening and comparisons with other compo-

---

**measurements, continued**

was around 4.5 ohms from the 4 ohm tap, and still 2.6
ohms from the 2 ohm tap. These impedances will maxi-
mize power transfer into loads that equal the transformer-
tap rating, but will introduce large variations in frequency
response with real-world loudspeakers. Into our standard
simulated loudspeaker, for example, there were ±2.2dB
variations in response from the 4 ohm tap (fig.7), rising to
±3dB variations from the 8 ohm tap (not shown), and
even ±1.6dB changes from the 2 ohm tap (not shown).

Also apparent in this graph is the amplifier’s very wide
small-signal bandwidth: low frequencies that are flat to
20Hz and ultrasonic frequencies that are not down 3dB
until 110kHz. Though there is the start of some parasitic
peaking evident, this doesn’t reach its maximum until
above the 200kHz limit of my measurement. Other than
its high secondary impedance, the Prologue Seven’s out-
put transformer is obviously an impressive component.
Note the excellent shape of the 1kHz squarewave (fig.8),
and that while the ultrasonic resonance results in some
overshoot, the 10kHz squarewave (fig.9) reveals that the
ringing is relatively mild.

The unweighted, wideband S/N ratio (ref. 2.83V into 8
ohms with the input shorted) depended on the trans-
former tap used, ranging from 85dB (8 ohm tap) through
87.1dB (4 ohm tap) to 88.7dB (2 ohm tap). These are
good figures, and the Prima Luna amplifiers did not seem
sensitive to grounding issues (though I must admit I didn’t
nents—but I already knew that this was going to be anything but a chore.

Before trying any new component, I like to "calibrate my ears" by listening to my usual system: CAT SL-1 Ultimate preamp, Audiopax Model Eighty Eight monoblocks (reviewed in the May 2003 issue, now in Mk.II configuration), and Avantgarde Uno 3.0 speakers. Apart from a remnant of horn coloration, this system has almost everything: a fundamentally neutral tonal balance (excellent bass extension obtained with its powered subwoofers), natural-sounding harmonics, great dynamics, and precise imaging. Not as good as the sounds of real instruments and voices, mind you, but a pretty good facsimile thereof. I also make it a practice to use familiar recordings, some of them audiophile favorites and others classics (though not necessarily classical). These may be boring to talk about (and sometimes to listen to), but for me they have the great advantage of being highly familiar; I've heard them many times in a variety of systems, so I have a good idea of what they can sound like with different pieces of equipment. (Having direct experience with making the recordings, as John Atkinson does, would be even better, but not all of us are that fortunate.)

It seemed logical to begin by comparing the ProLogue Three preamp with the CAT SL-1 Ultimate, keeping the Audiopax amps in the system. In evaluating preamps and power amps, I always do some matched-level comparisons, which in this case was complicated by the fact that the CAT preamp has a switched-resistor volume control with fairly large steps. What I did was to set the CAT's volume at a moderate level, measure the voltage at the amplifier speaker terminals when playing the 1000Hz tone on Stereophile's original Test CD (Stereophile STPH-002-2), and set the ProLogue Three's continuously variable volume control to match the CAT's as closely as possible, which was just slightly greater than ±0.1dB.

Changing over from the CAT to the ProLogue Three, the first thing I noticed was that the sound was slightly softer, with the mid- to high treble less prominent—not muffled or rolled off in any obvious way, just somewhat on the laid-back side. The subtle percussive sounds on track 3 of the Chesky Records Jazz Sampler & Audiophile Test Compact Disc, Vol.1 (Chesky JD37) had a crispness as well as delicacy, but they had just a bit more in-the-room presence when reproduced through the CAT. In other respects, the sound of the ProLogue Three was what I'd call "typically tubelike," which to me means smooth, open, transparent, with an...
The ProLogue Three had this quality in spades.

Was the ProLogue Three as good as the CAT? No. The CAT combines this musical quality with a higher level of resolution, greater three-dimensionality of soundstage, and a sense of greater extension at the top and bottom of the frequency range. It also costs more than four times the price of the ProLogue Three. For $1395, the ProLogue Three turned in an outstandingly good performance.

If the ProLogue Three represents an excellent buy—and it does—the same can be said of the ProLogue Seven—doubled. In fact, somehow, the limitations of the ProLogue Three's performance in comparison with the CAT SL-1 Ultimate were much less in evidence when it was paired with the ProLogue Seven rather than the Audiopax Eighty Eights. There really is something to this synergy business...

That is, once I'd managed to deal with a nasty ground-loop buzz/hum that appeared as soon as I connected the ProLogue Three to the ProLogue Seven. This had not shown up when I was comparing preamps using the Audiopax amps, but that didn't necessarily mean there was anything wrong with the PrimaLuna amps. In my experience, ground loops often involve idiosyncratic interactions between components, and floating the grounds of the ProLogue Sevens (the usual solution to a ground-loop problem) didn't get rid of the noise, which would suggest that the amps were not at fault. What did work was floating the grounds of all the components in the system, which completely eliminated the problem. The ProLogue Three Seven combi-
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nation was quite sensitive to interconnects, with the lowest noise level and overall best sound produced by the modestly priced PS Audio xStream Statement, a triple-shielded design. With the ground-loop noise fixed, and using the PS Audio interconnects, the noise level was very low—nearly as low as I've heard in my system.

Perhaps the most enduring debate in the audiophile world is the one between those who want reproduced sound to be "accurate" and those who want it to be "musical," with fans of solid-state equipment typically aligned with the former position and tubeophiles with the latter. And then, of course, there are people like me, who want the sound to be accurate and musical. (I like to think that we're in the majority.) Of course, if the sound produced by an audio system were, in fact, a 100% accurate reproduction of the original sound, the debate would have to be over, but I don't think we're anywhere close to that, even with the best systems. It's this failure to achieve 100% accuracy that results in audio designers and audiophiles opting for various subtly different approaches to that presently unobtainable ideal.

How did the sound of the ProLogue Three-Seventy combo fit into this picture? Well, those aspects of the sound of the ProLogue Three that I described as being "typically tubelike" became less so when the Three was paired with the Seven; now the sound had a more optimal combination of accuracy and musicality. Assuredly, the ProLogue Seven didn't sound like a beefy solid-state amp, but it had less of the "typically tubelike" quality than, say, the Audipax Model Eighty Eight. Combining the ProLogue Three with the ProLogue Seventy maintained the open, transparent quality that I had admired when the ProLogue Three was paired with the Audipax, but the upper midrange and treble acquired a bit more presence. The result was that music became more exciting to listen to, with a greater sense of drama. Those percussion instruments on track 3 of Chesky's Jazz Sampler were now more in the room, the highs still staying well this side of shrill or exaggerated. Dynamics—a strong suit of the Avantgardes—were simply stupendous, with a "suddenness" and sense of unstrained power that made recordings of...
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Anthony Rago - Audio Consultant

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large-scale orchestral works most exciting. Bass was firm and extended, and there was a good sense of rhythmic drive on appropriate recordings.

**Two amps in one**

The ProLogue Seven comes supplied with KT88 power tubes, but, as mentioned earlier, it will also take EL34s, in which case it becomes, more or less, the equivalent of PrimaLuna’s ProLogue Six monoblock ($2295/pair). A set of eight EL34s can be had for as little as $16 each from Upscale Audio; the ones Kevin Deal sent me, bearing the PrimaLuna logo, sell for $20 each, for a total price of $160. Not bad for getting what is, in effect, a different amplifier!

Once I felt I had a handle on the sound of the standard ProLogue Seven-Three combo, I removed the KT88s, substituted the EL34s, and let them burn in for a couple of days before doing any serious listening. Matching levels with the listening sessions two days apart probably isn’t too important, but I was interested in whether there was any change in gain with the EL34s, so I checked the amplifier’s output voltage at my usual listening level. Although I hadn’t touched the volume control, with the EL34s installed instead of the KT88s the output level was slightly higher (320mV instead of 300mV), which I then compensated for by turning down the volume slightly. Correspondingly, when I switched back to the KT88s, I had to turn up the volume control a bit to get the same output level.

With EL34s instead of KT88s, the ProLogue Sevens didn’t sound all that different. The noise level remained low—maybe even lower than with the KT88s—and the sound had the open, dynamic quality that characterized the Sevens with the KT88s. Overall, I preferred the Sevens with KT88s: the sound had a greater sense of depth, the highs seemed more extended, and the dynamics seemed superior. But the differences were small, and it’s possible that the EL34 tubes may not have had enough time on them to be at their best. And, of course, not all brands of EL34s are alike, and there may be some that sound distinctly superior to the stock KT88s. For folks who are inclined to tune the sounds of their amplifiers by trying various tubes, the ProLogue Seven’s Adaptive AutoBias circuit lets you do this without the hassle of having to manually rebias them.

**The sweet spot**

As you ascend the price ladder of any product category—cameras, cars, refrigerators, golf clubs, what have you—you reach what some call the “sweet spot.” This is where performance is at a high level but short of the very best available, and where any additional increments in performance will require spending disproportionately larger sums of money. For those in the market for a tube preamplifier-amplifier combination, the PrimaLuna ProLogue Three and ProLogue Seven hit this sweet spot head-on. With sound quality that gives up little to much more expensive products, the ProLogue Three and Seven are beautifully built, and, like the ProLogue One, reviewed by Art Dudley in the February 2006 issue, they represent outstanding value.
Hmmm, looks rather like Simaudio’s reference CD player, the Andromeda. Okay, maybe without the separate power supply and the sexy top-loading mechanism. But Simaudio clearly styled the Super-Nova to be a full-fledged member of the Evolution series. Does its sound meet the tough expectations set by its fire-breathing big brethren?

Yup.

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Rega Apheta
MC PHONO CARTRIDGE

Art Dudley

DESCRIPTION
Low-output moving-coil phono cartridge. Stylus profile: Vital (hyperelliptical). Output: 0.5mV (recorded velocity not referenced). Recommended load: 100 ohms (active). Weight: 5.9gm (7.1gm with three Rega mounting bolts). Recommended downforce: 1.75gm.

SERIAL NUMBER OF UNIT REVIEWED 0018.

PRICE $1695. Approximate number of dealers: 110.


The Rega Apheta phono cartridge. Note the relationship between the coil former (at the inner end of the cantilever) and the magnet: When the stylus is lowered to the record and the downforce is correct, the gap between the two parts becomes optimized.

I see a pattern taking shape: Roy Gandy's Rega Research offered their first CD player in 1996, which was 13 years after the medium was introduced to the public. Now, in 2006, some 50 years after Joe Grado designed and sold the first moving-coil phono cartridges, Rega has released one of those. The year 2016 may see the first Rega fluoroscope, or perhaps wire recorder. And it'll be a good one, I'm sure.

It seems that Rega would be the last company on earth to do anything just because everyone else does; thus it comes as no real surprise that Rega would decline to make a moving-coil (MC) cartridge unless and until they had a very good reason to do so. That time has arrived: The Rega Apheta ($1695) is clearly, unambiguously, and purposefully different from everything that's come before it.

Description
In my thoughts on the Brinkmann EMT Titanium in the August issue, I made a big deal of the fact that an MC cartridge is a simple thing, and that the designer has only a few variables to play with in his or her quest for a certain level of performance. Specifically, as I wrote then, an MC cartridge has a "stylus, cantilever, rubber grommet, tensioning wire, coils, magnet, output pins," and "maybe a body." That doesn't seem like a lot—but it is enough to account for a good variety
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of often pleasant-sounding designs, many of which are so purely hand-made that they reflect the very personalities of their designers.

What I didn't imagine: A clever designer might find a way of omitting one of those variables altogether, for an even simpler and more direct transducer. That's how Rega approached the challenge. Determining that the art of MC cartridge design had changed precious little in 50 years (quite true), they took stock of the progress that's been made in all of the pertinent fields: magnetics, precision machining, synthetic elastomers, those sorts of things. Then they felt compelled to ask: Who needs that tensioning wire, anyway?

Not Rega. Not when rare-earth magnets are available that can be made small and powerful and finely focused. Not when there are modern elastomers that can resist deteriorating and remainpliant over time. Not when the art of machining has progressed to where the physical proximity between two parts can be determined and maintained within microns. Not when tensioning wires are known to resonate within the audioband. Get that tensioning wire the hell out of here—and watch us do some real transduction for a change.

So it was with the Apheta, which, as I write this, Rega began developing in earnest almost three years ago. Aside from the perennially interesting Deccas, the Rega Apheta is the first and only MC cartridge I know of to dispense with a traditional suspension altogether, excepting its fulcrum: The Apheta's long aluminum cantilever passes through a single elastomer grommet in the front surface of its body—and that's all that holds it in place.

At one end of that two-piece (tele-scoping) cantilever is a nude diamond stylus, ground to a Vital hyperelliptical profile; the other end abuts to a cross-shaped former wound with fine copper wire. The remainder of the Apheta's motor is a neodymium magnet cemented to a threaded mounting apparatus that's adjustable in two planes. (It isn't hard to imagine that the ability to precisely adjust and "focus" the permanent magnet would be uniquely critical in a design such as this. In particular, any future retipping of the cartridge—and any reconditioning of its minimal suspension—would be unthinkable without also being able to adjust the rest of the system.)

The magnet assembly is sturdy bolted to an open-bodied body that's beautifully machined from aluminum alloy, and formed in such a way that the user's headshell makes tight, intimate contact with a stable ridge, as in other recent designs. A thin sheet of clear plastic is glued in place to protect those open sides, and while a stylus guard in the traditional sense isn't supplied, a stiff wire yoke is fastened to the front, just above the cantilever. That piece, which suggests a curb feeler (do they have those in England?), is intended to protect the cantilever against that most common disaster: being bashed against the edge of the record or platter while the arm is being lowered. Threaded holes are provided for three cartridge bolts—but the holes are in accordance with Rega's own proprietary pattern, and not the pattern used for tonearms made by Linn and Naim. The two main bolts, of course, use the industry standard spacing of 0.5", while the frontmost bolt can be added with any contemporary Rega tonearm.

Installation and setup

A Rega tonearm is also where the styling of the Apheta is best appreciated. I didn't notice at first, when I saw the new cartridge in its machined aluminum case—itself supplied in a dashingly pinstriped carton that led me to wonder if Rega had finally run out of brown cardboard—but its body is shaped to match the lines of Rega's tonearms. The pairing looked purposeful, almost like a one-piece casting.

Indeed, given that the Rega Apheta's three bolts line up with the openings machined into every Rega headshell, achieving perfect alignment in an all-Rega player is a snap. But keep in mind that Rega's cartridge-alignment scheme is based not on Baerwald geometry (whom I had to look up, even after all these years) but on Gandywald: The template provided with Rega's turntables and tonearms is intended to place one of the two geometrically feasible zero-distortion, or "null," points much closer to the inner grooves, where pinch distortion runs rampant, than other alignment schemes.

Ever the enthusiast, I tried both approaches when I used the Apheta in a Rega RB1000 tonearm; I achieved Baerwald alignment with the aid of a Denessen Soundtraktor (sale, Frank), removing the front bolt and scooting the cartridge a goodly way forward. I also used the Apheta in a Rega RB300 tonearm and in my long-term favorite, the Naim Aro. In the latter, of course, changes in alignment are impossible, and I was forced to make do with an excessive amount of overhang.

Used in the Rega tonearms, the Apheta cartridge exhibited the best vertical alignment when I used no spacers between the arm base and mounting surface. In all three arms, the best tracking force seemed to be just a frog's whisker over 1.8gm (which my listening tests confirmed, as you'll see below): Thanks to both the Apheta's body design and its lack of a traditional motor suspension, I was able to observe the motor as I lowered the stylus onto a record, seeing quite clearly and unambiguously if and when the coil former and the magnet were in proper alignment. In fact, I enjoyed watching how very small changes in downforce had a significant effect on the juxtaposition of those parts. And you thought I had a life.

While Rega hasn't published any compliance specs on their new cartridge, my experience suggested that the Apheta can be thought of as a pick-up of medium-high compliance. According to the very useful Hi-Fi News & Record Review Test Record (LP, HFN 001), the combination of a Rega Apheta cartridge and Rega RB300 tonearm exhibited a resonant frequency of 8Hz laterally and 9Hz vertically; used with my Naim Aro tonearm, the numbers were a respective 9Hz and 10Hz—perfectly acceptable performance in all cases.

Listening

It's too early in this product's history, and my experience with it is too limited, to say that the Rega Apheta will always perform better into an active device than into a voltage-gain transformer, but that's certainly how it sounded to me: The Apheta sounded better driving the perennially recommendable Linn Linto phono preamp (input impedance: 150 ohms) than the EAR 834P, either with the latter's own transformer stage or my external Tamura TKS-83. With the Linn, for instance, piano chords sounded much more real: more forceful than with the turntables, but not at all hard or glassy.

As predicted, the Apheta's performance was indeed sensitive to changes in tracking force—more so than with most other cartridges. Right was right, and everything else was very wrong. In
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both the Rega and Naim tonearms, 1.80–1.85gm did the job; any lower or higher unfocused the music and fuzzled the sound.

I noticed from the start that the Rega’s spatial performance was stunning—especially for a product from a company known for being at least mildly dismissive of such concerns, but stunning in absolute terms as well. I heard imaging effects throughout XTC’s Skylarking (Geffen GHS 24117) that had completely escaped me in the past—for example, how the rhythmic pattern played on the hi-hat in “Summer’s Cauldron” is panned back and forth from left to right, in time with the beat.

Cisco Music’s great new LP reissue of Jascha Heifetz and Gregor Piatigorsky’s recording of Brahms’ Double Concerto, with Alfred Wallenstein conducting the RCA Victor Symphony Orchestra (RCA Soria Series LDS-2513), sounded harmonically under the Apheta. Make no mistake, the original was neither the most sonically neutral nor spatially realistic recording ever made; the brass and woodwinds have a bit of the pinched, pungent sound one associates with recordings a decade older, and the horseshoe-shaped “soundstage” has some of the winds sneaking up on the listener’s left shoulder. But this one is to be prized for the fire of the performances—Piatigorsky’s more than Heifetz’s, this time out—and for the sheer immediacy of its sound. That’s where the Rega Apheta locked in and took the listening experience to the next level. It was so intense that I felt compelled to switch back to a different cartridge to find out if I was just imagining things. I wasn’t. I’ve heard Piatigorsky’s “Batta” Stradivari cello up close, played by his grandson, Evan Drachman, and while I wouldn’t be so silly as to say that I “know” the instrument’s sound, I do know that this recording does justice to its extraordinary responsiveness—and that the Rega Apheta did justice to that aspect of the recording.

But the experience wasn’t all spruce and varnish: There was an artifact of the Rega’s sound—some graininess and a slight peak in the upper mids and lower highs—that intruded on all but the softest-sounding records. Early on, I attributed this to the fact that the Apheta hadn’t yet been fully broken in—that’s precisely what it sounded like. In fact, during the Apheta’s first night here, one of the first LPs I tried was a new Speakers Corner reissue of the Clemencic Consort’s astoundingly well-recorded Danses Anciennes de Hongrie et de Transylvanie (Harmonia Mundi HM 1003). I was impressed by the lifelike presence of the instrumental sounds—and, at the time, more or less untroubled by the upper-range edginess. I remember telling my wife, “This may in fact be the best phono cartridge I’ve ever heard—it just needs to run in a little more.”

The Apheta’s sound did mellow a bit over the following weeks, and the grain went away—but that upper-midrange peak remained. While the Apheta’s remarkable directness, rhythmic aplomb, pitch certainty, and spatial realism didn’t diminish, the cartridge’s sound never lost that bit of an edge, the way most MC cartridges do in their first week or so.

The Apheta was also somewhat less generous in its bass response than others, such as the Linn Akiva and Brinkmann EMT Titanium. The difference between the Rega and the Linn was most striking on “Soon,” from the Speakers Corner reissue of Ella Fitzgerald Sings...The Gershwin Song Books (Verve MG VS-6082-5). The Linn conveyed more low-frequency force, as heard in both the drum accents and the string bass. The Rega was slightly more sibilant on the voice—which was a shame, because the Apheta made Ella sound much more there than the Linn. Listening to the Beatles’ “Fixing a Hole,” from Sgt. Pepper’s Lonely Hearts Club Band (Parlaphone PMC 7027), the Rega gave Ringo’s hi-hat enough of an edge that it became the dominant instrument throughout the song; switching to the Linn Akiva, my attention was instantly drawn back to Paul’s clever electric bass line, which was where my attention remained.

The distinctions were carried over to other recordings. On Georg Solti and the Vienna Philharmonic’s famous recording of Wagner’s Gotterdammerung (London OSA 1604), Birgit Nilsson’s Brünnhilde sounded heavier, more impactful, and even a bit more dramatic with the Linn Akiva. Yet when she and Wolfgang Windgassen’s Siegfried made their first entrance in the opera, in the Prologue (“Brünnhilde zu gewinnen, Brünnhilde zu erwecken!”), the Rega Apheta did a better job of conveying their physical distance from each other and from the microphones. As far as tracking was concerned, the two cartridges were on a par with one another: both pretty good, both breaking up just a bit on the most heavily modulated parts. The Linn did a distinctly better job of shrugging off the scratches and pops in my copy, however.

Listening to André Previn and the London Symphony Orchestra’s nicely recorded making of Tchaikovsky’s Manfred Symphony (EMI ASD 3018), I heard the Apheta’s strengths and weaknesses combined. The woodwinds had wonderful presence—I felt as if I could touch them if I wanted to, if you’ll excuse the horrific cliché—and the Rega seemed supreme in its ability to signal changes in rhythmic nuance, as with the triplets played by the cellos later in the first movement: No cartridge in my experience has been better at finding the dots over the notes. But the violins sounded lighter and rougher than they should have, and the cymbals and triangles were raspy throughout.

The Apheta allowed upbeat rock to sound appropriately upbeat, as with the title song of the Clash’s brilliant London Calling (Epic E2 36328). I hadn’t listened to that one in a while, and with the Apheta in place I was genuinely surprised to hear how much quicker the song was than I remembered. But there was also more edge than I usually hear in Joe Strummer’s voice: Plosives, of which the late Mr. Strummer had no shortage, were overly stressed, as was the relentlessly sound of drummer Nicky Headon’s hi-hat work. The latter was also true of the Stones’ “Street Fighting Man,” from Beggars Banquet (London PS 539). The sound of Charlie Watts’ drum kit—actually a portable practice kit used for deliberate effect on that famous number—is intended to have a certain relentlessness; but with the Rega cartridge, as compared with the Linn Akiva, that effect was just too much.

Conclusions

Rumors that Rega Research planned to make a moving-coil phono cartridge began circulating at least a year or so ago, and I admit that I was excited at the prospect. I also admit that, like other audio enthusiasts, I began to form an opinion of the thing before I ever heard it, based on what I knew of the company and their other products. I assumed I would love it.

Even when I first installed the Apheta in my system, I was ready to write a check: It sounded musically right and spatially entralling, if a bit
Clearaudio Goldfinger Moving Coil Phono Cartridge
"An exciting unforgettable listening experience... breathtakingly well defined images... one of the great (if expensive) musical cartridges of the post-digital age.”
Michael Fremer, Stereophile, October 2006

Clearaudio Titanium Phono Cartridge
"Unquestionably the most musical cartridge Clearaudio has yet produced. The Titanium is even more detailed than previous Clearaudios... rich, realistic tone color and dynamic nuance... makes this so good.”
Jonathan Valin, The Absolute Sound, Issue 161

Clearaudio Concerto Wood Phono Cartridge
"Overall, I was very impressed with the Clearaudio Concerto... it combined a rich harmonic palette, refined transient performance, excellent tracking, and outstanding resolution of low-level detail... a very attractive sound... comparable to the finest cartridges I've heard.”
Michael Fremer, Stereophile July 2006

Benz Micro ACE Phono Cartridge
"Many of the virtues of high end moving coils available to audiophiles on a budget... a great success.”
Chris Martin, The Absolute Sound, Issue 147

Benz Micro LP Ebony Phono Cartridge
"The best Benz Cartridge, period. Thoroughly musical.”
HP's Workshop, The Absolute Sound, Issue 165

Pathos Inpol² Integrated Amplifier
"Simply sensational sound—especially midrange... extraordinary build quality... an awesome amplifier.”
What Hi-Fi?, June 2006

Pathos Endorphin CD Player
"Masterful... simply one of the most desirable... most exhilarating piece of equipment... positively revelatory.”
Ken Kessler, Hi Fi News, August

Rhea Phono Stage
"Highly musical... excellent build quality... confidently recommended.”
Martin Colloms, HiFiNews, May 2006

"This is one seriously exciting phono stage... for sheer pace and an unstoppable sense of musical power and momentum the Rhea knows few if any peers.”
Roy Gregory, Hi Fi+

Aesthetix Rhea and Calypso
"This is an awful lot of beautifully built product and even more performance for your money... they're a bargain.”
Roy Gregory, Hi Fi+

La Signature Phono Stage
"A formidable performer... for many, it's sensational rendition of the musical experience will make it the first choice.”
HP's Workshop, The Absolute Sound, Issue 165

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edgy; I assumed that its response would smooth out in the weeks to come. It didn’t—and of all the people who might be disappointed by such a thing, no one could be more disappointed than I.

It’s a curious thing, and I can’t resist comparing the Rega Apheta with another iconoclastic design, the Lowther 7” full-range driver (in just about all of its incarnations). Both have remarkably good speed, snap, and clarity. Both are among the very best in their respective fields at making music sound real and present and there. And both sound just a little bit edgy. Enthusiasts with more technical grounding than I have can make what they wish of the comparison, and their insights may be valuable. But I’m no engineer, so it’s not for me to say.

I’m cheered by the Rega Apheta’s appearance on the scene. I think that the very existence of such a thing in the 21st century says something nice about our hobby. And I hope that, in time, the Apheta’s considerable promise can be realized. In its present form, however, this one just isn’t for me.

ASSOCIATED EQUIPMENT

ANALOG SOURCES Linn LP12 turntable with Naim Armageddon power supply, Naim Aro tonearm; Linn LP12 turntable with Funk Firm Vector kit, Naim Aro tonearm; Rega Planar 3 turntable with Rega RB300 tonearm; Rega Planar 9 turntable with Rega RB1000 tonearm; Linn Akiva, Brinkmann EMT Titanium, Lyra Helikon Mono cartridges; Tamura TKS-38 moving-coil step-up transformer.

DIGITAL SOURCE Sony SCD-777ES SACD/CD player, shipped au naturel.

PREAMPLIFICATION EAR 834P, Linn Linto phono preamplifiers; Lamm LL2 preamplifier.

POWER AMPLIFIERS Lamm ML2.1 monoblocks, Fi 2A3 Stereo.

LOUDSPEAKERS Quad ESL.


ACCESSORIES Mana Reference Table, Reference Wall Shelf (turntables); Ayre Myrtle Blocks (various other components).

—Art Dudley
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TARA Labs
The Zero
INTERCONNECT

THE ZERO
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PRICE: $14,900/pair in lengths of 1m, 2m, or 3m. Other lengths, prices vary. Approximate number of dealers: 8. Warranty: 5 years, nontransferable. Under separate warranty program, the cable is guaranteed to maintain its vacuum condition. The original purchaser may at his option send the cable to TARA Labs for a free diagnostic service, including an evaluation of the vacuum condition at any time during the first 3 years; thereafter, a service fee will apply.

MANUFACTURER: TARA Labs, 550 Clover Lane, Ashland, OR 97520. Tel: (541) 488-6465. Fax: (541) 488-6463. Web: www.taralabs.com.

Let me take you by the hand, and together we'll jump off an audio cliff. I promise a soft landing, though there might be some turbulence on the way down.

When I reviewed the mbl 101E Radialstrahler loudspeakers two years ago, MBL's Jeremy Bryan asked me if I had the required double runs of speaker cables. When I told him I didn't, he said he'd bring some, but instead of cables he brought a cable manufacturer, Tara Labs' Matthew Bond. A surprise visit by a cable manufacturer is about as welcome to me as a case of head lice. Even a scheduled visit makes me itch.

So, as you might imagine, when Bond showed up, I was shaken, not stirred. I strongly expressed my displeasure, but, being a charitable fellow, and seeing how much cable he'd schlepped along for the occasion, I let Bond perform his dog-and-pony show. In the case of cable manufacturers, such events traditionally begin with a ceremony: The Removal of the Black Velvet Bag. (Don't think such show
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**AudioQuest GBC Deluxe SST 12 awg Speaker Cable**

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**A Perfect Match For GBC… AudioQuest Coral/CQ Interconnect Cable**

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The AudioQuest GBC is an excellent sounding cable in all areas. The midrange has a very smooth and lifelike quality, while the most minute details in the high end are revealed with great accuracy. And then there is the bass, the foundation of all music. With its special bass conductors, Helical Array geometry, and its large aggregate size of 12AWG, the GBC delivers a tight, detailed, and thunderous bottom end. The beautiful woven PET outer sleeve on GBC is available in your choice of Black, Blue, or Clear. GBC comes standard with AudioQuest’s best spade lug, the # PAMS, but a wide range of connector options are available. Single Bi-Wire termination is also available for an additional $30/pr. For other lengths and options please visit our web site at [www.hcmaudio.com](http://www.hcmaudio.com)

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**Stereophile August 2004**
tary is restricted to our own little hobby. Go to a wine-tasting or a single-malt Scotch party and you'll get the same equal mix of pageantry and BS.

Bond replaced all of the AudioQuest Cheetah speaker cables and Sky interconnects then linking my system together with TARA's The One cables and Vector interconnects. Every one of the higher-quality interconnects I've tried has imparted a slightly different "flavor" to the sound: a bit of brightness here, a smoothness there, a full bottom here, lean but detailed there, etc. If a product under review strikes me as leaning too much in one direction, I'll try to counter it with a cable that might take it in another.

Bond finished, and we listened. I heard very little difference between TARA's Vector and the AudioQuests. (For those of you who think cables don't make any difference, consider this admission a short-lived victory.) However, my cable journey began in the early 1980s when, a skeptical civilian, I heard a Petersen Litz-wire interconnect. I later heard one of the first sets of Randall Research's Teflon-dielectric cable, which I immediately bought and installed between my Emmit Technology ET 1 air-bearing tonearm and my phono preamp. I decided to stick with the AudioQuest interconnect but use the Tara The One speaker cable as originally planned.

"Thanks for coming, Matthew, and letting me hear these cables," I told him. "But what can I possibly do with them? What can I write, other than that they sound very similar to what I was already using?" I told him he'd be better off finding a reviewer new to the job who had never experienced what a well-designed cable can do for a system. Bond returned his cables to their black-velvet drawstring bags and departed.

Cut to 2006: a few weeks after setting up a single mbl 9007 amplifier in single-ended stereo mode, Jeremy Bryan returned to complete his installation of the balanced, monoblock mbl 9007s that I reviewed in September, and brought along with him another TARA Labs wire. Insistent young lad. "Forget what you heard last time," he said. "Let me just put this 1m set of interconnects into your system and let you hear them. Where do you think you'd hear the biggest difference?"

"Between the Manley Steelhead phono preamp and the Musical Fidelity kWP preamp," I muttered.

I pulled out Classic Records' astonishing-sounding, 45rpm boxed set—pressed on single-sided, 200gm, Quies SV-P vinyl—of Ernest Ansermet and the Orchestra of the Royal Opera House, Covent Garden's famous The Royal Ballet Gala Performances, recorded in the UK's famed Kingsway Hall by Kenneth Wilkinson for British Decca and licensed to RCA for American release (RCA Living Stereo/Classic LSC-6065). We listened to the opening tracks: March and The Dance of the Sugar Plum Fairy, from Tchaikovsky's The Nutcracker. It's among the most exquisite orchestral recordings you'll ever hear, especially the sweeping, impossibly lush strings, which dramatically unfurl across the stage in an unusual call-and-response that raises goose bumps every time. The recording of the bell-like celeste is accomplished with impeccable purity and transient clarity. One listen and you'll know why this recording is legendary.

I listened to it through Harmonic Technology's top-of-the-line Magic Link One interconnect, and the sound of that disc was as astonishing as it's always been. Then Bryan replaced the Magic Link One with whatever TARA Labs interconnect he'd brought, which included a mysterious black box that he placed behind the Steelhead. I gritted my teeth and opened my skeptical ears.

One, Two, Three, JUMP!

What I then heard from that familiar recording I will never forget. That one stupid interconnect had completely transformed not only the sound of that recording, but my expectations of how close the playback of recorded music could come to live music. I understand that all of the cable in the chain, from the recording gear in Kingsway Hall to Bernie Grundman's mastering room, was not this new IC. I understand any skepticism about how one piece of wire could so dramatically alter the sound of an audio system. But it did.

With the Mystery Wire installed, and before Ansermet's baton went down and the first note was played, the vastness of Kingsway Hall appeared as I'd never heard it, with the full weight of the space delineated by the "room tone" of a large venue and the sensation of air. A few measures into the music, I blurted out, "Wow!"

What had wowed me? A total absence of "electronica." An enormous addition of lushness, texture, harmonics, and warmth, especially in the massed strings. And, at the same time, a major extension in air, detail, and transparency, coupled with a sensation of phase coherence that I describe as "acoustic jell." Usually you can get improvements in warmth and textures or more extension, air, detail, and transparency. Here, simultaneously, were both: a gigantic floating apparition of detail, delicacy, air, and texture, and an even greater diminution of glare, glare, etch, and artifact. Usually you can get rid of those with the tonal cover-up of a high-frequency rolloff. With the TARA Mystery Wire, the artifacts were gone, yet the top-end extension and openness were greatly increased.

Each note on the celeste became a full-fledged, tripartite event: first a fully defined, cleanly rendered attack; then a three-dimensional, body-defining sustain; and finally a cleanly defined, effervescent decay into blackness. That holy trinity of live sound—believable attack, sustain, and decay timed out to perfection—more or less describes the dramatic improvement the TARA IC had wrought in my system. That, and the pitch-black backdrops against which all this sonic drama was played out, was what had me yelling "Wow!"

"What is that? And what does it cost?"

It was TARA Labs' The Zero interconnect.

Description

The Zero is the only interconnect with non-insulated conductors. Tara Labs claims it comes closest to the ideal of a dielectric-free cable. With no insulating coating to protect the wire from the oxidizing effects of air, the only way to preserve the wire's performance is to suspend it in a vacuum, and that's what TARA does.

They begin with stiff tubing of extruded Teflon, into which are also extruded three small arteries, or "galleries," at the 3, 6, and 9 o'clock positions (when looking at the tubing in cross section). These galleries run the tube's entire length. TARA calls this proprietary technology the Air-tube.

Inserted into each gallery is a run of bare RSC 2511 .0025" by 0.011" "eight-nines copper," rectangular solid-core, "Generation Two" conductor. This is relatively thin wire. Tara Labs claims its research shows that a con-
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Tara’s test system and other information can be found on the company’s website.

A web of polyethylene filaments woven in a “large-windowed” braid is wrapped around the Teflon tube and acts as a spacer to separate the conductors from a shield of braided copper wire. Unlike in most other interconnects, the Zero’s shield is allowed to “float.” That is, neither end of the shield is attached to ground. Instead, both ends of the shield terminate in thin wires, to which are attached tiny pins (see later).

Fitted to either end of the Zero and soldered in place are complex RCA plugs, machined to mil-spec tolerances and fitted with O-rings and a clamping mechanism capable of providing a reliable air seal and thus of holding a vacuum. Each plug has a tiny valve, made with a spring and stainless steel ball with a Teflon seat. When assembly of the Zero is complete, the air inside it is evacuated to a pressure equivalent to an altitude of more than 12,000’, where there is insufficient oxygen for oxidation to occur and the unsullated bare copper is thus protected from corrosion. The result, in short, is an interconnect of two parallel runs of bare copper wire (three for balanced) kept a constant ¼” apart.

Why go to all this trouble to use a near-vacuum as a major part of the dielectric instead of fiber or plastic fillers such as cotton or rope, or the more traditional polyethylene or Teflon? Because all organic and plastic dielectrics are reactive. They absorb and release energy differently at different frequencies, which is one reason different dielectrics sound different when used in cables. A vacuum, on the other hand, is nonreactive; it does not absorb and release energy differently at different frequencies—which makes it the perfect dielectric.

Usually, wires are insulated by drawing the conductor through a die along with the heated, molten dielectric or insulation material. However, TARA claims that the extrusion of high temperature plastic materials can cause overheating and oxidation of the conductor surfaces, and that smooth clean wire surfaces sound more neutral and revealing. Its 99.999999% pure (“eight-nines pure”) rectangular-solid core copper is “super-soft annealed,” then polished.

Usually, too, you’d use twisted-pair construction to create common-mode rejection, which rolls off and reduces in-phase audio band noise along with RF energy above 20kHz-30kHz. However, this increases capacitance between the conductors to a minimum of 20-30pF/foot, even in the best interconnects. For the Zero, TARA claims a conductor-to-conductor capacitance of 3.4pF/foot, which means you can run lengths many times that of normal interconnect with significantly less high-frequency rolloff, and with bandwidth extending into the hundreds of thousands of hertz.

Of course, 100kHz and above is well beyond the frequency range of musical fundamentals and the limits of human hearing—but not of musical harmonics. For the Zero, Matthew Bond claims zero overshoot on squarewaves of 200kHz and well above, which he says is important for the proper reproduction of far lower frequencies. (I report. You decide.) Bond also claims that because there is an electromagnetic field through and around any conductor, the dielectric used in traditional interconnects can actually delay the velocity of the propagation of the delicate HF range of the musical waveform, causing higher-order harmonics to be out of phase with the rest of the signal. (Again, I’m not equipped to confirm or refute any of this, so Fox Rules apply here as well.)

Because the Zero’s shield “floats” completely, it must be grounded somehow. TARA includes a heavy little box, the Floating Ground Station, with every pair of Zeros. The box contains modules made of Ceralex, a combination of ceramic materials and metallic compounds that absorbs RFI and EMI. The black paint on the box is a special anti- absorptive/reflective coating that is said to keep out RFI and EMI.

The pins at the Zero’s source end plug into this box. The pins at the other end (one M one F) plug into each other. The box is then grounded to any component that has a ground lug (such as a phono preamp), or to earth or a cold-water pipe. This establishes the ideal “star ground” configuration, with all interconnects grounded to the same single point. No voodoo here.

If you’re thinking that the Zero’s stiff Teflon tubing would make it impossible to dress the cable, it didn’t. The area of the Zero where you’d normally bend an interconnect has accordion-like pleating that makes flexing it easy. It would be difficult to break the wire, Bond contends, because the super- annealing sufficiently softens it.

All of the above—and much more that would take up too much space—is what produced, contends Matthew Bond, the astonishing sound (or lack thereof) that I heard simply by inserting one pair of 1m Zeros into my system.

Back on the ground

And now let’s gently touch ground: A 1m pair of Zero interconnects will set you back $14,900. I am sorry.

Here’s the good news: A 2m pair of Zeros also costs $14,900. So does a 3m pair. The length required to go from my preamp to my amps costs a not-so-cool $17,000.

Why so expensive? Matthew Bond claims that each mil-spec RCA plug costs him $473.50. Times four equals $1894. That’s his cost just for the plugs for a pair of Zero cables. With the average high-end audio retail markup being fivefold, you’re talking close to $10,000 just for the plugs. On learning the plugs’ cost, and after inspecting a nonworking sample Bond had left with me, some friends with manufacturing experience outside of audio said they were impressed by the design and construction, but that perhaps some one other than Bond should be in charge of parts procurement.

When I mentioned this to Bond, he laughed. “In the small quantities I order from this mil-spec machine shop, which supplies parts for projects so secret they don’t actually know what they’re building, that’s the best I can do.” Funnily enough, the actual wire is probably among the Zero’s least expensive components—though nonetheless of extreme importance, Bond insists.

The whole enchilada

After hearing what a single set of Zeros could do, I told mb1’s Jeremy Bryan to call TARA’s Matthew Bond and tell him Please return, all is forgiven, and could I please have my entire system wired with Zeros. Bond agreed, the dynamic
Ray Samuels Audio Emmeline The Hornet

Wes Phillips enthused over Ray Samuels Audio's Emmeline The Hornet portable headphone amplifier ($350) in our early-June eNewsletter (www.stereophile.com/images/newsletter/606Astph.html), as did Sam Tellig in “Sam’s Space” in September, and again in this issue. I thought it worthwhile, therefore, to complement those positive impressions with some measurements. (I remembered to fully charge the Hornet's internal 9V battery before starting the testing.)

The Hornet's maximum voltage gains, with its volume control set to its maximum, were 5.6dB, 12.7dB, and 20.8dB with the rear-panel switch set to its Low, Medium, and High positions, respectively. (There was some cracking when the volume control was operated, which suggests the presence of a DC voltage on the potentiometer wiper.) The Hornet preserved absolute polarity (ie, was non-inverting) in all three gain conditions. The input impedance was a fairly high 23k ohms at low and midrange frequencies, dropping to 11k ohms at 20kHz. These figures were not affected by the volume-control position or by the gain setting.

The input unweighted, wideband signal/noise ratio was a superb 98.7dB (ref. 1V, with the input shorted but the volume control at its maximum), this improving to 116.7dB when an A-weighting filter was switched into circuit. These figures worsened by about 7dB in the Medium Gain setting, and by 14dB in the High Gain setting, but are still excellent in absolute terms. DC offset was low in the Low Gain mode, at 1mV in both channels, but rose to 2.7mV in Medium Gain and to 72mV in High Gain. All figures should be low enough not to cause problems.

Distortion levels were also extremely low. The sawtooth nature of the traces in fig.3, for example, which plots the THD+noise percentage against output voltage at the Low Gain setting, indicates that the actual distortion lies at the limit of the Audio Precision system's resolving power. This graph also indicates that the Emmeline Hornet will deliver just over 3.5V at 1% THD into loads ranging from 150 ohms to 100k ohms. Only into the 30 ohms typical of Grado and Ultimate Ears headphones does the maximum output decrease, and then only by a little. The maximum level was the same in all three Gain settings, but with higher THD+N percentages below actual waveform clipping in the Medium and High Gain modes, due to the slightly higher noise floors. This can also be seen in the graph of THD+N percentage against frequency (fig.4), taken at 1V into loads of 100k ohms and 150 ohms. Other than a slight rise in THD above 10kHz in the High Gain setting into the lower imped-

Fig.1 Ray Samuels Audio Emmeline The Hornet, Low Gain, frequency response at 1V into (from top to bottom at 2kHz): 100k, 150, 30 ohms (0.5dB/vertical div., right channel dashed).

Fig.2 Ray Samuels Audio Emmeline The Hornet, High Gain, channel separation, L—R solid, R—L dashed (10dB/vertical div.).
MEASUREMENTS

When I measured the Zanden Model 5000 Mk.IV/Signature for Michael Fremer’s review last month (November 2006, p.109), I was very disappointed by the performance of this $15,470 D/A processor. With its poor rejection of word-clock jitter (even when connected with an I²S link), its nonflat frequency response, its nonlinearity at low frequencies, its lack of ultrasonic image rejection, and its higher-than-usual noise floor, I described it as “the worst-measuring digital product I have encountered.”

Late in the review process, Zanden’s US distributor informed us that the review sample had suffered a manufacturing fault. Specifically, the polarity-inversion switch, which operates in the analog domain rather than the more usual digital domain, had been incorrectly wired so that the processor inverted absolute polarity when the LED indicator was illuminated green—the opposite of how it should behave. More important, with the switch wired in this manner, when the unit was set to preserve absolute polarity (LED illuminated red), which was how I
and 20kHz tones at 1V into 8k ohms lying at —96dB (0.0015%).

This is superb measured performance in absolute terms. However, to get the maximum performance, Hornet owners should use the lowest Gain setting that gives acceptable levels with their preferred headphones. For example, I use Low Gain with the Ultimate Ears UE-5 and UE-10 in-ear headphones, which gives me more than enough output to compete with the noise of the subway on my daily commute. —John Atkinson

Zanden Model 5000 Mk.IV/Signature D/A processor

No doubt Linden Audio Systems was more perturbed and horrified by the measurements published with last month's review of the $27,970 Zanden 2000P CD transport and the $15,470 5000 M.I.V Signature D/A processor than was I, but it was hardly more pleasant for me as a reviewer, and equally shocking.

As I've written before, if I were guided solely by measurements I'd have chucked my vinyl long ago. Digital measures far better, yet the proof is in the listening, and I much prefer listening to records.

So along comes a digital front-end that I find utterly enticing, and it measures worse than poorly: the measurements scream "defective," with gross amounts of measured it, the miswiring caused an excess of current to flow into the interstage transformer. This was the cause of both the drastic low-frequency rolloff and the very high levels of bass distortion that I found. Michael, it turned out, had done almost all his auditioning with the 5000S inverting polarity (LED illuminated green), when it should have performed rather better.

Zanden immediately FedExed a new sample of the 5000S to me, but it arrived too late for me to measure it in time for the November issue, hence this "Follow-Up."

The serial number of the original review sample of the 5000S was 023; that of the new sample was 0706055. All tests were performed driving the Zanden's AES/EBU input with a link from the RME soundcard fitted in my PC. The left channel of the original Zanden 5000S put out a maximum of 1.6V at 1kHz; the second sample’s left channel was a little hotter, at 1.814V. Like the first sample, the second’s right channel was around 0.5dB higher in level. The output impedance was significantly lower, at 333 ohms at 1kHz, compared with 2.5k ohms.

The first sample’s frequency response when set to the minimum output of the CD transport and the $15,470 5000 M.I.V Signature D/A processor than was I, but it was hardly more pleasant for me as a reviewer, and equally shocking.

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distortion among the problems. Yet based on a second listen to when these samples of the DAC and transport were returned to me, I didn’t hear “distortion,” and I doubt you would either.

So what’s going on? Just as early digital measured “perfectly” but sounded dreadful, it’s obvious that we still don’t necessarily measure everything and, more important, we clearly don’t rank what we measure in terms of importance because, despite the awful distortion and linearity (etc.) measurements of the first sample, it sounded as attractive and inviting the second time around as I remember it sounding the first.

After a second listen to the first sample, I can tell you that its horrific measurements did not translate into horrific sound. The qualities of listenability, liquidity, and continuousness, with a freedom from harshness and grain that I heard the first time, were still there. In terms of the Zanden’s subjective sonic performance, I don’t take back a word of the first review. I had not played with the “phase” (polarity) switch during the review because much of the music I listened to was recorded multitrack, where polarity often shifts between the channels, which in my experience renders the difference in absolute polarity insignificant. [See the “Measurements” sidebar—Ed.] Little did I know that I was listening with the polarity inverted when the front-panel control said otherwise, and little did I know that listening that way intensified the effects of a manufacturing error.

This time I listened to both positions on the first sample and whatever the measured differences, I can’t tell you they translated into significant sonic ones.

**FOLLOW-UP**

**THE SECOND ZANDE**N DAC WAS CLEARLY BETTER, BUT I SUSPECT THE MEASURED DIFFERENCES WILL LOOK FAR GREATER THAN WHAT YOU WOULD HEAR IF SEATED IN MY LISTENING CHAIR.

**Measurements, continued**

correct polarity was disappointing, with a noticeable rolloff of low frequencies that reached −3dB at 65Hz and −9dB at 24Hz. The second sample was flat to below 10Hz into a high 100k ohms load (fig.1, top traces below 100Hz), with only a slight bass rolloff apparent into the punishing 600 ohm load (fig.1, bottom traces). The response was identical with the DAC set to invert polarity, but the top octave still rolled off a little prematurely.

As with the first sample, the second sample’s noise floor was higher than I usually find with 16-bit DACs, as can be seen from the spectral analysis of the 5000S’s analog output while it decoded data representing a dithered 1kHz tone at −90dBFS (fig.2). This graph was taken with the unit set to the correct polarity, and relatively high AC-supply components can be seen at 120Hz and 240Hz in both channels, though the 60Hz component seen in the first sample’s left channel is missing. Curiously, inverting signal polarity reduced the level of the AC supply spuriae (fig.3). As in the first sample, the Philips TDA1541 DAC chip features increasingly positive linearity error below −80dBFS (fig.4). This was unaffected by the setting of the polarity switch.

The new 5000S was very much better than the first at reproducing high-level low-frequency tones with low distortion. Whereas the original produced more than 20% of multiple distortion components with a full-scale 50Hz tone, even into the benign 100k ohm load, the new sample produced a much more acceptable 0.15% in both polarity conditions. Even better, this was predominantly the second harmonic (fig.5), which the ear tends to tolerate. Again, the 120Hz AC-supply component decreased with the 5000S set to invert polarity.

However, the second Zanden 5000S’s behavior on the high-frequency intermodulation test was still disappointing, with a relatively high second-order difference product and a large number of audioband intermodulation and aliasing products visible (fig.6). And I was still disappoint-
Having reviewed Zanden's original phono preamplifier and heard whole-system presentations at audio shows, I didn't go into the review expecting Krell-like bass performance, and when I didn't get it from the first sample, I wasn't surprised. Even though the first sample's bottom-end performance was not what I'd call robust, I found the textures cleanly rendered and satisfying in the context of the overall sound. When the defective sample was returned, I reached the same conclusion. There wasn't wallop, but there was enough information and nuance to carry the less than weighty presentation. Still, I probably should have made more of this in the original review.

That I found myself actually enjoying listening to CDs over the long haul was significant enough for me. It was the Zanden's overall musical presentation that excited my senses, and that's what I reported. I got into this hobby for musical reasons, and if my analytical abilities are occasionally subsumed by my enjoyment of the music, so be it!

The Second Sample: The second sample of the 5000MILIV Signature (the measurements of which I've not yet seen) carries forward all of the original's strengths but offers, among other improvements, far better low-frequency extension, control, and definition. Among the discs I used for this comparison were DCC's gold CD reissue of Elvis Is Back (DCC GZS-1111) and Analogue Productions' gold CD of Janis Ian's Breaking Silence (CAPP027). It wasn't difficult to hear the substantial improvement in bass extension, especially through full-range speakers, and there seemed to be better extension and clarity on top, and perhaps slightly faster transients, along with a greater sense of overall immediacy—but all of that could have been the results of the firmer bass foundation or the second sample's lack of break-in. Overall, it was the much-improved bottom end that was most noticeable.

Zanden promised that the second sample would measure far better than the first, and I hope that proves to be the case. I switched back and forth between the DACs and compared the original in "reverse polarity" (positive) and with the second sample in positive polarity. Yes, the second DAC was clearly better, but I suspect the measured differences will look far greater than what you would hear if seated in my listening chair—a location that, after this experience, is somewhat less comfortable!

—Michael Fremer
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8 Awards in 2 Years
When you first see its cover shot, the Killer pounding away, the piano aflame, the letters screaming “The Most Amazing Classic Rock-N-Roll Album Ever!”, you almost have to laugh. And when I saw the purple-prosed press release that came with the CD, I knew it was a Jerry Lee Lewis production all the way. No publicist to contact. No free photos to be had. Just the CD, I knew it was a Jerry Lee Lewis production all the way.

But then there’s a list of guests that is hard to ignore. Jimmy Page? Neil Young? Springsteen? Fittingly, Lewis recorded his parts at Phillips Studio in Memphis. Then the tapes and ProTools files for the multi-year project were sent back and forth for people to record their parts. Few, if any of the collaborators, ever laid eyes on each other. In most cases, this approach yields less than spectacular results.

Here, though, and not too surprisingly, the X factor is the one and only Jerry Lee Lewis. At 71, rock ‘n’ roll’s original wild child has still got enough left in the tank to stay with, and in some cases, out-run all these big bad rock legends.

From the opening bars of his inimitable butchering of Led Zeppelin’s “Rock ‘N’ Roll,”—“Blowing through the chord changes” is the way Stereophile Editor John Atkinson described it with a smile of disbelief—to the final chords of that song where he mumbles out a line about “dad gum good Louisiana lovin’,” you quickly get the idea that this is gonna be a wild ride. And wild is the way Jerry Lee wants it.

“Duets” isn’t really an accurate description of the 21 tracks here. While each features a different guest, Lewis takes lead on every song, with sometimes the guest joining in, mostly on the choruses. In “Evening Gown,” Lewis and Mick Jagger play with call-and-response verses before duetting on the choruses. After an opening exhortation of “C’mon now Killer!,” Bruce Springsteen sings only on the choruses of his “Pink Cadillac.” In “Travelin’ Band,” the album’s most rocked-up track, Lewis—who leans heavily on his trademark glissandos and even purrs like a cat during the tune’s saxophone solo—trades verses with John Fogerty before dueting with him on the chorus. Page, Eric Clapton (Trouble in Mind*), and B.B. King (“Before the Night Is Over”) stay silent, adding only guitar licks to the proceedings.

Conversely, “Just a Bummin’ Around” with Merle Haggard has an easy groove. The Killer’s duet with Rod Stewart on “What Made Milwaukee Famous,” a one-time hit for Lewis, is amusing considering the truth the song’s message has had in both men’s lives. And when it comes to pure fun laced with liberal amounts of winking irony, there’s Lewis and Little Richard duetting on the Beatles’ “I Saw Her Standing There.” The irony, of course, comes from the fact that once upon a time, the Beatles had a large hand in nearly putting both men out of business. Their duets on the chorus, with Little Richard handling the high “ooooooOOOhh” parts, are absolutely hilarious.

If there’s a clunker here, it’s the Kid Rock track. Why does this man have a career, let alone a track on this album? The former Robert Ritchie literally cannot sing. Shouting and shrieking is the only way he makes it through a cover of “Honky Tonk Woman,” which seems like a weird song choice, but then, what kind of song can you really do with someone with as little talent as this? It’s to Kid’s credit that he respects his elders, but if you want to hear how far the record business has fallen, listen to a Kid Rock record.

Perhaps the key to this record’s success is that none of Lewis’s hits are included. Instead, the tunes come from the guests’ songbooks. The effect this has is to force Lewis to stretch some as a singer, which elicits better vocal takes from him than otherwise might have been the case. (In recent years, Lewis has been known for sleepwalking through his hits in his live act, particularly when it came to his vocals.)

After the song choices, what makes this album go is Lewis himself who, besides having a ball, is in fine voice and is playing barrelhouse piano throughout like a man possessed. The glissandos rain down on most tunes and when he switches to pounding in the lower registers, shades of Lewis’s golden early years emerge. He’s also grand and flavorful in slower numbers, like his duet with Willie Nelson on “A Couple More Years.”

After cutting such a singular figure in the world of popular music for so many years—much of the time to his detriment—Lewis richly deserves this affectionate tribute. Is it a novelty record on some levels? Certainly. But there’s enough musical meat and genuine rock ‘n’ roll spirit here, particularly in Lewis’s piano playing, to also make this a record that will stand on its own, perhaps as the recording coda to an extraordinary career.

—Robert Baird
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Michael Fremer - Stereophile Jan. 2006

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Ken Kessler - Hi-Fi News Oct. 2006

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Not unlike a boy named Sue, there is a string quartet named Ethel. This is their second solo CD. Cornelius Dufallo and Mary Rowell play violins, Ralph Farris is the violist, and Dorothy Lawson is the cellist; compositions by Dufallo, Rowell, and Lawson are recorded here as well, and Farris is credited with arranging a work by Timo Alakotila, while Rowell has arranged "Requiem," by Lennie Tristano. "New music" can be nerve-racking, but that's not the case with the stuff Ethel has come up with. They seem intent on being entertaining while presenting new sounds, and there's nothing haphazard in anything they do. This is one of the most thoroughly congenial collections I've heard this year. The energetic performances—rhythmically sharp, brave, and altogether involving—match the remarkable creativity of the composers.

To describe just a few: Marcelo Zavros' first piece, Arrival, begins in a whirlwind reminiscent of John Adams' Shaker Loops but soon travels in a different direction. Mary Rowell's Sambula and Also sprach Einstein are deeply rooted in hillbilly hoedown music (the latter even features the gray parrot who lives at the Knoxville Zoo and was winner of the Pet Star show on Animal Planet, as well as Randy Crafton on whistle), against a tapping bow and pizzicato strings. Dufallo's Lighthouse has South American leanings. Pamela Z's Ethel Dreams of Temporal Disturbances finds a combination of a warm woman's voice speak-

ing quotes from Public TV ("This was made possible by the generosity of viewers like you") with an attempt to sing "There's no business like show business" that keeps getting interrupted with a thud and other odd, electronic occurrences. Zavros' Sickness and Death is a touching threnody that has Arvo Pärt leanings. And Mary Ellen Childs' After Dust is a sultry tango. You'll encounter jazz, blues, and whopping good virtuosity. These Juilliard-trained musicians are unique: no matter what they play, you get the feeling no one else would play it. If all this sounds complicated or too strange, it isn't: it's a fun 54 minutes of music-making that's entertaining, bright, and new. Ethel may wind up being a category unto themselves. Try them.

—Robert Levine

http://www.stereophile.com/December2006/record_reviews.html

RAY CHARLES
Ray Sings, Basie Swings
Performance ***
Sonics ****

What's that old joke about the difference between drummers and a drum machine? The machine won't run off with your girlfriend, fail to show up for gigs, or always want to get paid. Well, record labels today feel the same way about new acts. Why fool with new bands and live musicians when you can use recordings you already own, by deceased musicians, and make a record like this elaborate studio creation?

The product of a mid-1970s live recording by Ray Charles (see "Aural Robert" in this issue for more details) and much studio wizardry, Ray Sings, Basie Swings is, first and foremost, a document of Ray Charles vocals that

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RECORD REVIEWS

have never been heard before—and they are indeed spectacular. Ray's singing on "Oh What a Beautiful Morning" is absolutely gorgeous. Ditto his yearning rendition of "Cryin' Time." In fact, when it comes to Ray's vocals, there really isn't a clunker among these 12 tracks. And much to the producers' credit, the current version of the Basie Band, which recorded the parts originally played by Charles' own big band, stay out of the way when Ray sings.

After the vocals, this project has a strange feel that comes from the systemic problem of all this computer-driven music technology: it's too perfect. The backing music is incredibly shiny and crisp. At times, if you listen carefully—to, for example, the opening of "Every Saturday Night"—you can hear the difference between Charles counting off the tune and the sheen when the band kicks in. And speaking of the band's gloss, the arrangements are too brassy and sassy for their own good. Patti Austin's Raclettes are comically smooth and professional to a fault, at times hovering in the background like a full-on choir.

Fortunately, all the lush backing doesn't take away from Charles' truly affecting vocal performances. But if Hear Music/Concord are making a pitch that this is the way he might have sounded, or that this is a great "lost" Ray Charles record, then a little less polish and little more grit—the second being the word that practically defines the essence of Ray Charles—might have worked better.

—Robert Baird

GOV'T MULE
High & Mighty


Performance ****

Sonics ****

In 1993, Warren Haynes released a remarkable solo album, Tales of Ordinary Madness. He was already known for his great guitar playing in the revived Allman Brothers Band, but Tales stamped him as a songwriter and vocalist of distinction. Haynes chose not to pursue a solo career then, concentrating first on bringing the Allman Brothers to new heights of popularity, and eventually on Gov't Mule, the offshoot power trio he formed with bassist Allen Woody and drummer Matt Abts. Woody's death led to an epic, Dantesque series of tributes, an aesthetic descent into hell, and a hero's sober return to the realm of the living for Haynes and Abts. Now a reconfigured Gov't Mule has returned with High & Mighty, a genuine sequel, 13 years later, to Tales of Ordinary Madness.

Fans of the sonic drama and thick, sustained power chords that defined the original band's sound should recognize this version, but the additions of keyboardist Danny Louis and bassist Andy Hess, who plays in a wide range of disparate styles, bring several new aural faces to Gov't Mule, all reflections of Haynes' songwriting vision. The power of Haynes' voice is immediately apparent on the title track—it soars over sustained chords in a classic hard-rock performance that resolves in a memorable chorus that recalls the group's primary influence, Free. "Brand New Angel" works its way through a tightly wound funk verse, a meaty chorus, and an intricate instrumental bridge. "Streamline Woman" is a white-hot riff vehicle that translates magnificently to live performance.

Unlike his work with the Allmans, Haynes' solos here have little in common with the jam-band style—terse, articulate, and as tightly strategic as the moves of a chess master, they're much closer to the ideas of such contemporary saxophonists as Joe Lovano or Branford Marsalis than of most rock guitarists. Hayne's playing is concerned with variations of texture (check out the contrasting tones in "Like Flies") and emotion instead of naked pyrotechnics or the produc-
The term musical collective exists in the same realm as concept album: both are euphemisms for self-indulgence. But Kurt Wagner's ongoing happening, Lambchop, which here includes contributions from 14 musicians, continues to make records (this is the 10th) that are by turns dry and edgy. Wagner's vision, murky yet somehow attractive and suggesting profound roots, is often hard to reckon because he refuses to alight on a single consistent style.

While past Lambchop albums have explored twangy Americana and soul music—both styles completely expunged here—Damaged is mostly quiet ruminations enlivened by violins, electronics (ie, computers), sax, trombone, and waves of stringed instruments. Hands Off Cuba, a Tennessee-based computer band, is aboard for extra flavor, and does add a slightly more ambient vibe to the opening track, "Paperback Bible," but the show is still all Wagner's. Much of Damaged sounds like track 2, "Prepared [2]"—soft, pleasant, almost dreamy chamber rock, most tunes opening with chords strummed on an electric guitar, and almost all failing to rise above a whisper. In the middle are Wagner's talky vocals: calmly spoken lines detailing emotional miniatures like "It takes the sum of all the kindness / and the whole of all the guilt" ("A Day Without Glasses"). Wagner is more group-therapy leader than preacher, however. Only in the final tune, "The Decline of Country and Western Civilization," does his voice rise to a shout, and the music coalesce into crashing cymbals and pounded piano chords. Sonically, Wagner is always hyper-aware, and the sound here is conspiratorial: immediate, many-layered, meant for heads and headphones. By record's end you feel sad but you never quite know why. Perhaps that's the concept, at least on this album, for the moment, of Wagner's currently cryptic collective.

—Robert Baird
bassist Ron Carter, is Frisell's straightest jazz effort in a while. Thematically, it's a switchback after recent discs, such as Unspeakable and East/West, built around funkier ensembles.

Frisell's knack for creating a kind of endlessly permutating harmonic drizzle, using loops and delays, gives his performances an alluring aura that belies their simplicity. Motian, effortlessly masterful at 75, is a perfect foil. It's such a pleasure to hear them together that, even when they cover some overworn themes (“You Are My Sunshine”), it feels churlish to complain. Despite his laurels, the legendary Carter can be a bore, but his supportive style fits snugly here, anchoring the tangents to a tonal center. The jazz numbers are a major treat, especially when Frisell covers Monk (“Raise Four” and “Misterioso”) in relatively unfussy fashion—the elliptical structures of the originals suit the guitarist's own mojo.

Yet there's no dodging the inevitable Americana. Old folk tunes are to Frisell what the calypso is to Sonny Rollins. Best here is the vintage murder ballad “Pretty Polly,” its melody subdivided amid trailing echoes as if Frisell had reimagined it as a handful of glittering glass shards tumbling in slow motion before Motian's unpredictable shuffle. Beauty is a rare thing; happily, it's more common in such hands as these.

—Steve Dollar

BRANFORD MARASALIS
Braggton

Branford Marsalis, tenor & soprano sax; Joey Calderazzo, piano; Eric Revis, bass; Jeff “Tain” Watts, drums
Branford Marsalis, prod.; Rob Hunter, eng. DDD?
Tr: 74:08
Performance ****
Sonics ***

Branding Marsalis is the most consistently creative artist in his family. Braggton contains three tenor-sax flame-outs, each 13 to 14 minutes long, that should not be played without proper preparation. Set the gain on your system as high as you ever set it, close the windows, warn your significant other, and let it rip.

Marsalis can unleash the dogs of war with as much merciless technical ferocity as any living horn player, and make music while doing it. On “Black Elk Speaks,” drummer “Tain” Watts erupts with strategic fury and Marsalis, raving and oscillating, airs it out, right to the edge of the abyss and back. “Jack Baker” is an overt effort, through scales with blues implications, to create “a Coltrane sound.” Thousands of tenor players try for it. Marsalis gets it. He gets that clarion Coltrane cavalry charge. (Pianist Joey Calderazzo also channels the young McCoy Tyner.) “Blakzilla” creates no sound but Marsalis’ own: contoured, comprehensive, complex, and articulate.

But “Hope,” on soprano sax, is a totally different experience, a graceful arc whose melodic passion at its apex is measured, even meditative. “Fate” (inspired by Wagner) and “O Solitude” (by the 17th-century English composer Henry Purcell) allow for improvised discoveries within ordered formal settings.

The undistinguished sound quality of this album merits discussion, because it exemplifies a misconception held by many producers and engineers. Braggton was recorded at the Hayti Heritage Center in Durham, North Carolina, described as “a room with marvelous acoustics.” Recording in such spaces does not ensure good sound. Marsalis says, “We decided to lean more on the room sound and less on reverb.” But Braggton achieves ambience at the expense of detail, and places the listener at one remove from the excitement of the musical event. The
"Wired up with... [The TARA Labs’ Zero (Interconnect and Omega Speaker Cables)],"

...my system reached even more exalted levels of musicality, detail, purity, harmonic expansiveness, attack, sustain, decay, realism, and everything else I’ve already described. The increase in backdrop quiet was enormous.

"The Zeros didn’t change the flavor of my system. They produced a new sensation unique in my listening experience: it’s just fundamentally, musically right."

"There are plenty of audiophiles out there who have what’s technically referred to as “F—you money.” They can afford to blow $40,000 or $50,000 on cables for their audio systems. I don’t think there’s a one of them who would hear the TARA Labs Zero interconnect and Omega speaker cables and not buy it without hesitation."

Michael Fremer
Stereophile Magazine
Vol. 29 No. 12
already acclaimed as the best album of Ali Farka Touré’s half-century career, Savane, his last studio recording before his death on March 7, may well be just that. In a sly reference to Robert Johnson, Touré is billed on the CD cover as “The King of the desert ‘blues’ singers”; his claim to fame, at least in the West, is that his music—a stately blend of ethnic styles from central Mali—supposedly demonstrates the African origin of the blues. Here, as on other Touré albums, Western musicians are used to reinforce this presumed Afro-blues connection. But what makes Savane special is the astringent presence of Bessekou Kouyate and Mama Sissoko, two of the greatest Malian masters of the ngoni, an oblong lute thought to be an ancestor of the banjo.

Touré plays buoyant guitar and sings in several West African languages, including his own ancestral Songhai, but the songs, mostly in pentatonic minor modes, have a similar feel while avoiding the numbing sameness of some of Touré’s earlier albums. British harmonica player Little George Sueref and former James Brown saxophonist Pee Wee Ellis inject an artificially bluesy flavor to tracks such as “Erdi” and “Beto” that’s conspicuously absent from traditionally styled songs such as “Yer Bounda Fara.” The most traditional number—“Hanana,” a percussive Songhai circumcision tune featuring Fanga Diawara on the one-stringed njarka violin—is the least bluesy of all. But on the title track, where Touré sings in French, he engages Kouyate and Sissoko in what can only be called a blues jam.

The relationship between Touré’s music and the blues is one of affinity rather than consanguinity: as bluesy as Malian music may sound, there’s no real evidence of a historical link. Surely the blues has some African component, but even if its similarity to Malian music is purely coincidental, its compatibility with Touré’s style is undeniable. On “Ledi Coumbe,” for example, Sueref’s harmonica meshes seamlessly with Touré’s guitar and Dassy Sarré’s ngoni to create a haunting blues fusion. But on the similarly themed “Penda Yoro,” Sueref limits himself to unobtrusive drones, allowing the Malian musicians to brew their own brand of funk. And on “Soko Yhinka,” Touré and his countrymen lay down a majestic trance groove without any Western aid. In the end, Touré’s music should be appreciated for what it is—a vibrant modern popularization of Malian traditions—and not what it isn’t: an ancestral form of the blues.

—Larry Birnbaum
Stereophile's Wes Phillips writes after visiting the H.E. 2006 show... “I haven’t really paid that much attention to Gamut, but the CD 3, DI 150, and L-7 just flat-out worked for me. Music was alive and filled with the little pleasures that make you smile, nod, tap your foot, or even boogie. Check Gamut out”!

“...The seemingly bottomless bottom end had me plowing through my CD collection...”

Barry Willis, AV Guide Monthly
Furutech deMag
Editor:
Everyone at Furutech remains excited by the positive review by Michael Fremer of our deMag [October 2006] and the attention it brought us. Regarding the other demagnetizer's agent and his remarks, it should be noted that the deMag's circuit board is made by this other firm and that Furutech pays a royalty for each and every PC board it buys from them, as stated in a valid, signed contract between us.

Thank you!

Frank Yoo
Furutech

Funk Firm Vector & Feickert Universal Protractor
Editor:
Thank you to Michael Fremer and Stereophile for the reviews of the Funk Firm Vector turntable and the Feickert Universal Protractor [October 2006], two products newly distributed by 2 Channel Distribution and sold at retail by Acoustic Sounds.

Michael refers to the Funk Firm Vector turntable's 3mm-thick platter and a $100 option for a 5mm-thick version. In fact, the Vector comes only with a 12mm platter (called the Achromat). It appears Michael has confused Funk's 3- or-5mm replacement mats (called Achromats and designed for use on other brands' tables) with our 12- or-14mm aftermarket replacement platters. Also, the Achromat is not designed to be used on top of an Achromat. Used alone, as intended, the Achromat is suitable for use with all tonearms, not just those with adjustable vertical tracking angle, as Michael reported. The lightweight material that comprises the construction of both the Achromat and Achromat is aerated vinyl, which further explains its mechanical acoustic matching and damping properties.

Regarding the Feickert Universal Protractor, which Michael highly recommends, he does state that "you must know your tonearm's pivot-spindle distance and effective length." With the Feickert, you actually will measure the pivot-to-spindle distance for your table. The Feickert design takes into account the differences in manufacturers' tolerances in drilling armboards and the setup of turntables that have movable armboards/armspods. It addresses those challenges by allowing you to measure the specific sample of your turntable.

All of us at Acoustic Sounds, Inc.
2 Channel Distribution

Pathos Acoustics Classic One Mk.III
MilE grazio Sam! Can a Class A product be bettered by the newest version? "[Not much about the Classic One's sound has changed...] clearer, cleaner, faster—a tad more detailed...and more controlled in the bass. It's definitely more dynamic." If every music lover could improve their system in all those ways, what would we say? Incremental or incredible? Thunderous, maximum, talk about playing loud. Small, modestly powered, perfect for an apartment.

Is this the same integrated amplifier? System matching is still the name of the game in high-end. Plug in a CD player's balanced output with 6V RMS, sounds great. Down the road, buy a second unit and run them as bridged monos. Let's add upgrade to entry and exit. Just don't run the house PA at your local bar—it's too dark and smoky in there to appreciate the Classic One's appearance. Maybe for a band playing Santana, Eagles, and Clapton in Vicenza. That's what this bunch of paisanos, Paolo and Gianni, do to kick back. Unorthodox? Hey, get me another Moretti. One thing definitely hasn't changed—it may still be the most beautiful piece of hi-fi gear ever made.

Garth Lover
MUSICAL SURROUNDINGS

Goldring D150 & D100
Editor:
It looks like all the cajoling I've been giving Sam over the years has finally paid off—he has written a sterling review of the Goldring headphones. Except for his use of the made-up word auraland, he's written a really good description of the headphones and their strengths.

By now, most manufacturers would be tripping over themselves with praise for Succotash Sam. All after, he is a very big fish (literally and figuratively) in an awfully small pond. But none will pour forth from me. All he did was to do his job. This time, he actually got it right. So, Sam, finally you've started to listen properly. How nice.

By the way, I have a real word for you: auraland. It means surrounding or covering your mouth. You should try it sometime.

Roy Hall
Music Hall

Immutable Music Transfiguration Orpheus
Editor:
Immutable Music and Profundo would like to thank Michael Fremer and Stereophile for a well-balanced and accurate characterization of the new Transfiguration Orpheus. We would agree with Mr. Fremer that it is Mr. Seiji Yoshioka's "best-performing, most exciting-sounding cartridge yet." More important, however, is his recognition of the way the Orpheus "has pulse and soul without sacrificing the refined, evenhanded demeanor" of the other top Transfiguration designs. Above all, Mr. Yoshioka strives for musical accuracy and naturalness. The refinement of the revolutionary yokose ring-magnet design through the reduction of internal resonances and the use of special, newly available core materials have made it possible for Mr. Yoshioka to make this most recent, very large step toward capturing the excitement and realism of the live musical event.

The "evenhanded" musical balance achieved by the Orpheus is likely what has made Transfiguration cartridges so popular with music lovers, who spend a lot of time attending live concerts. The added dynamic and musical dimension the Orpheus achieves now makes it a great cartridge for rock and roll, as well as jazz, classical, and opera, its greatest attribute still being the ability to reproduce the correct natural timbres of the most elusive instrument of all: the human voice.

It is, true, pole-dancers, screaming comedians, high-pressure salesman, and unbalanced, flashy cartridges do often draw a lot of attention with their immediate "wow factor," but extended, intimate exposure to their colorful presentations can ultimately prove less satisfactory, if not downright annoying. We also expect the Orpheus to serve well "over the long haul," but feel it may also garner more than a few must-loving fans, who will be ready to proclaim it their "favorite."

Mr. Fremer's comparison of Transfiguration cartridges to Rodney Dangerfield proves most apt. Having seen Dangerfield in concert, I can say, without qualification, that he was the funniest comedian I ever heard. After pummeling the audience for 45 minutes with staccato joke after joke, leaving me gasping for breath and with tears in my eyes, he stopped dead with a pregnant pause, in which I could hear the entire audience trying to compose himself and breathe normally. He quietly noted into the microphone: "I know a lot of [bleep]ing jokes..." He then continued his all-out comedic assault for another 45 minutes. At the end, he not only had my everlasting respect, but I, along with thousands of others, flashed him the "OK" sign, his silent signature of respect. While the chameleon-like, unfailingly signature sound of Mr. Yoshioka's best designs may only ever sound just exactly like the music in the groove, and may always lean more toward schoolmarm than pole dancer, the pulse and soul that Orpheus finds deep in the LP groove leave me breathless and maybe even a little hot for teachers.

So I would like to thank Mr. Seiji Yoshioka of Immutable Music for helping to
make this new golden era of analog technologically possible, and Michael Fremer for recognizing and proclaiming its importance. Because, though the Orpheus might "get no respect," it, like its namesake, can breathe life into the inanimate crags of the "long-since dead" analog LP. I'm reminded of Mark Twain and Rodney Dangerfield: While reports of analog's death have been greatly exaggerated, the Orpheus plays a lot of [bleeping] music.  

Bob Clarke  
Profundus

Blue Angel Pink Ivory Mantis  
Editor:  
I write to thank Stereophile for the opportunity given to my US importer (Mr. Jay C. Bertrand of Bertrand Audio Imports, Nashua, New Hampshire) at submitting the Mantis cartridge for review in your esteemed magazine, and more sincere thanks to "Analog Corner"'s Michael Fremer, who could find the time to write a fine review of the Mantis, perfectly summarizing my design objectives and elegantly, as always, describing the product's somewhat unusual technical features. I loved the "skinny pins" bit and will try to do something about this. The skills and means to construct a fickle thing like a moving-coil phono cartridge I owe entirely to a small group of fellows who are members of the Cape Town Society for Model and Experimental Engineers—a society 100 years old next year. Although many of my colleagues there did not actually know what it was with this vinyl junkie among them, their engineering know-how and solutions to otherwise insurmountable problems assisted me immensely.  

A.J. Hanekom  
Proprietor, Blue Angel Analogue Audio

TW-Acoustic Raven AC  
Editor:  
What does one say after Michael Fremer declares the TW-Acoustic Raven AC "one of the world's top turntables" and "an absolute bargain"? WOW!!!!! Anything else I could add would be superfluous. Needless to say, Thomas Wosdinick and I are deeply thankful and elated for such praise from Michael and Stereophile magazine.  

Jeffrey Catalano  
High Water Sound

Funk Firm Vector Link  
Editor:  
Commenting mid-review certainly feels strange...but here goes...Why and how Vector Link? I became a physicist because to me it is not only fun when applied correctly, it should give us the results we seek. Following rules, I look, ponder, and come up with wacky ideas. For turntables, this means exploring motor position, drive technology, platter matching, and so on—the beauty is that the predictions do seem to work out. It may be only hi-fi, but when apparently unreasonable things work, I get a greater sense of security, understanding more about our universe. Whatever floats your boat, I suppose? (I don't know why people are so conservative and fixed in their thinking. More people should do it; otherwise things just don't progress.)  

Re: the missing belt guide(s): The new top plate comes drilled to fit only one DC motor at the front. For the review, Art [Dudley] wanted to revisit Pink Link history; imagine him trying to make sense of his results: he had to go from an AC at the rear to a DC at the front. Is it the motor? Is it the position? How about a bit of both? That would do my head in, never mind any of your poor readers! So we drilled it out for two AC motors. The pulley on the DC motor needs no external guide, and it's been so long since I've played with an AC motor that I just didn't think and left out the guide fixings; apologies for the frustrations suffered.  

I await reading your final installment before commenting further. By the way, Art, this top plate is now so nonstandard, go ahead and glue it!  

Arthur Mahovenian  
Funk Firm

PrimaLuna ProLogue Three & Seven  
Editor:  
All of us associated with PrimaLuna wish to graciously thank Bob Deutsch, John Atkinson, and Stereophile for the glowing review of the ProLogue Three preamp and ProLogue Seven monoblock. We're so very grateful that the thorough and thoughtful evaluation captured the essence of our labor of love in creating the entire line of ProLogue components. When Bob writes, "With sound quality that gives up little to much more expensive products, the ProLogue Three and Seven are beautifully built...they represent outstanding value," I can only smile because, in a nutshell, he articulates exactly what we're all about. The minds behind PrimaLuna possess a sincere desire to bring something unique to the hi-fi community, from beginners to solider sniffers. We want people to feel that when they purchase any PrimaLuna, they've bought a truly special product, that when they open the box and take it out, they're thoroughly surprised by the beauty and build quality, and that when they finally play it, they're completely blown away. Think of a child who gets more than he asked for at Christmas. Better yet, imagine going to a small club and paying $10 to hear an unnamed band, only to find out that it's Cream...wanting to play for fun. After all, "fun" is what this whole audio thing is supposed to be, and it's the experience we strive to provide.  

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-Sam Tellig, Stereophile

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S
o let me get this straight. A tape of an old Ray Charles show, with the Count Basie Band on the same bill, was uncovered in the vaults of Fantasy Records. Charles' voice was stripped off the tape, and the current Basie Band—25% of whose members were in the band before the kid from Red Bank, New Jersey died—was brought in to rerecord the music played by Ray's band on the original tape. Ray's voice was then mixed with these new recordings and, voilà! a new CD, of Ray Charles and the Count Basie Band, was born?

This was the tale related to a quizzical crowd of journalists and music biz heavy hitters at a swank lunch at Per Se that Concord Records, the new owners of Fantasy, held in New York this fall to announce the release of Ray Sings, Basie Swings (see my review on p.155). As I dug into a piece of striped bass the size of a large marshmallow, (ah, that nouvelle cuisine), I have to admit that visions of other dead/alive pairings drifted across my mind. There was the many nuts and bolts involved in this complex project.

The tapes are from concerts given in New York this fall to announce the release of Ray Sings, Basie Swings (see my review on p.155). As I dug into a piece of striped bass the size of a large marshmallow, (ah, that nouvelle cuisine), I have to admit that visions of other dead/alive pairings drifted across my mind. There was the very deceased Nat Cole, accompanied many years later by the middling talents of his out-of-ideas daughter, Natalie, in the studio-monstrosity version of "Unforgettable." As if that weren't bad enough, there was the sacrilege of jazz-lite imbecile Kenny G. toodling over Louis Armstrong singing "What a Wonderful World." What a wonderful idea it wasn't. For that one, someone should have been taken out and shot.

After lunch, and after a slice to compensate for Per Se's swoppy-like portions, I needed to chat with Ray Sings, Basie Swings' producer, Gregg Field, for more of the story. Reached the next week at home in Los Angeles, Field explained for me the many nuts and bolts involved in this complex project.

The tapes are from concerts given in Europe sometime in the mid-1970s, when the Charles and Basie bands played on the same bill. The tape boxes list no dates, no personnel lists, no concert locations. And, oh yeah, the tapes have all the fidelity of an AM radio broadcast.

"They were pretty bad," Field says. "What I've kinda determined is that [the source] was probably Ray's microphone, through a live board. Somebody, Norman Granz, decided to throw a tape on it. It was a mono tape. There was a lot of leakage. It had a lot of band in it, and a lot of out-of-tune piano. But fortunately the vocal was prominent enough. I initially tried stripping a little bit off before we got in the studio, just to see how things were living, sonically, and I got the idea that we could do it."

Field, who played drums for both Charles (1977) and Bill Basie (1980-82), reached out to the current incarnation of the Basie Band to see if they'd be interested in rerecording the band parts heard on the original tape, which had been played by Ray's own big band. The only significant difference in instrumentation was that Ray's group included an organist.

Field then dug in and, using the original tapes as both a guide and a massive source of frustration, began to write out the arrangements. In the best cases, enough of the band had bled into Ray's vocal mike that Field mostly had only to transcribe what he heard.

"Sometimes, what had to happen is that if there was enough band in Ray's vocal, then the arrangement had to match, because if it didn't you'd hear the old one peeking through. You could improve the voicings within the hand a little bit, but the harmonic and rhythmic structure had to remain the same."

In other cases, when most of what was audible on the tape was Ray's voice, Field listened to the rhythm section for clues as to the arrangement. Sometimes, he didn't have even that.

"One tune, 'I Feel So Bad,' there was so little of the band on the original recording, it was hard to get a read of where Ray was in terms of phrasing. There are over 8000 edits on that one song. It was really tough to pull into the boat."

Much of the really heartbreaking sonic tweaking was the job of engineer Don Murray, who, Field quickly admits, had the "hard road to hoe." "It was all done in the computer. At one point he had five automated EQs on the vocal that would sometimes come in for 10 milliseconds and out, just to grab a spike of a trumpet or something like that. Yeah, it was very tedious."

Another complicating factor was that Charles' piano on the original tape was out of tune, and on some cuts faded too far into the background. Two pianists—Shelly Berg, who's signed to Concord, and L.A. studio musician Jim Cox—were brought in to play and rerecord Ray's piano parts. Berg transcribed the parts from the tapes, and then he and Cox matched the tempo, key, and timing of each original track. The timing, in particular, had to be exact; if it was even slightly off where Ray had laid the note, you'd hear the old piano part. Finally, Patti Austin and seven other female singers were brought in to rerecord the Raelettes' parts.

"What's really amazing is that Ray sang completely in tune—I didn't have to pitch a note of this," Field said. "If I had had to, it would have been a problem because it would have pulled everything else in the background out of tune, and that would have made it rub with the new recording."

Listeners will have to make their own call. So far, Ray Sings, Basie Swings has generated a raft of positive as well as a few negative reviews. Ray Charles purists and those opposed to studio Frankensteins of any sort are not quite convinced. Not surprisingly, Field thinks that's musical provincialism at work.

"We're not putting Green Day and Yo Yo Ma together here, we're putting together artists that, stylistically, completely make sense together. These are completely unreleased Ray Charles vocals. It's not like, as in the case of 'Unforgettable,' we took a classic Nat Cole recording and built it around it. It's a performance out of Ray Charles that nobody's ever heard before."

"Glen Barros, the president of Concord, had a good point. If somebody discovered a Rembrandt tomorrow and they took it out, and they dusted it off and they put a new frame around it, nobody would say, 'Well, you know, he died before they put that frame on it.' We didn't manufacture anything. These are actual performances. If you go into a studio now, I guarantee you that on Diana Krall's new record there was a lot of band added after she sang her vocals. It's done all the time."

True, except for a few small details. Krall will never be an iconic artist like Ray Charles or Count Basie, and she's still alive enough to veto anything she doesn't like. For a multimedia explanation of this project, go to www.youtube.com, search for Charles or Basie, and judge for yourself.

Robert Baird

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