Sonic Transparency with B&W’s 802D DIAMOND TWEETER
AN AUDIOPHILE’S BEST FRIEND?

ULTIMATE TUBE POWER
VTL’s S-400 Amplifier

AFFORDABLE TUBE POWER
Cayin Amplifier from China

HIGH-END PREAMPLIFIERS ON TEST
Viola, EAR, Musical Fidelity, & Whést

UNPRECEDENTED DYNAMIC RANGE
Musical Fidelity’s kW750 Amplifier

HIGH-PERFORMANCE SPEAKERS
Spendor, Usher, & Lipinski

SUSAN TEDESCHI GETS BEYOND THE BLUES
Introducing the extraordinary new 306 Designer Series of Cary Audio Masterpieces.

From the home of the celebrated, Award-Winning CAD-805 single-ended triode amplifier comes another milestone in Cary Audio history. The new 306 family of innovative digital audio masterpieces. Innovations like the revolutionary A-306 stereo amplifier with 500 watts per channel of class D technology. The C-306 dual mono preamplifier will challenge any preamplifier in the world. Of course the Cary Audio Designer Series would not be complete without the long awaited CD-306 SACD disc player. Redbook and SACD playback with Cary Audio sound.

Audition the new A-306 amplifier, the C-306 preamplifier and the CD-306 SACD disc player at select Cary Audio Design dealers. Experience your audio future...Cary Style.
music lovers listen to songs about trains. Audiophiles just listen to trains.

At least that’s how it was at the dawn of the stereo age, when record stores did brisk business in titles like Sounds in Space and Hear the Whistle Blow, and a portion of the nascent audiophile community made no bones about being less interested in the deeper meaning of music than in the sound on its surface—or in the meek thrill of hearing trains zizz from the left speaker to the right, for that matter.

Fifty years later, things have changed a little: Music lovers buy torch songs from their favorite singers—Bessie, Billie, whomever—because that’s what they want to hear. Audiophiles buy the same songs from Jacintha because they’re well recorded.

I used to look down on those audiophiles, but I don’t anymore. I’ve stopped condescending to people who enjoy recordings differently from the way I do, because I no longer think there’s any one approach that has a greater degree of legitimacy than any other.

I still prefer my own path to audio bliss: I want the music in my home to have a sense of flow and momentum, and I want all the texture, presence, and sense of scale I can get—and I’m willing to sacrifice a certain amount of timbral neutrality in order to be faithful to those other, more important criteria. But I know that my approach is “better” only inasmuch as it’s the one I’ve worked out for myself, however subconsciously, and while it allows me to internalize and enjoy the art of music to my own satisfaction, that’s all that it does. Art isn’t truth, it’s freedom from truth: It’s the ultimate in relativism, and any approach to disseminating art that seeks to confound that notion is doomed to irrelevance.

That’s the key: Dissemination. Reproduction. That’s where all the universals, all the absolutes, break down.

The philosopher Walter Benjamin wrote, “The technology of reproduction detaches the reproduced object from the domain of tradition.” Years later, in a decidedly more electric age, media analyst Marshall McLuhan seemed to expand on that idea, saying of the technology of communication, “Its message is total change...you can’t go home again.” Writing specifically about domestic audio, McLuhan also said that the phonograph “broke down the walls of the music hall,” which...was taken by many to be a good thing—like tearing down the walls of the bank, or the place where they make Miller Lite. My own conclusion is different, and predictably negative: Phonography didn’t democratize the concert hall—it demolished it altogether.

An original work is inseparable from the time and the place of its making, and that applies to the concert hall performance as well. Yet the very act of recording a performance and playing it back at another place and another time defies that axiom, and reduces music to little more than sound—and most of whatever scraps of meaning that are left hanging on its bones are of the listener’s own making. (As Benjamin also said, “Phonograph records enable the original to meet the beholder halfway”—my emphasis.) When I listen to Wilhelm Furtwängler’s 1953 Radio Italiana recording of Wagner’s Das Rheingold, I can’t help associating it with certain other things in my life: people, books, scents, furniture. And somewhere in the cognitive background I compare it with other Rheingolds—a notion that I’m sure would horrify Furtwängler himself. Or Wagner. The concept of a modern listener actively cataloguing the flow of differences among dozens of interpretations of a single work while he listens is surely not what anyone had in mind.

There you go: A moment of creation at one end of the line and a perversion of intent at the other. But it’s what we do. It’s unavoidable. It isn’t good or bad, it just is. Resistance is futile.

If not for sound recordings and playback equipment, both occupying various strata of technical and artistic accomplishment, how could I ever hear a Wagner opera in Cherry Valley, New York? How could I hear Caruso, or Mahler’s piano rolls, or Dylan tangling with a heckler in Manchester? And what about music that never existed? What about Pet Sounds or Sgt. Pepper’s? What about that goofy Cage piece with all the record players lined up on stage?

All of those experiences are worthy; all of them are legitimate. But their worth is removed from any concept of an “original performance,” and now has at least as much to do with what the listener makes of it—relativism again. Absolutes—moral, scientific, you name it—govern the day-to-day universe, but art is another dimension altogether, and is largely immune to absolutes. So is its reproduction, because reproduction is re-creation on a personal level.

As I grow older, the folly of writing about soundstage depth and microdynamics and caramel colorations becomes more and more apparent. I want to carry on sharing my own enthusiasm for recorded art and for the technology that enables it, but at the same time I want to remind you that all of these things should be different for each individual listener. You can share the enjoyment, I think, without taking the specifics too seriously, without getting bogged down in all the ephemera. You can forget bass or imaging or even flow or momentum, as long as you recognize the things that trigger your own release from the mundane.

I’m often first in line to poke fun at our hobby—to laugh at the foibles and character traits, my own included, that lead grown men to sit in front of a speaker while the house, any house, crumbles around them. I’m no less inclined to do that now, but I also want to say that What we’re doing is all right. As great original works of musical art seem less and less likely to happen, and as our culture sloughs closer to the basin wherein serious music appreciation is abandoned in favor of the constant background wash of sonic product, we’re right to hold out and defend the art of listening as the necessary complement to the art of performing. We do it not because it sounds real—it couldn’t possibly, no matter what—and not because it even sounds good. We do it because it’s art, and that makes it real. That’s what matters most—except to people who don’t understand.
This means ultra-thin silver conductors with gold infusions to fill molecular gaps.

This means helically wrapped Kapton film for the toughest, most impervious insulation on the market, far ahead of the ubiquitous Teflon used by competitors.

This means extremely flexible, easy to route, barely visible, consumer friendly cables with peak performance, transparent and musical sound.

This means advanced metallurgy perfected at famous German and Dutch laboratories using the most sophisticated test equipment in Europe.
FEATU RES

Products of 2005
Stereophile writers and editors vote for the products they believe will have a lasting impact on the high-end audio industry.

Sweet Soul Music: Susan Tedeschi Gets Beyond the Blues
On her new album, singer/guitar player Susan Tedeschi adds more shades than just blue, and makes her case for being an "American Artist."

EQUIPMENT REPORTS

84 B&W 802D loudspeaker (Kalman Rubinson)
95 Lipinski Sound L-707 loudspeaker (Larry Greenhill)
105 Usher S-520 loudspeaker (Robert J. Reina)
113 VTL S-400 Reference power amplifier (Brian Damkroger)
125 Esoteric Audio Research EAR 912 preamplifier (Art Dudley)
135 Viola Audio Laboratories Cadenza preamplifier (Wes Phillips)
149 Musical Fidelity kW Hybrid preamplifier (Michael Fremer)
149 Musical Fidelity kW750 power amplifier (Michael Fremer)

FOLLOW-UP

142 Conrad-Johnson ACT2 preamplifier (Wes Phillips)
119 VTL TL-7.5 Reference preamplifier (Brian Damkroger)
165 WallyTractor tonearm alignment gauge (Art Dudley)
166 Whest PS.20 phono preamplifier (Brian Damkroger and John Atkinson)
169 Sutherland PhD phono preamplifier (Brian Damkroger)
As We See It
Art Dudley addresses the creation, perversion, and freedom from truth that is the art of audiophilia.

Letters
Readers write in about the physical allure of vinyl, the “Great Debate,” pitch changes, the legend of Les Paul and the electric guitar, the law and copyrights, and to offer some sound advice on how to run this railroad.

Industry Update
High-end audio news including dealer-promoted seminars, plus news on HDCD, new portable-music technology from SanDisk, Acheson’s new products, UK development of Rega CD player technology, MusicGian’s CD-resolution on-line music, Milwaukee Symphony Orchestra’s e-label, NXT’s BMR technology, and the 60th anniversary of Sennheiser.
Want to know more? Go to the “News Desk” at www.stereophile.com for up-to-the-minute info.

Sam’s Space
Sam Tellig contemplates the construction of high-end audio in Far East markets, and listens to the Cayin A-88T and the Consonance Cyber 10 Signature integrated amplifiers.

Analog Corner
This month Michael Freiner brings back news and goodies from the CEDIA Expo and the London Show.

Listening
Art Dudley listens to the First Watt F2 power amp and blows the lid off an audiophile scam!

The Fifth Element
John Marks remembers the greatness of Norman Grantz, listens to the Spendor of—and declares that the love for good audio gear is not just for audiophiles anymore!

Record Reviews
For the final “Recording of the Month” for 2005, we’ve chosen Takk by Icelandic quartet, Sur Ros. In classical music, we have a new ECM collection of John Cage’s early piano works and two discs of Maestro James Levine with the Munich Philharmonic. In Rock/Pop, there’s the DVD and CD of the new Bob Dylan film, No Direction Home, and a collection of live Yes. Finally, in Jazz, we have the colossal new boxed set of music and interviews of the great Jelly Roll Morton.

Manufacturers’ Comments
This month we hear from Audio Physic, Spendor, Lipinski, EAR, Wally Phono Tools, and Whest about our reviews of their products.

Aural Robert
Why are White Stripes-like guitar rock albums being released by a label once known as the “Home of Insurgent Country Music?” Rob Miller, co-owner of Chicago-based Bloodshot Records, talks about where his label’s heading on the occasion of its 11th anniversary.

Audio Mart

turers’ Showcase

Dealers’ Showcase

Advertiser Index
Enter its realm...

FOR YOUR NEAREST DEALER CONTACT:
TOTEM ACOUSTIC 9165, Champ D’Eau, Saint-Léonard (Quebec) H1P 3M3 CANADA
Tel.: (514) 259-1062 • Fax: (514) 259-4968 • info@totemacoustic.com • www.totemacoustic.com
"... incredible performance ... simply spectacular ... you're in the presence of EXTRAORDINARY SOUND."

Marc Mickelson, SoundStage! on the S8

In designing Signature our objective was clear—to move significantly beyond anything currently available by applying the highest level of design and technical innovation. Signature’s tweeter is just one example. The deep gold-anodizing process used on the G-PAL® dome provides exceptional rigidity, without adding mass. Innovative AREF™ Aperiodic Resonance Breakup fins capture and disperse even the smallest residual internal resonance. Super Neodymium magnets and unique external heatsinks ensure vastly superior power handling. Power response is uncompressed and immediate, with lightning speed.

What emerges is an audiophile’s dream—breathtaking clarity, exquisite detail, completely uncolored, uncompromised sound. In reviewing Signature, perhaps SoundStage! puts it best: "... a technical tour de force ... one of the best ... the one others have to rival."

We invite you to visit your local dealer to experience the extraordinary sound of Paradigm® Reference Signature for yourself.
Ahhhhhh...
Editor:
I no longer own a turntable, but I love reading Michael Fremer's "Analog Corner" every month. It's so captivating, and the products are so cool-looking. There is nothing romantic about taking a CD out of its case and popping it in the drawer. Pulling the album out of the sleeve, looking at the artwork, the smell of the cardboard, making sure all is clean, placing it on the platter...ahhhhhhh. It was such a visceral experience.
Keith Dinmore
icenine2@comcast.net

Who cares?
Editor:
I am interrupting the playing of Frank Martin's Concerto for Seven Wind Instruments, Timpani, Percussion, and String Orchestra to weigh in once again on the subject of the double-blind testing of audio equipment. As a participant in the "Great Debate" at Home Entertainment (see www.stereophile.com/news/050905debate), I challenged Amy Krueger to discuss the assumptions that underlie his belief in the validity of double-blind testing. A point that I neglected to mention involves statistically valid sample sizes. Medical trials are typically costly in that they require large numbers of participants and multiple repetitions of the test over time, as well as a control group to ensure that the placebo effect is not in operation. I'm pretty confident that you could total the cost of every audio component for $10,000 ever produced and still not have enough money to conduct a statistically valid blind test for a single audio component!

I think that the blind-test contingent consists mostly of people who are jealous that they cannot afford to buy the "best" components in the whole wide world, and therefore insist that they aren't any good anyway. The best components for you are those that bring you pleasure. Who cares what anybody else thinks of them?
Tim Price
jal4jpp@cox.net

Junk science?
Editor:
Funny that Mr. Levine ("Letters," October 2005, pp.11-12) uses evolution as a metaphor to support blind testing as "scientific." There is no evidence supporting evolution, a completely discredited theory. (It is mathematically impossible, and there are no transitional fossils, and that is just the beginning.)

Blind testing is junk science, just as evolution is junk science. Mr. Iverson and Mr. Atkinson are right!
Gary Covert
Earp, CA
gary.covert@gte.net

Trained in science?
Editor:
Jon Iverson's rejection of blind (objective) comparisons of audio products ("The Blind Leading the Blind," August 2005) tempted me—and, I'm sure, others trained in science—to write a snotty retort pointing out that the Scientific Method has been around since the 17th century and he ought to be ashamed that he hasn't caught on yet. Instead, I'll just say that I'm thankful that those responsible for evaluating new drugs, medical treatments, aviation safety systems, and other vital technical achievements have caught on.

I'll keep the rest very brief: If only a few people can hear the difference some of the time, there's no difference—except for the aura, of course.
Paul D. Cherulnik
Leeds, MA
pdccherulnik@yahoo.com

I am afraid you are wrong, Mr. Cherulnik. If only a few people can hear the difference some of the time, there is indeed a difference. And you, too, are wrong, Mr. Covert. The theory of evolution is about as far as it is possible to get from "junk science."

Blind tests & rambling
Editor:
For a number of months now we have been reading articles and rebuttals to articles on the pros and cons of blind testing of audio components. Test results are what they are, so long as the test equipment used has been properly calibrated and maintained. And even if it hasn't—as long as both components were tested on the same equipment, while the test results may not be 100% accurate, the relative difference in them would still indicate two components that sound different.

Blind testing, however, is totally subjective to the listener or reviewer. The human ear is a wonderful piece of equipment, though not all ears perform the same. Factors such as age and abuse tend to change the way we hear things. Blind testing should be used only by individual consumers who want to compare the sonic differences that they hear between two components, not as a means to recommend components to the masses. I would also add that anyone wanting to do a comparison of components needs to compare them, blindly or not, over an extended period of time in their listening environment. How many times have you heard something that sounds fantastic in the showroom, only to get it home and find out that it sounds completely different, as if they'd switched the guts?

Enough rambling. I am going to listen to some music.
Brian Keane
briankeane@gmail.com

Changes in pitch
Editor:
There is something I have noticed on many recordings—but especially when listening to pipe-organ recordings. After the organist releases the final, loud chord, it begins to decay in a very reverberant space, the pitch changes, very much like the differences in pitch between a train's approach, its passing, and its going off into the distance. Have any of you at the magazine heard this, and do you have any theories about why it happens? Could it be a function of the mechanics of the digital recorder or the CD player, or is it some kind of acoustical phenomenon?
John Huschel
Manchester, MO
johnhuschel@charter.net

This is a real phenomenon, Mr. Huschel. Everyone knows that the perception of pitch depends on frequency, but not nearly as many know that pitch also depends on loudness. As the sound dies away, it seems to go sharp, even though the frequency remains unchanged. The opposite is also true: Before the advent of electronic tuning aids, musicians who perform in intense soundfields—rock guitarists, for example—tended to tune flat of concert pitch.

Les Paul & the electric guitar
Editor:
Considering Stereophile's attention to the...
minuetae of hi-fi history, the cover of the October issue, heralding Les Paul as "the man who invented the electric guitar," represents a serious lapse of editorial rigor. Les Paul is a spectacular guitarist; he did not invent the solid-body electric guitar. George Beauchamp experimented with phonograph-needle-based pick-ups as early as 1925; he and his business partner Adolph Rickenbacker put the "frying pan" solid-body guitar into production in 1931.

Around the same time, Lloyd Loar, legendary production manager at Gibson Guitars, was working to design a more traditional electric guitar. The Gibson ES-150 went into production in 1936. This model was favored by a person named Charlie Christian (perhaps the name rings a bell).

In the 1940s, Les Paul—did I mention that he is a great guitarist?—was permitted to work during off-hours at the Epiphone workshop. He made a couple of pick-ups and attached them to (legend has it) a short length of railroad tie, stuck on a neck, and attached the sides of a hollow-body guitar to make it more comfortable to play. In 1946, he took the guitar to Gibson; they were not interested. Leo Fender built his prototype solid-body guitar in 1943 and went into production in 1949. If you turn on your radio or play a CD, you will hear this guitar virtually unchanged from its original form. Leo had the right idea.

In 1952, motivated by the popularity of the Fender guitar, Gibson introduced the Les Paul. There are varying accounts of where this design originated. The most common one is that Ted McCarty (Gibson's president) designed a guitar that he thought Les Paul might approve of. The pick-ups of these guitars (P-90s) were developed by Gibson and had been in production since 1946. The guitar bears no resemblances whatsoever to Les Paul's (a fine guitarist) "log." They presented the guitar to Mr. Paul while fishing for an endorsement deal.

Other accounts are marginally more favorable to Mr. Paul, but all accounts report that the design of the guitar's first-year production bridge was his. This was the one real problem with the guitar and was remedied in the second year of production, reportedly without consultation with Les Paul.

My point is that while Les Paul is a world-class innovator of guitar-playing technique and recording tricks, he is an endorser of Gibson guitars. It is true that Mr. Paul has a 1952 patent (03018680) for an "Electrical Musical Instrument"; a review of the patent clearly illustrates that this is not the "Les Paul guitar."  

Copyright law

Editor: Laurence A. Borden's September 2005 article regarding copyright law as applied to copying and sharing music was a matter of fair-use principles until the passage of the 1992 Audio Home Recording Act (AHRA). Unfortunately, that's simply not true. When it comes to the most prevalent kinds of copying on computers today—copying CDs and ripping music to MP3 players—AHRA is largely irrelevant. That law applies only where the recorder or blank media are "compliant" under AHRA (i.e., support SCMS and have paid the copyright royalty). The CD burners in PCs are not covered by AHRA, nor are any of the "data" CD-Rs that most people use in them. Neither are iPods or other MP3 players. So, unless you are one of the very few who use "audio" CD-Rs (which cost several times as much as "data" blanks, due to the copyright levy) or consumer DAT recorders, AHRA does not apply to you. Personal-use copying continues to be governed, as it always has been, by the often murky principles of fair use.

Second, the article states that the first-sale doctrine, which generally allows consumers to sell, lend, or give away CDs they have purchased, notwithstanding the copyright owner's exclusive right to distribute, "does not apply to a copy the purchaser makes." That is also incorrect. The principle of first sale is contained in Section 109 of the Copyright Act, which expressly applies to any copy "lawfully made." By its terms, this would appear to include copies lawfully made by consumers, whether under fair use or AHRA.

Third, the article states that the Digital Millennium Copyright Act (DMCA) makes it illegal to make digital copies of "copy-protected" CDs. This, also, is false. The DMCA applies differently to works that include "access controls" (such as SACDs, which are encrypted) and those that merely employ "copy controls." The law prohibits a consumer from circumventing the former but not the latter. (Compare sections 1201(a) and 1201(b) of the Copyright Act.) So, where copy-protected CDs are concerned, consumers are free (within the bounds of fair use and AHRA) to work around copyright protection and make copies. (The DMCA, however, does prohibit the distribution of tools designed to circumvent either access or copy controls, but this is something for the technology distributors to worry about, not consumers who use the tools.)

Finally, I'd like to take issue with the notion that fair use is not a "right," but merely a legal defense to a charge of copyright infringement. The same can be said of the First Amendment's protections for free speech—those provisions, too, are legally relevant only as a defense against laws that otherwise stymie speech. But that has never stopped those who value civil liberties from proclaiming that the
“GALACTIC PERFORMANCE FOR THIS WORLD”

“MOON”... the leading edge in music & film reproduction

INTERNATIONALLY RENOWNED
AUSTRALIA • BELGIUM • CANADA • CHINA • FINLAND • FRANCE • GREECE • HOLLAND • HONG KONG
HUNGARY • ITALY • INDONESIA • LATVIA • LUXEMBOURG • MALAYSIA • NORWAY • RUSSIA
SOUTH KOREA • SWEDEN • SWITZERLAND • THAILAND • UKRAINE • UNITED KINGDOM • U.S.A.

WWW.SIMAUDIO.COM
877.980.2400

World Audio History
First Amendment protects our “right” to free speech. In that same spirit, I think it is absolutely proper to refer to fair use as a “right.”

Fred von Lohmann
Senior Intellectual Property Attorney,
Electronic Frontier Foundation
fred@eff.org

Thank you, Mr. von Lohmann, for sharing with the readers of Stereophile your considerable knowledge of and insight into this complex topic. My responses to your specific points are as follows:

1. As I noted in footnote 7 (p.59), the laws governing copying to a computer or MP3 player do differ from those pertaining to copying onto certain types of discs. I appreciate your providing some important clarifications regarding the use of different types of CD-Rs.

2. In researching this article, I was struck by the fact that the first-sale doctrine might represent a significant loophole in copyright holders’ exclusive right to distribute. I discussed this with a few intellectual-property attorneys, all of whom felt that a copy would not be deemed “lawfully made.” If you have any relevant case law on this point, I would be most appreciative if you would send it to me.

3. Thank you for clarifying the difference between access controls and copy controls vis-à-vis the DMCA. I stand corrected.

4. There are many different viewpoints as to what constitutes a “right,” and I pointed out at the top of p.59 one reason some view fair use as having a right. If you have any relevant case law on this point, I would be most appreciative if you would send it to me.

Thank you for clarifying the difference between access controls and copy controls vis-à-vis the DMCA. I stand corrected.

—Laurence A. Borden

This exchange continues at www.stereophile.com/reference/905copy.

—JA

The Final Word

Editor:
Stop reviewing expensive equipment; it gives us inferiority complexes.

Stop reviewing affordable equipment; it can’t possibly be good enough to take seriously.

Stop reviewing widely distributed products; we know about them already.

Stop reviewing rare products; we’ll never be able to get our hands on them, so what good is it to know about them?

Do not acknowledge the existence of the Apple iPod. Even if everything you’ve heard is true, it still isn’t.

Stop reviewing CD-related products. Though the CD has dominated music distribution for 20 years, we will never admit it is legitimate, and we will never forgive whoever said “perfect sound forever” (it’s only pretty good sound for about 30 years).

Stop reviewing hi-rez products; these formats are dead. After all, they sold only about as much last year as vinyl.

Feature more vinyl-related products;

vinyl is the apotheosis of high fidelity, especially if you ignore rumble, speed variations, warps, scratches, wow and flutter, equalization, etc., and make no allowances for user-friendliness, software availability, or cost. Besides, vinyl has a bright future. It sold as much last year as the hi-rez formats.

Stop reviewing tube gear; people like it only because of what it does wrong.

Stop reviewing solid-state gear, even if it measures perfectly, it will never give us the “warmth, inner detail, and sense of ease” that comes only with a tube amp (provided you don’t ask it to output more than half a watt or reproduce bass frequencies).

Stop reviewing European equipment; it’s un-American (your readers and writers are exclusively a homogeneous bunch of Americans, aren’t they?) and supports terrorism.

Stop reviewing American and British equipment; they’re Chinese. Like virtually everything else. Not that there’s anything wrong with that.

Abandon the delusion that measurements have any relationship to performance, especially when a product is really expensive, exotic, or hot-looking and we want badly to like it.

Do not inject anything political, anecdotal, or opinionated in your writing; editorial should not have editorial content.

Denigrate “audiophiles” at every opportunity. People read, and write for, this magazine because [violins fade up] they care about nothing but music in its most abstract and pristine form, not because anyone would be so crass as to think that audio equipment is interesting, sexy, status-conferring, cool, or fun for its own sake.

Proclaim that the goal of every high-end audio enthusiast is to try to achieve an approximation of live music, knowing that failure to do so is inevitable. Never mind that one could attend literally hundreds of live concerts for the price of just one “state-of-the-art” piece of audio equipment.

Be suitably impressed when a reader writes in the most emphatic, even insulting, terms. Anyone who feels so strongly about a magazine is clearly mentally sound and an intellectual force to be reckoned with. Roy Hall excepted, of course.

And, most important, pander to the opinions of those who punctuate their letters to the editor with notices that they are canceling their subscriptions. Stereophile’s editorial policies should be determined by people who will not read Stereophile.

I’m glad we could clear all that up.

Kerim Fidel
Charlotte, NC
kerif@excite.com
Halcro Logic.
The sequel to the award winning Halcro amplifier.

The producers of the world’s finest high end amplification system - the Halcro amplifier - now bring you Halcro Logic, an extension of our unique technology into a range designed for the highest performance in home theater.

Our Surround Sound Processors/Preamplifiers feature:
- 4 HDMI Switchable Inputs
- On-Board 1080P Scaler
- 7.1 Balanced Inputs/Outputs with Analogue Bypass

Our Amplifiers utilize LYRUS™, the world’s only high-performance Class-D technology.

Every movie you watch, every piece of music you listen to will now have a dynamic presence never before experienced. And Halcro’s Reliability Assurance Service ensures your amplifiers will always run at their optimum level.

Halcro Logic presents the pinnacle in reproduction and functionality.

We call this Super Definition Sound & Vision™.
Q.C. engineer Jeff Huntamer loves testing his drivers. Kind of like a proud parent showing off his children. In this case, they're the electro-mechanical heart of a loudspeaker. Each of his drivers—whether custom built to Wilson's specifications or modified by Jeff himself—is tested and matched, both to the other drive units in the speaker and to the other channel. Although it would be cheaper to use the same driver across multiple platforms, Wilson drivers, like children, possess unique personalities. A MAXX tweeter is modified to perform differently than a WATT/Puppy tweeter.

It takes a confident engineer to subject his work to the most stringent tests he can devise: no simple frequency sweeps allowed. In fact Wilson Audio engineers have spent a lot of time formulating tests of both frequency and time domain that actually provide accurate indices of how the loudspeaker sounds. Each assembled unit is finally measured against the reference. The acceptable range of deviation from the reference is plus or minus .5%. But Jeff can't help himself. Smiling, he says, "I like to go for .2%"
**INDUSTRY UPDATE**

**CALENDAR**

Those promoting audio-related seminars, shows, and meetings should fax (do not call) the when, where, and who to (212) 886-2809 at least eight weeks before the month of the event. The deadline for the February 2006 issue is December 1, 2005. Mark the fax “Attention Stephen Mejias, Dealer Bulletin Board.” We will fax back a confirmation. If you do not receive confirmation within 24 hours, please fax us again.

Attention All Audio Societies: We don’t have room every month to print all of the society listings we receive. If you’d like to have your audio-society information posted on the Stereophile website, 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-Sunday, November 19-20:** The Southern California Audio, Video, and Music Expo, sponsored by Vacuum Tube Valley Web magazine, will take place at Embassy Suites in Pasadena-Arcadia. For more info, visit www.vacuumtube.com.
- **Thursday-Sunday, June 1-4, 2006:** Home Entertainment 2006 will take place at the Sheraton Gateway Hotel near Los Angeles’ LAX airport. Details at www.homeentertainment-expo.com.

**GEORGIA**

- **Sunday, November 20, 2-5pm:** The Atlanta Audio Society and Earthshaking Music and Audio Emporium (543 Stokeswood Avenue, Atlanta) will host the launch of the Vivid Audio VSI 66 vacuum-tube integrated amplifier. For more info, contact Chuck Bruce at (770) 493-7105 or visit www.mindspring.com/~chucksaudio/index.html.

**PENNSYLVANIA**

- **Tuesday, December 6, 7-9:30pm:** HiFi House (509 Old York Road, Jenkintown) will host Dan D’Agostino, with short memories, is to the now defunct Audio Alchemy line, for which he designed so many products. Alchemy2 employs Madnick’s original engineering staff and has established this goal: to “address the enthusiast market with cool little boxes designed to solve problems and enhance system enjoyment.” That sounds familiar.

Alchemy2’s first product will be the D2L Digital Delay Line ($399), to be inserted between a digital source and a home-theater surround-sound proces-

**SWEDEN**

**Wes Phillips**

Reader Thomas Bergman recently dropped us a line to inform us of his HDCD Katalogen website. Bergman had discovered that it was surprisingly difficult to locate all of the HDCD titles available, so he set out to catalog them himself. The project has apparently turned into an obsession—one we fellow audiophiles can now benefit from. Just go to www.hdcd.se and you can discover hundreds of HDCD titles (including issuing label and catalog numbers) listed in both Swedish and English. As Bergman writes—and proves—“HDCD is very much alive.”

**YOUR LOCAL MEDIA STORE**

**Jon Iverson**

While some are trying to raise the quality of paid music downloads, others are pushing in the other direction. SanDisk (www.sandisk.com), primarily known for the flash memory cards used in portable devices such as digital cameras, is launching the Gruvi, described as “the first removable flash memory card of its type to be sold with premium music content.” Yes, the Gruvi is yet another new format for buying music aimed at replacing the CD.

The first release in the new medium is the Rolling Stones’ A Bigger Bang, from EMI Music’s Virgin Records. The Gruvi edition of the album was scheduled to hit the streets in November on a SanDisk microSD card similar to those used in mobile phones. SanDisk says that the Gruvi card, roughly the size of a fingernail, will come with an adapter that can expand it to the size of a larger SD card for playback in SD-compatible devices, including laptop computers and PDAs.

The Gruvi version of A Bigger Bang is also the first music release to use SanDisk’s new TrustedFlash technology, which includes a DRM scheme to restrict what consumers can do with the music they’ve bought. However, a Gruvi card containing a music album can be moved from one compatible device to another (although no copying is allowed). In contrast, an iTunes download lets you move a song from one device’s memory to another a few times, but ultimately restricts the type and number of moves you can make.

With the Gruvi you can keep moving the physical card around like a CD as your device arsenal changes. But if the thought of hauling around a bunch of DRM-restricted music cards doesn’t give consumers pause, there’s a second significant drawback: The Gruvi version of A Bigger Bang will have a list price of $39.95. That is not a typo. SanDisk says that consumers can also purchase and download other Rolling Stones back-catalog songs onto the disc.

There was no mention at press time of whether non-purchased or non-Stones music can be added to the card, or what bit rate is used. SanDisk does mention that Gruvi cards will contain their own playback software—in effect, turning each card into a little iPod without the headphone jack and screen.

Virgin Records’ Syd Schwartz adds, “TrustedFlash allows us to digitally offer premium content on flash memory cards in a way that prevents unauthorized distribution. We look forward to expanding our Gruvi catalog next year with albums from other well-known artists.”
founder and CEO of Krell Industries, for a night of music played on the new Krell Reference Music System, featuring the Evolution preamplifier-amplifier combo and the LAT-1000 loudspeakers. Refreshments and hors d’oeuvres will be served. Limited seating. RSVP: jzucker@hifihousegroup.com.

Wednesday, December 7: David Lewis Audio will host an afternoon-evening seminar with Jay Rein of Bluebird Music to introduce the new Ultimate Reference monoblock amplifiers from Chord Electronics. For more info, call (215) 725-4080.

Contact: Alchemy2, 3533 Old Conejo Road, Newbury Park, CA 91320. Tel: (805) 647-7875. Web: www.alchemy2.com.

SOME THREE YEARS AGO, SONY EUROPE ANNOUNCED THAT IT WOULD NO LONGER SUPPLY OR SUPPORT THE COMPONENTS NEEDED TO BUILD CD MECHANISMS.

head-scratching and scouring about in search of alternatives.

This particular cloud’s silver lining is that these companies have been forced to come up with new solutions that have brought a worthwhile diversity to the scene. Their engineers have also inevitably learned a great deal during the process that will probably result in improved sound quality for the next generation. Many UK brands have good connections with Far Eastern companies, and have taken advantage of these sources of non-Sony disc drives and associated servo and data control electronics.

Rega, however, has always manufactured all its products in the UK. In checking out a number of alternative strategies, they discovered a relative newcomer to the field—one based in Britain. The company involved can’t be named because of a nondisclosure agreement, but Rega found that the original breadboard prototype of their disc mechanism showed a clear advantage in initial listening tests, so the partnership seemed worth pursuing. Rega has thus taken some time in bringing to market their Apollo and the Saturn CD players, the successors to their Planet and Jupiter models, but the company is very pleased with the results.

There were obvious advantages in working with an operation based in the same country and sharing the same language, especially as this disc-drive processor was very new and hadn’t been used in a hi-fi application. A major bonus of its newness lay in the fact that computing power is always increasing; the new mechanism and data-retrieval processor carry many times more onboard memory (16 megabytes of DRAM) than the one used in Rega’s Planet and Jupiter players. This extra computing power is particularly useful in reducing the need to compromise and trade off between, for example, actual music-processing tasks and the error-correction and jog-protection functions, and allows the data retrieval to meet the full “Red Book” specification. The processor also incorporates significantly more elaborate and accurate clocking provisions than usual.

The disc transport comes from Sanyo, and holds the disc using a sprung three-ball chuck—an elegantly effective technique more commonly found in personal and portable players that ensures low inertia and avoids the need of any sort of additional puck. The data are output to Wolfson’s top WM8740 24-bit DAC, and thence to an unconventional class-A output stage based on a solid-state implementation of a classic thermionic technique, using a bootstrapped cascode pair.

Rega feels that the Apollo, which replaces the relatively inexpensive Planet, comfortably outperforms the earlier and more costly Jupiter. I took up Rega founder Roy Gandy’s invitation to hear the comparison between a Jupiter and a prototype Apollo, and was surprised at just how much better the new player sounded: cleaner, more detailed, musically more coherent, and
See it the way it was meant to be seen.

Introducing the color accurate
Samsung SP-H710 Home Theater Projector.

Samsung and Joe Kane Productions have achieved the finest color and black levels of any digital home display. Working together, they have created big screen color technology so accurate, it's like owning your own theater. The rich color range and gray scale that meet the same standards studios and broadcasters use, has attracted film professionals. Now, many studios evaluate content with the same Samsung technology that drives the SP-H710. Its performance is matched only by Samsung's legendary quality and product support. So check out our digital Home Theater Projector, with images so true, you'll forget you're at home. www.samsung.com/proav or 1-866-542-7214

©2005 Samsung Electronics America, Inc. Samsung is a registered trademark of Samsung Electronics Co., Ltd. All product and brand names are trademarks or registered trademarks of their respective companies. Images simulated.
voices sounded much more convincingly human. That was a prototype and this isn’t a review, but it whetted my appetite to get a final-production Apollo into my home system.


THE INTERNET
Kalman Rubinson

In a press conference held September 28 at Sony Music Studios on West 54th Street, MusicGiants announced the launch of a new music download service that offers CD-resolution digital recordings from major artists on the major music labels: EMI, Sony/BMG, Universal, and Warner. (See Wes Phillips’ on-line story about MusicGiants: www.stereophile.com/news/051605musicgiants.)

All Internet services use compression to minimize download times, but streaming services compress the data to rates below 128kbps; download services, epitomized by iTunes, rarely operate above 256kbps. The use of intelligent data-reduction schemes minimizes the perception of musical corruption, especially on portable media, but the loss is too apparent on a high-fidelity audio system. Until consumers can get sound quality fully equivalent to that on hard media, such as the CDs they buy in stores, Web services will not mean much to audiophiles—or, more important, to anyone who listens carefully.

What distinguishes MusicGiants from the other download services currently available is the provision of full-fidelity content via the use of the Windows Media 9 Audio Lossless format. At download rates of up to 1100kbps and fully lossless compression and expansion, the MusicGiants Network provides the sonic equivalent of CD quality (and perhaps more). The major labels are supplying digital files, and there is no additional A/D conversion in the process of transferring the music into WM9 Lossless format.

The demo at the conference sounded okay, given that it was a strange system, a strange room, and music unfamiliar to me. When asked to compare MusicGiants’ sound with a compressed offering, CEO Scott Balmemann had a chance to wow the assembled press. Instead, he asked if anyone in the audience had an iPod and, getting no response, moved on. An opportunity lost.

To take advantage of MusicGiants Network, you need broadband Internet access and a Windows XP/2000-based computer or system server. MusicGiants offers an impressive box for this. Called the SoundVault, it is an embedded Windows XP music server with digital and analog 5.1-channel audio output, DVI and VGA video output for menus and operation, expansion and communications ports, and a 360GB hard drive. Its $950 list price, including wireless keyboard and mouse, may be high, but it’s sleekly configured, includes balanced and unbalanced outputs, and runs without fans, all of which makes it less like a PC and more like a high-end audio/video component.

The menus are clear and easily navigated, and, with the T1 connection at Sony, were remarkably responsive. One can browse by artist, title, genre, and subgenre. Particularly nice is the inclusion of a Fidelity Meter, which shows you the bit rate of the track being played. While all available music is catalogued, tracks and albums the user already owns are flagged, preventing redundant expenditures and letting the MusicGiants software manage your entire collection. [As helpful as this may be, I am alarmed by the idea of letting a third party have access via spyware to my collection of media files.—JA] In addition to track and album, the purchase options include “Complete this collection,” which buys you the balance of an artist’s catalog with a single expensive but clearly priced click.

With its apparent higher fidelity, the support of the major labels, and the availability of the recordings of a large number of important artists, MusicGiants is already a force to be reckoned with. It is targeted at the premium market, defined as those who care about sound quality and can afford to pay for it. Pricing is based on a $50 annual fee (credited against purchases above $250), a per-track charge of $1.29, and an album charge of $15.29, the last varying for multiscd sets. These prices are not much different from retail CD prices but are exempt from shipping and, for now, sales taxes. Besides, it provides the enticing advantage of buying it now and having it now.

What I found most appealing about MusicGiants was: 1) the emphasis on lossless high-quality sound; 2) pricing equivalent to store retail, but with greater convenience; and 3) the explicit plan to include multichannel recordings by the time the Consumer Electronics Show rolls around in January 2006. I’ll certainly be listening for that. For more info, visit www.musicgiants.com.

WISCONSIN: Milwaukee
Jason Victor Serinus

The Milwaukee Symphony Orchestra announced the launch of its new e-label, MSO Classics, on October 4. In a worldwide digital distribution agreement with the Independent Online Distribution Alliance (IODA), the MSO will draw on its archive of more than 300 live performances, recorded between 1970 and 2005 for its nationally distributed radio broadcasts. The Milwaukee Symphony thus becomes the first American orchestra to distribute online performances previously unavailable for purchase.

The MSO, whose nationwide profile was almost entirely limited to radio, created MSO Classics specifica-
A Tall Order

It was a tall order when Revel engineering was asked to create the most affordable line of Revel speakers. But there was one overriding mandate: Make sure they sound like Revels!

With this goal in mind, drivers, crossovers and cabinets were designed, thoroughly evaluated, assembled, and refined until our engineers were convinced the Revel sound could be achieved. Then the speakers were subjected to the ultimate test – double-blind listening.

The result?
The Concertas not only sounded like Revels; they handily outperformed the competition as well. A tall order indeed.

CONCERTA™

3 Oak Park Drive, Bedford, MA 01730-1413 USA | Tel: 781-280-0300 | Fax: 781-280-0490 | www.revelspeakers.com

©2005 Harman International Industries, Incorporated. "Revel" is a registered trademark of Harman International Industries, Incorporated. All rights reserved.
ly for Internet sales. The IODA then created album covers and UPC codes, digitized and encoded the files, and made them available to various online retailers, beginning with iTunes.

The initial deal gives the iTunes Music Store exclusive distribution rights for the first 90 days, and includes 14 titles. The most unusual of these is the world première of Puerto Rican-born composer Roberto Sierra’s Symphony 3, taped in September by MSO’s new recording engineer, Hudson Fair. According to MSO principal violist Robert Levine, chairman emeritus of the International Conference of Symphony and Opera Musicians, the orchestra felt so positive about Sierra’s work that it decided to “push it through the pipeline.” He suspects the title is the first classical world première available for worldwide distribution in such a short period of time.

“This may be the greatest potential for digital downloading—to let out new pieces in ways they were never before available.”

Levine characterizes the rest of MSO’s first release as “low-hanging fruit”—public-domain music with no copyright or soloist issues that might require separate negotiations. All conducted by Andreas Delf, the orchestra’s longtime music director, the list includes Dvořák’s Serenade for Winds, Haydn’s Symphony 96, Mozart’s Symphony 38, Beethoven’s Symphonies 2 and 5, Mussorgsky’s Night on Bald Mountain, and several works by Brahms: the Tragic and Academic Festival overtures, Symphonies 1 and 2, The Song of Destiny, and The Song of Triumph.

The files are in standard compressed format, with no immediate plans for lossless compression. Downloading follows the iTunes model. Tracks cost 99¢ each; if you wish to purchase a track longer than 10 minutes, you must purchase the entire work or album.

“If we had issued this music on CD,” says Levine, “it would have been a multi-million-dollar project. Instead, our actual out-of-pocket was a multi-ten-thousand-dollar project.

The holy grail for most loudspeaker designers is the single full-range driver that does it all, with no need of the extreme bass and/or treble, and/or in power handling and loudness.

One of the most serious difficulties arises from the fact that a drive-unit big enough—say, 6.5” to deliver decent bass weight and power begins to focus the treble in an increasingly tight beam above the point at which the cone diameter exceeds the wavelength of the sound it’s trying to reproduce. The wavelength of a 2kHz tone is 6.75” in air, while at 4kHz that wavelength measures only 3.37”. The typical 6.5” main driver has a cone 4.75” in diameter. Such a driver might continue to give something close enough to a flat on-axis frequency response up to the high treble, but the room-reflected sound will be decidedly dull and lacking in treble, due to the limited dispersion above the high midrange.

It looks as if the British-based research organization NXT may have come up with a solution to the quandary. Originally a spin-off from loudspeaker maker Mission, NXT first startled the audio world in 1996, with the launch of its distributed-mode loudspeakers (DML), which are distinct from conventional pistonic transducers.
Our solid steel Component Stands are high capacity, infinitely expandable, and built to allow air flow to cool hot components. Select a pre-configured unit (like the CS4 shown above with optional casters) or build your own to suit your storage needs.
While the concept of generating sound by modally exciting a flat diaphragm was not new, NXT claimed to have developed the math that made modal operation predictable. They've since patented, refined, and licensed the technology with some success. Records indicate that some 4 million DML speakers have been made under NXT license over the past nine years.

Modal transducers behave very differently from the more conventional pistonic variety, and in a number of respects have sonic characteristics that are almost the complete opposite. A modal transducer entirely avoids the problems of high-frequency beamng associated with piston devices, yet because sound is reproduced by creating bending modes within the diaphragm, the lack of any significant fore-and-aft excursion means that, unless the diaphragm is very large, it must struggle to reproduce bass frequencies. The challenge is to combine the best of both worlds: a drive-unit that behaves pistonically at low frequencies and modally at high frequencies. This is what NXT has been working on.

The first phase was revealed around a year ago. In the January 2005 "Industry Update" I reported on an NXT development called Audio Full Range (AFR), with which they'd succeeded in managing the mechanical transition from piston to distributed-mode operation for drivers with small (2-3") diaphragms by using a voice-coil of relatively large diameter. Such mini-AFRs have already been installed in the sound systems of several sports cars made by British specialty auto manufacturer TVR. The units are compact enough to be mounted high on the dashboard, and operate from around 300Hz up to deliver midrange and treble close to ear level with modal speakers' wide treble dispersion.

However, the AFR drive-unit was only the first step. Two key factors in the latest development, codenamed the Balanced Modal Radiator (BMR), make it a major advance over the AFR. Whereas AFR applications are restricted to small mid/treble drive-units, the BMR is described as "scalable," meaning that a single driver is theoretically capable of delivering the full audio bandwidth. And while the AFR's distributed-mode operation is essentially chaotic, delivering treble where phase is essentially uncorrelated, the BMR's "balanced modal" behavior is mathematically predictable and controllable, with a fully correlated treble output.

Together, these factors make BMR the most exciting advance in loudspeaker technology in decades, I feel.

Whereas a DML panel loudspeaker typically involves a large number of interleaved modes within its diaphragm, a BMR driver is deliberately designed to carry only a few modes within its operating band. Just two modes were in fact used in the 4" driver that was demonstrated for me, though more modes are also feasible, to increase the bandwidth and/or apply the technique to larger-diameter drive-units.

The underlying principle of balanced modal drive was conceived by Graham Bank and developed mathematically by Neil Harris. Their findings were published in a paper, "A Balanced Modal Radiator (BMR)," presented at the 119th AES Convention in New York City in early October 2005 and downloadable from www.aes.org, and form the basis of a comprehensive and voluminous patent application.

To anyone comfortable with the conventional pistonic model of loudspeaker operation, BMR is decidedly counterintuitive. Attempting to understand how it actually operates is far from easy, and explaining it is harder still (he says, pausing for breath and going off to fix yet another dose of caffeine).

A starting point is the entirely theoretical behavior of a flat, free-edge circular disc diaphragm driven by a zero-mass force. Such a diaphragm will inevitably flex into several bending modes (depending on its size, mass, and stiffness), but the sound radiation from each of these is naturally balanced. The net effect is that their individual contributions are canceled out while leaving the underlying pistonic motion unaffected. Such an idealized arrangement will consequently deliver similarly ideal flat on-axis and power responses. However, when a practical means of driving the diaphragm, such as a voice-coil with finite mass, is added to the model, this ideal scenario is disrupted: the plus/minus components in the modal radiation are unbalanced and no longer cancel each other out. Indeed, this lack of modal balance is the key reason for the peaks and troughs that occur with conventional drive-units as they reach frequencies at which the diaphragm begins to flex.

The Bank-Harris BMR theory provides a general solution that allows any number of modes to be "fixed," or balanced, typically (for a circular disc diaphragm) by the addition of some arrangement of small annular masses. We know that some rebalancing is necessary when a voice-coil is added, but if the voice-coil is the source of the problem, it also forms part of the solution, as its mass and diameter (in relation to the diaphragm's size, mass, and stiffness) are easily calculated as part of the solution set.

The proof of this unlikely sounding pudding was in the listening. NXT had built some prototype 4" drive-units with flat, free-edge BMR diaphragms (fig.1), mounted in small, sealed, stand-mounted enclosures. This prototype operated with a two-mode fix, requiring no additional balancing components to complete the design. The choice of voice-coil forms the first part of the solution, while the second element is simply achieved by designing the surround so that, as well as forming a seal and locating the diaphragm, its inner lip helps to form the required balancing "mass-ring," which is set in a little from the disc edge. Although this balancing method doesn't completely remove the diaphragm modes, it does balance the on-axis and power responses above and below the mode, which renders it effectively inaudible. There was no crossover network as such, though a modest amount of equalization was applied to compensate for diffusion around the edge of the small box. Distortion is claimed to be comparable with conventional drive-units.

There was nothing particularly fancy about the demo equipment (a regular good-quality Cyrus stereo system), and the small size of both diaphragm and enclosure inevitably severely restricted the sub-150Hz bass output. But there was no gainsaying the superior timing and the splendid neutrality, coherence, and transparency.

Fig.1 Prototype BMR drive-unit, cutaway drawing.
THE SPHERES OF INFLUENCE

OMNIPOLAR™ TECHNOLOGY FROM MIRAGE INFLUENCES YOUR PERCEPTIONS AND YOUR PASSIONS.

SPHERES OF 360 DEGREE SURROUND SOUND ENCIRCLE YOU WITH BRILLIANT CLARITY PERFECTLY REPRODUCING A LIVE PERFORMANCE. A MORE GENUINE AND REALISTIC PERFORMANCE THAN ANY OTHER LOUDSPEAKER SYSTEM.

INGENIOUS. INSTINCTIVE. INCREDIBLE. LIKE THIS NANOSAT SPEAKER SYSTEM. WWW.MIRAGESPEAKERS.COM
delivered by this deceptively simple yet surprisingly delicate little speaker. Imaging had an almost electrostatic quality, aided no doubt by the flat diaphragm’s lack of any “cone cavity” character. Yet there was no tendency to beam high frequencies in the manner of panel speakers, meaning that imaging was also well maintained off-axis. Graham Bank quoted his “five Cs”—coplanar, coincident, concentric, coherent, and correlated—as being the BMR technology’s major advantages.

**INDUSTRY UPDATE**

**IN 1958, LABOR W CHANGED ITS NAME TO SENNHEISER.**

Although a circular diaphragm built as a conventional drive-unit is the most obvious approach, BMR techniques can also be applied to other axisymmetric shapes, such as a beam-like shape that could be ideal for home theater applications, in which modes in the audiband are dominated by the length dimension (effectively a one-dimensional object). Another interesting future possibility is a BMR “super-tweeter.” Modeling indicates that an aluminum honeycomb diaphragm with a five-mode solution would deliver a 500Hz-50kHz bandwidth with wide directivity, entirely avoiding the very-high-frequency beaming heard with conventional pistonic tweeters.

BMR is an exceptionally elegant and effective development that has the potential to turn the world of hi-fi speakers on its head. Whether this will actually happen remains to be seen, as there are obvious practical obstacles. On the one hand, the hi-fi speaker market is notoriously conservative. On the other, NXT has geared itself up to license low-cost, mass-market transducers to major electronics companies in the fields of computers, mobile phones, auto sound, etc., compared to which the hi-fi sector is very small beer. However things pan out, there’s no avoiding the conclusion that BMR could prove to be the most important speaker development in decades.

**GERMANY**

**Wes Phillips**

Sennheiser, the multinational manufacturer of microphones, headphones, and wireless technology products, celebrated its 60th anniversary last June. The company was founded as Wennebostel Laboratories (Labor W) in 1945 by Dr. Fritz Sennheiser and seven other employees of the Institute for Radio Frequency Engineering and Electroacoustics at Hanover Technical University. At the time, as Dr. Sennheiser explained when I visited the company’s Wennebostel facility 10 years ago, German radio engineers were prohibited by the occupying Allied forces from constructing communications equipment, so he and his crew needed to find something else they could do. In addition, supply shortages severely restricted the scope of what they might manufacture. Sennheiser determined that they could build test instruments, such as millivoltmeters, from parts they were able to recover from the Institute and the Allies. Siemens’ Hanover branch bought the first samples, and Labor W began to supply that firm with more and more complex products.

Siemens eventually asked Labor W to manufacturer a microphone, which the company did. In 1947, Labor W produced the classic M2 microphone, then followed that success with a series of groundbreaking designs that included the MD 21 (1953), which is still manufactured today; the first shotgun microphone, the MD 82 (1956); and, in 1957, its first RF wireless microphone, a product in which the firm still leads the field.

In 1958, Labor W changed its name to Sennheiser. Ten years later, it introduced the product that has probably characterized Sennheiser most prominently in the nonprofessional market: the HD-414, the world’s first “open” headphones, whose earpads of bright yellow foam made them instantly recognizable. Also in 1968, the company introduced the MK 12, a clip-on condenser microphone that revolutionized wireless microphony. A series of innovations followed in the fields of infrared transmission, microphone technology, digital communications, and headphone design.

The Sennheiser Group has become one of the world’s leading manufacturers of microphones, headphones, and wireless transmission systems, with total sales of about $262 million in 2004, an international workforce of more than 1600 employees, and sales subsidiaries in France, the UK, Belgium, the Netherlands, China, Singapore, Canada, Mexico, and the US. That’s a lifetime and a world away from its humble beginnings 60 years ago.
Every component that touches the new Sony ES A/V Receiver will be elevated to the pinnacle of performance. Sony’s benchmark setting digital amplifier delivers 170 watts x 7. HDMI switching with video upconverting is HDMI™ technology done right. Noise Shaped Video removes noise without video signal degradation, while 12-bit/216 MHz video DAC maintains signal quality. All backed by a 5-year limited warranty. As the new centerpiece to your home theater system, sight and sound from any source will be pure gold. Sony HD Audio: HEAR THE BIG PICTURE.

The STR-DA7100ES Receiver — one of forty-five products from Sony featuring HDMI technology. Discover more at sony.com/HearHD
Interested in pumping up your iPod, or turning your laptop into a theater on a plane?

Does exquisite and neatly organized audio on your desktop, ...or world class resolution in your home rig float your boat?

With HeadRoom, you'll always find the perfect place to listen- Right Between Your Ears.

Contact HeadRoom at 1-800-828-8184

Phone: 406-587-9466  
Fax: 406-587-9484

Visit Our Site at www.headphone.com
On September 21, Sir Howard Stringer, chief executive of Sony Corporation, announced 10,000 job cuts worldwide.

Sir Howard's got a plateful of problems. Not enough products people want—Sony should have invented the iPod—plus a workforce concentrated in Japan (41.1%), North America (18.0%), and Europe (10.4%). Sony's figures. That's 70% of the workforce in high-wage countries. Not a recipe for success in the consumer-electronics business these days. Happy 60th anniversary, Sony. (It's next year.)

High-end audio companies in North America and Europe are facing the same kinds of pressures. They've got two options. They can push prices ever higher, selling less stuff, mainly to rich people—especially rich Asians. Look at Boulder Amplifiers, Inc., which advertises "priceless perfection" in its 2010 "isolated preamplifier"—for $39,000. Or Halcro (Australia), whose dm58 monoblock retails for $29,990/pair. Companies have another option: they can move some or all production offshore, to Taiwan or mainland China.

In the decade after World War II, Japanese quality was the butt of jokes. "Made in Japan" was synonymous with flimsy, breakable, and cheap. My Uncle Ken was stationed in Japan after the war—he stayed in the Navy. He'd send me crappy plastic toys, which I'd play with for a day or two until they broke. Then a funny thing happened. Sony came out with the first transistor radio, and all of a sudden no one was laughing about Japanese quality.

Twenty-five years ago, the quality of hi-fi products from Taiwan was crummy. Knobs fell off in your hand or scraped the faceplates. Assembly was poor, reliability a sometime thing. Today, Taiwanese gear—the best of it, anyway—is tops.

I asked Antony Michaelson, managing director of the UK's Musical Fidelity, why he now has most of his products assembled in Taiwan. Why not China, which is cheaper?

Taiwanese quality is better than mainland Chinese quality, he told me. The look is exquisite and so is the finish. "There isn't a sweeter amplifier on earth," declared Artie in his review (Stereophile, August 2005, Vol.28 No.8).

Companies such as Shanling, Cayin, Opera Consonance, PrimaLuna, and others are taking build quality—and sound—to much higher standards than before. Call it the Great Leap Forward.

"GEAR FROM MAINLAND CHINA HAS TO COMPETE WITH THE BEST OF THE BEST."

—ROY HALL

Several other manufacturers said the same thing—Taiwan is ahead of the People's Republic. What's more, the appalling working conditions in China—low wages, few benefits, little regard for workers' health or the environment—do not prevail in Taiwan.

The build quality of my Parasound JC-1 mono amps, which I use as a refer-
ence, is first-rate, as is the sound quality. If the amp were made in North America, or somewhere like Australia, it would cost a lot more than $7000/pair. Thirty grand for a pair of Halcros? I'll take the Parasounds, please. (I heard both, and I did.)

I suspect the Taiwanese will keep their competitive edge. But I'll bet you see Taiwanese goods march upmarket, too. Meanwhile, the Chinese are "turning things upside down again," in the words of Charles Hansen, vice president of R&D of Ayre Acoustics. "Remember Zenith, RCA? They got slaughtered by the Japanese because they offered products at low prices that were good enough. Now the same is happening to them." He did not single out Sony.

Mainland Chinese manufacturing standards are going up. So are manufacturing standards elsewhere in Asia, such as in Malaysia. Witness the case of two Quad tube amps.

Several years ago, Quad—at least on price. Maybe higher standards have to do with the fact that Hong Kong is now governed by Beijing, I offered.

"There's more coming and going, there's closer contact between the factories in China and the distributors and dealers in Hong Kong," Roy answered. "You have people traveling back and forth and insisting on changes at the factories."

Cambridge Audio components used to be made in Cambridge, England. The company is now in the hands of Britain's highly successful Audio Partnership, controlled by Julian Richer—aka Richer Sounds, Britain's largest electronics retailer. I visited AP's scruffy South Bank London headquarters, where some of Britain's brightest young audio engineers (equally scruffy, most of them in grubby T-shirts) were bustling about. The stuff is actually
made in China, under close supervision. I heard an impressive integrated amp (the Cambridge Audio 740A) and matching CD player (740C), both of which should be coming on the market right about now.

Mike Creek, of Creek Audio, bought the Epos brand a while back—but not the factory, which had been shut down. He and his team design the speakers in London and have them made in China. Quality has gone up—look at the cabinets—as it has at Mordaunt-Short, once a sister company of Epos, now owned by Audio Partnership.

This is a pattern. Design it in England, Europe, or North America, and have it built in China or Taiwan. It's what Quad does with their ESL-988 and ESL-989 loudspeakers. (Quad maintains an R&D facility in Huntingdon, Cambridgeshire.)

YBA gear is still made in France. As I write, their Audio Refinement line is being further refined and reborn as a new series, YBA Design. (YBA stands for founder and chief designer Yves-Bernard André.) YBA Design products—intended to be sold at lower price points than YBA gear made in France—will be assembled in Taiwan. "It's reality," shrugs Daniel Jacques, of Audio Plus Services, the North American importer.

The term "country of origin" is losing meaning. "Things are increasingly blurred," says Ayre's Charles Hansen. Those nicely lacquered speaker cabinets might come from China, where no one worries about disposing of the paint or chemicals—just dump them down the drain. China may have a bunch of Love Canals on its hands, Charlie predicted.

Those speakers you thought came from the US or Canada? The tweeter might be made in China—but you'd have to dismantle the speaker to find out. Those drive-units you thought came from Scandinavia? Certain component parts of the drivers—the basket, maybe, or the voice-coil assembly—might come from China or Taiwan. Those spiffy faceplates on certain "made in the US" amps and CD players that look like a million bucks? Rumor has it some of them are made in China.

Why not just buy something entirely made in China? Well, there are those questions about workers' rights and environmental pollution. That might give one pause—but what are you going to do? Stop buying in Target and Wal-Mart?

**Cayin A-88T integrated amplifier**

Chad Kassem, founder and owner of Acoustic Sounds, knows good sound when he hears it. He's the exclusive mail-order retailer in North America for a brand called Cayin. Chad called me when his first shipment of Cayin amplifiers arrived. I wish I could replicate his Louisiana drawl:

"Sam, m'man, you have to see and hear these products. They're unbeatable for the money. The looks, and the sound quality."

Chad's website speaks of "Flying Hi-Fi." I quote: "Chinese airplane manufacturer applies exacting standards to tube equipment."

That's interesting, but maybe not accurate.

Cayin has been described as a division of Zhuhai Spark Electronic Equipment Company, Ltd, which in turn is a "subsidiary company" of the China National Technology Import and Export Corporation, known as the CATIC Group.

---

**The World's Most Musical!**

Velodyne's 20-year reputation as the world's finest subwoofer manufacturer has been founded in our dedication to making the most accurate, lowest distortion subwoofers available. The **Digital Drive 1812 Signature Edition** takes that mission to a new level by applying the latest digital technology to the world's first digital, two-way bi-amplified subwoofer. Utilizing a 12" state-of-the-art driver to handle the upper bass register with extraordinary detail, a massive 18" driver to create the visceral bass that you actually feel in the lowest frequencies, and powered by patented "ERS" digital switching amps delivering 2500 watts of RMS power (over 6000 watts of Dynamic Power), the **Digital Drive 1812 Signature Edition** surpasses all previous attempts to reproduce the full bass experience. The first digital subwoofer in the world, the **Digital Drive 1812 Signature Edition** counts among its innovations the first Digital High Gain Servo system utilizing a digital accelerometer that samples the cone movement, compares the actual movement to the input signal, and makes corrections 15,700 times/second, resulting in as little as .5% distortion at any frequency at any output for the world's most accurate music reproduction. Every room colors and changes a subwoofer's response curve. To address this critical issue
CATIC, apparently, is an entity of the Chinese government which handles, on behalf of government-owned factories, the sale of civilian and military aircraft, and more. Who buys Chinese aircraft? Not American Airlines, British Airways, or Air France, that's for sure. Not Bill Gates for his private fleet.

According to the Nuclear Threat Initiative (NTI), "The CATIC Group is not a production entity but rather sells military and civilian aircraft, engines, missiles, and other airborne equipment... These systems have been sold to countries such as Iran, Pakistan, Myanmar, Egypt and Sri Lanka." (www.nti.org/db/china-catic.htm). I could not verify these arms sales on my own. Neither Iran's nor Pakistan's defense minister returned the calls I didn't make.

According to its own website, Zhuhai Spark (Cayin) remains under the wing of CATIC. Maybe Zhuhai Spark is in the process of becoming independent, or already has—in which case "Flyin' Cayin" is no longer accurate in the least. In any event, I don't suggest that their managers and engineers are or ever were directly involved in international arms production and sales. But if "Flyin' Cayin" seeks to capitalize on its connection to Chinese aircraft manufacture, then it's worth mentioning Cayin's present or past connection to the CATIC Group and its customers—like Iran and Pakistan—who bought those fighter bombers, ground attack aircraft, and cruise missiles.

These seem to be lean times at Chinese aircraft factories, as, according to NTI, the Chinese government these days prefers to purchase civilian aircraft from Boeing and Airbus. This may be why CATIC is beating swords into plowshares—or power amps—and that's a good thing. But we could cut the "Flyin' Cayin" crap.

Here's something that sparked my attention at www.sparkaudio.com: "Zhuhai Spark Electronic Equipment Co., Ltd...offers [original equipment manufacturer] audio products to many well-known companies in Japan, Europe, USA, and Taiwan etc." Faceplates, anyone? Knobs?

And this, also on the Spark Audio site: "Music, audio culture and audio technique are spiritual wealth of human. The company devotes itself to developing the audio industry, manufacturing the good audio product, popularizing the audio culture, speeding up the communication of audio technology and audio culture with audiophile in the world."

I love the instruction manual for the A-88T integrated amp. The front cover reads: "Enjoy the amusement of listening. I've never seen our hobby expressed in those terms. The amusement of listening. I rather like that.

The Cayin A-88T sells for $1895 with KT88 output tubes and for $1995 with KT160 output tubes.
wide frequency response and low boards, one per channel, are used for power from each tube, and you can't see the autobias circuit means that no adjustments are needed when tubes are replaced. A Preamp In bypasses the integrated amp's volume control and lets the amplifier be used as a power amplifier. I found this input very useful with my EAR 834P phono stage, which has its own volume control. The Preamp In could also be used with a surround-sound processor.

There's a single set of speaker outputs. Transformer taps are provided for 4, 8, or 16 ohm speakers. 16 ohm? For certain Chinese speakers, I guess. The amplifier is rated to deliver 22 Wpc into 8 ohms in triode mode, 45 Wpc into 8 ohms in ultralinear. You can switch between modes with the amplifier running—even with the volume cranked up, all I heard was a slight hiss. The output tubes—two per channel in push-pull configuration—can be KT88s or 6550s. But use matched tubes and tube types—don't mix. The A-88T's autobiasing circuit means that no adjustments are needed when tubes are replaced. This arrangement is both good and bad, in my opinion: You don't have to mess around biasing tubes, but you don't get the most power from each tube, and you can't see how individual tubes is holding up. If one of a pair of matched output tubes goes bad, the other then must do all the work and, typically, will soon fail as well. Individual biasing lets you replace a tube at the first sign of trouble.

The circuits are mostly wired point-to-point—labor's cheap in China. PCB boards, one per channel, are used for the autobias circuit. The transformers are made specially for Cayin and are for a tube amp. When a tube amp gets bass right, it gets it very right—extended for a tube amp. When a tube amp is operating in triode or ultralinear mode: triode was slightly softer and sweeter, ultralinear had more punch and power. Nat King Cole sounded real nice either way; so did Bing Crosby, Ezio Pinza was fantastico. Tubes and vocals, you know.

There was another similarity between the A-88T and the Mac MC-275: balsy bass. The Cayin's bass was exceptionally well controlled and extended for a tube amp. When a tube amp gets bass right, it gets it very right—ripe, rich, full-bodied. The Cayin did. I do like tight bottom ends.

Electro-Harmonix 6550 output tubes, from Russia. (Chad at Acoustic Sounds chops 10% off each price until the end of 2005.) There are also two 6SL7 (6N9P) input tubes and two 6SN7 (6N8P) driver tubes. There are two line-level inputs, plus a tape input that can serve as a third line-level input. A Preamp In bypasses the integrated amp's volume control and lets the amplifier be used as a power amplifier. I found this input very useful with my EAR 834P phono stage, which has its own volume control. The Preamp In could also be used with a surround-sound processor.

Consonance Cyber 10 Signature 2A3 Integrated Amplifier

Here's another tube amp at the same keen price, likewise made in China: the Consonance Cyber 10 Signature ($1995). The Consonance brand is made by Opera Audio, though neither that firm nor Consonance's US importer, NAT Distribution, has any connection with Opera Loudspeakers of Italy. This is why you should hire a good trademark lawyer—like my son.

Like the Cayin A-88T, the Consonance Cyber 10 Signature is wired mostly point-to-point (there are circuit boards in the power supply). The amp uses two Electro-Harmonix 2A3 output tubes per channel to deliver a mighty 11 Wpc into 8 ohms, push-pull. The tubes use an autobias circuit; no user adjustments are necessary, and you can pop in matched pairs of other 2A3 tubes. The 2A3 output tube is most often sensitive and steady impedance, the speaker is easy to drive. But what about my reference Quad ESL-988 electrostatic speakers, upstairs in my main listening room?

The Cayin A-88T is heavy: 55 lbs (25 kg). Most of that weight is at the rear—those three transformers. I lugged it upstairs and ran it into the Quads. Once again, it didn't matter whether I listened in triode or ultralinear. Triode was a touch sweeter, ultralinear a tad more controlled and powerful.

This amp was silent. There was very little background noise—next to none. And no mechanical noise, either—a bugaboo with some tube amps (and some solid-state models, too).

For $1889-$1995, the Cayin A-88T's price, design, build quality, and sound are exemplary. But something's got to be lacking, right? Right. Transparency fell short of the very best—noticeable to me in a lack of space and air around instruments. Tonal color could have been richer. I noticed that on Yundi Li's magnificent Liszt recital (CD, Deutsche Grammophon B0000851-02)—Chinese pianist, Chinese amp. When I substituted the GRAAF GM-50 or the Pathos Acoustics Inpol 2 amplifiers integrated, I heard what I'd been missing.

But the GRAAF costs $6995, the Pathos $9995. For a fraction of those prices, the Cayin A-88T offers excellent value. It looks beautiful, and it looks beautifully built—if not like a tank, then maybe like a fighter aircraft...or a cruise missile...
INTOXICATED
A rush of amazing music
It's in my veins

THE NEW B&W

www.bwspeakers.com

For your virtual tour of the B&W XT Series please visit our site, or call 978.664.2870
found in SET designs of flea-watt flavor. For those who must have this sound, Consonance offers the Cyber 30 Signature, rated at 3.5Wpc into 8 ohms, single-ended. There are also two 12AX7 input tubes and two 6SL7 driver tubes. Rectification is solid-state, as in the Cayin A-88T. The Cyber 10 Sig has five RCA line-level inputs. Transformer taps are provided for 8 and 4 ohm speakers.

This is a handsome, beautiful amp—even if I did feel that its fit'n'finish fell a little shy of the Cayin's. I especially like the wood panel that covers the transformers. There's also a handsome remote control in a nice metal case.

I used the Cyber 10 Sig with the Focal-JMlab 1027 Be speakers and the equipment I mentioned earlier. Eleven watts might not be enough for some speakers, but the Cyber 10 Sig got on quite well with the 1027 Be's. French loudspeakers tend to be easy on amps, not insisting on the use of heroic (and expensive) muscle amps. You do not need a Schwarzenegger of an amp. A Warren Beatty would do just fine.

The Cyber 10 had a Signature sound very different from that of the Cayin A-88T: less dynamic, the bass less extended and tightly controlled. Low-level resolution was on a par with the Cayin's—very good for the price. The sound struck me as a little soft, both top and bottom. Highs seemed slightly attenuated through Focal's superlative beryllium-dome tweeter. The bass, meanwhile, lacked ultimate extension and control.

We are dealing with 11Wpc here. But my, that marvelous midrange, which is where most of the music is...Good as it was, the Cayin couldn't produce the same magic—the immediacy, the sense of life, the sheer beauty of the tonal color. Was this a romanticized sound? Yeah, maybe. But it was a sound I could come to love. One thing's for sure: the Cyber 10 Sig would not induce a bad case of listening fatigue. Voices, strings, the lush, liquid sound of a tenor sax—this amp was truly special in terms of timbre, and might be a fine alternative for those who complain about amps that sound cold, sterile, and hard. So what if the highs are a little soft and the bottom end could use more extension and grab?

I'm familiar with the Electro-Harmonix 2A3 tube, having used a pair in my Sun Audio SV-2A3 for more than a year. It was interesting to compare the Cyber 10 Sig and the SETting Sun. The Cyber Sig sounded more dynamic, less restrained. I did miss some of that stunning SET immediacy—that there there—that the single-ended Cyber 30 probably delivers, too.

At 11Wpc, the Consonance Cyber 10 Signature offers a very appealing package and a very special sound. Why should all amps sound alike, anyway? Remember John Atkinson's headline on the cover of the January 1994 Stereophile (Vol.17 No.1)? "If either of these amplifiers is right...the other must be WRONG."

No, they can both be right. Or wrong, for that matter.

**Sound Quest Isol-Pads**

Just a brief word about Isol-Pads by Sound Quest, also distributed by NAT Distribution, who bring you Opera Audio's Consonance brand. I'm in the process of putting Isol-Pads under everything. Each pad measures 2" square by 3/8" thick and is said to support 75 lbs. I haven't squished one yet. The pads consist of two slabs of ribbed rubber sandwiching a layer of isolation cork. They cost $25 for a set of four.

You can place Isol-Pads under anything—but start, perhaps, with CD players and transports, then amplifiers and speakers. I'm no tweaker, but they did clean up the sound wherever I used them—including under my Quad ESL-988 speakers. They isolate. Better than anything else? Dunno. You could try combining isolation devices.

Try a pack of Isol-Pads. I think you'll be back for more.
"...a landmark in the history of subwoofer development...nothing short of awesome."

— Alan Tafler, The Perfect Vision, July/August 2003

THIEL’s revolutionary SmartSub® Technology effectively eliminates the room interaction, main speaker integration, and distortion problems that traditionally plague subwoofers. THIEL’s unique, patented bass solutions deliver extraordinarily seamless, clean, and deep low-frequency reproduction. A THIEL SmartSub is the last bass upgrade you’ll ever need for awe-inspiring sound.

Visit our SmartSub® section at www.thielaudio.com to learn more about THIEL’s innovative subwoofer technology.

A limited number of authorized THIEL dealers have been selected to participate in the roll out of this exciting new product category. The following specialists have been factory trained to ensure their ability to offer expert advice and outstanding service for the SmartSub subwoofers and Integrator. To audition a THIEL SmartSub subwoofer/Integrator system, please contact your nearest dealer listed below.

CALIFORNIA
Audio Visions, San Francisco 415-614-1118
Bay Area Audio, San Jose 408-255-0735
The Audible Difference, Palo Alto 650-328-1081
Future Sound, Burlingame 650-342-1476
Visual Sound, La Habra 562-691-4434

COLORADO
Denver Audio, Englewood 303-662-9402

GEORGIA
Audio Automation & Theater, Atlanta 404-842-1900

KENTUCKY
Audible Elegance, Florence 859-657-6222

ILLINOIS
Audio Consultants Evanston, Hinsdale, Chicago, Libertyville 847-864-9565

MASSACHUSETTS
Spearit Sound, Boston 617-734-8800

NEW HAMPSHIRE
Ensemble, Nashua 603-888-9777

NEW JERSEY
Audio Video Intelligent Systems, Parsippany 973-331-1600
Stuarts Audio, Westfield 908-232-0483

NEW YORK
Sound by Singer, New York City 212-924-8600

OHIO
Audible Elegance, Cincinnati 513-793-3737
Progressive Audio, Columbus 614-299-0565

TENNESSEE
Nicholsons, Nashville 615-327-4312

TEXAS
Don’s Theater Arts, Amarillo 806-353-3234
Renaissance Audio, Dallas 214-520-7500

THIEL
Ultimate Performance Loudspeakers
THIEL • 1026 Nandino Boulevard, Lexington, Kentucky, 40511, USA • Telephone: 859-254-9427 • Email: mail@thielaudio.com
20th Anniversary of Siltech Cables

20 years musical pleasure for the listener
20 years of the world’s best rated audio and video cables
20 years of the world’s best rated analogue and digital cables
20 years of metallurgical perfection
20 years of love and care for our customers
20 years of guaranteed quality (Life-Long Warranty)
20 years of ground-breaking technological innovation

Siltech America 76 Green Street Boston, MA 02130 617.522.7740
siltech@soundmirror.com
www.siltechcables.com

World Radio History
Besides, the delay will give me time to install a recently arrived reverse-osmosis filtration system, then let you know how useful that is in the quest for ever-cleaner records.

The 2005 Expo of the Custom Electronic Design & Installation Association (CEDIA), held again this year in Indianapolis, demonstrated that video has become a high-technology, low-profit proposition. Even if you hate home theater, this is good news for the audio business. Bear with me.

There was a lot of buzz at Expo 2005 about the rising picture quality in Indy, demonstrated that no one currently broadcasts native 720p to 1080p—never mind that no one currently broadcasts in that resolution, or that native 720p HDTV images from ABC and FOX will require potentially damaging upscaling to mesh with the new 1080p format.

There was just as much buzz about displays' falling prices. The new LCD and plasma factories now coming online throughout Asia will cause panel prices and profit margins to plummet further in response to increased supplies and competitive pressures. High-end audio retailers who took the path of least resistance over the past decade by making pacts with the devil of custom-installation home theater may find their profit margins shrinking. Meanwhile, video performance quality has improved to where the differences between what specialty A/V stores and big-box merchants sell is almost nonexistent, which makes it even more difficult for smaller retailers to compete. At the same time, as video-display sales margins are squeezed, the price of keeping custom-install crews on the payroll—especially with healthcare costs skyrocketing—further erodes profits.

This is where it gets good for audio all across the retail board. When good, big displays were expensive, highly profitable, and an easy sell to early adopters, both high-end and big-box retailers could afford to downgrade or even ignore the audio side of home theater. That's no longer the case.

Soon, both high-end A/V dealers and chain stores will be forced to try to package a higher-margin audio system along with a hot new display in order to realize enough profit per transaction. Lower panel prices will leave money in consumers' pockets, making adding a 5.1-channel A/V system plus accessories a less painful choice.

For the specialty A/V stores—at least the ones that started out selling audio—these market conditions make promoting highly profitable two-channel stereo components sufficiently attractive to actually work for sales of these products. In fact, it makes the proactive selling of high-end audio almost a necessity.

The audio worm has turned

I don't know the etymology of the expression “the worm has turned,” but audio industry people with whom I spoke at both CEDIA’s Expo 2005 and Hi-Fi News magazine’s annual Hi-Fi and Home Entertainment Show were using it to describe what many feel are good times ahead for audio.

At CEDIA, Marantz’s video-display expert, Dan Miller, told me that the introduction of Marantz’s new turntable caused the biggest excitement at the company’s exhibit, which was otherwise devoted to home theater. I missed it, but as Miller described it, a track from Dire Straits’ Love Over Gold played over the sound system as the custom-install crowd entered the dimly lit demo space. One everyone was seated, a hushed voice announced, “Ladies and gentleman, let me introduce you to anal-og!” A blue spotlight revealed the musical source to be a turntable.

“It got applause every time,” Miller told me. That is, until day two, when the gel fell (or was it pushed?), smashing the turntable, which I’m sure will be repaired to spin another day.

That turntable was the new Marantz TT-1551 ($1500), sourced from Clearaudio and complete with cartridge, acrylic plinth and platter, outboard motor, and a tonearm with a carbon-fiber arm tube. Clearaudio importer Musical Surroundings shouldn’t be too upset: the new table will be sold through an entirely different distribution channel, and every purchaser of this entry-level ’table will have to come to them if they want to hike the upgrade path.

Next door, in the Denon room (like Marantz, Denon is now part of D&M Holdings), Denon America’s president, Stephen Baker, told me that much of the company’s legendary cartridge line is once again available. I’m getting my hands on a DL103D. Never heard one, but heard all about it for decades.

Around the corner, McIntosh (yet another D&M holding), treated visitors to a literally monumental two-channel dream system costing $181,000: the XRT. The three-chassis, fully remote-control- lable C1000 Tri-Chassis preamp includes complete vacuum-tube and solid-state preamplifiers, each of which includes full-function MM/MC phono sections, and a controller that lets you switch between them at the push of a button. Loading and gain are adjustable via remote control. Each MC25KW amplifier channel consists of three large McIntosh boxes: one 1000-watt for each half of the sinewave, and one combiner/auto-
former to put Humpty Dumpty back together again to create a 2000W monster amp. The amplifiers include three sets each of 2, 4, and 8 ohm outputs, for triwiring. Also included are McIntosh’s MDA 1000 D/A converter and MCD 1000 CD changer, as well as a pair of enormous XRT2K line-source speakers. All cables are from MIT.

Each evening as the show closed, and on Saturday morning, the McIntosh guys let loose with a thundering reproduction of Pink Floyd’s Dark Side of the Moon, attracting a large crowd drawn from the far corners of the cavernous convention center. A McIntosh spokesperson told me that the huge bass excursions set up sympathetic vibrations in the bathroom stalls half a block away, literally scaring the shit out of a few folks who, thinking there’d been an earthquake, were seen scurrying from the john, pants at half-mast. Dark side of the moon indeed. Maybe he was kidding, but the image has remained with me.

Though the convention-floor exhibits were silent, NAD’s new Master Series M3 integrated amp ($2800) and Krell’s gorgeous-looking Evolution amps enticed my eyes, if not my ears.

At the entrance of the soon-to-be-demolished RCA Dome, I ran into David Solomon, of Musical Fidelity importer Signal Path, who showed me MF’s new two-box CD transport and DAC. The transport’s suspension can be conveniently leveled via a pair of outboard knobs. “Gotta use those leftover turntable parts somewhere,” I quipped cruelly (Musical Fidelity’s M1 ‘table was not exactly a sales blockbuster). Speaking of multiblock digital, how about the five-box D-01P-01 from L’EAC/Esoteric, which I saw at both CEDIA and the Heathrow Hi-Fi show. Each channel’s D-01 DAC gets its own chassis, there’s a box for the P-01 transport, and one each for the power supply and G-OS master clock.

I took a detour to visit the Inner-sound folks at the Hilton Hotel, where they showed me a prototype of the first speaker in their Windsong line—a small, highly stylized, floorstanding box speaker, designed by erstwhile Meadowlark head Pat McGinty, that uses a modified Heil tweeter.

THE Show once again held court at the Capital Center, a few blocks from the CEDIA Expo. There one could actually hear high-end sound in large, acoustically decent rooms. That’s where companies well known for their two-channel performance, such as Audio Research, Bryston, Magnepan, BAT, Avantgarde, Conrad-Johnson, and Vandersteen Audio understandably chose to demo their multichannel capabilities.

I’d never heard the horn-based Avantgarde Duos ($26,000/pair) deliver such convincing performance as I heard at THE Show in a small auditorium from both surround-sound and two-channel source material driven by BAT electron-
ics: VKP5SE CD player with SuperPak oil-filled capacitor option ($8000) and VK35 tube-driven stereo amp ($4000). I'd brought along a CD-R burned from 25 vinyl tracks, and it sounded absolutely stupendous, dynamically, harmonically, and especially in terms of sheer, room-filling scale. Add a bank of Avantgarde subwoofers, surround and center channels, and a BAT VK51SE multichannel amplifier, and a 5.1-channel clip from Jonathan Demme's Talking Heads film Stop Making Sense sounded as if it was happening live in the room.

The Magnepan-Bryston room, featuring a pair of Maggie 3.6s in the front and 1.6s in the rear plus a new, as yet unnamed center-channel, all driven by Bryston's preamplifier-processor and multiple stereo amplifiers, offered a different sort of sonic pleasure. What it couldn't deliver in terms of high SPLs and dynamic slam compared to the Avantgarde-BAT system was more than compensated for by its eerie transparency and ultra-high resolution.

The room shared by Conrad-Johnson and Wilson Audio Specialties delivered yet another convincing version of musical and cinematic reality; this time from a pair of Wilson's WATT/Puppy 7s, Watch center, and Watchdog subwoofer in front, and a pair of Sophias in the rear. These were driven by C-J electronics: the MET 1 six-channel analog tube preamp, Premier 350 (L/R speakers), one channel of another 350 (center speaker), and an MF2250A (L/R surrounds). A McCormack UDP1 universal player with built-in surround-sound processing provided the 5.1 channels to the system for video, while the McCormack MET 1's analog surround processing added a pleasing rear-channel ambience to my two-channel CD-R. I could have stayed in that room all day, but Lew Johnson insisted on showing me a silent display of some new C-J products in the anteroom.

Conrad-Johnson's new LP70S ($6500) is a 70Wpc stereo amplifier that evolved (or perhaps was intelligently designed) from the old Premier 11. The LP 140M monoblock version, with double the power per channel, is also available ($6000). Johnson also showed me the new CT-5 preamp, which uses the same Teflon caps as the ACT II but bundles two triodes in place of the ACT II's four, which drops the price from $13,500 to $7500. While the price is almost halved, Johnson claims the CT-5's performance is "90%" of the ACT II's. The new CT-6 preamp ($4500) replaces the Premier 17LS. Johnson also showed me a pre-production sample of C-J's new tube-driven AVT, a universal disc player. He's been a busy man.

The sound was equally enticing in the Audio Research-Vandersteen Audio room. In fact, it was my favorite of the four heavy hitters at the Capital Center, thanks in part to the Vandersteen Quatro, a new, impressive-sounding full-range speaker with a powered subwoofer. The Quatro is smaller than the Vandersteen 5 and costs only $7000/pair. The speaker's tonal balance was nearly ideal. I played almost all of my CD-R (with no complaints from the ARC boys, who enjoyed my musical selections) using ARC's new CD7 top-loading CD player ($9000). I plan to review the Quatro next year, and made arrangements to sample Audio Research's PH-5 phono preamp.

I was also intrigued by Halcyonics' non-pneumatic active isolation platforms, which, like the air-supported...
Vibraplane, are based on electron-microscopy stands. The bigger of the two sells for $12,000.

Finally, I spent some time in the room of Boulder, Colorado–based Edge Audio, listening to my CD-R via their Signature 1 preamp ($10,000), Edge GCD CD player ($4800), and G8 power amp ($6800), all driving a pair of Tyler Audio speakers. Kentucky–based Tyler is a direct-marketer firm (via Audiogon.com) that cuts out the middleman and offers a money-back guarantee. Build and parts quality appeared high, and the system’s sound was very good considering that the room was very bad.

My dinner with Kessler
I flew to London in late September for the annual Hi-Fi and Home Entertainment Show, sponsored by Hi-Fi News magazine and held at Heathrow airport. The indefatigable Ken Kessler had provided the incentive by offering me a slot on the magazine’s “Ask the Editors” panel. When I questioned him about how many readers would even know who I was, he said, “Trust me.” Though the panel was subsequently canceled, he proved to be correct. My airline ticket wasn’t refundable, so off I went.

I’m glad I did. The amount of significant analog news at the Heathrow show could take up an entire column—something that had definitely not been the case when I last attended the show, a few years ago. It was also an opportunity to visit with some old friends from both sides of the pond and share a few raucous, fun-filled meals, though the almost 2:1 exchange rate was enough to fuel a bad case of indigestion, and severely limited my LP buying.

Five minutes into the show I encountered the gorgeous-looking Leema Acoustics Cygnus Universal Disc Amplifier, a phono preamp fitted with 50 microgroove (33.3rpm) and 30 coarse-
groove (78rpm) equalization curves—
including, of course, RIAA—all selectable
via a control on the front panel. Facilities
include independently variable resis-
tance and capacitance loading and gain
for two inputs, plus high and low filters,
all accomplished in the analog domain.
A Compare function allows you to
instantly A/B two settings, and the Sleep
function turns off all LEDs, the fluores-
cent display, and all microprocessor- con-
trolled functions. The audio path uses all-
discrete electronics and the power supply
is outboard. High performance and build
daims, coupled with unlimited flexibility,
fetch a high price: the Leema Cygnus will
sell for £4995, and pretty much twice that in
dollars. There's no American distribu-
tion yet.
A few doors down I found the Hun-
garian-built Heed Questar (£225), a
small, all-discrete MM/MC phono pre-
amp. Oracle's legendary Delphi Mk.V
turntable ($4750) is back, and won a Hi-Fi
News analog source award this year. One
was on display, along with Oracle's Tem-
ple phono preamp ($7500).
I flinched when I saw the Notting-
ham Audio room. I gave designer Tom
Fletcher's +$30,000 Deco turntable a
mostly negative review in the July 2005
Stereophile, and wasn't looking forward to
encountering him. I shouldn't have wor-
rried—Fletcher was the same pleasant gen-
tleman he'd been when I'd run into him
after giving one of his less expensive
products a really positive review. We
spent 20 minutes pleasantly talking about
music, which is what it's all about anyway.
Loricraft's Terry O'Sullivan ran the
new PRC4, Deluxe PRC4, and PRC6
record-cleaning machines through their
paces for me. The PRC4 now does for-
ward and reverse, while the Deluxe
model does double the vacuuming vol-
ume of the standard model (it spins faster
moving the vacuum pickup arm across
the record that much faster). The PRC6
has a cover, self-leveling
feet, and a new German
vacuum pump that's 280%
more powerful than the
original Loricraft pump.
New turntables encoun-
tered at the Heathrow show included the
Hoerning from Den-
mark, a machine of gleam-
ing chrome fitted with the
designer's arm of choice,
VPI's JMW Memorial, and sporting
Clearaudio's new Goldfinger cartridge;
and the Cadence Europe turntable.
Cadence also manufactures the Okki
Nokki record-cleaning machine, a basic
model whose £360 price tag means it's
unlikely to be imported Stateside.
I was happy to run into Rega's Roy
Gandy and Phil Freeman, who assured
me that the cold shoulder I'd been get-
ing from Rega's current US importer
had nothing to do with them, and that
my comments in this column about
Rega 'tables running somewhat fast
had not upset them in the least.
When I'd encountered Ken Kessler
before the show, he'd raved about the
new Funk Firm turntables from Pink

Last Chance!
Get one before they're gone forever.

Musical Fidelity X-10v3
Limited Edition Tube Buffer Stage
Add the Warmth and Musicality You Crave... for ONLY $399!

Well...after selling well over one thousand of Musical Fidelity's Tube Buffer Output Stage...it quickly became our all-time best selling component. We have secured our final shipment of this Stereophile Class A Rated Tube Buffer from Musical Fidelity...so act fast! No more will ever be manufactured! This component is a tremendous upgrade to any system: placed between your amp and preamp, behind your CD/SACD player or DAC or even behind your phonostage! It is also a great way to connect your iPod to your system; adding the magic of tubes without adding any noise or distortion. All you add is better dynamics, a better sense of space around instruments, and much more natural presentation of the original recorded event!

Our Highest Recommendation!
Triangle founder-owner-designer Arthur Khoubesserian. The nifty-looking new Funk 'tables feature Achroplat (patent pending) aerated polyvinyl platters designed to match vinyl's impedance, and acetyl subplatters. The basic Funk (£450) features an inverted bearing of ultrahard, highly polished sapphire, a drive system—there's no metal-to-metal bearing and a double inverted ball-bearing in titanium nitrite, goes into a Nylotron vinlyl market, the Stratosphere is back designed and introduced 12 years ago, as the LP was allegedly being put to death. Now, thanks to the newly invigorated vinyl market, the Stratosphere is back and better than before. Its spindle, plated in titanium nitrite, goes into a Nytron bearing and a double inverted ball-bearing system—there's no metal-to-metal contact. It has a 40-lb platter and too many other features to describe here. Price is £9000, including Clearaudio Magic magnetic levitators, which Jeffries says he invented and sold to Clearaudio; a stand adds £750 to the price.

After I'd ribbed Pro-Ject's Heinz Lichtenegger in my June 2004 column, poking fun at his line’s “57 Varieties” of technologies and design schemes, not to mention the confusing model lineup, he went to work to clarify and improve the entire lineup, which he proudly showed off to me at Heathrow. There are now three Project lines: Debut, X, and RM. All have been upgraded, especially the RM line, which now includes a new, fully integrated carbon-fiber tone-arm/headshell tube (the original headshell was of aluminum). In my review of the RM-9 in the January 2003 Stereophile, I’d complained that while there was greater resolution of inner detail compared to Pro-Ject’s Perspective table, I preferred the Perspective to the RM-9 and anything else in the RM line, all of which struck me as a bit bright and irritating. That problem has been fixed, Lichtenegger told me; the RM models’ bottom-octave performance has been much improved via heavy metal damping rings applied to the bottom of their MDF plinths. Again, I don’t have enough space to give you all the details, but soon to be introduced is the RM-10, featuring a metal-and-sand-filled plinth and a magnetically levitated bearing. The upgrades and enhancements made to the Pro-Ject line alone could take up another entire column. Nor do I have space to tell you about Pro-Ject’s new phono preamps…

Also noted: the Rossner turntable from Munich, Germany, with tonearm and phono preamp; Mörch’s new retrofittable VTA adapter; J A Michell’s limited-edition Odyssey turntable with modified Rega RB250 arm (it has a perforated armtube); the German Amazon ‘tables, one of which was fitted with a legendary Breuer arm; the new Clearaudio Ambien turntable with Satisfy carbon-fiber arm; and, finally, Ensemble’s handsome Fonobrio phono preamp ($4750) [which will soon be reviewed in Stereophile by Brian Damkroger—Ed].

There was so much more to cover, in and out of analog, but I’m out of space. I’ll close by thanking Ken Kessler for inviting me to the show. On both consumer days he held court in a series of packed, crowd-pleasing, freewheeling music demos and discussions that his many fans—and some of his detractors—enjoyed immensely. KK and former Hi-Fi News editor Steve Harris signed copies of Sound Bites, their new, informative, highly entertaining book covering 50 years of Hi-Fi News’ coverage of the audio industry. It’s filled with stories, pictures, and fascinating anecdotes contributed by industry insiders. Don’t miss it.

Back to cleaning fluids…
musicdirect does analog better than anybody!

**Marantz**
SA-11 $3299
Designed for the most discriminating two-channel audiophile, the Marantz SA-11 truly offers World Class Performance! This CD/SACD player is so musical, even our analog customers love this player! Call or check our web-site for much more information about this incredible digital player.

"The SA-11S1 gets an unqualified recommendation, both for its outstanding CD performance and even better SACD sound. The Marantz SA-11S1 is a perfect choice for those looking for true high-end performance from a mid-priced player."
— Robert Harley, the absolute sound

**Channel Island Audio**
VHP-1 Headphone Amp $349
The new Channel Islands Audio VHP-1 Headphone Amp is another example of CIA's price-to-performance killers! This little headphone amp impressed us with incredible tonal accuracy. It works great with the Grado, Sennheiser, and the even the Shure Headphones! Its high bandwidth, extremely low noise and 120 dB of dynamic range will really impress! Also available w/ VAC-1 Power Supply Upgrade for $159!

**D-100 Mono-block**
The new D-100 Mono-blocks from Channel Island Audio are a superb marriage of performance, sound quality, and reliability. With a powerful bottom end, smooth, textured midrange and sweet extended highs, these amplifiers produce a glorious sound matched only by the most expensive amps. Get your hands on these mighty amps and put 'em up against the competition at over twice the price! (100 W/Ch into 8 ohms, 180 W/Ch into 4 ohms) Price $1599/pair.

"Channel Island's nifty little D-100 amplifier is extremely well built - the fit and finish are superb. I kept having to remind myself that a pair of them costs less than $2000! A lot less! I really had to keep pinching myself as I auditioned them!"
— Wes Phillips, Stereophile August 2005

Linn Products Inc.
For more information or a demonstration call +1 (904) 645 5232
www.linninc.com

LINN
Nelson Pass & the First Watt F2 amplifier

There's one other thing I enjoy about single-ended triode amplifiers, although it isn't so much a characteristic of a good SET as the combination of a good SET amp and an appropriate loudspeaker: They load the room convincingly when the music demands it. It's a hard thing to describe, but I know it when I hear it, like open fifths or pornography. And it can be subtler and less bombastic than you might guess—like the first piano chord in Schubert's "Trout" Quintet: There's a manner in which the sound of that chord reacts with the room, any room, in a real performance, and a manner in which a reproduction of that performance tends not to. A good combination of SET amp and speaker is closer to the former than most everything else.

I'll come back to that later on. First I'll tell you about a single-ended amp that's as different as can be from the Viva Solista I wrote about last month—and that's a new single-ended transistor amp designed and built by Nelson Pass. You'll remember Pass from the January 2005 installment of this column: In recent years, the founder and president of Pass Labs has come up with a few new creative outlets for his more experimental tendencies, including Pass DIY (which specializes in supplying plans and parts for low-power solid-state amplifiers) and now First Watt, a "kitchen table" company set up to create commercial versions of certain Pass designs in limited editions. Limited but not overpriced: First Watt's first product, the F1 power amplifier, was downright cheap at $2000.

So it goes here, with the latest First Watt creation: a power amp called the F2, which seems poised to make a much greater impression than its price ($2500) would lead you to believe. Like its immediate predecessor—and nothing else I know of—the First Watt F2 is a transconductance power amplifier, a technology I wrote about in the January issue. To recap:

Most amplifiers are designed as voltage amplifiers. They start with a low-voltage AC signal at one end and produce a high-voltage version of (we hope) the same thing at the other. But owing to the electrical complexities within an amplifier-loudspeaker system—and especially the reactive elements in a passive crossover network—the relationship between voltage and current within the system is a whole lot different. Therein lies the problem: What the loudspeaker uses is not the same as what the amplifier provides. The answer, then, is to devise an amplifier that produces signal-modulated current: a current amplifier. That's what Nelson Pass has done with the F1 and F2.

A key difference between the F1 and F2 is that the latter uses a single-ended topology. In each channel, the music is amplified with only three active devices: a MOSFET configured as a constant-current source, a bipolar transistor used to regulate it, and another MOSFET used as a current-gain transistor. That's it. One gain stage and just 35 parts per channel, not counting the power supply—and that, too, is simple.

Compared with the F1, Nelson Pass went for a lower output impedance this time. By putting a trio of 47 ohm resistors in parallel with the F2's output section, he endowed it with a nominal impedance of just over 15 ohms (compared with the F1's 80 ohms), for a bit more electrical damping with low-mass, full-range drivers. If you don't think you need the damping, simply remove the resistors and you'll be left with a source impedance of about 700 ohms. But don't be surprised if you're also left with more bass overhang than you'd care to hear.

What to listen for in tuning the F2's bass with your speakers? Try XTC's "The Meeting Place," from Skylarking (LP, Geffen GHS 24117). For the second half of every verse (coinciding with the line "Whistle will blow..."), bassist Colin Moulding switches from a rhythmically complex line to simple whole notes; when you've got the bass damping right, you'll hear more nuance in the former—and you'll hear that, in the latter, the second note is a half step below the first. When the damping is poor, they tend to sound like the same note.

Now to the sound in my system. First, the F2, like the F1, was uncommonly quiet. Driving my very sensitive Lowther Medallions, there was no hissing or humming at all: It was impossible to tell whether or not this amp was switched on just by putting my ear up to one of the Lowther drivers—something that the Lowthers telegraph lustily with every other single-ended amp I've tried, including those with rectified filament voltages.

Second, the F2 did sound more like a single-ended tube amp than the F1. The F2 sounded meatier and more colorful, all the while preserving the F1's good way with pitches and rhythms, its ability to convey musical nuance, and its utterly remarkable sonic clarity.

Third, it did sound richly textured, like a single-ended amp of the tubular sort. I listened to János Starker's stripped-down and somewhat dry performance of Bruch's Kol Nidrei (LP, Mercury SR90303, which should be available as a Speakers Corner LP reissue by the time you read this): The plucked notes in the double basses toward the end of the piece each stood alone as a richly colored event in time, with remarkable weight, even through my Lowthers.

My Fi 2A3 stereo power amplifier remains a different-sounding thing,
and while it and the F2 can deliver more or less the same degree of musical and emotional involvement, neither renders the other irrelevant by any means. The Fi works with the Lowther Medallions to load my medium-small room in a very pleasant manner (as do my Lamm ML2.1 SETs, with either the Lowthers or my largeth Quads)—and that’s a trick that the First Watt F2 never quite pulled off, for whatever reason. But that doesn’t trouble me. The F2 wasn’t designed to sound like a tube amp, single-ended or otherwise. It was simply intended to sound like what it is: a well-made, minimalist, low-power amplifier that just happens to have not a tube in sight.

The First Watt F2 is a one-weight fly rod, a mando-cello, a drawknife with a flexible blade—in other words, a fascinating tool with the potential to make you rethink everything you know, even if you don’t wind up using it on every job (although you may). I dislike making windy pronouncements even more than reading them, but I can’t resist saying: If this amplifier had been available 25 years ago, the high-end audio landscape would look quite different today.

A final note: A great bonus that comes with any Nelson Pass product is the quality of the accompanying manual. He’s a gifted writer with a voice not unlike that of Kurt Vonnegut, Jr., and his many insights are as entertaining as they are true. My favorite: “Just as corn chips are an excuse to eat salsa, Lowthers provide a reason to build big back-loaded horns.”

Trials at home
I devoted a portion of my April 2005 column to equipment-reviewing policies—Stereophile’s and my own. I’d like to return to that subject for a moment, as I’m sure I’ll do again from time to time.

Today I’m struggling with the whole idea of allowing manufacturers to visit me—to install, adjust, or simply take stock of the performance of their gear in my house. On the surface it seems reasonable enough: A magazine review can make or break a product (it can also have no effect whatsoever, but that’s a topic for another day), and I shouldn’t be surprised if the people involved in making and selling it want to ensure that the review sample is performing up to par. Besides, it’s their property.

And under the best of circumstances, I come away richer, too (not literally, of course—although it’s fun to mess with the heads of the pathetic old hens who revel in thinking we’re all on the take). I can learn a lot about the product I’m reviewing straight from the horse’s mouth, and some of that information may carry over to other things. What’s not to like?

Well, for one thing, there’s serious potential for unfairness. If I open my home to Company A, then I’ll have to do the same for Companies B through Z as well. I’ve heard complaints about this more than once from manufacturers who either felt uninvited, or who suggested that they couldn’t afford the expense of traveling here. While I can’t help but wrinkle my nose at anyone who’d clutch at that straw, I’ve had to admit that they have a point. Hate the whine, love the whiner.

A personal installation and setup can also work to a company’s disadvantage. I recently had a visit from a manufacturer that did not go at all well, and by the time it was over, I came close to letting my resentment—at what appeared to be an effort to involve me in the development and promotion of an unfinished product, although there were other issues at work—color my review findings for the worse.

So I shipped the gear back. That done, I sat down with a pen and paper in an effort to amplify, clarify, and deep-fry my own reviewing policies, which may not necessarily represent the views of my colleagues at Stereophile and Primedia Enthusiast Media:

1) Any manufacturer who loans me a product for review in Stereophile’s pages (I don’t accept equipment loans for any other reason—ie, I don’t run a consultation service) is welcome to visit me and my family here in Cherry Valley, New York. I guarantee you clean linens and at least one good meal, but I expect you to put the towels back on the rack when you’re done with them, and at the very least you should help clear the table after dinner. If you do stay for dinner, it would be nice if you brought flowers for the table or a bottle of wine: simple good manners when you’re accepting someone’s hospitality. Note also that while Janet and I are people of humble tastes and less than extravagant means, bringing us cheap or even no wine while bragging about the cost of the vintage you’ve got in the car for your trip down to Sea Cliff is, in fact, a shitty thing to do. Outrageous though that sounds, it has happened. Twice.

If, on the other hand, we go out for a meal, I expect you to make at least a token effort to reach for the check—and rest assured that if you grab it this time, I’ll pick it up next time. Again, it’s not gifts but graciousness that I’m after.

2) I’m aware that in-home installation and setup are built into the price of some high-ticket items, so I don’t object to having you visit us for that reason—but only if any reader of Stereophile will have access to the same level of “after-sale” service. In any event, keep in mind that professional visits to our house now carry a one-day maximum. If you can’t install a domestic audio component in my home and get it performing to your satisfaction in one day or less, then it isn’t a real product. Period.

3) I can review only one thing at a time—if I put more than one unfamiliar component into my system at once, I’ll have no way of knowing what’s what. So I must insist that you bring or ship only one product, please. I’ll consider exceptions where a special cable or adapter is required for something to function in my system, or where spare tubes are required as insurance against breakage or contamination by evil spirits.1 But if your amplifier requires some other extra-cost accessory in order to function properly, then that product is either broken or incomplete: It can’t do the job that any reasonable, average consumer would expect of it.

As long as I’ve raised the subject, here’s a reminder of the equipment and conditions you’ll find at my house:

• Linn LP12 turntable with Naim Aro tonearm and Naim Armageddon power supply
• Linn LP12 turntable with Linn Ekos tonearm and Linn Lingo power supply
• Rega Planar 3 turntable with rewired Rega RB-300 tonearm (mono playback only)
• Various cartridges, including Miyabi 47, Linn Akiva, Supex 900 Super, Lyra Helikon Mono, and Rega Exact
• Tamura TKS-83 step-up transformers
• Naim CD5X CD player with Naim Flatcap 2X power supply
• Linn Unidisk SC DVD/SACD/
INTRODUCING Domus

From the Latin, meaning “Private family residence of modest to palatial proportions.”

Sonus faber brings home music and film in forms seemingly sculpted by the wind. Evocative of Sonus faber’s award winning Cremona, never before have designs this advanced been offered in this category.

As always, component and driver selection is to the highest standard. The silk ring radiator - derived from their most recent work the Stradivari Homage - extends smoothly to 40kHz for effortless highs.

Available in a natural medium-toned wood or in deep piano black lacquer, Domus is certain to find its way into finer homes everywhere.
CD player
• Fi preamplifier
• Fi 2A3 power amplifier
• Lamm ML2.1 power amplifiers
• Lowther PM2A and PM6A drivers (both 14-ohm) in modified Medallion horns
• Quad ESL-989 loudspeakers
• Two Mana platforms (for turntables, although I suppose they could be used for something else)
• One 12' by 18' by 8' listening room, slightly underdamped

If you’re submitting a product for review and this isn’t the sort of room or gear that you feel would allow it to perform at its best, I’m not the least bit offended: You might be right, and consequently I’m not the Stereophile contributor for you, any more than Peter Egan is the right man to review American muscle cars for Road & Track, or a good film critic such as Andrew Sarris or Armond White should be assigned to write about, say, Spy Kids 2.

Wedding bells are breaking up that old gang of mine
Remember the first time someone stole money from you under the pretense of commerce? For me it was 1962, when I sent away for some “fossils” I’d seen advertised in the back of a comic book. (I know, I know...) The ad was illustrated with a picture of an enormous Tyrannosaurus rex skull, and my dollar bill went into the mail so fast it probably got singed by the friction.

Three weeks later, I received a parcel that made my heart sink: This can’t be right: It’s so... small! Inside was a quarter-inch-square plaster-of-Paris seashell, and my dollar bill went into the mail so fast it probably got singed by the friction.

I also remember the last time someone at least tried to take my money, because it happened just last week.

Some background: I’ve been passing through one of my let’s-clean-out-the-guest-room-closet-and-disperse-with-everything-we-find phases lately, and I’ve taken to selling off the audio components I no longer wish to keep2 by advertising them on Audiogon.com, an Internet classified that’s worked well for me in the past. One of the things I advertised was a product I offered for $425, expecting, as always, to have to haggle a little. But I was astounded when, just minutes after the posting, I got a response from a fellow who called himself Tommy Lee3, offering me full price—but there was a hitch:

Money Transfer. I am aware of the wire charges. They are to be deducted from the excess funds...

Do you believe that? “How are you doing today?” What the hell business is it of his? I wrote back:

I’m fine! Thank you for asking! I started the day with a big bowl of Alpen, with milk and sugar on it. I also had a glass of orange juice, and then two cups of coffee. With milk AND sugar! And then...

About 1200 words later, I had finished telling him about my day. This time he wrote back immediately:

Hey, I stole some time away from my wife to send you this message!

I must say that what I understand is that I have your word on this and I am pleased. We are having our honeymoon outside the US, we made a promise not to tell anyone where we are going. I don’t think I want to break that promise. You know how it is.

Heavens—audiophile is honeymooning outside the US. Alert the paparazzi.

Anyway, I could see this fellow’s own patience was wearing thin, so I wrote back one more time—and this time I just happened to mention the New York State Attorney General’s office. That was all it took: I never heard from him again.

If you’ve never encountered this scam or its variants—people write about it all the time on AudioAsylum.com, especially on their Shady Lane forum—do tread carefully. This particular thief had a legitimate-sounding e-mail address (more than one, actually), but that meant nothing: he went through a third-party “mailbox.” He offered me a certified money order, but that didn’t mean anything, either: They’re easy to fake—and even if I’d taken it to my local bank and they’d accepted it for deposit, I’d have had to relinquish every cent a few days later, plus a bank charge on top of that. My teller is a sweet girl, but she was raised on a farm. While she may know what the inside of a cow’s uterus is supposed to feel like, I’m afraid a faked financial instrument could slip right past her.

There’s not much else you can do. Just keep your eyes open, resist flattery, and remember that private commerce is like pinpoint imaging: If it sounds too good to be real, then it is too good to be real.
Hydra Power Systems

THE UNANIMOUS CHOICE FOR THE WORLD’S FINEST MUSIC AND FILM SYSTEMS

Hydra power systems patented technologies, passive operation and high-current capability have made them the choice of the world’s preeminent mastering, recording and film studios, as well as the industry’s most respected reviewers and electronics manufacturers. But don’t listen to us, let the pros speak for us:

"With digital sources it was almost as if we had switched from 44.1k/16 bit to 96k/24 bit. We now run all our analogue machines, workstations and the mixing console from the Shunyata equipment."
-- Andy Jackson, Senior Mastering Engineer, Astoria Studio UK

"I would highly recommend Shunyata Research products to any professional audio/video facility."
-- Vlado Meller, Senior Mastering Engineer

"The Hydra 2 and Hydra 6 have made a world of difference in clarity and punch."
-- Brett Allen, Studio Manager, LookOut Sound Studios

"Every power amp I plugged into a Hydra sounded noticeably better than when fed straight from the wall."
-- Wes Phillips, OnhiFi.com

"Shunyata Research's Hydras have put a very positive signature on Crest National's Hollywood reference listening experience."
-- Jon Tuckenmiller, Sr. VP Engineering, Crest National Studios

"My high-current amplifiers were as dynamic and expressive (with Hydras) as they were plugged directly into the wall, and even quieter in operation."
-- Jeff Fritz, Editor, SoundStage! Magazine

"I can honestly say that Shunyata Power Systems contribute to a more solid, focused and accurate sonic picture."
-- Tom Jung, President, Digital Music Products Inc.

"The Hydra 8 is an amazing product!"
-- Michael Fremer, Stereophile Magazine

"Adding them (Hydras) to an already high-performance system may well prove to be a more cost-effective upgrade than replacing components."
-- Paul Bolin, Stereophile Magazine

"The result (with Hydras) was less noise with an improvement in overall sound quality. We now use the Hydras on our Model 2 converters, AES router and main monitor system."
-- Clayton Wood, Senior Engineer, Skywalker Sound

"Shunyata's Hydras have provided me with an extremely clean and transparent foundation by which I can check and approve test pressings with full confidence."
-- Steven Epstein, 12 time Grammy-winning Record Producer

www.shunyata.com

Shunyata Research :: 5594 N.E. Minder Road, Poulsbo, WA 98370 :: 360.297.8960
Perfect form and sound.
The form is artistic. Beautifully crafted like the body of a musical instrument.
The sound is exquisite, and the combination of perfect craftsmanship and
state-of-the-art technology is unique. This new Canton loudspeaker series
represents pure musical enjoyment and timeless design. Its name is Vento.

Experience the new Vento series. For further details contact your local dealer or Canton, 504 Malcolm Avenue SE, Suite 400, Minneapolis,
MN 55414, 612 706 9250. Smartketing, 6559 Saint-Denis Street, Montreal, Quebec H2S 2R1, Canada 514 279 6006 or visit www.cantonusa.com.
There Were Giants in the Earth

John Marks

In my October column, I began putting together a stereo system for a hypothetical high-school music teacher who wanted to reproduce in his or her home perhaps 80% of the frequency range and dynamics of live music, but who wanted to spend only about 20% of what an ambitious audio system would cost.

That 80/20 ratio corresponds to Vilfredo Pareto’s principle that for many systems (he was thinking of economies and societies rather than stereo systems), 80% of the consequences flow from 20% of the causes.1 For the purposes of this exercise, I’d peg a more-ambitious-than-usual two-channel system at $35,000 to $50,000. So, 20% of that works out to about $7500 to $10,000.

I got as far as wholeheartedly praising, but ultimately moving on from, Harteth’s wonderful little HL-3P-ES2 ($1595/pair, stands required), their drop-in replacement for the BBC’s LS3/5a. I then passed over Audio Analogue’s Primo integrated amp ($799), largely for ergonomic reasons that you may or may not agree with. I concluded that column by deciding that Magnum Dynalab’s MD-208, a 100Wpc, FM-only receiver ($2975), was an excellent but by no means the only possible choice for a music lover who wants great sound but who doesn’t want to become an equipment hobbyist, much less own his or her own soldering iron.

There were giants in the earth

I’ll take up that quest again in a moment, but first I must tell you this: Absolutely drop everything you are doing (including reading this magazine) and immediately obtain for yourself the wealth of riches contained in Verve’s The Complete Norman Granz Jam Sessions boxed set (5 CDs, Verve B0003252-02 QS01). I was absolutely knocked out by it. Part of my reaction was my delighted surprise that the recordings were not quite what I was expecting, on two counts.

Here’s why. Norman Granz was one of the most important jazz promoters, impresarios, or career-makers of the second half of the 20th century. His stature was matched only by the Newport Jazz Festival’s George Wein. (Nat Hentoff’s appreciation of Wein is at www.jazztimes.com/columns_and_features/final_chorus/index.cfm?id=12.)

Granz started out in the early 1940s, putting together groups of musicians to play together in clubs in Los Angeles. He hired musicians not to make up bands as such, but rather to put on somewhat competitive showcases of soloing. Some contemporaries referred to these events as medieval jousting tournaments.

Granz was also among the first (if not the first) to recognize the potential for cross-marketing live performances and recordings. Fortuitously, that coincided with the launch of the long-playing vinyl record. Jazz at the Philharmonic was both a series of live concerts and a series of very successful live recordings.

However, the dark side was that Granz enjoyed stirring up a musical fight, as long as it was someone else’s reputation that would suffer—the live concerts he produced could be faulted for a certain gladiatorial state of mind. Some of the musicians who worked for Granz respected this. Other musicians simply refused to play his game—foremost among them Miles Davis. That said, Granz always courageously refused to put on shows for racially segregated audiences, and as a rule he paid black musicians working for him the same as whites; if there were disparities, reasons other than race were the causes.

So when I put on the first of the five CDs in this set of all Granz’s Jam Session studio recordings, I prepared myself to sit through 16 choruses of “Anything You Can Do, I Can Do Better.” Wrongola. After the upbeat opening number, I was transfixed by some of the most heartfelt and sensitive solo ballad playing I have ever heard. The tunes and soloists on the first “Ballad Medley” say it all (solo start times given, because the liner notes don’t):

0:09 “All the Things You Are” (Kern-Hammerstein); Barney Kessel, guitar
2:02 “Dearly Beloved” (Kern-Mercer); Charlie Parker, alto sax
3:42 “The Nearness of You” (Carmichael-Washington); Ben Webster, tenor sax
5:43 “I’ll Get By” (Aihlert-Turk); Johnny Hodges, alto sax
7:17 “Everything Happens to Me” (Denis-Adair); Oscar Peterson, piano
9:14 “The Man I Love” (Gershwin-Gershwin); Ray Brown, bass
11:04 “What’s New?” (Haggart-Burke); Flip Phillips, tenor sax
13:10 “Someone to Watch Over Me” (Gershwin-Gershwin); Charlie Shavers, trumpet
15:14 “Isn’t It Romantic?” (Rodgers-Hart); Benny Carter, alto sax

Parker, Webster, Hodges, Phillips, and Carter, all on the same track? Oxygen, please. If you’re anything like me, by the time Charlie Shavers weighs in with “Someone to Watch Over Me” (a tune I heard Stephane Grappelli play live), you’ll be just a puddle of lard. In point of fact, I was already rather gelatinous come Flip Phillips’ “What’s New?” You can regulate your watch by the rhythm section of J.C. Heard, Ray Brown, and Oscar Peterson. Later jams include Count Basie, Louie Bellson, Buddy DeFranco, an impossibly young Stan Getz, Dizzy Gillespie, Wardell Gray, Lionel Hampton, Illinois Jacquet, Buddy Rich, and Willie Smith. Um, what are you waiting for?

The second aspect where my all-wet- ness revealed itself was the sound. It is very, very good for its time (from 1952 on). Not quite up there with Ella Fitzgerald’s Cole Porter Songbooks (also produced by Granz), but very good nonetheless. Timbres are very natural (session photos show vintage RCA ribbon microphones), and dynamics are okay but not great. Even though these are all mono record-
ings, you do get some sense of the spaciousness of the large studios in which they were made. At one point in “What’s New?” you can hear someone knock over or drop a beverage bottle of some sort—a real audiophile moment, that one.

Over and above this set’s fastidious remasterings, its extensive liner-notes booklet is as good an introduction to the post-WWII jazz scene as one could hope for. The art on the original album covers is reproduced on the front and back of each CD’s discpack (each CD contains the content of two original LPs).

The bottom line is that The Complete Norman Granz Jam Sessions barely slows down as it picks up its “Record To Die For” endorsement on its way to that Desert Island. If you don’t check it out (your local public library may have it, or be prevailed on to order it), it surely will be your loss.

Sibling rivalry

Back to work. On the assumption that our hypothetical music teacher would want to hear nearly the full frequency and dynamic ranges of orchestral music (or, for that matter, of band music), I requested a speaker similar to but larger than Harbeth’s LS5/5a replacement, the HL-P3ES-2. That speaker was the S6e from Spendor (www.gsandd.com), another company that traces its roots back to the BBC’s engineering department.

I really liked Spendor’s less-expensive S5e ($1799/pair) when I heard a pair of them at Home Entertainment 2004. I agreed both with Art Dudley’s review (Stereophile, September 2004, Vol.27 No.9; www.stereophile.com/loudspeaker/reviews/904spendor/index.html) and their receiving a joint “Product of the Year” award in the Budget category (December 2004, Vol.27 No.12; www.stereophile.com/features/1204poty/indexx8.html). My thinking was that the larger, more expensive S6e ($2399/pair), a floorstanding two-way with a 6.5” woofer and a 1” soft-dome tweeter, would have enough bass to fill the bill. It didn’t quite work out that way. To my surprise, while the S6e did have more bass than Harbeth’s HL-P3ES-2, it didn’t have that much more bass.

Spendor’s US importer Mike Grubb let me borrow the pair of Spendor’s next speaker up, the S8e, that Sam Tellig had marveled at the difference. Then I took up pad and pencil. Peter Walker once claimed that all of audio engineering was just Ohm’s Law 10.56in². Times π equals 33.18in². So far, so good.

An 8” woofer has a radius of 4”; that squared is 16. Times π equals 50.24in². Now it gets interesting! 50.24in² happens to be 151% of 33.18in². In other words, the 8” woofer, despite being only 1.5” wider than the 6.5” woofer, is actually half again as “big”: 50% larger.

Now, if all other things were equal, one would expect the S8e to have 50% more bass extension than the S6e. Due to the logarithmic nature of sound, 50% more bass extension would be half an octave; i.e., four notes. However, all other things are not equal. Chief among these inequalities is that the S8e’s cabinet is not scaled up strictly proportionally to its larger woofer; its cabinet volume is about 32% larger than the S6e’s, not 50% larger.

Spendor’s own specifications show the S6e with a –6dB point of 36Hz and the S8e with a –6dB point of 32Hz—that’s more like one note than four (from D down to C). But it could be that the difference between the two bass-response curves constitutes the “tipping point” between a speaker that is ever-so-slightly frustrating for its lack of low bass and one that has “enough” low bass.

I think that for the $600 price difference between Spendor’s S6e and S8e, the S8e actually represents better value for money. Your mileage may vary. Spendor also makes the S9e, a three-way with a –6dB point of ~28Hz and a list price of $4999/pair, which just goes to show that those last few Hz of bass extension get increasingly more expensive.

Now, if Spendor’s S8e is a good enough speaker for our hypothetical music teacher, why would anyone ever spend more? Good question. An 8” two-way speaker has some things going in its favor and some things stacked against it.

FOR THE $600 PRICE DIFFERENCE BETWEEN SPENDOR’S S6E AND S8E, THE S8E ACTUALLY REPRESENTS BETTER VALUE FOR MONEY.

I unpacked the S8es, then first listened to some brief tracks on the S6es: John Atkinson’s solo electric-bass channel-ID tracks and relative phase test, found on Stereophile’s Test CD 2 and Editor’s Choice. (I run those tests every time I change speaker or amp connections, as cheap insurance against making stupid mistakes.) Next, I made the changeover, played the same tracks on the S8es, and marveled at the difference. Then I took up pad and pencil.

Peter Walker once claimed that all of audio engineering was just Ohm’s Law 10.56in². Times π equals 33.18in². So far, so good.

An 8” woofer has a radius of 4”; that squared is 16. Times π equals 50.24in². Now it gets interesting! 50.24in² happens to be 151% of 33.18in². In other words, the 8” woofer, despite being only 1.5” wider than the 6.5” woofer, is actually half again as “big”: 50% larger.

Now, if all other things were equal, one would expect the S8e to have 50% more bass extension than the S6e. Due to the logarithmic nature of sound, 50% more bass extension would be half an octave; i.e., four notes. However, all other things are not equal. Chief among these inequalities is that the S8e’s cabinet is not scaled up strictly proportionally to its larger woofer; its cabinet volume is about 32% larger than the S6e’s, not 50% larger.

Spendor’s own specifications show the S6e with a –6dB point of 36Hz and the S8e with a –6dB point of 32Hz—that’s more like one note than four (from D down to C). But it could be that the difference between the two bass-response curves constitutes the “tipping point” between a speaker that is ever-so-slightly frustrating for its lack of low bass and one that has “enough” low bass.

I think that for the $600 price difference between Spendor’s S6e and S8e, the S8e actually represents better value for money. Your mileage may vary. Spendor also makes the S9e, a three-way with a –6dB point of ~28Hz and a list price of $4999/pair, which just goes to show that those last few Hz of bass extension get increasingly more expensive.

Now, if Spendor’s S8e is a good enough speaker for our hypothetical music teacher, why would anyone ever spend more? Good question. An 8” two-way speaker has some things going in its favor and some things stacked against it.

5TH ELEMENT

REPRESENTS BETTER VALUE FOR MONEY.
The Evolution Series.

“After twenty-five years producing impeccable components for connoisseurs of music, I offer the ultimate listening experience.”

C.E.O. and Chief Designer

www.krellonline.com  203-799-9954
On the plus side, the crossover can be simpler and more transparent. Integrating two drivers in that particular case (and in many others) is an easier job than integrating three drivers. The minus side is that an 8" driver is slightly larger than optimum for handling the midrange and upper midrange. Even if the cone's construction is sufficiently sophisticated to avoid breakup modes, as the frequencies being reproduced rise they will become increasingly direction-al, which has to be taken into account in the speaker's voicing.

Going beyond those points, a cost-no-object speaker that covers the same range—for example Wilson Benesch's A.C.T.2 which also has a claimed -6dB point of 32Hz—is going to do a better job of getting out of the way of the music and creating the illusion of there-ness we all crave. Compared to my vivid recollection of the A.C.T., the S8e sounded slightly veiled.

Playing music with some deep bass content moderately loudly on the S8e, I could feel the top of the cabinet vibrating—not grossly, but not imperceptibly, either. The A.C.T.'s hugely expensive high-tech design and construction seem to banish cabinet resonances—it seems to let the music emerge from a quieter space. The A.C.T. is also extraordinarily coherent; the join between midrange and tweeter is not audible, as far as I can hear. And so on and so forth. But remember: the A.C.T. costs five times as much as the S8e.

So, despite its technical limitations, an 8" two-way can still provide a very cost-effective, perhaps even optimal speaker solution for a music lover. My own experience seems to bear this out. My first high-end equipment epiphany was Bud Fried's Q/2, an 8" two-way with a soft-dome tweeter and a primitive transmission-line substitute for cabinet loading. (My first high-end equipment epiphany was the extraordinary change effected—let the music emerge from a quieter space. The A.C.T. is also extraordinarily coherent; the join between midrange and tweeter is not audible, as far as I can hear. And so on and so forth. But remember: the A.C.T. costs five times as much as the S8e.

So, despite its technical limitations, an 8" two-way can still provide a very cost-effective, perhaps even optimal speaker solution for a music lover. My own experience seems to bear this out. My first "high-end" speaker (1977) was Bud Fried's Q/2, an 8" two-way with a soft-dome tweeter and a primitive transmission-line substitute for cabinet loading. (My first high-end equipment epiphany was the extraordinary change effected—let the music emerge from a quieter space. The A.C.T. is also extraordinarily coherent; the join between midrange and tweeter is not audible, as far as I can hear. And so on and so forth. But remember: the A.C.T. costs five times as much as the S8e.

playing music with some deep bass content moderately loudly on the S8e, I could feel the top of the cabinet vibrating—not grossly, but not imperceptibly, either. The A.C.T.'s hugely expensive high-tech design and construction seem to banish cabinet resonances—it seems to let the music emerge from a quieter space. The A.C.T. is also extraordinarily coherent; the join between midrange and tweeter is not audible, as far as I can hear. And so on and so forth. But remember: the A.C.T. costs five times as much as the S8e.

So, despite its technical limitations, an 8" two-way can still provide a very cost-effective, perhaps even optimal speaker solution for a music lover. My own experience seems to bear this out. My first "high-end" speaker (1977) was Bud Fried's Q/2, an 8" two-way with a soft-dome tweeter and a primitive transmission-line substitute for cabinet loading. (My first high-end equipment epiphany was the extraordinary change effected—let the music emerge from a quieter space. The A.C.T. is also extraordinarily coherent; the join between midrange and tweeter is not audible, as far as I can hear. And so on and so forth. But remember: the A.C.T. costs five times as much as the S8e.

I later bought Spendor's SP1s, which were 8" two-ways with the addition of a super tweeter. A pair of used SP1s in good condition would make a fine start on a budget system, by the way. Spendor's US importer, QS&D, reports that they can still get or recone all the drivers for SP1s.

Not only on The Complete Norman Granz Jam Sessions but also on Telarc's recording of Brahms' Ein deutsches Requiem, with Robert Shaw and the Atlanta Symphony, the MD-208/S8e combination acquitted itself very well indeed. The Magnum Dynalab receiver ran out of drive before the speakers ran out of dynamics, which is good. This indicates that spending more money for a more powerful amp would not be a waste. However, on a day-to-day basis, it likely would be a case of diminishing returns.

As far as a source goes for our hypothetical music teacher's system (keeping in mind all the free music a good FM tuner provides), that can be any decent digital source, from Sony's DVP-NS975V SACD player ($300) to Marantz' SA-8260 ($1100). At this point in the evolution of the system I make a bold claim: Without doubt, our music lover will be better off getting his or her interconnect and speaker cables on the cheap from a professional and broadcast source such as Markertek (www.markertek.com), and spending comparatively serious money on acoustical treatments, than popping for audiophile-approved name-brand cables and neglecting room acoustics.

(Markertek is a large stocking dealer for just about everything made by Belden, Canare, and Neutrik. Their custom-fabrication services are excellent. In-stock 3' RCA-RCA interconnects run from $13 to $30/pair, and speaker cables are priced correspondingly. Markertek's catalog is a great "dream book," in any case.)

Whether to spend the money for an entry-level Rives Audio consultation (see "The Fifth Element," August 2005, Vol.28 No.8) will depend on how problematic the room's bass response is. If the bass is not bad, it would be perfectly reason-able simply to employ RPG's Binary Amplitude Diffusor (BAD) panels, or improvised or home-made equivalents, on the room's first-reflection points (www.rpginc.com). Those points can be located by using the simple technique described in "The Fifth Element," May 2001, Vol.24 No.5 (www.stereophile.com/thefifthelement/358/).

If a room is not burdened with too many hard, reflective surfaces, a dozen BAD panels—four each on the front and sidewall first-reflection points—should make for wonderful improvements in focus and articulateness. The retail price of a dozen 2' by 2' BAD panels will be about $800 or more, depending on the fabric and other options selected. Half a dozen RPG Skylines ( about $1000) on the ceiling, in my experience-based opinion, should make for more of a positive contribution to your room's sound than any expensive cables I have ever heard.

When it came time to select wire goods, I sought the counsel of Vince Galbo, former US importer of Plinius.3 Vince's immediate suggestion was that I try Analysis Plus's Oval 9 speaker cables ($439/8' pair) and their corresponding Copper Oval interconnects ($219/0.5m, $296/m; www.analysis-plus.com). He strongly believes them to be the price-performance leaders. Vince's own listening biases run to higher-powered solid-state amplifiers and moderately efficient speakers with long-throw voice coils; Harbeth's Super HL5 is a particular favorite of his. So that Vince likes a speaker cable with "a lot of metal in it" comes as no great shock.

The particular Analysis Plus products I received here have, over the past few years, fared very well among the critics, including Michael Fremer (January 2001, Vol.24 No.1). Compared to the inexpensive cables I'd been using, the Analysis Plus wire goods had a cleaner, crisper sound, with more treble extension—a positive synergy with both the MD-208 and the S8es.

The bottom line: Yes, you can spend a lot more money. But a lot of music lovers never will, and it is more important for the survival of high-end audio that we make the tent bigger rather than more exclusive (read: snobby). Please do all you can to get the word out: Good audio equipment is not just for audiophiles anymore!

Paens of praise: jmrdcs@jmrcds.com.


3 His change of status must now mean that Vince is Pliny the Former the Younger. Pliny the Former the Elder being Victor Goldstein. Sorry, I couldn't resist.
First Class Upgrade.

Introducing Classe's new Delta series CDP-300 DVD player.

Meet the world's first DVD player with touchscreen control, the first to incorporate a preview screen and the world's first-in-class DVD player to implement all HDTV formats including 1080p. And, if that's not enough to raise its status, beneath the exterior of this sophisticated A/V component is an advanced digital engine that delivers unprecedented audio and video clarity. The CDP-300 is the perfect choice to upgrade your home entertainment system to first class. Ask for a demonstration of Classe's CDP-300 and our other premium Delta series components at your local authorized dealer.
Balanced Audio Technology

From the beginning, we’ve shared your passion for music. Our first two products were launched at the 1995 Winter Consumer Electronics Show, where they generated tremendous excitement among the audiophiles, dealers, and journalists present. Since then we’ve been gratified by the continued support of music lovers and the extraordinary loyalty of our customers. Thanks to all of you for making our first ten years so rewarding.

The name Balanced Audio Technology refers to more than just our use of balanced circuits. It reflects our commitment to overall excellence. We bring the same uncompromising standards to every aspect of engineering—as well as to visual design, customer service, and dealer support.

We take pride in our record of innovation:

1. **Making fully balanced circuits the high-end audio standard.** When many were skeptical, we staked our future on the premise that “balanced is better.” Today its virtues are acknowledged and balanced circuits dominate high-performance designs.

2. **Combining massive power supplies with purist signal paths.** Our products demonstrate the decisive advantages of supporting a simple, direct signal path with an unshakeable foundation.

3. **Pioneering the Unistage™ circuit design.** All BAT line stages employ an elegant single gain stage without buffers or followers.

4. **Introducing a high-current two-gain-block amplifier.** We complement the Unistage circuit with an innovative output stage to produce high-power solid-state amplifiers that use zero feedback and just two gain blocks.

5. **Bringing the 6H30 SuperTube to the audio industry.** Launched in the revolutionary VK-50SE line stage, this ultra-high-linearity tube is considered by many designers to be the finest device for audio amplification in existence.

6. **Perfecting a true audiophile volume control.** Our discrete electronic shunt attenuator offers a near-continuous gradient, yet places only a single premium resistor in the signal path.
Celebrating a decade of innovation

Creating the plug-and-play tube amp. From our first tube amplifier, intelligent autobiasing has eliminated the hassle of manually biasing power tubes—without sonic compromise.

Matching a world-class user experience to world-class sound. Years ago, we set a goal of creating a user interface worthy of our sonic performance. Today BAT products offer unparalleled control and ease of use, whether on-board or remote.

Breaking the sound barrier between tubes and solid-state. By transcending conventional wisdom acclaimed BAT designs have brought both tube and solid-state circuits closer to the musical ideal.

Maximizing the value of your investment. Through modular circuits and careful product design, we have strived to provide an intelligent upgrade path wherever feasible.

All BAT products display impeccable build quality. It’s a matter of pride, and it’s our commitment to you—you can count on BAT gear to deliver the open, dynamic, unfettered spirit of music year in and year out.

We stand behind that pledge. Pick up the phone and call us. You’ll probably speak to one of our founders—Geoff, Victor, or Steve. Whether it’s advice on component matching, system setup, or arranging an upgrade, we’re happy to help. All our technical achievements mean nothing until you’re delighted with your BAT system.

Exciting things are still to come. If you’re not yet a member of the BAT community, stop by your BAT audio specialist and celebrate with us. All you have to do is listen.
2060 Stereo Class A Power Amplifier...

...Priceless Perfection

Boulder Amplifiers, Inc.
3235 Prairie Ave.
Boulder, CO 80301 USA

www.boulderamp.com
303-449-8220
THE BEST-SOUNDING PRODUCTS OF 2005

BY STEPHEN MEJIAS

WHAT'RE THEY ALL ABOUT, THESE SO-CALLED PRODUCTS OF THE YEAR? Why do we put so much time and energy into the voting? Why compile a list of all the products we've reported on in Stereophile over the last 12 months, putting little checkmarks and stars and numbers and other irreverent doodles and dashes beside their already silly names? Certainly all this hullabaloo isn't for our health. It's not even fun. It doesn't promote that strange, weird, and wonderful tingling feeling way down in the toes. It doesn't taste good. And chicks don't really dig it.

So: Why?

I was mulling all this over a few days back when, without warning, and just as I was about to begin the process of sifting through the votes in preparation for writing the actual text that follows [cue thunderclaps followed by the whir of absolute silence or whatever other apocalyptic entrance you can muster]—our network server went down. Funny thing about a network server going down in these days of shared drives, websites, forums, and blogs: it handcuffs you, paralyzes you, ties you to the whipping post. Great Gatsby, what's a guy to do? Well, this guy—surrounded as he is by old issues of Stereophile, and without having to click Send or close a bunch of annoying pop-up ads—went way back in time, to the very first edition of our "Products of the Year," in 1992. I was 15 years old. And John Atkinson was sassy. He wrote:

"No matter how much hard work went into an equipment review, a couple of months down the line, that review will be as fresh as yesterday's undunked donut. And no matter how good-sounding the product, or how much it excited the writer, it will always tend to be overshadowed by the latest and greatest products written about in the new issue. . . . Needless to say, this is a drag. [Today, JA, we might say that this is totally lame—SM] I want to remind readers of the good products we've listened to in the past. So without shame, I organized the first of what is intended to be an annual ritual: Stereophile's 'Products of the Year.'"
...eight categories. To be a contender, a product had to have been reviewed in Stereophile between the November 2004 and October 2005 issues, in a full Equipment Report, a Follow-Up review, or in one of the regular columns by Art Dudley, Michael Fremer, John Marks, Kalman Rubinson, and Sam Tallig. That way, only those components could be nominated for which a writer had put his opinion in print for public scrutiny. We then put together a ballot form listing all components nominated by three or more writers and/or editors. This process ensures that most of the nominees in most of the categories will have been auditioned by most of the reviewers. Each of the magazine’s editors and reviewers gave three votes for his first choice in each category, two votes for his second choice, and one vote for his third choice (if any). JA tallied the votes; address complaints and compliments to him. The prices listed were current as of the end of August 2005. To order back issues mentioned in this article, call (888) 237-0955, or visit www.stereophile.com (MasterCard and Visa only). "WWW" indicates that the review is available free of charge in our online Archives. And the winners are...

**2005 Amplification Component**

**DarTZeel NHB-108 Model One power amplifier**

($18,181; reviewed by Wes Phillips, Vol.28 No.4, April 2005 WWW)

**RUNNERS-UP (in alphabetical order)**

Aesthetix Calypso preamplifier ($4500; reviewed by Michael Fremer, Vol.28 No.7, July 2005 WWW)

Burmester 001 preamplifier ($14,995; reviewed by Brian Damkroger, Vol.28 No.7, July 2005 WWW)

Channel Islands Audio D-100 monoblock amplifier ($1599/pair; reviewed by Wes Phillips, Vol.28 Nos.8 & 9, August & September 2005 WWW)

Classé Omega Omicron power amplifier ($20,000/pair; reviewed by Kalman Rubinson, Vol.27 No.11, November 2005 WWW)

Coda Technologies S5 power amplifier ($3950; reviewed by Wes Phillips, Vol.28 Nos.5 & 8, May & August 2005 WWW)

Conrad-Johnson ACT 2 preamplifier ($13,500; reviewed by Wes Phillips, Vol.28 No.3, March 2005 WWW)

Grace m902 D/A headphone amplifier ($1695; reviewed by John Marks, Vol.28 No.6, June 2005 WWW)

Lamm Industries ML2.1 monoblock power amplifier ($29,990/pair; reviewed by Art Dudley, Vol.27 No.10 & Vol.28 No.9, October 2004 & September 2005 WWW)

Quad II Classic monoblock power amplifier ($2700/pair; reviewed by Art Dudley, Vol.28 No.8, August 2005 WWW)

Simaudio Moon Rock monoblock power amplifier ($37,000/pair; reviewed by Brian Damkroger, Vol.28 No.9, September 2005 WWW)

**N**

HB stands for “never heard before,” and the darTZeel NHB-108 Model One power amplifier just might live up to the name—there is nothing else quite like it. The thing is handmade, after all. As Wes put it, “The NHB-108 is a work of art painstakingly and individually assembled from raw components.” Designer Hervé Delétraz says the unique design, which uses open-loop input and output stages with no global negative feedback, is based on principles of simplicity, purity, and reliability. Appropriately, there are no relays, switches, or fuses in the signal path, just six transistors per polarity side from input to output, and only a single pair of bipolar output transistors per channel.

Who cares about all that? How did the thing sound? So darn good it had WP pushing for a new classification in “Recommended Components”: “Perhaps we should establish a super-category: Components I Would Run Off to a Tropical Island With.”

Though WP warned that the darTZeel’s operational idiosyncrasies could add up to shortcomings for some listeners, our editors finally found something they could all agree on: The NHB-108 received more first-place votes than any other component in our contest, outlegging its nearest competition by a significant margin.

And here we are today, 13 years later, still rockin’ as strong as vinyl. These winners, then—these “Products of the Year” for 2005—are the components that we think will have a lasting influence on the world of high-end hi-fi, not simply because each has set a new standard of performance within its category, but because they remind us of the basis of our enthusiasm. That is, they give us beautiful music. Those categories are: “Loudspeakers” (including subwoofers), “Amplification Components” (preamplifiers, power amplifiers, etc.), “Digital Sources” (CD players, transports, processors), “Analog Sources” (phono cartridges, turntables, tonearms, FM tuners, etc.), “Multichannel Music Components,” and “Accessories” (all that woo-woo stuff in between). And let’s not forget the two most important categories: Our overall “Product of the Year” is the cream of the crop, and our “Budget Component of the Year” gives us the opportunity to get sassy all over again.

Here’s how it works: Each of Stereophile’s hardware reviewers is asked to nominate up to six components in each of the eight categories. To be a contender, a product had to have been reviewed in Stereophile between the November 2004 and October 2005 issues, in a full Equipment Report, a Follow-Up review, or in one of the regular columns by Art Dudley, Michael Fremer, John Marks, Kalman Rubinson, and Sam Tallig. That way, only those components could be nominated for which a writer had put his opinion in print for public scrutiny. We then put together a ballot form listing all components nominated by three or more writers and/or editors. This process ensures that most of the nominees in most of the categories will have been auditioned by most of the reviewers. Each of the magazine’s editors and reviewers gave three votes for his first choice in each category, two votes for his second choice, and one vote for his third choice (if any). JA tallied the votes; address complaints and compliments to him. The prices listed were current as of the end of August 2005. To order back issues mentioned in this article, call (888) 237-0955, or visit www.stereophile.com (MasterCard and Visa only). "WWW" indicates that the review is available free of charge in our online Archives. And the winners are...

**2005 Amplification Component**

**DarTZeel NHB-108 Model One power amplifier**

($18,181; reviewed by Wes Phillips, Vol.28 No.4, April 2005 WWW)
Mark Levinson has taken multi-channel to the next level.

The N°433, Mark Levinson’s first triple-monoaural, single-chassis power amplifier combines multi-channel flexibility with the legendary quality and performance of our traditional monaural and dual-monoaural designs.

The N°433 is no exception to the demanding standards that Mark Levinson amplifiers have defined for more than three decades. Rated at 200 watts per channel into 8 Ohms and 400 watts per channel into 4 Ohms, the N°433 combines a unique combination of brute force and finesse.

The N°433 perfectly augments the 400 series of amplifiers and allows multiple configurations for the ultimate multi-channel experience.

PRODUCTS OF THE YEAR

2005 JOINT DIGITAL SOURCE COMPONENTS

Ayre C-5xe universal disc player ($5950; reviewed by Wes Phillips, Vol.28 No.7, July 2005 WWW)

dCS Verdi La Scala SACD transport & Delius D/A processor
(Verdi La Scala, $17,500; Delius, $10,000; reviewed by Art Dudley, Vol.28 No.1, January 2005 WWW)

RUNNERS-UP (in alphabetical order)
Apple Airport Express WiFi Hub-D/A processor ($130; reviewed by John Atkinson, Vol.28 No.5, May 2005 WWW)
Cary Audio Design CAD-303/300 CD player ($4000; reviewed by Art Dudley, Vol.28 No.10, October 2005 WWW)
Esoteric X-01 SACD player ($13,000; reviewed by John Marks & John Atkinson, Vol.28 Nos.2 & 5, February & May 2005 WWW)
Linn Unidisk SC universal disc player ($4995; reviewed by Art Dudley & Wes Phillips, Vol.28 Nos.6 & 7, June & July 2005 WWW)
Naim CD5x CD player ($2950; reviewed by Art Dudley, Vol.27 No.11, November 2004 WWW)
Simaudio Moon Orbiter universal disc player ($7200; reviewed by Kalman Rubinson, Vol.28 No.3, March 2005 WWW)

The Ayre C-5xe and dCS’s combo of Verdi La Scala and Delius rose to a decisive victory from an exciting group of contenders.

Designer Charlie Hansen has become known for ignoring conventional wisdoms. We like that. In the case of the Ayre C-5xe, he proves that universal does not necessarily mean multichannel. Unlike any other “universal” device we’re aware of, the C-5xe is a music-only, two-channel-only disc player. It has no video output of any kind. For a guy like Wes Phillips, who loves to keep his home theater system far away from his hi-fi, this against-the-grain concept makes a lot of sense. More than that, it allows him to listen to his DVD-Audio and DVD-Video discs, as well as SACDs, in the best-sounding room of his home. The C-5xe, as it turned out, was the very best-sounding product WP heard all year.

Funny coincidence, though: Art Dudley said the same thing about the combination of the dCS Verdi La Scala transport and dCS Delius D/A converter. “On disc after disc,” he enthused, “CD and SACD alike, the dCS combo was never commonplace.” Good thing, because there’s no room for the commonplace in these parts, and this combo showed off some fancy-schmancy parts of its own. The La Scala adds the functionality of the Purcell upsampler to dCS’s Verdi, upsampling “Red Book” CDs to the 2.822MHz standard of DSD. Add to that the Delius, which can convert virtually any consumer digital audio datastream to two-channel analog sound, and you’ve got yourself one sassy piece of gear.

The only trouble is the price. More than four times as expensive as the Ayre C-5xe, the dCS combo is a bit out of reach for most of us. “As a lover of good music and good sound,” said Art, “this system left me wanting for nothing except the means to afford it.” But forget about that for right now. The Verdi La Scala–Delius combo should be on the lists of those who have bank rolls fat enough to purchase the absolute best. It’s on our lists.

2005 ANALOG SOURCE COMPONENT

Rega Planar 5 turntable ($1295; reviewed by Art Dudley, Vol.27 No.12 & Vol.28 No.3, December 2004 & March 2005 WWW)

RUNNERS-UP (in alphabetical order)
Brinkmann Balance turntable & 10.5 tonearm ($14,850; reviewed by Michael Fremer, Vol.28 No.5, May 2005)
Lyra Helikon Mono phono cartridge ($2195; reviewed by Art Dudley, Vol.28 No.6, June 2005 WWW)
Shelter 901 phono cartridge ($1500; reviewed by Michael Fremer, Vol.28 No.2, February 2005)
T+A G10 turntable ($4750 with Rega tonearm, $6900 with SME tonearm; reviewed by Michael Fremer, Vol.27 No.11 & Vol.28 No.2, November 2004 & February 2005)
Tivoli Audio Pal portable radio ($149.95; reviewed by Sam Tellig, Vol.27 No.12, December 2004)

Vinyl is very much alive and spinning, a fact made crystal clear by our 2005 “Analogue Source” winner—the “unambiguously fine” and affordably priced Rega Planar 5, which fills the price gap between Rega’s P3 and P9 ‘tables, providing a solid place to land for those who might be ready to upgrade from the P3 but can’t quite reach the P9.

The P5 proved every bit as solid as the hardest rock’n’roll. “The best thing I can say,” said Art, “is that the Rega allowed the music to hold my attention from start to finish—a talent that escapes so much ‘high-end’ gear I could cry.” The Rega P5 reminds us again of what this hobby is all about: getting the musical essentials right. For that, we honor it and are honored to have it.

Rega Planar 5 turntable
REL has applied their more than two decades of experience building the finest sub-bass systems to the all new R- SERIES.

**Introducing R- SERIES**

**Beautiful:** As always with REL, finish quality is to the highest standard with 8 coats of piano black lacquer lying so glossily on the surface, you’d swear the paint is still wet.

**Simple:** By locating the illuminated control panel forward underneath the enclosure, system tuning adjustments are far more convenient to make. A thick frosted glass security panel prevents tampering once the system is calibrated.

**Performance:** The new R- SERIES starts at less than one cubic foot (actually, just 11.5" per side) and produce sound pressure levels loud enough to frighten your neighbors. Deep, concussive bass that is shockingly fast and clear, not the boomy, muddy bass so often associated with typical subwoofers.

*Experience the style, quality and performance - REL R- SERIES has it all.*

R-205 $1195.00 (left), R-305 $1595.00 (center), R-505 $1995.00 (right)

For more information about the REL Acoustics R-Series Sub-Bass Systems go to: www.sumikoaudio.net/rel5 or call 800.301.0799
Light up your music with CYBERLIGHT™ CABLES
Sound at the Speed of Light!

“If you hear what I heard,
for the first time in your life, you'll hear
no cables whatsoever....The CyberLights
produced effortlessness and a pulse-like coherence
that was more ‘musical' than anything else I've
experience while listening to recorded music. The bass
was ultra tight and round and 'right,' and the harmonic
balance and overall musical decay were more
natural and believable than I'd ever heard
from any stereo system.”

Michael Fremer, Stereophile, August, 2005

“It is immediately superior in every way. ...”

Michael Fremer, Stereophile, August, 2005

CyberLight Photon Transducer Laser Light and Single Crystal™
Metal-Conductor Cables for Audio and Home Theater

www.harmonictech.com

13200 Kirkham Way Unit 100 Poway, CA 92064 USA  Telephone: 1-858-486-8386  FAX: 1-858-486-6633
2005 JOINT LOUDSPEAKERS

Innersound Kaya
($20,000/pair; reviewed by Paul Bolin, Vol.27 No.12 & Vol.28 No.5, December 2004 & May 2005 WWW)

Peak Consult Empress
($25,000/pair; reviewed by Wes Phillips, Vol.28 No.10, October 2005 WWW)

Sonus Faber Stradivari Homage
($40,000/pair; reviewed by Michael Fremer, Vol.28 No.1, January 2005 WWW)

Wilson Audio Specialties MAXX Series 2
($44,900/pair; reviewed by Michael Fremer, Vol.28 No.8, August 2005 WWW)

RUNNERS-UP (in alphabetical order)

Harbeth Super HL5 ($3995/pair; reviewed by Sam Tellig, Vol.28 No.2, February 2005)

NHT Evolution T6 System ($4000/system; reviewed by John Atkinson, Vol.28 No.4, April 2005 WWW)

Paradigm Reference Studio/100 v.3 ($2300/pair; reviewed by John Atkinson, Vol.28 No.1, January 2005 WWW)

Paradigm Signature S2 ($1900-$2200/pair; reviewed by John Atkinson, Vol.28 No.7, July 2005 WWW)

Spendor S8e ($2999/pair; reviewed by Sam Tellig, Vol.28 No.6, June 2005)

This is the first time in the history of our annual "Products of the Year" ritual that we have had a race with four big winners—and we do mean BIG. That it occurs in the "Loudspeaker" category again shows how personal and unique this part of an overall system truly is. In the past, we've had joint winners that were as different physically as they were sonically. In 2002, for instance, the massive, $41,500/pair Rockport Antares was matched by the relatively diminutive, $1800/pair Joseph Audio RM7si Mk.2. This time around, however, our editors seemed to agree that size matters. While everything else in the tech world seems to be getting smaller, does this indicate a trend toward bigger, beefier, costlier audio gear? Our weary backs and wallets hope otherwise.

Featuring a 13" by 45" electrostatic panel and a 10" woofer cone in a transmission-line cabinet, Innersound's tall, slim Kaya graced the cover of our December 2004 issue, and blew Paul Bolin away with its "extraordinary and, quite possibly, standard-setting transparency." And while PB found the Kaya lacked a wee bit of clarity in the deepest bass, this was a shortcoming easily ignored in light of such "electrifyingly lifelike" music making. Such compromises, after all, are what high-end hi-fi is all about.

Following close on the Kaya's high heels, the strikingly beautiful Sonus Faber Stradivari Homage adorned this year's January cover and brought forth a sound that not only communicated the emotional content of music, but matched the craftsmanship and ingenuity of the speaker's unusual design. Said JA: "Franco Serblin has not sacrificed sound audio engineering in the production of what is one of the most visually stunning speakers I have ever laid my eyes on." And MF: "Get ready to fall in love."

While it wasn't exactly love at first sight for Wes Phillips and the Peak Consult Empress, WP did agree to take the speakers home after just the first date, and even wound up deciding that he could live with them happily ever after. Only problem was that he couldn't afford them. And despite having heard speakers that offered more extended highs, deeper bass, and greater SPLs, Wes concluded, "What I haven't heard is many speakers that do so little wrong or so much so very right. The key to such rare overachievers is balance."

Balance is exactly what Wilson Audio's MAXX Series 2 had to offer. This 410-lb, "praying mantis-like" behemoth sacrificed the Kaya's ultimate transparency for the Stradivari's seamlessness while adding a bit of American-made muscle and determination. MF: "The Wilson MAXX2 was easily the best overall loudspeaker I have ever heard."
**2005 MULTICHANNEL MUSIC COMPONENT**

**Linn Unidisk SC universal disc player** ($4995; reviewed by Art Dudley & Wes Phillips, Vol.28 Nos.6 & 7, June & July 2005 WWW)

**RUNNERS-UP (in alphabetical order)**

- **Arcam DV-79 DVD-Audio player** ($1795; reviewed by Kalman Rubinson, Vol.28 No.12, December 2004 WWW)
- **Bel Canto PL-1A universal disc player** ($7500; reviewed by Kalman Rubinson, Vol.28 No.9, September 2005 WWW)
- **Denon DVD-2900 universal disc player** ($629; reviewed by John Marks, Vol.29 No.11, November 2004 WWW)
- **Esoteric X-01 SACD player** ($13,000; reviewed by John Marks & John Atkinson, Vol.28 Nos.2 & 5, February & May 2005 WWW)
- **Simaudio Moon Orbiter universal disc player** ($7200; reviewed by Kalman Rubinson, Vol.28 No.3, March 2005 WWW)

Following in the multichannel, multipurpose, multifarious footsteps of last year's winner, the Linn Unidisk SC keeps the winning tradition in the Linn family, and defines a new category of consumer electronics. The SC is for “System Controller.”

**AKG K-1000 headphones** ($1260; reviewed by John Marks, Vol.28 No.6, June 2005 WWW)

- **American Power Conversion S15 AC conditioner & battery backup system** ($1499; reviewed by Kalman Rubinson, Vol.28 No.9, September 2005 WWW)

**RUNNERS-UP (in alphabetical order)**

- **Apple Airport Express WiFi Hub-D/A processor**
- **Channel Islands Audio VHP-1 headphone amplifier** ($349; reviewed by Wes Phillips, Vol.28 No.10, October 2005 WWW)
- **Grace m902 D/A headphone amplifier** ($1695; reviewed by John Marks, Vol.28 No.6, June 2005 WWW)
- **Grado SR-325 headphones**
- **HeadRoom Total BitHead D/A headphone amplifier** ($269; reviewed by Michael Fremer, Vol.27 No.12, December 2004 WWW)
- **Musical Fidelity X-CanV3 headphone amplifier** ($999; reviewed by Sam Tellig & Wes Phillips, Vol.27 No.12 & Vol.28 No.9, December 2004 & September 2005)
- **RealTraps acoustic panels** ($139.99—$299.99; reviewed by Art Dudley & Wes Phillips, Vol.28 No.11, January 2005 WWW)
- **Sennheiser HD-650 headphones** ($549; reviewed by John Marks, Vol.28 No.6, June 2005 WWW)
- **Ultimate Ears UE-5c in-the-ear headphones** ($550; reviewed by John Atkinson, Vol.27 No.12, December 2004 WWW)

In the wild and woolly world of accessories—from interconnected to ficus trees to magic microchips—there are all sorts of goodies to keep us busy optimizing the sounds of our precious systems. Some work, some obviously don’t. Our winners, the AKG K-1000 headphones and the American Power Conversion S15 battery backup system, are as weird as any, but they really do rock. Really.

**2005 JOINT ACCESSORIES**

Fundamentally different from all other headphones (in the entire universe, I suppose), the K-1000s feature a headband and adjustable temple-pad arrangement designed to hold the driver cages a variable distance away and acoustically decoupled from your ears, so as to function as planar drivers in free space, with all the advantages of speed and transparency associated with planars. They look really funky, too. But in a good way. “Glorious headphones,” said John Marks.

Equally funky and glorious but a different contraption altogether, the APC S15 is a comprehensive power source, conditioner, and controller that features extensible external power and isolated EMI/RFI filtration for each of its outlet banks. Its voltage regulation is accomplished electronically and without the hysteresis of slower, motor-driven compensation. City-dweller Kal Rubinson used it confidently in his main system and found that the sound was as tight and powerful as with direct AC feed from the wall. Like so many other winning components throughout the voting, the S15 forced our editors to rethink conventional wisdom. KR: “For all my protestations that I was into power conditioning solely for reasons of safety and security, the S15 made the bridged [Bel Canto] eVo6 into an even better power amplifier—a super amp.”

In the AKG K-1000 and the APC S15 we again find sensible engineering in the service of music. Right on.
HDTV WITH DLP™ 1080p TECHNOLOGY.
IT DOESN'T GET ANY MORE REAL THAN THIS.
HDTVs with DLP™ 1080p technology from Texas Instruments turn every show into reality TV. In a good way.

With so much talk about various HDTV displays, it's easy to lose sight of what really matters: picture quality. DLP™ technology has always delivered incredibly lifelike images. Now with the advancement of full 1920 x 1080p resolution, DLP™ technology takes brilliant colors and razor-sharp pictures to a whole new level of wow. An HDTV with DLP™ full 1080p technology will make you feel like you're in the action, no matter what you're watching.

DLP™ 1080p WITH SMOOTHPICTURE™ TECHNOLOGY

Texas Instruments DLP™ SmoothPicture™ technology (similar to Cinema Smooth™ on Samsung models) fully leverages the quality of the 1080 HDTV formats, delivering a truly natural image. This unique technology enhances the HDTV experience by virtually eliminating pixelization that is noticeable on some other types of TVs. DLP™ technology with SmoothPicture™ presents crystal clear, lifelike images with no "screen door effect."
IMAGINE BEING A PART OF THE ACTION. IT'S THAT REAL.

With every putt, pass, pitch or turn, you’re there. Whether you’re watching sports at full speed or on slow motion replay, an HDTV with DLP™ technology displays amazingly crisp clear detail and rich true-to-life colors. Fast-moving images are reproduced with no motion blurring. The DLP™ chip creates razor-sharp images and works with 1920 x 1080p resolution to produce the ultimate HDTV experience. What’s more, HDTVs with DLP™ technology don’t suffer image burn-in like plasma and CRT technologies can.

MOVIES, GAMES AND BROADCASTS ARE MOVING TO 1080. SHOULDN'T YOUR HDTV BE 1080 AS WELL?

Broadcasters, content creators, and manufacturers are making the 1080 HDTV formats more widely available. With a DLP™ 1080p HDTV, you can experience the best that HDTV has to offer today and be ready to enjoy all of the 1920 x 1080p sports and entertainment content that's on the horizon.

- Game consoles and DVDs will increasingly move toward 1920 x 1080p resolution.
- Film converted to 1080p format for home theater delivers the image quality the director envisioned.
- Major TV networks are already broadcasting in 1920 x 1080i format and future broadcasts in 1080p will be a natural evolution in digital TV.

To take advantage of the amazing viewing experience that HDTV content can deliver today and tomorrow, choose an HDTV with DLP™ 1080p technology.

THIS ISN'T SOME DISTANT PROMISE. YOU CAN HAVE DLP™ 1080p TODAY.

HDTVs with Texas Instruments DLP™ 1080p technology are available right now from leading consumer electronics manufacturers. Even before you notice the DLP™ logo on the cabinet, the awesome picture quality is a dead giveaway. Unbelievable color, high contrast, rich blacks, edge-to-edge sharpness and stunning clarity are hallmarks of HDTVs with DLP™ technology. The sooner you buy a DLP™ 1080p-based TV, the sooner you can enjoy the ultimate HDTV experience. A list of manufacturers and models is on the back.

ADVANTAGES OF DLP™ TECHNOLOGY

- Brilliant Colors: An enhanced color palette creates a vibrant, vivid viewing experience.
- Lifelike Images: Smooth Picture™ technology eliminates pixelization and 'screen door effect'.
- Clarity: Enjoy razor-sharp images and text with no motion blur.
- Maximum Longevity: Images won't burn in over time and, due to DLP™ single chip design, colors will not suffer mis-convergence.
- High Contrast Ratio: Experience ultra-rich blacks and images that "pop" thanks to contrast ratios up to 10,000:1.
- Slim, Elegant Cabinets: Space-saving DLP™ HDTVs are lightweight and complement any room.
- Renewable Performance: DLP™ HDTVs perform like new with simple lamp replacement.

DLP™ technology enables HDTVs that offer unsurpassed picture quality at a very attractive price.

*Or Samsung C.F 1015Cp models
HDTVs WITH DLP™ 1080p TECHNOLOGY:

**MITSUBISHI**

<table>
<thead>
<tr>
<th>Model</th>
<th>Screen Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD6580n</td>
<td>65&quot;</td>
</tr>
<tr>
<td>MD6880n</td>
<td>58&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Screen Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD-52627</td>
<td>52&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-52623</td>
<td>52&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-62627</td>
<td>62&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-62629</td>
<td>62&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-62827</td>
<td>62&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-62927</td>
<td>73&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-73727</td>
<td>73&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-73827</td>
<td>73&quot; 1080p DLP™ HDTV</td>
</tr>
<tr>
<td>WD-73927</td>
<td>73&quot; 1080p DLP™ HDTV</td>
</tr>
</tbody>
</table>

**SAMSUNG**

<table>
<thead>
<tr>
<th>Model</th>
<th>Screen Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL-R6768W</td>
<td>67&quot; Floating Screen</td>
</tr>
<tr>
<td>HL-R6168W</td>
<td>61&quot; Floating Screen</td>
</tr>
<tr>
<td>HL-R5668W</td>
<td>56&quot; Floating Screen</td>
</tr>
<tr>
<td>HL-R7178W</td>
<td>71&quot; Custom Tabletop</td>
</tr>
<tr>
<td>HL-R6178W</td>
<td>61&quot; Custom Tabletop</td>
</tr>
<tr>
<td>HL-R5678W</td>
<td>56&quot; Custom Tabletop</td>
</tr>
<tr>
<td>HL-R5078W</td>
<td>50&quot; Custom Tabletop</td>
</tr>
<tr>
<td>HL-R5663W</td>
<td>56&quot; Pedestal</td>
</tr>
</tbody>
</table>

**TOSHIBA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Screen Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>56HM195</td>
<td>56&quot; TheaterWide</td>
</tr>
<tr>
<td>62HM195</td>
<td>62&quot; TheaterWide</td>
</tr>
<tr>
<td>72HM195</td>
<td>72&quot; TheaterWide</td>
</tr>
<tr>
<td>56MX196</td>
<td>56&quot; Cinema Series</td>
</tr>
<tr>
<td>62MX195</td>
<td>62&quot; Cinema Series</td>
</tr>
<tr>
<td>72MX195</td>
<td>72&quot; Cinema Series</td>
</tr>
</tbody>
</table>

If you've been waiting for the best HD™ TV has to offer, wait no longer. HDTVs with DLP™ 1080p technology are here, and they have the power to put you in the action. For more information on DLP™ 1080p technology, or for a list of retailers, go to dlp.com/1080p
2005 BUDGET PRODUCT
OF THE YEAR

RUNNERS-UP

- **Almarro MOA loudspeaker** ($1200/pair; reviewed by Robert J. Reina, Vol. 28 No.9, September 2005 WWW)
- **Amphion Helium loudspeaker** ($1150–$1350/pair; reviewed by Robert J. Reina, Vol. 28 No.1, January 2005 WWW)
- **Apple Airport Express WiFi hub-D/A processor**
- **Arcam Solo CD receiver** ($1599; reviewed by Art Dudley, Vol. 28 No.7, July 2005 WWW)
- **EAR 84P phono preamplifier** ($1195, economy model; $1495, deluxe model; reviewed by Robert J. Reina, Vol. 28 No.1, January 2005 WWW)
- **Epos M5 loudspeaker** ($650/pair; reviewed by Robert J. Reina, Vol. 28 No.4, April 2005 WWW)
- **Infinity Primus 360 loudspeaker** ($658/pair; reviewed by Robert J. Reina, Vol. 28 No.6, June 2005 WWW)
- **Magnepan MMG loudspeaker** ($550/pair; reviewed by John Marks, Vol. 27 No.11, November 2004 WWW)
- **Music Hall Maven receiver** ($1500; reviewed by Sam Tellig, Vol. 28 No.3, March 2005)
- **Musical Fidelity X-DAC D/A processor** ($999; reviewed by Sam Tellig & John Atkinson, Vol. 27 No.12 & Vol. 28 No.5, December 2004 & May 2005 WWW)
- **Musical Fidelity X-10 line stage** ($399; reviewed by Sam Tellig, Vol. 27 No.12, December 2004)
- **Rega Planar 5 turntable**

**A** lways a fun and exciting contest offering many possibilities for sonic satisfaction, our “2005 Budget Product” was chosen from a larger number of nominees than in any other category. In the end, however, it was clear that there would be only one winner.

The elegant, unimposing, drop-dead-gorgeous B&W DM603 S3 is a 2½-way, vented-box, floorstanding speaker that demonstrated impressive engineering at a very affordable price. While it did all the usual audiophile things right—it exhibited no notable deviation from neutrality, excelled at transient articulation, offered exemplary detail resolution, and so on—the DM603 S3’s greatest accomplishment was getting Bob Reina to kick back and enjoy some music. And not only did it offer attractive sound for audiophiles and music-lovers alike—its sexy, unobtrusive enclosures even appealed to BJR’s wife. “The DM603 S3 is a bargain at $1000/pair,” said BJR. “It should disappoint no one.” It certainly disappoints no one around here.
Phenomenal home theater performance!

Itty-bitty price.

The Model 990 preamplifier processor. At only $1099, you won't need a genie to conjure up this value!

"Although the Model 990 seems too good to be true, it's not. Really, it's too true to be good—for Outlaw's competitors, that is."

Brent Butterworth, Digital TV

Our Model 990 continues the Outlaw's tradition of bringing you the finest home theater products at the best possible price. Successor to the widely popular and highly rated Model 950, our new preamplifier-processor is priced well below similar products, but includes virtually every feature found in those more expensive designs. And at $1099, you'll be able to pick up one of our multi-channel amplifiers and still pay less than if you bought one of those high-priced, all-in-one, monster receivers.

Mouse on over to our website and learn how you can try out the Outlaw Model 990 risk-free in your own home today. Think performance. Think value. Think Outlaw.
2005 Joint Products of the Year

Ayre C-5xe universal disc player
dartZeel NHB-108 Model One power amplifier

RUNNERS-UP (in alphabetical order)
Brinkmann Balance turntable & 10.5 tonearm
Conrad-Johnson ACT2 preamplifier
dCS Verdi La Scala SACD transport & Delius D/A processor
Grace m902 D/A headphone amplifier
Linn Unidisk SC universal disc player
Simaudio Moon Rock monoblock power amplifier
Sonus Faber Stradivari Homage loudspeaker
Wilson Audio Specialties MAXX Series 2 loudspeaker

Within their respective categories, the Ayre C-5xe universal disc player and dartZeel NHB-108 Model One power amplifier amassed more points than any other winners, so it's fitting that we find them at the top of this chart as well. These remarkable, standard-setting products seem to have been created with a particular listener in mind: one who knows what he wants and is actually happy when he encounters it. Imagine that.

Designers Charlie Hanson of Ayre and Hervé Delétraz of dartZeel are not the sort of guys who go around compromising values, and this is clearly evident in their work. Though neither component will prove perfect for all—the Ayre is music- and two-channel only, while the dartZeel doesn't play well with all speaker impedances—both come as close to perfect for some as is possible. Wes Phillips should know; he reviewed—and fell in love with—both.

Although the C-5xe and NHB-108 place certain demands on their always-gratified owners, they are true references that combine superb sound quality with inspired and passionate engineering. And that is why we have made them our 2005 Products of the Year.
Unlimited power and dynamic range, tamed by the blackest background high-resolution tube preamp ever!

The 750 watt per channel kW750 will be the last amplifier that you're ever likely to need or want...

The matching Tube output kW line stage is destined to be a classic...

MUSICAL FIDELITY
www.musicalfidelityUS.com

Finally, a musical mini audiophile loudspeaker system

MUSICAL FIDELITY
www.musicalfidelityUS.com

Matching Sono Cherry Mission-style credenza ($2700) and plasma frame ($700).
Boy, there are some grumpy people on the Internet. To read a typical posting on any of the many audio forums, you’d think that Stereophile has betrayed audiophiles with its coverage of computer audio and its advocacy of the Apple iPod. Yet since the launch of CD in late 1982, one promise of digital audio has been the freeing of audio bits from the enslavement of a physical medium. I chose this year’s “Editor’s Choice” because it takes that freeing to the limit. While the Apple Airport Express’s intended purpose is to act as a mundane WiFi hub—a role it performs very well in the Atkinson household, networking all of our computers in a no-muss, no-fuss manner—in conjunction with Apple’s iTunes program it also allows any of those PCs, and my PowerBook, to act as a music source for the system in my listening room, feeding its S/PDIF optical data output to my man Mark Levinson DAC. Admittedly, the Airport Express is limited to CD-quality data—16 bits and 44.1kHz—but much of the time, that’s enough for musical nirvana. The Airport Express is a revolutionary audio product; the only real surprise is that it comes from a computer company and not, say, from Sony, as similarly revolutionary products used to do back in the 20th century.

—John Atkinson

Apple Airport Express WiFi Hub-D/A processor

Step into the ring with the new heavyweight champion!

The new Chord SPM 14000 ultimate mono power amps weigh in at over 150 lbs. and punch with clean power like never before.

You are invited to experience today’s state-of-the-art, but the champ’s US tour ends December 31, 2005. Reserve your ringside seat at the bout closest to you:

California – November 12, 2005
Audio High: 650-964-4000

Philadelphia – December 7, 2005
David Lewis Audio: 215-725-4080

Bluebird Music also distributes:
EXPOSURE • LIVING VOICE
CROFT • NEAT

Distributed by Bluebird Music
www.bluebirdmusic.com
Tel: 416-638-8207
To hear is to believe.

At first sight the Dynaudio Focus 220 intrigues by its elegant lines and exquisite finish. Innovative technology comes to life in concert with fascinating design: A highly developed floor standing loudspeaker incorporating the company's passion for musical excellence, the Focus 220 unites fine Danish craftsmanship, Dynaudio's advanced engineering resources and extensive experience to achieve exceptional performance capabilities. The Focus 220 reproduces incredibly detailed music with absolute clarity, perfect rhythm, powerful dynamics and precise imaging. But above all, the Focus 220 allows one to not only hear but also feel the finest and most elusive detail of music - the sheer emotion beneath every note. More information: Dynaudio North America, 1144 Tower Lane, Bensenville IL 60106. Phone 630.238.4200, Fax 630.238.0112. E-mail: info@dynaudiousa.com
Tears come to her eyes when she talks about the recent deaths of Little Milton, Clarence "Gatemouth" Brown, and Paul Pena. She's blessed with a soaring gospel voice and fleet secular fingers. With a Mississippi heart and a Massachusetts head, she's a rare musical creature: a woman who can play, sing, and embody the blues.

Once tagged a latter-day version of such pioneers as Sister Rosetta Tharpe and Memphis Minnie, Tedeschi to be truthful has never been just a blues player per se. In the decade since she formed her first band, the Boston-born singer-guitarist has evolved not only into the inheritor of the mantle of chick-singer-and-guitar-slinger created, and for many still worn by, the incomparable Bonnie Raitt (their vocal similarity is striking), but also into a singer for whom the term "blues-based" is becoming
It's what's inside that counts.
Visit our website to see why our cables are unmatched in quality, style and performance.

www.analysis-plus.com
Like other young women at this end of the music business, Tedeschi has never billed herself as a blues musician. When she talks about her music, she is always vocal about having a wider range of influences and interests. "It's not fair," she says, leaning forward in her chair at Verve Records' New York headquarters. "Back in the day, they didn't even call blues musicians 'blues musicians.' Muddy Waters was a folk artist. He played Newport alongside Bob Dylan and Mississippi John Hurt. They were folk artists. They were American artists. That's kind of how I approach it. Gospel, blues, jazz, soul music, Hi Records, Muscle Shoals—that's all American music, and that's what a lot of the British Invasion rock guys wanted to be. I'm just proud of my roots and I want to make soulful music as well."

Soulful is the right word for Hope and Desire, the youthful Tedeschi's fifth and, by the sound of it, her breakthrough album. After her self-released debut, Better Days, sold 20,000 copies from the bandstand, Tedeschi signed with Boston-based Tone-Cool Records, which released Just Won't Burn (1998) and Wait for Me (2002), the latter produced by legendary producer-engineer Tom Dowd. Both albums were nominated for Grammy awards. Oarfin Records reissued Better Days in 1998, and in 2004, New West Records released Live from Austin TX, Tedeschi's entry in the label's ongoing series of live DVDs and CDs. The new album is on the recently reactivated Verve Forecast label. Being on an imprint that was once home to Laura Nyro and Richie Havens is key to what the 35-year-old Tedeschi hopes to accomplish with Hope and Desire.

"[Forecast] has all the perks of being on Verve, but you get to be cross-referenced, so you're not just jazz or blues, which I thought was a really important thing for this record. I really needed to be in that Rock, Pop, and Soul section. "I've been a singer my whole life, but because there are so few women who play guitar, a lot of emphasis goes on that. But this album sort of steps it up a level and says, hey, I'm a serious singer and these are serious songs, and we're trying to make a record that's insightful for the times as well as just show some of the dynamics we have—and that there are no limits. I'm not a blues musician only. I'm rooted in blues, for sure, and gospel and soul, but here I'm singing songs by everybody from The Band to Otis Redding. It's pretty broad. That's what I do."
Luke Rowley is loading a “spoil board” on the KOMO Computer Numeric Control Router. In a few moments he’ll begin cutting the component panels of a Wilson loudspeaker out of Wilson’s proprietary X material. It took the Wilson and KOMO engineers a little while to refine the cutting programs so that they weren’t wearing out a $300 carbide bit each day. The problem is, X material is a phenolic resin, as rigid as steel but with much greater internal damping. It also costs fourteen times as much as MDF, the material of choice for nearly every speaker builder. Why use X material? Because of the way it sounds (or more accurately, doesn’t sound: It damps resonance to an unprecedented degree.)

But the story doesn’t end there. After lots of testing, we found another substance, M material, that produces greater beauty, linearity, and accuracy in the midrange. Then we had to devise cutting programs for it, as well as proprietary and unique glues to bond each of these materials together. One thing we don’t worry about is how well the pieces will fit: the KOMO, under Luke’s watchful eye, routinely routes to a tolerance of 1/1000 of an inch.

Wilson Audio. Authentic Excellence
What Hope and Desire does is soar, in a rocked-up gospel sort of way, thanks in large measure to Tedeschi’s voice. Her guitar is almost entirely absent. On this album, she’s left the guitar heroics to friend Doyle Bramhall II and her husband and slide player, Derek Trucks, nephew of Allman Brothers Band drummer Butch Trucks. At the mention of her having let the guys take over the album’s guitar heroics she rolls her eyes, smiles, and, while shaking her head “no,” stifles a giggle when I ask if she can do the classic poses—closed eyes, clenched lips, dramatic stances—of little boys and their big guitars.

“I was going to go and put guitar parts on later,” she says, “but I thought it sounded so great the way it was, I didn’t think it needed it.”

Tedeschi’s original plan was to record a mix of originals and covers for this record, which she says Verve was anxious to release in 2005 instead of next year. But with the help of producer Joe Henry, she decided to make an all-covers record. She says she’ll save the 18 or so originals she’s got in various states of completion for her next Verve session, which she’s due to record sometime toward the middle of 2006.

Her criteria for which songs to cover were relatively simple: “What’s a great song? What songs are great songs on their own? What songs mean something to me? Do they have a certain energy? Are they politically appropriate to the times we live in? Do they have a lot of heart?”

Her final track list is impressive, and Tedeschi’s singing makes Hope and Desire a knockout record. Dylan’s fervent plea, “Lord Protect My Child,” builds into a gospel rave-up with a killer dobro solo from Trucks. Ray Charles’ “Tired of My Tears” is done as straight-up, organ-driven soul. She gamely launches into Otis Redding’s “Security” with a ragged, Eddie Hinton-like edge in her voice. Organ and a sweet soul lilt power her cover of Donnie Hathaway’s revelatory “Magnificent Sanctuary Band,” which benefits considerably from guest vocals by the inestimable Blind Boys of Alabama. Tedeschi was thrilled to learn they happened to be in town and were up for a guest shot on her album.

“I wanted them on ‘Magnificent’ because I knew they wouldn’t sing on the secular tunes. I tried to get them to do ‘Lord Protect My Child,’ but they weren’t sure of it because they don’t know Bob Dylan that well and they’re pretty strict about sticking to tradition. ‘Magnificent,’ though—they were all over that.”

Two tunes, Percy Mayfield’s “The Danger Zone” and the often-overlooked Glimmer Twins gem “You Got the Silver,” from Let It Bleed, are especially emblematic of how the groove heard throughout this record—and which is no small part of its success—came together, as musicians now like to say, “organically.”

“I’m doing ‘Danger Zone.’ I’m like, how the hell am I going to do this song? I love Percy Mayfield and I love Ray Charles, but I can’t sing it like Ray Charles. And then when Joe came up with the suggestion, ‘Why don’t you guys break it down more?’ here’s Doyle with his Lightnin’ Hopkins tattoo, and Joe’s suddenly like, ‘Why don’t you do it like Lightnin’? Why don’t you just do drums and bass and, Susan, sing it more bluesy.’ We said ‘Okay.’ We took it and it just clicked.”

Joe Henry, a singer-songwriter who’s become something of a producer du jour
What does a have to do with your system?

A compass is an everyday example of how material can be influenced by an external "field." The earth's magnetic field causes a compass pointer to align itself relative to the earth's magnetic poles.

In a very similar manner, the AudioQuest Dielectric-Bias System (DBS) causes the molecules of a cable's insulation to align themselves relative to an electrostatic field. A 36v DBS battery-pack attached to inner and outer DBS field elements creates a strong and stable field.

Electrostatically unorganized insulation causes non-linear phase error; different amounts of time delay for different parts of the signal. Polarized (aligned) insulation eliminates almost all of this distortion. Sound is much smoother and easier to understand, seeming to come from a quiet black background. Information and emotion come through as never before.

Listen and Enjoy!

Cable not used in recent weeks
The insulation material is electrostatically unorganized. Electrical signals of different frequencies and amplitude all suffer different amounts of time delay.

Cable used continuously in recent weeks
The electrical field around the conductor causes partial electrostatic alignment of the insulation, reducing time delay distortion.

Cable with 36v DBS
Thanks to a much higher voltage DBS field, insulation is electrostatically polarized relative to DBS field. Uniformity of alignment is crucial; direction of alignment is not important.
With the success and higher profile certain to result from Hope and Desire, comparisons with Bonnie Raitt should reignite.

Orleans groove. Several were composed by Tedeschi on the piano, which gives them a different flavor she finds equally hard to describe: “folkier pop-balladry crossover stuff.”

The semantic tangles don’t obscure the fact that, with Hope and Desire, she’s becoming one of the leading women in popular music, a box she dislikes but acknowledges has helped her career.

“It’s worked for me. I’ve been able to do so many things [because of it], I feel so blessed. Playing with B.B. King, Buddy Guy, and John Lee Hooker—if I was a guy, I’d probably just be another guitar player or another singer.”

On that next record, Tedeschi says, she’ll get back to singing and playing guitar. With the success and higher profile certain to result from Hope and Desire, comparisons with Bonnie Raitt should reignite. Tedeschi says that she and Raitt get a kick out of being each other’s doppelgänger.

“It’s kind of cool. But it is what it is. People are like, ‘Oh wow, you play guitar like Bonnie,’ and I’m like, ‘Well, nooooo.’ She’s a great slide player. My husband’s a great slide player. I don’t play slide, really. I mean, I do when I write sometimes, but predominantly? No. I’m more like a Freddy King-style player: Johnny ‘Guitar’ Watson meets Magic Sam.

“I want to learn rhythm parts. I want to learn how to play like Wayne Bennett. I want to learn how to play like Charlie Christian or Grant Green.”
ack in the 1970s, I used to hang out at an audio store on Northern Boulevard's Miracle Mile. After business hours—and sometimes during them—a group of us audiophiles would put every new product through the wringer. One of the most anticipated was the original B&W 801, which appeared in 1979. The 801 was simply unflappable. Fed enough power, a pair of them played louder and cleaner than anything we had ever heard, including the mammoth, multinode Fulton's that were the pride of that shop. But—and this was a big but—the 801 lacked immediacy and engagement, and I soon fell back to preferring an earlier B&W model, the DM6, which seemed more coherent and to offer the music out to the listener. The 801 was more objective and detached, but boy, could it knock you over with the right source material.

Perhaps I was imprinted by that experience. Afterward, I observed the introduction of each successive generation of the 800 series with interest but some detachment—until I reviewed the Signature 800 for the June 2002 Stereophile. No need for you to consult the archives—I was very impressed with the Signature 800, finding it much more outgoing and immediate-sounding than expected, and with no faults other than a less-than-generous lateral soundstage and a tendency toward a more in-your-face sound than I ultimately preferred. But despite the Signature 800's all-around excellence, B&W now offers a new 800 series that retains many features of the earlier series—and some substantial changes.

**Description**

The innovations B&W has included in its new 800 series include tweeters with diamond domes, redesigned Kevlar FST midrange cones, new woofer diaphragm materials, and a new crossover configuration. And while to the casual observer the 802D may look much like its predecessor, the Nautilus 802, there are external changes as well. The 1" tweeter used in the new 800 series has a dome of vacuum-deposited particles of diamond, which, though not as low in mass as materials such as beryllium, possesses greater stiffness in the useful frequency range. With its new suspension and motor assembly, the tweeter's lowered fundamental resonance also permits a first-order, 6dB/octave crossover to the midrange, which in turn dictated the new series' most obvious external feature: the bullet-shaped tweeter enclosure is now embedded deeper into the midrange enclosure, so that the tweeter and midrange drive-units are in phase at the crossover frequency.

The 6" Kevlar-cone midrange driver, in B&W's signature yellow tint, has been updated with the addition of a foam damping ring under the cone periphery, and its more powerful but smaller neodymium magnet structure and redesigned basket mean that obstruction of the cone's rear radiation is greatly reduced. The controversial FST midrange cone is still intended to break up in a controlled manner, but even more uniformly and predictably. Again, the characteristic midrange Nautilus-shell is nestled into the soft, glove-leather embrace of the main enclosure, as in earlier 800-series speakers.

Two 8" woofers with Rohacell diaphragms complete the driver array. Rohacell is a lightweight sandwich of rigid foam between sheets of carbon fiber. B&W engineers like to demonstrate its remarkable stiffness by standing on a speaker cone unsupported by frame or magnet assembly.
Introducing the Nucleus® Reference AV, a true reference loudspeaker that is designed to sonically and visually complement today's high-end audio/video equipment such as flat panel displays. With its elegant all metal lifestyle design, it blends with any room decor.

Boasting the unparalleled high-end performance of our proprietary CDTII™ tweeter coupled with the extended low-frequency response of our patented S2 Technology, the Nucleus® Reference AV delivers an unprecedented audio-visual experience by bringing every nuance of your favorite programs, concerts, sporting events and movies to life like never before.

The Nucleus® Reference AV Center is the ultimate natural complement to our award-winning Nucleus® Reference 3 loudspeaker. With an elegant and compact 5-driver, 2.5-way array, this home theater masterpiece features a modified version of our patented tweeter that has been restricted to 120° of horizontal dispersion and optimized for center channel applications.

Available finishes: Matte White, Silver-Grey & Matte Black w/Stainless or Black Spheres. Wall mounts included, shelf stands optional.
B&W's proprietary Matrix construction is retained for the woofer cabinet, but the 802D's base and port are inherited from the Signature 800. The flared port is lined with dimples that, like those on a golf ball, are intended to reduce air turbulence, providing for noiseless laminar flow at all sound-pressure levels. Further, the port is aimed downward at and precisely spaced from a fixed base. The construction, shape, and relationship of the base to the port fixes the port's performance and makes it independent of floor coverings and mounting devices, such as casters and spikes. The wider bandwidths of the new drive-units allowed B&W to simplify the crossover, with fewer passive elements in the signal path between input and driver.

B&W's use of its Matrix construction technique in the Signature 800's woofers was such a success that it is retained here. The 802D's woofer enclosure makes the speaker acoustically inert. Fig.2, for example, shows a cumulative spectral-decay plot calculated from the output of an accelerometer fastened to the sidewall 12" from the top. Just one mode can be seen above the -30dB floor of this graph, at the frequency of the upper impedance peak in the bass, but this is still so far down in level as to be insignificant. I performed a similar analysis of the midrange enclosure's vibrational behavior, but I haven't shown it because it indicates nothing going on above the graph's floor. Nothing. De nada. Rien. This speaker has one inert cabinet (or two).

The saddle centered at 26Hz in the impedance-magnitude trace (fig.1) suggests a very low tuning frequency for the downward-firing port. This is confirmed by the port's frequency response, measured in the nearfield (fig.3, blue trace). This covers quite a wide bandpass, centered on the woofers' minimum-motion frequency of 26Hz (red trace), with a couple of low-level peaks evident in the midrange. The woofers cross over to the midrange unit (green) just above 300Hz, with what appear to be asymmetrical slopes: second-order low-pass to the woofers, and third-order high-pass to the midrange. (All these traces are plotted in the ratio of the root of the radiating areas.) The overall sum of

**MEASUREMENTS**

Estimated the B&W 802D's voltage sensitivity as 89dB(B)/2.83V/m, within experimental error of the specified 90dB figure and usefully higher than the average of the more than 500 speakers I have measured in the past 16 years. The B&W's impedance plot (fig.1) reveals the speaker to be moderately difficult to drive, with a magnitude that drops to 3 ohms throughout the upper bass and an awkward combination of 4 ohms and -50° electrical phase angle at 60Hz. In addition, the very high peak between 2 and 3kHz, resulting from the tweeter/midrange crossover, will give a somewhat forward tonal balance with amplifiers having a significant source impedance; say, tube models.

B&W's use of its Matrix construction technique in the
eVo6 monoblocks, I immediately noticed the 802D's relatively high sensitivity—my system's default settings were a bit generous for them. Even with the level controls trimmed, the 802D still displayed a little British reserve, but sounded good enough for the B&W guys to know that their work was done.

Of course, that was not enough for me. I spent the next few weeks fussing with exact speaker position, orientation, and room treatments to optimize the 802Ds' performance as perceived at my regular listening position. They ended up in almost the same places where they'd begun, but with a toe-in of about 10°. I moved a pair of Echo Buster Phase-4 traps from into the room corners behind the speakers, rotated to expose their more reflective sides, and placed a pair of regular Echo Busters directly lateral to the N802Ds.

### Sound

The 802D, like other topnotch designs, was immediately musically appealing and disarming. The bass was full, the presentation somewhat forward. The 802D seemed to invigorate favorite old recordings, drawing me into the music. Though I must now proceed to the analytical, the 802D kept pulling me away from that responsibility.

Starting with the bass, the 802D did a great job. Extreme low bass, which depends as much on the room and speaker position as on the speaker itself, was extended, but less so than I recall hearing from the larger Signature 800, or than I can get from a dedicated subwoofer. That said, the quality of the low bass and midbass, where voices and overall tonal balance begin, was excellent. Cellos and basses, both orchestral and electric, had weight and impact but retained all their distinguishing overtones in appropriate balance. Listening through the 802Ds to the opening lower strings of Boccherini's *La Musica Notturna delle Strade di Madrid*, from the Stuttgart Chamber Orchestra's *Die Rheinrhein—The River* (SACD, Tacet SACD74), was scarily close to getting the Stuttgarters themselves into my chamber. Nor was there any need to suspend disbelief when the higher strings entered with smooth strokes and delicate pizzicatos.

I then pulled out my old bass torture discs. The 802D was capable of pounding power without losing the characteristic acoustic qualities of the electronic Cosmic Hippo or of Saint-Saëns' Symphony 3. While some bass EQ to minimize room influence might have been useful, it was clear that my room and the 802D's low end nicely accommodated each other; short of sound effects, I had no need of a subwoofer.
Because the 802D splits the range of the human voice by crossing over from the woofers to the midrange driver at 350Hz, it was remarkable that I heard no discontinuities in voices that spanned that transition. Instead, they were full and somewhat forward, which suited some better than others. Lorraine Hunt Lieberson’s mezzo-soprano on her Handel Arias (SACD/CD, Avie AV0030) had a smooth, engaging presence, but Patricia Barber sounded almost too intense on her Café Blue (SACD, Mobile Fidelity MFSA2002).

I also found that, just below the lower crossover frequency, the smoothness of lower male voices varied when I used different power amps. Men sounded full and forward with the sainted McCormack DNA-1 Rev. A, a bit less forward but still ripe with the Simaudio Moon W-8. With either amp, male voices and lower strings had a greater-than-natural heft that some visitors found impressive. With the Classe Omicrons or bridged Bel Canto eVo6s, that range was not emphasized though still full enough to be thoroughly engaging and realistic, but was disappointingly lean with the admittedly overmatched 56W of the Linn Chakra C4100 amp. I settled on the eVo and the Omicrons for most of my listening.

Regardless of the power amp used, the 802D exhibited degrees of detail resolution and clarity from the mid-range up that could put some electrostatic speakers to shame. The speaker’s generous bass helped it to engage me in a way that few speakers have, including B&W’s own estimable Signature 800 or my references, the Revel Ultima Studios. Perhaps this was due to the room. As always, experimentation with listening position and room acoustics will be necessary to get the flattest possible in-room balance from the B&W 802D.

The 802D’s step response (fig.7) indicates that all four drive-units are connected in positive acoustic polarity, with the tweeter’s output arriving first at the microphone, followed in quick succession by that of the midrange unit and the woofers. Even with its set-back tweeter, the speaker is not time-coincident. However, it is time-coherent, in that the step response of each unit smoothly integrates with that of the next lower in frequency. This correlates with the flat frequency-domain response seen in fig.4. The 802D’s cumulative spectral-decay plot (fig.8) is very clean in the treble region, suggesting that the B&W’s midrange unit and tweeter are world-class.

I heard a prototype of the 802D when I took time off from a vacation in the UK in fall 2004 to spend a day at B&W’s R&D center in the Sussex village of Steyning. To judge from the speaker’s measured behavior and from KR’s auditioning notes, the promise I heard on that visit appears to have been fulfilled. —John Atkinson

THE 802D EXHIBITED DEGREES OF DETAIL RESOLUTION AND CLARITY FROM THE MIDRANGE UP THAT COULD PUT SOME ELECTROSTATIC SPEAKERS TO SHAME.
B&W 802D

Mahler 5, so detailed and coherent through my multichannel system, was tightly focused and weighty through the two 802Ds, as if I were looking down on a massive, intricate engine. And from the hair-raising helicopter to the careening voiceovers and spine-tingling children’s voices, the Pink Floyd excerpts pounded the room as if the walls had come alive with throbbing pulses. Any limits here were due solely to my own and my neighbors’ tolerance.

**Tough Choices**

The B&W 802D demanded the right amplifier to ensure that its upper bass wouldn’t be excessive. Some may like such ripeness, but it can become increasingly distracting with extended listening. Any partnering amp must provide gobs of power and a slightly lean and tight upper-bass range of its own. The bridged Bel Canto eVo6s—especially when run from the APC S-15 and Environmental Potentials EP-2450 power conditioners—and the Classé Omicrons fit the bill. I was surprised to find that, despite the 802D’s high sensitivity, it was still pretty power-hungry. It will make decent sounds with a small amp, but might sound as if it’s being starved.

Another issue some will have with the 802D is with a feature that I found very attractive. Unlike many more timid speakers that are characterized by a slight midrange dip (such as the original Kharma Ceramique 2), the 802Ds projected the music and the soundstage out in front of them. This made listening to them sound like listening in the nearfield even when I sat, as I do, about 12’ back. I found this exciting, involving, and addicting, and though I expected it to become fatiguing, over the span of months that has not happened. Nonetheless, the difference in image presentation between the 802Ds and my Revel Ultima Studios, whose frequency response John Atkinson measured as quite flat, was readily apparent.

Recordings of solo piano are superb for distinguishing different speakers’ defining characteristics of presence and timbre.
Makes anything you listen to more intense.

We believe that sound is something that shouldn’t merely be heard. It should be felt. It’s a philosophy that drives everything we do from research and engineering to product design and manufacturing. And it’s an experience that’s consistently reproduced in all our products, whether it’s home theatre systems, floorstanding and bookshelf speakers or custom in-wall and in-ceiling solutions. So, to intensify your listening experience, find an Energy dealer near you at energy-speakers.com.
ately more tightly defined in space and farther away, and its details and intricacies were much less apparent. The Revels' highs often stood out brightly on the ping of treble notes. Nonetheless, I felt that the Revels integrated all of the piano's various parts into one coherent instrument, as well as revealing more of the performance space. The 802Ds were much more revealing of the piano itself, and threw it in greater relief against the backdrop of the recorded ambience. I can easily appreciate how mastering and balance engineers might find the B&W 802D a magnificent tool for hearing into a mix.

Lest you've failed to notice, the 802D is large. You can get good, clean sound at reasonably high volumes from much smaller boxes, such as NHT’s Xd system, which I reviewed in the November 2005 Stereophile. However, there’s something about big boxes that helps them sound harmonically balanced at all dynamic levels. Small boxes, with or without subwoofers and/or sophisticated EQ, can do wonderful things and, not insignificantly, are aided by their visual unobtrusive-ness. Speakers such as the B&W 802Ds and my Revel Ultima Studios—to say nothing of such monsters as the Wilson Audio MAXX2s—fill the room in unique and different ways, challenging you to ignore their bulk—to close your eyes, if necessary. Technology may have an impact on that distinction, but, so far, if you want the level of performance I’ve described, you have to make room for the B&W 802D.

Conclusions
The B&W 802D came to play. It brings the musical performance into the room, right in front of the listener, rather than opening a window on a performance happening in some other, more distant space. Such powerful immediacy without glare or stridency is thrilling and untiring.

Like B&W’s Signature 800, the 802D represents the cutting edge of modern speaker technology in terms of driver design, cabinet construction, and laboratory analysis, in addition to its exquisite fit and finish. The result, due in no small part to the extraordinary smoothness of the new diamond tweeter and its integration with the other drive-units, is a speaker that is remarkably transparent and detailed throughout the audible range. Given a couple of hundred clean watts behind it, the 802D has no significant performance limits in terms of dynamics or resolution.

I try to restrict the speakers I review to those that interest me and that I can afford, and sometimes I question whether I should replace my current references. The 802D is pretty much at the outer limit of what I can afford, but it has forced just such a consideration.

THE RESULT IS A SPEAKER THAT IS **REMARKABLY TRANSPARENT AND DETAILED THROUGHOUT THE AUDIBLE RANGE.**
the use of Nordost cables may induce a thoroughly undignified desire to dance.

Analog Interconnects
Digital Interconnects
Loudspeaker Cables
Power Cords
Video Cables

Whatever the budget
Whatever the system
EQUIPMENT REPORT

Lipinski Sound
L-707
LOUDSPEAKER

Larry Greenhill


Dimensions: 23.6" (600mm) H by 9.4" (240mm) W by 12.4" (325mm) D.

Weight: 41 lbs (18.5kg).

Finish: Black anodized aluminum, black or mahogany base.

Serial Numbers of Units Reviewed: 0222, 0223.

Price: $4590/pair. Approximate number of dealers: 5.

Manufacturer: Lipinski Sound Corporation, 6120 Massachusetts Avenue, Bethesda, MD 20816. Tel: (301) 229-4360. Fax: (877) 893-1768. Web: www.lipinskisound.com.

Street buzz is a force to reckon with. When an audiophile whispers to me that a piece of new equipment sounds unusually good, I'm interested. When two manufacturers of other equipment independently tell me "You've got to listen to this speaker," I get excited.

I first heard about Lipinski Sound's L-707 loudspeaker in late December, from an engineer of solid-state equipment. Later, at the 2005 Consumer Electronics Show, a producer of high-quality SACD remasterings of classic recordings spontaneously took me by the arm and marched me over to the Lipinski Sound Corp. exhibit at the Alexis Park Hotel. What I heard there convinced me that the L-707 deserved a lengthier audition in my own listening room.

Andrew Lipinski originally conceived the L-707 as a monitor to assist him in his recording of symphonic music in his native Poland. During a visit to my listening room, he mentioned several principles he'd followed in its design: Each parameter had to be optimized in an anechoic chamber; the L-707's sealed enclosure is tuned for the best impulse response rather than for deep-bass extension; its cabinet is made of 1"-thick MDF with sturdy internal bracing to damp internal resonances; the two 7" woofers have cones of stiff glass fiber with low-damping rubber surrounds, diecast chassis, and low-distortion magnets; the ring-radiator...
tweeter, made by Vifa, has wide dispersion and a frequency response that extends to 40kHz; while there are black cloth grilles in front of the woofers, there is no grille in front of the tweeter because Lipinski’s testing suggested that any grille fabric will introduce high-frequency comb filtering; and the tweeter’s Belgian foam surround was cut to fit perfectly together in layers without glue, to eliminate any “edge effect” that might color the sound.

A low-order crossover filter was chosen for the best phase response. It uses low-resistance, wooden-core foil inductors and speaker terminals of gold-plated brass that are designed to accept banana plugs or wires up to a thickness of 2 AWG. The L-707 is magnetically shielded.

To make them easier to move between recording and mixing locations, the speakers are shipped in carrying cases of rugged black nylon with side pockets, rather than in cardboard cartons.

### Setup
I placed the 41-lb Lipinski L-707s on Sumiko’s “Franklin and Lowell” sand-filled stands ($350/pair), which raised their tweeters 43” above the floor. Then Lipinski and his son, Lukas, placed the speakers and stands on the exact spots usually occupied by my Quad ESL-989s: 8' apart, 5' from the front wall, and 3' 9” from the sidewalls. As always, I did my listening in my lightly damped, rectangular listening room (26' long by 13' wide by 12' high). Behind my listening chair, the other end of the room opens into a 25’ by 15’ kitchen. All listening was done with the woofer grilles in place.

### Measurements
I estimated the Lipinski L-707’s voltage sensitivity at a high 90.3dB(B)/2.83V/m, which is to specification. However, the speaker drops below 4 ohms in the lower midrange and upper treble, reaching a minimum value of 3.35 ohms at 180Hz (fig.1). There is also a relatively tricky combination of 5.2 ohms and −40° at 87Hz, a frequency where music in general has considerable energy. A good amplifier rated into 4 ohms will be needed to drive these speakers to high levels, therefore.

The traces in fig.1 are free from the small wrinkles and discontinuities that would imply the existence of cabinet resonances. However, a couple of strong modes could be found on both the sidewalls and the rear panel, at 465Hz and 555Hz (fig.2). While it is possible that these resonances are high enough in frequency to have no subjective consequences—LG noted no midrange congestion in his auditioning—I would have preferred not to have seen them, as they are very high in level. L-707 owners should experiment with using damping materials between the cabinet and the stand (see my article on this subject at www.stereophile.com/features/806).

The single impedance peak in fig.1, at 62Hz, suggests that this is the tuning frequency of the sealed-box–loaded woofers. The woofers’ response, measured in the nearfield, is shown to the left of fig.3. The broad, 3dB-high peak in the upper bass is entirely due to the nearfield measurement technique, which assumes a 2pi (hemispherical) environment; the L-707 is actually maximally flat down to 70Hz, with a slow 12dB/octave rolloff below that frequency. While this will not be a speaker anyone will choose for room-shaking low frequencies, it does offer quite good bass extension in-room, as LG found.

The outputs of the woofers and the tweeter, taken in
Theater

The N°40 Media Console.
Pure Surround.

Only at select retailers.
www.marklevinson.com
2005 Jimmy Award: "Best Show" at CES 2005

SoundStageAV.com

USHER E Demo Speaker
2004 CES Best of Show
2004 Editor's Choice
2008 Editor's Choice

"...A smooth, impressive, finely detailed audiophile..."

Chris Martens, AVguide Monthly

USHER AUDIO TECHNOLOGY
67 Kai-fong Street Sec.1 Taipei 100 Taiwan Tel:886-2-2381 6299 Fax:886-2-2371 1053 E-mail: usher@ms11.hinet.net

Thee High End
6923 Inwood Road Dallas, Texas 75209 Tel: 214-704-6082 Fax: 214-357-0721
Web: www.theehighend.com Email: stan@theehighend.com
A pair of balanced interconnects ran from my Krell KCT preamplifier to the line-level right and left inputs of a Mark Levinson No.334 solid-state stereo amplifier. The phase and speaker-channel identification checks on Stereophile's first Test CD (Stereophile STPH002-2) indicated that the L-707's were in correct phase.

To evaluate the speaker's frequency response in my room, I used a Velodyne DD-18 subwoofer's built-in signal generator, calibration microphone, and virtual spectrum analyzer (see Stereophile, June 2004, p.133). I set up the mike on the back of my listening chair at my seated ear height of 37" above the floor and set the DD-18's volume control to "0" so that the sub would put out no audio signal. I then keyed the Velodyne’s remote to display its internal System Response screen on my TV monitor. This automatically initiates a repeated sweep tone from the DD-18's signal generator, which is then fed into a tape input of my Krell KCT preamp. The L-707’s frequency response showed room-mode peaks at 40Hz, 125Hz, and 180Hz, with the speaker's output falling gradually below 40Hz, to −6dB at 25Hz (fig.1).

Playing pink noise from Stereophile's Test CD 2 (Stereophile STPH004-2), the L-707's tonality remained constant as I moved back and forth and the DD-18’s signal generator, which is then fed into a tape input of my Krell KCT preamp. The L-707’s frequency response showed room-mode peaks at 40Hz, 125Hz, and 180Hz, with the speaker's output falling gradually below 40Hz, to −6dB at 25Hz (fig.1).

In the time domain, the L-707's step response (fig.7) surprised me by indicating that the tweeter is connected in inverted acoustic polarity to the woofers. Despite the setback of the tweeter subbaffle and the low-order cross-
side to side in my listening chair. I found the L-707's “sweet spot” in my room to be about 12” wide and 12” deep. It was easy to stay in this sweet spot, as it was quite wide. The sweet spot dulled slightly when I stood up, but did not vary more when I moved around the room.

Sound
While the Lipinski L-707s displayed excellent imaging, extended dynamic range, and translucent mids and highs, their strongest characteristic was their wide, deep soundstage, with an unusual level of spatial resolution for individual orchestral instruments and choral voices. John Atkinson's recording of an excerpt from Elgar's The Dream of Gerontius on Test CD 2 created a wide, deep soundstage that allowed me to easily place the tenor at the far left and the brass section at the far right.

The L-707's imaging and portrayal of space also allowed them to convey the ambience of the recording venue. Listening to the percussion solo during “Nardis,” on Patricia Barber's Café Blue (CD, Premonition/Blue Note 21810-2), it was easy to locate the piano at the right, the standup string bass at the center, behind the piano, the snare at center, and the cymbals at extreme right. And when I closed my eyes, Mary Gauthier's voice singing “Long Way to Fall,” from her Filth and Fire (CD, Signature Sound SIG 1273), sounded three-dimensional, actually seeming to be in the room with me.

Midrange timbres were especially rich. During “Silk Road” and “Running Water,” from I Ching's Of the Marsh and the Moon (CD, Chesky W0144), I easily heard the timbres, sonorities, and resonances of Sisi Chen's yang ching (Chinese dulcimer) and Tao Chen's bamboo flute. The reediness of Antony Michaelson's clarinet was evident and highly involving during the Larghetto of Mozart's Clarinet Quintet in A Major, K.581, from Mosaic (CD, Stereophile STPH015-2). The stinging emotion and irony of Eva Cassidy's rendition of “What a Wonderful World,” from her Live at Blues Alley (CD, Blixstreet G2-10046), was intensified by the L-707's ability to capture the rich tonalities and colors of her voice, which beamed with hope despite her knowledge that she had cancer (she survived the gig by only six months).

Recorded vocalists and instruments benefited the most from the L-707's imaging and their ability to reproduce timbres free of speaker-introduced colorations. Madeleine Peyroux's
The new **Scorpio**

Loudspeaker manufacturers can be found far and wide. There are many manufacturers who favour a traditional design approach, some of them also try to refine acoustic principles or produce a good sound within a given budget. **[audio physic]** is different. 20 years ago, our company was founded, and ever since we have been committed to absolute, uncompromised perfection in sound reproduction.

Highlights:
- Four 7" woofers in a PUSH–PUSH arrangement create a powerful bass without resonances
- Newly developed VCT (Vibration Control Terminal), made of aluminium, damped with bitumen and fitted on neoprene for elastic suspension – from now on uncontrolled vibrations transmitted from the loudspeaker cables to the whole chain are history
- Home Cinema compatible in combination with the other products of our High End Line.
- Metal Stands for essential sound improvement, user friendly by top adjustment

**[audio physic]** is different. 20 years ago, our company was founded, and ever since we have been committed to absolute, uncompromised perfection in sound reproduction.

Elegant, computer aided cabinet design with heavy internal bracings creates an extra rigid enclosure for a natural, distortion free reproduction.

Tweeter with special [audio physic] in house modification for a more detailed reproduction.

The two differently designed midrange units are optimised for their individual operating range.

---

**soundquest**

USA: soundquest
info@audiophysic.com
phone 212-731-0729
www.audiophysic.com

outside USA: [audio physic]
info@audiophysic.de
www.audiophysic.de
High End - Made in Germany
wonderfully alluring interpretation, in Billie Holiday style, of Leonard Cohen's "Dance Me to the End of Love" and Hank Williams' "Lonesome Road," both on Careless Love (CD, Rounder 1161-3192-2), was never more clearly heard. The L-707s delivered a clear, undistorted image of Lyle Lovett singing "FRIEND OF THE DEVIL" on DEATHED: A TRIBUTE TO THE GRATEFUL DEAD. (CD, Arista 7822-18669-2), with no sign of the honk or chestiness that lesser speakers can inflict on male vocalists. Suzanne Vega's cover of "China Doll" on that album had all the richness and timber I hear from this recording when I listen to it through the more expensive Quad ESL-989 and Revel Salon loudspeakers.

The Lipinski L-707's dynamics ranged wide and fast. Reproducing Eva Cassidy's cover of Simon and Garfunkel's "Bridge Over Troubled Water," also on Live at Blues Alley, the L-707 conveyed the stunning dynamic range of her voice without compression or overload. It also easily handled the wide dynamic range between drummer Mark Walker's tiny cymbal taps and his room-shaking kick-drum beats on Patricia Barber's "Nardis."

The L-707 reproduced the treble translucent highs. I was transfixed by the shimmer and sheen of the reverberating chimes and the reediness of the bassoon, which open Owen Reed's La Fiesta Mexicana, from Fiesta (CD, Reference RR-38CD). Bud Shank's alto sax and flute, heard on the title track of the L.A. Four's Going Home (CD, East Wind S2CD-10043), had the clarity and purity that was extended, transparent, and wide open.

Bass notes were reproduced with power and good pitch distortion, despite the fact that the two-way L-707 has only two 7" mid-woofers to handle the bass and midbass. The Lipinskis allowed me to enjoy pedal notes from the pipe organ on "Lord, Make Me an Instrument of Thy Peace" and "A Gaelic Blessing," both from John Rutter's Requiem (CD, Reference RR-57CD). The blend of synthesizer, Tibetan horns, and monks of the Gyuto and Drukpa orders chanting on "Sand Mandala" and "Caravan Moves Out," from Philip Glass's soundtrack for the film Kundun (CD, Nonesuch 79460-2), produced deep bass, exotic sonorities, and droning chants that were oppressive, anxiety-provoking, and highly dramatic. Solid, deep organ-pedal chords resonated in my room as I listened to Jean Guillou perform Gnomeus, from his transcription of Mussorgsky's Pictures at an Exhibition (CD, Dorian DOR-90117). Though Tuileries, from the same disc, didn't ra-}

---

**THE L-707 IS BETTER AT INVOLVING THE LISTENER IN THE DRAMA OF MUSIC THAN IT HAS ANY RIGHT TO BE AT ITS PRICE OF $4590/PAIR.**

---

**Conclusions**

The buzz on the street is correct. Andrew Lipinski has designed and manufactured a portable monitor loudspeaker with many of the high-end qualities—great dynamic range, detail, pace, three-dimensionality, imaging, and the ability to accurately reproduce instrumental and vocal timbres—that I usually associate with expensive audiophile loudspeakers. While it doesn't reach all the way to the bottom, its depictions of drums and pipe-organ pedal notes have good pitch definition and ample weight to convey the drama of those instruments. The L-707 is better at involving the listener in the drama of music than it has any right to be at its price of $4590/pair. Be assured that its quality grows even more with exposure. This loudspeaker wins my recommendation for inclusion in the "Class A (Restricted Extreme Low Frequency)" category of Stereophile's "Recommended Components."
What does *ne plus ultra* mean?

*ne plus ultra* \nay-plus-UL-truh; noun:
1. The highest point, as of excellence or achievement; the acme; the pinnacle; the ultimate.
2. The most profound degree of a quality or condition.

As more and more audio retailers around the country embrace convenience, control, and gadgetry over audio and video performance, they effectively abandon the music and film lovers who desire a real experience from their systems at home.

At *ne plus ultra*, our passion is designing and installing systems that provide a compelling, engaging, and realistic experience of music and film in our clients' own homes. We invite you to our new showrooms located in a Victorian mansion in downtown Austin, Texas. We have created an ideal environment in which you can relax and revel in just how amazing and exciting truly realistic music reproduction can be.

---

**ne plus ultra**

music and cinema systems ~ *without peer*

402 West 7th Street, Austin, Texas 78701

vox 512.241.0000  /  fax 512.236.1764

by appointment only

---

audio physic
Avantgarde Acoustics
Ayre Acoustics
Balanced Audio Technology
Barco/Cineversum
Cardas Audio
conrad-johnson design
dCS
Electrocompaniet
EMMLabs/Meitner Design
Faroudja
Fujitsu
Grand Prix Audio
Halcro
Harbeth
Hovland
Meridian
MJ Acoustics
Nagra
Rives Audio
Shunyata Research
Sonus faber
Sugden
Transparent Audio
Wilson Audio
Wilson-Benesch
Usher Audio Technology
S-520
LOUDSPEAKER

Robert J. Reina

The Usher S-520 loudspeakers.

he last few years at our annual Home Entertainment Show, many readers have come up to me and asked: "How do you select which speakers to review?" In my case, most candidates are either new products that have impressed me when demonstrated at our HE Shows, or new products from manufacturers whose designs have impressed me in the past. Occasionally, editor John Atkinson gets wind of a speaker and asks if I'd like to review it. But once in a while, a manufacturer reads a rave review of a competing product that makes his or her blood boil.

That's what happened with Usher Audio Technology's S-520 bookshelf speaker. Earlier this year I received an e-mail from Stan Tracht, of Thee High End, Usher's US distributor: "I read your review of the Epos M5s in [the April 2005] Stereophile. I concur, the Epos is a good little speaker. However, Usher makes a little monitor, the S-520, that is beyond belief in terms of performance, construction, quality, and price. The Usher S-520s are selling as fast as we can import them. Retail price is $375-$400, depending upon finish." As I had enjoyed reviewing the S-520's bigger brother, the Compass X-719, for the May 2004 Stereophile, I thought I'd give this little new guy a whirl.

A marriage of Chinese and American design
The S-520 is the entry-level two-channel bookshelf speaker from Usher Audio

DESCRIPTION

DIMENSIONS
7.1" (180mm) W by 11.8" (300mm) H by 9.8" (250mm) D. Weight: 13.9 lbs (6.3kg).

FINISHES
Birch veneer; add $25/pair for Matte Black, Gloss Black, Gloss White.

SERIAL NUMBERS OF UNITS REVIEWED
039515 & '516.

PRICE
$375/pair. Approximate number of dealers: 37.

MANUFACTURER
Usher Audio Technology, 67 Kai-Fong Street, Section 1, Taipei 10041, Taiwan. Tel: (886) 2-23816299. Web: www.usheraudio.com. US distributor: Thee High End, 6923 Inwood Road, Dallas, TX 75209. Tel: (214) 704-6082. Web: www.theehighend.com.
Technology, a Taiwanese company that manufactures more than two dozen two-channel speakers (not counting their home-theater models), all designed by Dr. Joseph D'Appolito in the US and, in Taiwan, Usher's Tsai Lien-Shui. The two-way, front-ported S-520 has a 1" silk-dome tweeter and a 5" polypropylene mid-bass cone. It also employs a proprietary technology that Usher calls Symme-Motion, which consists of several magnetic and moving systems designed to ensure that the diaphragm's forward and backward motions are symmetrical. The suspension system of driver surround and spider, as well as such construction details as how the glue is applied, are all part of the Symme-Motion approach. The crossover uses low-loss, audiophile-grade polypropylene capacitors and air-core inductors, as well as internal wiring of high-purity OFC. The crossover itself is a low-loss, low-phase-shift circuit said to be highly efficient.

The smallish S-520 is available in a standard birch finish; matte black or glossy black or white finishes cost $25/pair extra. I was a bit partial to the glossy white samples I received, though they made me hungry. They reminded me of Eskimo Pies with the chocolate coatings removed—a compliment.

**Set-up**

As usual, I auditioned the Ushers on my Celestion Si stands, loaded with sand and lead shot. I always listen to speakers with their grilles (if any) both on and off, and ask the manufacturer or distributor what they recommend. Stan Tracht was adamant: The S-520s must be listened to with their grilles off, otherwise there would be measurable and audible diffraction problems.

**MEASUREMENTS**

I estimated the Usher S-520's voltage sensitivity to be 84.5dB(8)/2.83V/m, which is both a little lower than specified and on the low side. Its impedance, however, remains above 6 ohms for almost the entire audioband, with a minimum value of 5.3 ohms at 244Hz (fig.1), meaning that it will be a relatively easy load for an amplifier to drive. The traces in fig.1 have a couple of discontinuities evident between 400Hz and 600Hz. Investigating the cabinet walls' vibrational behavior with an accelerometer revealed a reasonably strong resonant mode at 460Hz on all the six surfaces (fig.2 is a cumulative spectral-decay plot calculated from the accelerometer's output when it was fastened to the center of the rear panel). This mode may well be high enough in frequency to have no subjective consequences, however.

The saddle centered at 54Hz in the impedance-magnitude trace suggests that this is the tuning frequency of the baffle-mounted reflex port. Looking at the outputs of the woofer and port, measured in the nearfield and shown to the left of fig.3, it appears that the woofer's minimum-motion notch actually occurs slightly lower in frequency, with the port's response peaking between 45 and 65Hz. As is to be expected from the S-520's diminutive dimensions, it offers little in the way of measured low-frequency extension, though I note that Bob Reina liked what there was of the speaker's bass presentation. Higher in frequency, the woofer's response suffers from a discontinuity between 1 and 2kHz, before crossing over to the tweeter at around 2.5kHz. The actual crossover slopes appear to be third-order, 18dB/octave, which usefully suppresses some higher-frequency peaks in the woofer's output. The silk-dome tweeter's on-axis output is shelved-up a little in the mid-treble. (All the acoustic measurements were taken with the grille removed.)
Great theater deserves a great setting.

Sanus reinvents style in your own home with new Java furniture. Exotic hardwood in a luscious espresso finish, with the added contemporary flair of extruded aluminum and fluted glass, creates the newest tide in contemporary décor. As with all Sanus furniture, the Java line is built with unique A/V features such as extra-deep shelving, large wire channels and removable back panels. Features that set Sanus furniture apart from the crowd...like an escape to a secluded tropical isle.

Sanus Systems
The union of form and function

800.355.5220  www.sanus.com

(Sanus-11263)
Introducing The Polk Audio SurroundBar™
True 5-Channel Surround Sound From A Single Speaker

The Polk Audio SurroundBar™ will complete your High Definition TV experience. It's the perfect match for flat-panel and shallow screen TV:s. And it works with any surround sound receiver.

Polk's patented SDA® Surround technology means you won't need to install rear speakers. What you hear is a completely immersive sound experience, as if there were dozens of speakers all around you. The sleek, unobtrusive design is a welcome addition for anyone who wants all the thrills of surround sound…but none of the hassles.

“The SurroundBar” contains 7 drivers, 3 tweeters and inputs for all 5 channels. Multiole drive units and a patented combination of signal processing and acoustical geometry serve to produce the vivid three dimensional surround field that exists on the original recording. What you hear is essentially the same as if there actually were sounds coming from all around and behind you.”

Matthew Polk, Polk Audio Co-Founder

For The Complete Story Behind The Revolutionary SurroundBar—
go to:

polkaudio.com
Usually, removing a speaker's grille results in slightly more detail; sometimes there's also a slight shift in tonal balance, with more emphasis on the high frequencies. Still, I wasn't prepared for what happened when I removed the S-520's grilles. The highs became sweeter, more laid-back and natural, and the aural images were much more coherent. I don't understand how removing the grilles could make such a difference; perhaps JA's measurements will reveal something. In any event, I agreed with Tracht; the S-520's grilles remained off for the balance of my listening sessions.

**Listening**

I was immediately taken by the Usher S-520's midrange and high-frequency resolution. The sound was detailed and natural throughout the midrange, with a degree of low-level dynamic articulation unusually realistic for such a low-priced speaker. The highs were also detailed and uncolored, though I noticed a slight highlighting of the lower highs (2-4kHz) with certain recordings. This could by no means be called "brightness" or "hardness," but when listening to recordings with significant energy in this region, I found it easy to follow instrumental details in this range. Although the highs were extended, I also noticed that the Usher didn't retrieve as much top-octave "air" or room ambience as I've heard other speakers do. At no time, however, did the S-520 sound dark or "hooded."

Every recording of the female voice sounded extraordinary through the Usher. Cassandra Wilson's New Moon Daughter (2 LPs, Blue Note 8 37183 1) was supple and seductive. On "Hey, Sweet Man," from Madeline Peyroux's Dreamland (CD, Atlantic 82946-2), her voice was rich, silky, and holographic. Mark Ribot's dobro exhibited perfectly natural transients and excellent low-level dynamic articulation, though the sliding of his fingers on the strings (round wound, I presume) was a touch highlighted.

The S-520 was a particularly natural reproducer of percussion. Steve Nel-

---

**Fig. 4** Usher S-520, anechoic response on tweeter axis at 50°, averaged across 30° horizontal window and corrected for microphone response, with the complex sum of the nearfield woofer and port responses, taking into account acoustic phase and distance from the nominal farfield point, plotted below 300Hz.

**Fig. 5** Usher S-520, lateral response family at 50°, normalized to response on tweeter axis, from back to front: differences in response 90-5° off axis on port side of baffle, reference response, differences in response 5-90° on tweeter side of baffle.

**Fig. 6** Usher S-520, vertical response family at 50°, normalized to response on tweeter axis, from back to front: differences in response 45-5° above axis, reference response, differences in response 5-45° below axis.
Son's vibes solo on "The Mooche," from the Jerome Harris Quintet's contribution to John Atkinson's Editor's Choice (CD, Stereophile STPH016-2), was natural, detailed and uncolored. I was mesmerized by Jack DeJohnette's delicate hi-hat and ride-cymbal work on "Melting," from Bill Connors' Of Mist and Melting (LP, ECM 1-1120)—the only recorded pairing, I think, of my favorite guitarist and favorite drummer. Moreover, on this track, Jan Garbarek's alto sax was "floating, rich, and detailed," according to my listening notes. For some free-jazz improvisation I turned to the Tertiary Trio's Tide Goes Here (CD, Rent Controlled RCRCD 009) and found myself fixated on the delicate, rolling groove drummer Paul Corio sets up on "Brushes with Death."

The little S-520's bass response was quite interesting. The midbass was very neutral, but seemed a tad warm with certain recordings. Ray Brown's double-bass solo on "I'm an Old Cowhand," from Sonny Rollins' Way Out West (CD, JVC VICJ 60083), sounded as natural as any bass solo on any jazz recording I've heard. And I'm curious to hear what JA concludes about the Usher's low-bass extension. With most recordings, the S-520 didn't call attention to its low-bass capabilities (or lack of them). However, whenever an instrument with consid-

erable low-bass energy appeared, the Usher surprised me with its realism, especially with classical music. My notes are filled with such comments as "Wow, nice timpani!" and "Bass drum very realistic but not quite room-shaking."

The Usher's impressive bass was not limited to classical recordings, however. I cranked up the volume on "Dazed and Confused," from Classic Records' vinyl edition of Led Zeppelin's eponymous first album (Atlantic/Classic SD 19126). John Paul Jones' bass blasts were "perfect," according to my notes. Continuing to test the S-520's ability to realistically render rock music, I cranked the volume higher for Ultra High Frequency's Sun Never Sets in Dramaville (CD, Mugshot MUG 0001) and noted that the Usher could party loud—no matter how loud the guitars thrashed, the vocals were detailed and natural.

My most memorable experience associated with the on-axis glitch at the top of the woofer's passband.

Overall, the measured performance of Usher Audio Technology's S-520 indicates that some solid audio engineering has gone into its design, which is especially creditable given its bargain-basement price.

--John Atkinson
with the Usher S-520 was with Kraftwerk's new live album, Minimum Maximum (CD, EMI ASW 60611 26).

I inserted the CD, turned up the Creek 5350SE integrated amp to "11" (I'd guess about 98dB), and stood unable to move, transfixed by the opening strains of "Mensch Machine," which has very deep electronic bass and intricate dynamics. Chills ran through my body as I was transported back to the Kraftwerk concert I'd seen earlier in the summer, which the band had opened with this very tune.

The only aspect of the Usher that approached a coloration was that, whenever I loudly played any passage with highly modulated upper-midrange and lower-high-frequency energy, the sound had a slightly forward tenseness. This occurred during the fortissimo tutus of Stravinsky's The Firebird, as performed by Antal Dorati and the London Symphony (CD, Mercury Living Presence/Classic 90226), as well as during the bombastic bridge of Aimee Mann's "How Am I Different?" from Bachelor No. 2 or The Last Remains of the Dodo (CD, Super Ego SE 002). However, at no time was there any sense of strain, coagulation, or compression during these passages—rather, it was just a temporary shift in tonal balance.

Comparisons
I compared the Usher S-520 ($375/pair) with the Infinity Primus 150 ($198/pair), the Wharfedale Diamond 9.1 ($350/pair), and the Epos ELS 3 ($350/pair). (Although my Epos M5 review inspired this one. I felt it fairer to compare the Usher S-520 with the Epos ELS 3, which is much closer in price.)

The Infinity Primus 150 was warmer and more romantic than the Usher, with equally excellent low-level dynamic articulation. However, the Infinity's bass did not go as deep, and its high-level dynamics were inferior, compressing a bit during very loud passages.

The Wharfedale Diamond 9.1 was more detailed in the midrange, with more delicate and sophisticated high frequencies. Overall, the Wharfedale's dynamic performance was equal to the Usher's, but its mid and upper bass were warmer and thicker.

The Epos ELS 3 was more detailed and delicate in the midrange and highs than the Usher S-520, and far better at revealing ambience and hall sound. The Epos's midbass was clean and articulate and slightly less warm than the Usher's, though about as extended. The Epos compressed a bit on high-level dynamic passages; the Usher did not.

Payoff
I'm glad I had a chance to experience Usher Audio Technology's S-520. Over a wide range of music, the Usher S-520 satisfied me during the many weeks it visited my system, and I found its modern white cabinet attractive. The Usher S-520 is an excellent value with many strengths and negligible shortcomings, and should find a home in many an affordable system. Thanks for giving me the heads up on this one, Stan.
MUSIC SO BEAUTIFUL IT MUST COME FROM SPACE

The amazing, upgradeable Nottingham Space Deck.

"How does it sound? It sounds like music." - Hi Fi Choice.

Audiophile Systems
Telephone: 317-841-4100  www.audiophilesystems.com
U.S. Importers & Distributors for: Arcam, dCS & Nottingham Analogue

ENCORE PERFORMANCE
CT5 COMPOSITE TRIODE PREAMPLIFIER

conrad-johnson  it just sounds right.

With the stunning ACT2 composite triode preamplifier conrad-johnson has again dramatically raised the bar for line-stage performance and again that leap in performance has been transferred to a more affordable model. Introducing the CT5 line-stage preamplifier featuring the same zero-feedback composite triode circuit, 6N30P triodes, and CJD teflon capacitors that elevate the ACT2 above the competition. Visit your conrad-johnson dealer soon to hear just how life-like recorded music can sound.

2733 Merrilee Dr • Fairfax, VA 22031 • phone: 703-698-8581, fax: 703-560-5360 • www.conradjohnson.com
VTL
S-400 Reference
POWER AMPLIFIER

When I reviewed VTL's MB-750 monoblock amplifier in the December 1997 Stereophile (Vol.20 No.12), it was a transitional time for the company. Luke Manley had recently taken it over, and he and his wife and partner, Bea Lam, were aggressively retooling. They introduced new business systems, including rigorous inventory and quality control; rebuilt VTL's dealer network around top-rank dealers; and systematically upgraded the products themselves to improve their consistency, reliability, manufacturability, and performance. VTL's goal, Luke explained to me at the time, was to build amplifiers that competed with the very best, and to "make the tubes invisible to the customer."

The plan rolled out just as Manley had envisioned, and VTL amplifiers evolved through several iterations: the MB-750 saw both Signature and Reference editions, and the flagship MH-1250 Wotan set a new standard in tube amplifier performance. However, having to bias the tubes manually—in the case of the Wotans, 24 per amp—didn't exactly make them user-friendly. So in the background, a multidisciplinary team of VTL engineers was already working on a completely new generation of products. The first to appear was the sensational TL-75 line preamplifier, which Paul Bolin raved about in the October 2003 issue. The next to break

When I reviewed VTL's MB-750 monoblock amplifier in the December 1997 Stereophile (Vol.20 No.12), it was a transitional time for the company. Luke Manley had recently taken it over, and he and his wife and partner, Bea Lam, were aggressively retooling. They introduced new business systems, including rigorous inventory and quality control; rebuilt VTL's dealer network around top-rank dealers; and systematically upgraded the products themselves to improve their consistency, reliability, manufacturability, and performance. VTL's goal, Luke explained to me at the time, was to build amplifiers that competed with the very best, and to "make the tubes invisible to the customer."

The plan rolled out just as Manley had envisioned, and VTL amplifiers evolved through several iterations: the MB-750 saw both Signature and Reference editions, and the flagship MH-1250 Wotan set a new standard in tube amplifier performance. However, having to bias the tubes manually—in the case of the Wotans, 24 per amp—didn't exactly make them user-friendly. So in the background, a multidisciplinary team of VTL engineers was already working on a completely new generation of products. The first to appear was the sensational TL-75 line preamplifier, which Paul Bolin raved about in the October 2003 issue. The next to break
cover were two power amplifiers, the 800W Siegfried monoblock and the subject of this review, the two-channel S-400 Reference.

Talkin' 'bout a g-g-generation we've not seen before
It's hard to know where to start in describing the $20,000 S-400, so different is it from what's come before. You could start by listing everything you might want a tube amp to do, and that's just what VTL did. Then they turned their engineering team loose on the project.

THE S-400 BIASES ITSELF FOR YOU, CHECKING AND SETTING EACH TUBE'S BIAS DURING THE POWER-UP CYCLE.

A few things are obvious: balanced and single-ended inputs, a rear-panel 0°/180° phase switch, fully differential input, low idle current standby, and muting, and a soft-start mode to extend tube life. And, like most VTL amps, the S-400 can be run in tetrode (300Wpc/8 ohms) or triode (150Wpc/8 ohms) modes. It also has extensive protection circuitry, with a fuse for nearly everything—and even a rear-panel socket and switch for testing the fuses. The S-400's sleek, tower-style shape echoes the TL-7.5's, and its component quality, fit, and finish are superb.

The list goes on. The S-400 biases itself for you, checking and setting each tube's bias during the power-up cycle, then tweaking it whenever the amp

MEASUREMENTS

or logistical reasons, I measured a different sample of the S-400 to the one BD auditioned. My sample had been used at the Home Entertainment Show last May and came to me following the Show, before its return to New York dealer Sound By Singer.

With its choices of unbalanced and balanced inputs, and triode or tetrode output-stage operation, VTL's S-400 is four amplifiers in one. To make measuring its performance feasible, I carried out complete sets of tests for both triode and tetrode operation in balanced mode, spot-checking some measurements via the unbalanced input. All the inputs preserved absolute polarity, the XLRs appearing to be wired with pin 2 hot.

Before I did many tests, the amplifier was run for an hour at one-third power in tetrode mode into 8 ohms. The voltage gain into 8 ohms was the same with both balanced and unbalanced drive, but differed between the two output modes: tetrode was 27.2dB, triode lower at 25.3dB. The unbalanced input impedance was a moderately high 74.2k ohms at 1kHz, dropping at the frequency extremes to 56k ohms (20Hz) and 44.4k ohms (20kHz). As expected, the balanced input impedances were twice these figures. The S-400 should not load down the output of any preamplifier with which it is used.

The output impedance also differed between the two operating modes, ranging from 1.8 to 1.9 ohms at 20Hz and 20kHz in tetrode mode, and from 1.66 ohms at 1kHz to 1.7 ohms at the frequency extremes in triode mode. As a result of the Ohm's Law interaction between this source impedance and the manner in which a loudspeaker's impedance changes with frequency, there was a significant, ±0.6dB modification of the amplifier's frequency response by the magazine's simulated speaker in both modes (fig.1, tetrode; fig.2, triode). Note the more extended ultrasonic bandwidth of tetrode compared with triode in these graphs: -3dB at 115kHz versus -3dB at 87kHz.

Data In Volts

Stereophile VTL S-400 (Tetrode) Freq Response at 2.83V dB vs Freq (Hz)

Fig.1 VTL S-400, tetrode mode, balanced frequency response at 2.83V into (from top to bottom at 2kHz): simulated loudspeaker load, 8, 4, 2 ohms (1dB/vertical div., right channel dashed).

Stereophile VTL S-400 (Tetrode) Freq Response at 2.83V dB vs Freq (Hz)

Fig.2 VTL S-400, triode mode, balanced frequency response at 2.83V into (from top to bottom at 2kHz): simulated loudspeaker load, 8, 4, 2 ohms (1dB/vertical div., right channel dashed).

Stereophile VTL S-400, tetrode mode, small-signal 1kHz squarewave into 8 ohms.

Fig.3 VTL S-400, tetrode mode, small-signal 1kHz squarewave into 8 ohms.
VTL S-400

VTL S-400 senses that no signal is present. It also constantly monitors the tubes and, if a fault is detected, indicates which tube is ailing and whether or not the amp is in danger. If it is, the S-400 shuts down; if it isn’t, the problem tube is effectively removed from the circuit, and the amp rebalances and continues without it. The S-400 also checks for overheating, indicates if there’s a problem, senses and displays several types of power-supply faults, and shuts down the amp, or not, accordingly.

Pretty impressive, but we’re just getting started. Removing a small panel reveals a cluster of six buttons and LEDs that provide still more information and access to additional diagnostic and programming functions. From here, a user can turn various displays and indicators on or off, and display total tube or amplifier hours, input voltage or voltage set point, and rear heatsink temperature. These buttons also allow the fault indicators to be cleared.

The user can also display the bias level for each tube, then use these data to juggle tubes to create the most closely matched pairs. Because bias level is an early indicator of tube degradation, plotting bias levels against time can help determine when it’s time to retube. When you do retube, be sure to reset the tube time to zero and clear the preset bias settings. You want the S-400 to gently raise the bias level to find the new tubes’ optimal points, rather than risk damaging them by starting at the old tubes’ bias levels.

If by now your eyes are glazing over and you’re starting to think that this would be a lot easier if you could just hook up a laptop, VTL’s engineers have beaten you to it. An RS-232 connector on the rear panel allows you to...
read, log, and control all of this from your computer. All of the displays, codes, functions, and software commands are explained wonderfully in VTL's comprehensive user's manual.

**New cosmetics, more buttons and features—same old circuit?**

Not even close. Making the tubes “disappear” was one of VTL's goals for the S-400; the other was to set a new standard in sonic performance. When I called Luke Manley to walk through the circuit's details, the conversation quickly moved from what to the much more interesting questions of why and how. “The business has changed,” he explained. “There's a new generation of amplifiers that sound fast and very neutral, and although we could achieve that to an extent [with older designs such as the Wotan], it was very intimidating, and our target customer doesn't want to fiddle with their equipment. Our first choice was to use tubes. They're inherently linear voltage amplifiers and require a very small amount of feedback. Then, to get the neutrality we wanted, the tubes had to be kept at their optimum operating point—hence the autobias. However, to keep the signal path simple, the autobias circuitry had to be completely removed from the audio circuitry during operation, so we needed to come up with a way to do that.

“All these things, and the need to manage current inrush during startup, required the use of microprocessors. And then we were quickly in a position that required totally new design expertise, but also enabled us to do a lot of things that we couldn’t have otherwise. We were able to manage everything that we needed to to ensure optimum operation and maximum tube life. Then we added all of the diagnostics and indicators to monitor conditions shown by figs.5 and 6, the S-400's power delivery is limited when this criterion is applied. VTL specifies the amplifier's power at a more relaxed 3% THD+N, and at this level the S-400 gave out 325W (25.1dBW) into 8 ohms in tetrode mode, 200W (23dBW) in triode mode. Into 4 ohms, the maximum powers available were 405W (23.1dBW) and 220W (20.4dBW), respectively.

The amplifier works very hard into 2 ohms, however, with 220W available in tetrode mode (17.4dBW) and 200W in triode mode (17dBW). (VTL specifies the S-400's optimal load as 5 ohms.) This is also revealed by the plots of the S-400's small-signal THD+noise against frequency (fig.7, tetrode; fig.8, triode), where the 2 ohm performance is less good than that into higher impedances. However, the VTL's small-signal distortion is heavily second- and third-harmonic in nature (fig.9, tetrode; fig.10, triode), which will be subjectively innocuous, especially at the low static levels featured in these graphs.

At high powers, the S-400's low loop feedback means that higher-order harmonics make an appearance (fig.11, tetrode; fig.12, triode), though the fact that the harmonics decrease linearly in level with increasing order works against their audibility, especially in triode mode. (Note the commendable absence of power-supply–related spurious in these graphs.) The big VTL did less well when it came to high-power intermodulation testing (fig.13, tetrode; fig.14, triode; both taken just below visible waveform clipping on the oscilloscope screen), which is what I expected from the decreasing linearity shown at high frequencies in the THD plots (figs.7 and 8).
and satisfy the customer’s curiosity.”

I asked Luke what made the S-400 sound the way it did—what’s the magic?

“There are really three things that contribute. The first is the collection of everything we learned and developed during the evolution of our other amps. There are the wide-bandwidth output transformers, with single-tap outputs. We had a good starting point for parts selection from before, based on matching and extensive listening, and knew how to optimize feedback. The second piece was developing a true balanced differential input, with 60dB of common-mode noise rejection.

“But the biggest thing is the precision regulated power supply. Along with maintaining correct bias, the way to keep tubes at their optimum operating point is by regulating the high-tension power supply. Normally, the voltage begins to sag as power is pulled out of the supply, and B+ voltage might drop by as much as 10%. The S-400’s supply never varies by more than 0.1% or 0.2%.

“The S-400’s supply is essentially a power amp in itself. The regulation requires six 3,300μF capacitors and five 800V, 30A MOSFETs. They’ve got tremendous transconductance, so when the caps dump, the regulation keeps the voltage propped up. The screen grids are particularly sensitive, so they’re actually double-regulated. Their supply is taken off of the regulated plate supply, stepped down, and further regulated at the lower level.”

When I asked him to contrast this with the supplies in older VTL amps, such as my own Ichibans, Luke said, “With the older amps, the power supply floated with AC voltage—in addition to sagging. There was no way to keep the tubes at their optimum point. We always knew that precisely regulating the supply was better, but we didn’t

VTL’s S-400 is a thoroughly worked-out tube design whose computer-monitored operating conditions should ensure many years of service. Its designer’s decision to go for low levels of loop negative feedback does compromise the amplifier’s high-power linearity, but the tradeoff is probably the very low levels of static distortion when the amplifier is giving out less than 10W. Even so, it is probably best to avoid speakers that plunge much below 4 ohms to get the maximum dynamic range from this amplifier, even though I note that BD had no problems driving his Thiel CS6es, which remain between 2.5 ohms and 4 ohms over most of the audioband (see www.stereophile.com/floorloudspeakers/218/index4.html).

—John Atkinson
CAN'T GET ENOUGH OF YOUR FAVORITE EDITORS?

SIGN UP FOR OUR 3 FREE MONTHLY E-NEWSLETTERS AND GET QUICK CONCISE UPDATES FROM THE EDITORS OF YOUR FAVORITE MAGAZINES FULL OF EXCLUSIVE TIPS, TRENDS, REVIEWS, AND INDUSTRY NEWS.

SIGN UP TODAY AND ENTER A PRIZE DRAWING FOR THREE GREAT PRIZES - VISIT OUR WEBSITES BELOW FOR SAMPLE E-NEWSLETTERS AND PRIZE INFO

From the Editor-in-Chief of 

stereophile

Featuring:

John Atkinson – From the Editor's Desk

Wes Phillips – Stereophilia

Ken Kessler – International Audio News

AND MORE...

Sign up on www.stereophile.com

From the Editor-in-Chief of 

HOME Theater

Featuring:

Maureen Jenson – The Hot Tip

Darryl Wilkinson – The Big Picture and News You Can Use

We Like to Watch Software Review

AND MORE...

Sign up on www.hometheatermag.com

From the Editor of 

ultimate AV

Featuring:

Tom Norton – Editor's Hot Tip

Scott Wilkinson – Hot News from the AV World and HDTV Events

AND MORE...

Sign up on www.ultimateavmag.com
VTL S-400

Beneath the S-400's top cover. The green LED lights beside each tube confirm status and blink to indicate a bias adjustment is underway.

FOLLOW-UP: VTL TL-7.5 LINE PREAMPLIFIER

VTL's TL-7.5 Reference line preamplifier was designed by the same team, and around the same philosophy, as the S-400 Reference power amplifier, and from the beginning the two models were intended to be used together. Typically, when a design team creates matching products, much attention is paid to ensuring that their characteristics at least complement each other and, if possible, achieve a positive synergy. The Burmester 011 preamplifier (which I reviewed in the July 2005 issue) and 001 CD player are great examples of this: excellent alone, magical when used together.

But given that I had a hard time pinning any sort of sonic signature on the S-400, I couldn't help but wonder what that suggested about its companion preamp, the TL-7.5 Reference line stage—so I asked to borrow one and hear for myself. Because I had several CD players capable of driving the S-400 directly, I tried to isolate the 7.5's sound by switching it in and out of the signal chain, and by comparing it with the Burmester 001 and the Placette Remote Volume control.

As with the S-400, I found it nearly impossible to ascribe any specific sound to the TL-7.5. Inserting it between an amplifier and a CD player—any CD player, even the Burmester 001—enlarged the scale of dynamic transients somewhat, and made microdynamics and inner detail much clearer, though not unnaturally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved.

Comparing the VTL to the little Placette reduced the differences quite a bit, but they were still there, particularly the improvement in dynamics and image dimensionality and, to a lesser extent, inner detail. The Placette's neutrality and transparency with the ability to accurately reproduce dynamic transients from the smallest to the largest, and from the bottom to the top of the frequency spectrum.

Recalling that Paul Bolin had raved about VTL's TL-7.5 when he reviewed it in the October 2003 Stereophile, I pulled his piece up from www.stereophile.com/tubepreamps/938, to see what, specifically, he'd had to say about it. I nearly fell out of my chair. Not only did his impressions and conclusions about the TL-7.5 mirror mine, they sounded eerily like what I'd heard from and written about the S-400 amplifier.

"It is no easy thing to attempt to describe the 'sound' of a component that had less intrinsic sonic character than anything else I have ever reviewed. The TL-7.5 had such an infinitesimal sound of its own, and did everything so rally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved.

Comparing the VTL to the little Placette reduced the differences quite a bit, but they were still there, particularly the improvement in dynamics and image dimensionality and, to a lesser extent, inner detail. The Placette's neutrality and transparency with the ability to accurately reproduce dynamic transients from the smallest to the largest, and from the bottom to the top of the frequency spectrum.

Recalling that Paul Bolin had raved about VTL's TL-7.5 when he reviewed it in the October 2003 Stereophile, I pulled his piece up from www.stereophile.com/tubepreamps/938, to see what, specifically, he'd had to say about it. I nearly fell out of my chair. Not only did his impressions and conclusions about the TL-7.5 mirror mine, they sounded eerily like what I'd heard from and written about the S-400 amplifier.

"It is no easy thing to attempt to describe the 'sound' of a component that had less intrinsic sonic character than anything else I have ever reviewed. The TL-7.5 had such an infinitesimal sound of its own, and did everything so rally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved.

Comparing the VTL to the little Placette reduced the differences quite a bit, but they were still there, particularly the improvement in dynamics and image dimensionality and, to a lesser extent, inner detail. The Placette's neutrality and transparency with the ability to accurately reproduce dynamic transients from the smallest to the largest, and from the bottom to the top of the frequency spectrum.

Recalling that Paul Bolin had raved about VTL's TL-7.5 when he reviewed it in the October 2003 Stereophile, I pulled his piece up from www.stereophile.com/tubepreamps/938, to see what, specifically, he'd had to say about it. I nearly fell out of my chair. Not only did his impressions and conclusions about the TL-7.5 mirror mine, they sounded eerily like what I'd heard from and written about the S-400 amplifier.

"It is no easy thing to attempt to describe the 'sound' of a component that had less intrinsic sonic character than anything else I have ever reviewed. The TL-7.5 had such an infinitesimal sound of its own, and did everything so rally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved.

Comparing the VTL to the little Placette reduced the differences quite a bit, but they were still there, particularly the improvement in dynamics and image dimensionality and, to a lesser extent, inner detail. The Placette's neutrality and transparency with the ability to accurately reproduce dynamic transients from the smallest to the largest, and from the bottom to the top of the frequency spectrum.

Recalling that Paul Bolin had raved about VTL's TL-7.5 when he reviewed it in the October 2003 Stereophile, I pulled his piece up from www.stereophile.com/tubepreamps/938, to see what, specifically, he'd had to say about it. I nearly fell out of my chair. Not only did his impressions and conclusions about the TL-7.5 mirror mine, they sounded eerily like what I'd heard from and written about the S-400 amplifier.

"It is no easy thing to attempt to describe the 'sound' of a component that had less intrinsic sonic character than anything else I have ever reviewed. The TL-7.5 had such an infinitesimal sound of its own, and did everything so rally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved.

Comparing the VTL to the little Placette reduced the differences quite a bit, but they were still there, particularly the improvement in dynamics and image dimensionality and, to a lesser extent, inner detail. The Placette's neutrality and transparency with the ability to accurately reproduce dynamic transients from the smallest to the largest, and from the bottom to the top of the frequency spectrum.

Recalling that Paul Bolin had raved about VTL's TL-7.5 when he reviewed it in the October 2003 Stereophile, I pulled his piece up from www.stereophile.com/tubepreamps/938, to see what, specifically, he'd had to say about it. I nearly fell out of my chair. Not only did his impressions and conclusions about the TL-7.5 mirror mine, they sounded eerily like what I'd heard from and written about the S-400 amplifier.

"It is no easy thing to attempt to describe the 'sound' of a component that had less intrinsic sonic character than anything else I have ever reviewed. The TL-7.5 had such an infinitesimal sound of its own, and did everything so rally so. My conclusion, after extended listening trials, was that the VTL was removing a slight dulling and veiling of the sound rather than artificially goosing it up. The same was true for other subtle aspects of the sound. With the TL-7.5 in the system, the soundstage was larger and airier, and both clarity and transparency were improved. 

—Brian Damkroger
amp with the VTL, a distinct coloration was removed from the system's sound, but I could never definitively identify what, if anything, the S-400 had added.

What was the VTL's character? In some cases of recordings or partnering gear I noted a faint coolness suggesting a slight frequency-response dip or reduced dynamics in the upper bass, and perhaps the opposite in the upper midrange—but that's an awful lot like the character of my Thiel CS6 speakers. At other times I detected a politeness, less-than-explosive dynamics, and a very minor softening of transients—which reminded me a lot of how Michael Fremer described his impressions of the latest Lyra Titan cartridge in one of our e-mail exchanges. I'd never heard these subtleties before, but does that link them with the S-400, or merely suggest that removing the other amps' colorations allowed the speakers and cartridge's to be heard? I suspect the latter, but if that's true, what was associated with the VTL? Neutrality? Clarity? Transparency?

In the case of neutrality, the answer is yes, absolutely. I've heard a lot of amps, including a few really superb ones, but none that sounded as tonally neutral as the S-400 in tetrode mode. There was a simple, almost stark honesty to its portrayal of instruments' tonal structures that, in comparison, laid bare the artifacts that the other amps contributed to instruments and voices. In fact, merely switching the S-400 between its tetrode and triode modes provided a wonderful example of this.

Switching to the S-400's triode mode—or to the Simaudio Moon Rocks that I reviewed in September, for that matter—added a touch of warmth and sweetness to the sound and seemed to gently roll off the highest frequencies. Ramsey Lewis' piano on his trio's 1965 live recording, Hang On Ramsey (LP, Cadet LP-761), was a good example. It sounded pretty good with the VTL in triode, but transients were slightly dulled, giving me a sense that the top end wasn't as open and extended as it could be. Plus, the piano's notes sounded homogenized and slightly thick, with no obvious inner structure or temporal evolution. And although I was never aware of a distinct change in amplitude as Lewis played down into the instrument's lower ranges, there was a richness to the notes that seemed to increase as the pitch dropped.

In tetrode mode, on the other hand, Lewis' piano was dead-on. Each treble note was clearly a changing mix of harmonics, that went through a distinct evolution: from a sharp, cutting transient through a quick bloom and decay. Similarly, Red Holt's cymbals were slightly muted, with a thick, metallic hiss in triode mode but a startlingly clear mix of components in tetrode mode. The differences were even more obvious moving down through the midrange and bass. Going back to Lewis' piano, running the S-400 in tetrode mode resulted in an even more complex evolution of the sound after the initial transient, an obvious progression of string vibrations building in complexity and increasingly exciting the instrument's soundboard. Ray Brown's bass on the Pure Audiophile reissue of Soulful Energy (LP, PA 002) was another great example: warm and full to the brink of being overstated through the Moon Rocks or my Ichibans, still highlighted but more clearly detailed and realistically balanced through the S-400.

I was initially suspicious of the S-400's apparent neutrality. Given its relatively high output impedance (1-1.5 ohms), I expected to hear at least some frequency-response anomalies due to the amp's interaction with the speaker load. Plus, John Atkinson's measurements always show this sort of behavior in VTL and other, similar amplifiers. I dug into this a bit, however, and discovered one possible explanation. Between 50Hz and 10kHz, JA's simulated speaker load fluctuates between 4 ohms and >20 ohms, with huge peaks around 70Hz and 1kHz (www.stereophile.com/reference/60/index1.html). In contrast, his measurements of the Thiel CS6 showed a much flatter impedance curve that varied by only about 1 ohm over the same range, and within an even narrower band for much of that span (see the March 1998 Stereophile, Vol.21 No.3, p.96).

Another component of the S-400's presentation and its lack of a sonic fingerprint was its clarity. In addition to the changes I describe above, I noted that switching the VTL to triode mode, or swapping in the Sims, Ichibans, or Levinsons, wove a liquid texture into the sound, and fine details—spatial, temporal, and tonal—weren't quite as clear. Going back to the S-400 or switching from triode mode to tetrode was akin to opening a window that is not quite optically perfect.

With the S-400 in tetrode mode, fine details were much easier to identify and follow, but a more significant effect was the realistic presence and
Handel: Radamisto
Patrizia Cofì, Joyce Di Donato
Il Complesso Barocco, Alan Curtis
Available November 8

Vivaldi: Bajazet
Idebrando d’Arcangelo, Patrizia Cofì,
David Daniels, Vivica Genaux, Marijana Mijasovic, Elina Garanca
Europa Galante, Fabio Biondi

Szymanowski: Sonata No.2; Metopes,
3 poems for piano;
Isle of Mermaids; Calypso; Nausicaa; Masques
Piotr Anderszewski

PBS Broadcast
12/21

STRAVINSKY: Le Rossignol
Natalie Dessay; Orchestre et Chœur de l’Opéra National de Paris, James Conlon
DVD of the fantastic animated film by Christian Chaudet
Available November 8
Upgrade Your CD Player
And get DVD, DVD-A and SACD in the bargain!
The McCormack UDP-1

Designed to fully exploit the remarkable capabilities of new high-resolution audio disc formats, the UDP-1 is also an exceptional CD player. Consider the following comments from respected audio critics:

- "... digs deeper into the music and reveals far more than any other universal player, and indeed reveals more than any of the dedicated reference quality CD players we had on hand in our lab..."
  - Peter Moncrieff, International Audio/Video Review, lar-80.com

- "... a CD player that belongs in the company of the very best I've heard. In fact, unless you already own one of those exalted few, you could buy the UDP-1 as a step up from your current CD player. That would make the SACD and DVD-A functions value-added extras..."

- "... a CD player that is a steal at its price point. Now throw in 5-channel home theater performance as well as excellent multichannel Super Audio CD and DVD-A performance and the McCormack UDP-1 should become a runaway best seller"
  - John Potis, 6moons.com, Sept., 2004

2733 Merrilee Drive, Fairfax, VA 22031 • Phone: 703.573.9665 Fax: 703.560.5360 • www.mccormackaudio.com

Professional Tuning Devices
Harmonix applied this new knowledge to develop a way of tuning audio equipment and listening rooms that treats resonance as an essential element of sound.

X-DC "Studio Master" AC Power Cord

- Newly-designed OFC
- Strain Relief
- Screwable US-designed WATTYGATE330
- Plenum-PF12 connector (for high-grade audio)

RCA Audio Interconnect Cable HS-101GP

- Directional PCOCDC+ Special copper gold-plated triple shielded gold terminals
- 100% copper conductor (special triple OFC)
- Carbon-finished copper zero banana spade lug terminals (available in 0.75m, 1.8m, 1.5m lengths) Set of 2 cables

HS-101 SLC Speaker Cable

- Newly-designed OFC
- Dual original copper gold-plated triple shielded audio jacks terminals
- High-quality construction (special triple OFC)
- Absolute directional design

Wonder-Jumper

- OFC
- Special Y terminals (both ends 33cm) Set of 2 cables
- Banana type terminal also available

Noise Eliminators ENACOM

MAY AUDIO MARKETING INC.
2150 Liberty Drive • Unit #7 • Niagara Falls, NY 14304 • Tel. (716) 283-4434 • Fax (716) 283-6264 • Toll Free (800) 554-4517 • www.mayaudio.com • mayaudio1@aol.com
immediacy that imbued every component of the performance. On Hang On Ramsey, it was there as much in the applause and bassist Eldee Young's singing along with his own solos as it was in Lewis' piano. I went through box after box of my favorite opera sets, just to hear them come alive with the S-400's clarity. I'm sure that there was fine detail in spades, the soundstage was appropriately large, and the image dimensionality and ambience cues were beautifully rendered, but I really didn't notice any of that. I was too busy sitting in the audience of a virtual opera house, alternating between quickly reading the libretto and closing my eyes to melt into the performance.

Perhaps my favorite example of the S-400's stunning clarity was Jimmy Smith's Hammond B-3 organ on his Who's Afraid of Virginia Woolf (LP, Verve SMAS 90577), a wonderful Rudy Van Gelder production from 1964. The organ's slightly buzzy, electronic texture was perfectly reproduced by the S-400. Combined with Smith's mesmerizing, expressive playing, the VTL's clarity seemed to erase the recording/playback chain altogether, plugging Smith, his organ, and the backing players right in front of me.

Most spectacularly, voices lit up and came alive with the S-400. I constantly found myself digging out older, more simply recorded live recordings, such as Johnny Rivers' Whisky-A-Go-Go LPs. "Brown-Eyed Handsome Man," from Johnny Rivers at the Whisky-A-Go-Go (Imperial LP-12264), is one of my favorite cuts; with any good system, it will transport me to a front-center seat at the club. But the first time I heard it through the S-400, I was stunned. I actually caught myself looking around to see which of my fellow audience members was talking and singing along. Incredibly.

The third of the VTL's attributes, its transparency, is the easiest to describe in audiophile terms. I could simply hear much farther into the soundstage with the S-400 than with the Sims, Ichibans, or Levinsons. And with the S-400, the limit wasn't the system running out of resolution at the rear of the stage, or losing ambient detail into a background texture. Instead, I could either hear whatever surface bounded the recording space, or hear the microphones' sensitivities reach their limits. And up to either of these points, I heard nothing other than the recording venue.

This transparency favored live recordings—especially more simply recorded performances—where the miking patterns had been integrated into a seamless envelope. The Johnny Rivers and Ramsey Lewis albums sounded coherent, immediate, and alive—and these are standard, buy-at-the-corner-store LPs. Simple, well-done recordings given a modern audiophile makeover, such as AcousTech's reissue of Lightnin' Hopkins' Goin' Away (LP, Prestige/Bluesville/AcousTech 1073), were amazing, and closer to fulfilling the promise of recorded and reproduced performances than I'd ever heard before.

**How do you put the puzzle together when you can't find the pieces?**

After about a year of listening to the VTL S-400 in different configurations and comparing it with some very good amplifiers, I'm still at a loss to assign to it any specific, overt sound. It "might" sound a little polite, and it "might" lack a little weight in the upper bass and lower midrange—but then again, it might not. Its colorations were so minor that I have no frame of reference within which to isolate and identify them. All I can do is describe what the S-400 did not add to the sound, which is really just a description of what other amps I compared it with and the other components in my system. As superb as those other amplifiers and components are, the VTL's neutrality, clarity, and transparency set it apart.

The VTL S-400 may be expensive, but it is the product of an intense, five-year development effort and the marriage of several engineering disciplines. Whether you measure it against VTL's ambitious design goals or against its peers, the S-400 is a stunning achievement—a technological tour de force and a home run in terms of both usability and sonic performance. Congratulations to Luke Manley, Bea Lam, and the VTL design team. Twenty years from now, we'll all remember the S-400 as a benchmark in tube amplifier design, and the first of a new generation. Today, my recommendation is that you find one, see and hear what it can do, and get out your checkbook.
The cables that simply sound the most like music.

The most intelligent cable geometries along with the best materials available combine to create cables with unsurpassed technical and sonic performance.

"The most accurate performer"
Ben Duncan, HiFi News Vol. 42, No. 2

"As a music lover, I want these cables; as a reviewer, I need them."
Karl Lozier The Audiophile Voice Vol. 5, Issue 4

Neat Ultimatum
As close to perfect as it gets!

For 15 years Neat Acoustics has been delivering the ultimate musical performance to demanding listeners worldwide. Bluebird Music proudly presents Ultimatum — Neat's flagship line of high performance stereo and home theater loudspeakers.

"The very best there is"
HiFi+ Magazine, May 2003

"A brilliant musical communicator"
Hi-Fi Choice 2003/04 Product of the Year
Esoteric Audio Research
EAR 912
PREAMPLIFIER

My opinions keep changing—more evidence of life before death, I suppose—including my thoughts on audio-system hierarchies. I used to think that preamps were among the most sonically influential components, certainly more so than power amplifiers. I'm not so sure anymore.¹

That doesn't leave much to write about whenever a new preamplifier does come my way, so I'm filling the void with my expanding concern for creature comforts: More than anything else, the preamplifier is the ergonomic focus of any decent music system, so I'm here to praise it for that. Now I've got something to care about again.

Viewed in that light, Esoteric Audio Research's brand-new EAR 912 control preamp (EAR's UK website calls it a Professional Tube Control Centre) seems to have been lifted from my dreams. A true full-function tube preamplifier—it combines line-level gain with phono gain and equalization—it's equipped with two pairs of equally configurable phono inputs, internal moving-coil step-up transformers, a mono switch, six pairs of

¹ Why is it that most of us can name at least a dozen vintage power amps we wouldn't mind owning—Quad II, Western Electric 91-A, Dynaco Stereo 70, Marantz 9, et al—but probably fewer than two or three vintage preamps?
The Titan series of products presented us with a significant engineering challenge: to create truly high end products at affordable prices. We believe we have succeeded!

The Titan series offers outstanding performance and build quality that is accessible to almost anyone with a taste for great sounding music entirely hand built in the USA, the Titan products are assembled to the same exacting standards as our most expensive amplifiers.

Atlas Power Amplifier $1,395
Metis Preamplifier $995
Cronus Integrated Amplifier $1,795

570-992-9901
www.rogueaudio.com
Rogue Audio...
An Intelligent Indulgence.

The perfect combination of science and art.

Viola Audio Laboratories, New Haven, CT 06513, USA • 1-203-772-0435 • info@violalabs.com • www.violalabs.com
line-level inputs (two of them balanced), two pairs of outputs (one balanced), and, best of all, a pair of VU meters. If you’re wondering why I’ve never mentioned a need for VU meters, it’s because I wasn’t aware of it until now.

I’ll get back to those in a minute, but first let’s have a look at the EAR 912’s basic architecture.

**Design**

EAR’s Tim de Paravicini has designed his newest preamp around the 7DJ8 dual-triode tube (called the PCC88 in Europe). The EAR 912 uses three of them in the phono stage—where one tube splits its chores between the two channels—and another two for the line stage. As the renowned Mr. de P told me recently, the 7DJ8 is a tube he knows well, having designed a fair amount of his pro gear around it, and he points in particular to its exceptionally long life. (The arguably more common 6DJ8 can be substituted, if desired, notwithstanding a slightly different filament voltage requirement—although in such a case it’s best to replace

**THE 912 ISN’T THE FIRST EAR PREAMP TO USE INTERNAL STEP-UP TRANSFORMERS FOR MOVING-COIL CARTRIDGE GAIN.**

---

**MEASUREMENTS**

The EAR 912’s phono stage offered gains of 50dB, 44dB, and 38dB in MM mode, depending on the position of the front-panel gain switch. The corresponding figures for MC operation were 19dB higher. The MM input impedance was 43k ohms at 20Hz, this increasing slightly to 50k ohms at 1kHz and 47k ohms at 20kHz. With the phono input set to MC and 40 ohms, I measured an input impedance of 422 ohms at 1kHz, this decreasing to 117 ohms at 20Hz and 378 ohms at 20kHz. The phono input preserved absolute polarity.

Fig.1 shows the 912’s phono-stage frequency response, assessed at the main outputs. The RIAA correction appears to incorporate the IEC-recommended LF rolloff, but also features a slightly rising response above 5kHz. In this respect, it is less accurate than EAR’s solid-state 324 phono preamplifier that AD reviewed in July 2004. Even when set to the highest gain, the 912’s phono-stage signal/noise ratios were excellent. In MM mode, the A-weighted ratio was 81dB (ref. 1kHz at 5mV), this decreasing to a still good 67.7dB, wideband, unweighted. Due to the 912’s use of a transformer to provide the additional gain required, the MC mode’s S/N ratios were not appreciably different, at 79.7dB and 66.7dB, respectively (both figures referred to 1kHz at 500µV). This is a superbly quiet preamp.

A downside of the very high gains available from the 912’s phono stage is a reduced overload margin. The margins were acceptable at the lowest gain setting, ranging from 10dB at 20Hz and 20kHz to 21dB at 1kHz (all figures ref. 1kHz at 5mV). Each 6dB increase in gain, however, reduced the margin by the same 6dB. Owners of the 912 should set the phono-stage gain to the lowest level acceptable with their preferred cartridge. But with its gain set appropriately, the 912 offers quite low levels of both harmonic distortion (fig.2) and intermodulation distortion (fig.3).
Utterly musical and resolute, our coherent new VEENA delivers unusually -big- sound from a relatively compact, floor standing enclosure.

Deep and tuneful bass, articulate and realistic vocals and airy treble are seamlessly integrated, effortlessly projecting intimate and engaging music.

Elegant Veena is designed for all senses and all spaces without compromising the essence of the music.

REFERENCE 3A
Multi Award Winning Loudspeakers

website: www.reference3a.com email: info@reference3a.com telephone: 519 749 1565

nextgen.

The exact solution for all connections

- 75Ω characteristic impedance, perfect for digital and audio links.
- True wideband RCA type connectors, male and female.
- 100% pure copper or silver, accurate for analog.
- Free from interferences, RFI and EMI.
- Transmission bandwidth: 1GHz
The 912 isn't the first EAR preamp to use internal step-up transformers for moving-coil cartridge gain, but it is the first in which those trannies are addressed by two different pairs of phono inputs. There's a selector knob on the front panel for choosing which input pair is active, as well as another for selecting the desired transformer primary—3, 6, 12, and 40 ohms are the nominal impedances, corresponding with respective additional gains of 30, 26, 23, and 20 dB—or for bypassing the step-up transformer altogether, as with a moving-magnet cartridge. The EAR 912's phono section remains iron-rich even so: Its RIAA equalization circuit uses a pair of custom-wound inductors, which de Paravicini selected for being less prone to overloading and ringing than capacitors, and the transition from phono stage to line stage is accomplished with a pair of similarly bespoke coupling transformers.

The transformer approach was chosen not only for electrical efficiency and purity of sound, but for flexibility in use: A three-position attenuation knob on the front panel allows the user to choose between multiple secondary windings on the interstage coupling transformers—for full gain, −6 dB, or −12 dB. That control, used in tandem with the one for selecting the appropriate step-up transformer primary windings and the step-up transformer bypass knob, provided the highest level of flexibility I've ever enjoyed in a phono preamp. As I write this, I have a Rega turntable with a Linn Adikt MM cartridge connected to the EAR 912's Phono 1 input, and a Linn turntable with a Lyra Helikon Mono MC cartridge connected to Phono 2—and this is only one of many combinations I've happily used over the last couple of months.

That's also where the meters come in, literally and figuratively: Right before the line stage's volume control, two custom-made VU meters measure voltage on an average rather than peak basis—the idea being to approximate the loudness of the music overall and not to telegraph to the user every last transient spike. Here again, de Paravici...
ni's years of experience designing studio gear paid off: "The Bell Labs specs from the 1930s called for a 'spade' pointer, and even required a certain yellowness of the background," he told me. "That way, you were able to see what the meters were indicating from across the room: You didn't need to know precisely what number the needle was pointing at any time." The EAR 912's meters follow suit, and during my time with the EAR 912 they proved enormously useful: By working with the controls described above, I was able to use the meters to help find the settings that were right for every different phono cartridge, representing a wide range of internal impedances and output voltages.

The meters also respond to line-level signals, of course, which can travel their way from a brace of single-ended and true balanced inputs, the latter having their own input transformers. Sadly, and through no fault of de Paravicini's, watching the meters during CD playback wasn't half so joyous as during phono use: They don't shrink from telling the user how badly mastered (as in: wildly, excessively hot) most contemporary recordings appear to be. Which is depressing.

A final design touch worth noting: In addition to the ones already mentioned, and the one you'd expect to be at the heart of its power supply, the EAR 912 contains two more custom-wound transformers: These are output transformers, used to keep the preamp's source impedance low (and, of course, to block DC, should it amble past by mistake). Each of these has two secondaries: one for feeding the single-ended (RCA jack) outputs, which are grounded, and the other for feeding the balanced (XLR jack) outputs, wherein the ground is floated. Both sets of outputs can be used simultaneously, as with a subwoofer or some other device that accepts a line output.

The EAR 912 is a visually striking piece of gear. I love the looks of the thing, and the proportions. It's tall because it needs to be: The backs of the meters need to clear the circuit-board components below, among other things. But it doesn't need to be especially deep, so it isn't. The metalwork is exceptionally sturdy and well finished, with thick semigloss enamel throughout and a black anodized front panel with no unpleasant edges. For once, rack-style handles on the front are more a necessity than a mere boy-racer affectation (like spoilers): With all that iron inside, the EAR 912 isn't as easy to lift as most other preamps.

But lift its 29 lbs I did, substituting the all-in-one EAR 912 for my reference combination of Fi preamplifier and

measurements, continued

coupling between the channels and resulting in just 28 dB of separation at 20 kHz, though 56 dB was available at 1 kHz.

Figs. 7 and 8 show how the percentage of THD and noise in the 912's output varied with output voltage for balanced and unbalanced operation, respectively. The latter is actually slightly more linear, but both modes are beyond reproach at typical output levels. A maximum output of 9.5 V (at 1% THD) is available from both modes into 100 k ohms, and 8 V into 600 ohms, both figures way more than enough for practical use. In fact, noting where the traces in these two graphs have their inflection points, it appears that the EAR 912's gain architecture is sensibly arranged to give the lowest distortion at the levels where the partnering power amplifier is close to being clipped.

Its use of transformers does mean that the 912's line stage introduces rather more THD at very low frequencies

THE EAR WAS **UNUSUALLY NOISELESS, WITH VERY LITTLE TUBE "RUSH" AND LITERALLY NO HUM.**
Tamura TKS-83 moving-coil step-up transformers. The Fi is rare enough these days, inasmuch as it combines line-level gain with phono equalization and sufficient additional gain for MM pickups, and although it doesn't have transformers for interstage or line-output coupling, the Fi does use the comparable 6DJ8 tube throughout: an interesting comparison.

I did most of my early listening with a Linn LP12 turntable with Ekos tonearm and my Miyabi 47 phono cartridge: low output, and very low internal resistance. I determined that using the EAR 912's 3 ohm step-up transformer primary with full (-12dB) attenuation was best for the Miyabi—and it was then that I heard at least one aspect of the EAR 912's superiority to my reference gear: The EAR was unusually noiseless, with very little tube "rush" and literally no hum, even with the ground leads from the Linn Ekos and Rega RB300 tonearms left unconnected.

Maybe that's what made the EAR so good at retrieving very subtle details, such as the distinctive attack, sustain, and decay of the big orchestral drum in mezzo-soprano Janet Baker and conductor Sir John Barbirolli's famous recording of Elgar's song cycle Sea Pictures (LP, EMI ASD 655). Similarly, I noticed trills on the flute I'd never noticed before in the first movement of Brahms' Symphony 2, with Leonard Bernstein and the New York Philharmonic (LP, Columbia D3M 32097). And tape splices and microphone punch-ins on my favorite pop recordings—listen to how the "room sound" changes just before Paul starts singing on the Beatles' "Let It Be"—were laid completely bare.

For the most part, the musical and sonic performance of the EAR 912 didn't depart significantly from that of other top-class preamplifiers I've had in my home—including the Lamm LL2 Deluxe (reviewed in the September 2005 issue) and the Audio Note M2 Phono (June 2004), as well as my own Fi. All four are substantially, timbrally uncolored things, though the Audio Note is probably the "darkest" of the bunch, and all of them get the basic pitch and timing information right. All four are also capable of being emotionally thrilling, though I'd give the Lamm a slight edge for stripping the greatest amount of crud away from the notes and thus seeming to let the music breathe to the utmost. (But I admit that that comparison is flawed: The Lamm is a line-level preamp, and I've heard it paired only with phono sections from other makers.)

But I dare say the EAR 912 is the most dramatic sounding of the lot. I never once heard it compress the signal, regardless of the record played. And it allowed music to come through with so much of its intensity and nuance intact that literally everything I played was impossible to ignore. One afternoon in particular, when I was hooking up my mono record player to use as a source with one of the EAR 912's phono input pairs, I chose the great

---

than is usual (fig.9), though this is dominated by the subjectively benign second and third harmonics (fig.10). At higher frequencies all the harmonics drop considerably in level (fig.11), though a trace of 120Hz hum (at -84dB) could not be removed no matter how I adjusted the grounding between the 912 and my Audio Precision test set. Intermodulation distortion was also low in level (fig.12). In general, the EAR 912's measured performance reveals the excellent audio engineering I have come to expect from Tim de Paravicini. But I was concerned by the disappointing channel separation and that (very faint) trace of hum in the output. It is fair to note that AD didn't note any hum in his system.)

---

John Atkinson
UK release of André Gerler performing the Berg Violin Concerto with Paul Kletzki and the then-new Philharmonia Orchestra (10" LP, Columbia 33C 1030). I was actually a bit peeved at first, because I had to stop what I was doing and sit down. Of course, my annoyance quickly turned to rapture as the system brought me another step closer to understanding what Berg had in mind.

But the truth about the EAR 912 could be had by letting it play simpler music—and by hearing how it helped to pull levels of meaning, of emotional and intellectual engagement, out of what would otherwise be just electromechanical noise. Dylan's "The Times They Are A-Changin' (mono LP, Columbia/Sundazed 5108), was appropriately moving—besides which it simply sounded fine, with superb vocal presence and a well-textured acoustic guitar sound. And pianist Witold Malcuynski's sophisticated but almost off-hand approach to Chopin's Waltzes (LP, Angel S 35726; CD, EMI Classics 5 68226 2) was complemented by the EAR 912's good sense of flow and momentum: Its sound on these recordings was as nonmechanical as it gets.

A note on spatial performance: Like the other preamps I've mentioned here, the EAR 912 tended toward a big sound: a wide, deep soundfield that always seemed capable of sounding even bigger when the need arose, with stereo imaging that sounded more real to me than the overly precise sound I associate with the high-end audio salon experience. The only departure from that was when I used an MM cartridge with the EAR, bypassing the step-up transformers altogether. When I did that, the soundfield was noticeably more distant, albeit not unpleasantly so. I have no idea what could account for that, but when I tried driving the EAR 912's phono stage with other, non-EAR trannies, mostly in an effort to see how the integral ones fared against the competition, the sound had consistently greater scale with the iron in line than without.

And how did Tim de P's trannies stack up? Quite well, I think. In direct comparisons I preferred them to my Audio Note AN-S2 (though some readers might consider the test to be flawed by the fact that the outboard unit required an extra interconnect in the chain), and while I thought the Tamura sounded still dearer and more natural (so much for the cable excuse), the difference was modest.

Summing Up
Modest differences are, as I've suggested, no strangers to the modern-preamp landscape—but the functionality and flexibility of the Esoteric Audio Research EAR 912 are anything but common. This product taught me something about my records and the other components in my system, and I enjoyed every minute I spent with it. The EAR 912 isn't cheap, but it's a Class A preamplifier in every sense, and an heirloom-quality instrument that represents the apex of both build quality and design ingenuity. I miss it already—and I strongly recommend that you try to experience it for yourself.
It Doesn't Get Any Closer

The new e.One Series Amps
www.belcantodesign.com/eone
© 2005 Bel Canto Design, Ltd. e.One is a trademark of Bel Canto Design, Ltd.
Visit Bel Canto at the 2006 CES — Alexis Park, Suite 1904

Acoustic Zen

MUSIC ...... NO COMPROMISE

16736 West Bernardo Drive, San Diego CA 92131 Phone: 858-487-4478 Fax: 858-487-4088 www.acousticzen.com
THE BEST EQUIPMENT AND THE KNOWLEDGE OF THE BEST.
— Herbie Hancock

WWW.AUDIOHIGH.COM | 650.964.4000
EQUIPMENT REPORT

Viola Audio Laboratories
Cadenza
PREAMPLIFIER

Wes Phillips

DESCRIPTION

Solid-state two-channel line-stage preamplifier with outboard power supply.
Inputs: 4 single-ended RCA (1 with space for optional card), 1 Fischer, 1 XLR.
Outputs: 1 single-ended (RCA), 1 tape loop, 1 Fisher, 2 XLR.
Frequency response: 20Hz–20kHz, ±0.1dB. Input impedance: 1 megohm. IMD: <0.005% at 1V input. THD: <0.01% at 20kHz, 1V input.

DIMENSIONS

Preamplifier: 17.5" (447mm) W by 3.5" (91mm) H by 16" (406mm) D. Weight: 16 lbs (7.3kg). Power supply: 8.75" (223mm) W by 3.5" (91mm) H by 16" (406mm) D. Weight: 20 lbs (9.1kg).

SERIAL NUMBER OF UNIT REVIEWED 0103.

PRICE $16,000. Approximate number of dealers: 2. Warranty: 5 years.


Viola Audio Laboratories may be a new company with an unfamiliar name, but it

So what are you reviewing now? A polite question, considering that my old friend Randy is definitely not an audiophile.

"A really interesting preamplifier from Viola Audio Laboratories. It costs $16,000." I wasn’t sure Randy knew what a preamplifier was, but I thought the price might get his attention.

"Wow—that better be the best in the world!"
You’d think so, wouldn’t you? Especially a preamp that doesn’t even have a remote control, which Randy’s department-store rack system has. However, the thing that made this too deep a subject for a cocktail-party conversation was that, good as the Cadenza was, it was making me question the whole concept of “best.” Is a Stradivari violin better than a Guarneri? Is either really better than that fiddle your uncle Arthur made in his workshop? The answer probably depends on whether you’re asking your intellect, your ears, or your heart.

A brilliant solo passage
Viola Audio Laboratories may be a new company with an unfamiliar name, but it
MD series - affordable state-of-the-art Single-Ended Triode amplifiers 10-55 w/ch

**MD-300B**
- "...open, detailed & pure - simply, the WAVAC sound..."
  - Jeff Dorgay, Tone Audio
- 10 w/ch
- Use as stereo or integrated with 3 inputs & volume control
- $7500

**MD-300Bm**
- "...extraordinary..."
  - Art Dudley, Stereophile 8/05
- 10 w/ch monoblocks
- 20-75 kHz
- 10mm top plate for superb rigidity & sonics
- $20k/pr

**MD-805m**
- "...the MD-300m's simply 'get it right'"
  - Wayne Donnelly, www.enjoythemusic.com
- 55 w/ch monoblocks
- 20-50 kHz
- 10mm top plate for superb rigidity & sonics
- $19k/pr

WAVAC Audio Lab "MD" Single-Ended Triode amplifiers use same IITC circuit as all WAVAC SET amps

- Patented IITC transformer-coupled circuit with no capacitors in signal path
- Ultra-wide bandwidth, custom designed TANGO transformers
- Only 1 output tube/channel for maximum purity & magic!

CES2006 - Alexis Park 2052

Distributed by tmh audio • Dayton Ohio • 937-439-2667 • info@tmhaudio.com • www.tmhaudio.com

**PASS**

Rushmore
XA200
XA160
XA100
XA60
XA30
X1000.5
X600.5
X350.5
X250.5
X150.5
X150
X5
X3
X0.2
X1
X2.5
X2.2
X0no
XVR1

Pass Laboratories
(530) 367-3690
www.passlabs.com
VIOLA CADENZA

has deep audiophile roots. It's the latest incarnation of part of the brain trust behind Cello Music and Film: audio designers Tom Colangelo and Paul Jayson, both veterans of the original Mark Levinson Audio Systems (MLAS); and CEO Tony Disalvo (who has since left Viola to pursue other interests).

Viola is bucking the whole trend toward "convergence." It makes exclusively two-channel gear and steers clear of digital design, its designers having already proven to themselves that even something as "basic" as analog design requires a lifetime of mastery. In their words, Viola creates "top quality audio reproduction in the tradition of the early MLAS equipment: best parts, highest standards, close inspection, quality workmanship, and simple design." And, oh yeah, "a belief in the validity of measurement as well as an acceptance that music is experienced in addition to being measured and delivered by mathematical formulas."

The Viola designers work as a team, but, as in a Beatles song, one member generally takes the lead while the other one makes it better. In the case of the Cadenza, Paul Jayson was the primary. The Symphony power amp, which I also used to audition the Cadenza, was more Tom Colangelo's baby.

The Cadenza uses an external choke-input power supply, a topology that Jayson says produces less electromagnetic interference than a conventional capacitor-input design. It also produces fewer high-peak ripple currents, he says, which means less intermodulation distortion on the power-supply rails and ground returns. Translation: a quieter preamp with a lot less high-frequency noise.

MEASUREMENTS

The Viola preamplifier's maximum voltage gain at 1kHz was 16dB, unbalanced input to unbalanced output, and 6dB higher as expected, balanced input to balanced output. The Gain controls offered accurate attenuation steps of 1dB. Both unbalanced and balanced operation preserved absolute polarity (the balanced XLR jacks appear to be wired with pin 2 positive). The unbalanced input impedance measured around 1 megohm at 20Hz and 1kHz, dropping to around 300k ohms at 20kHz, with the balanced results twice as large. (Those last figures can be only approximate, given the large margin of error in measuring such high impedances.)

The output impedance in the midrange and treble was a low 100 ohms unbalanced and 200 ohms balanced. It increased at low frequencies, however, reaching 820 ohms unbalanced and 2k ohms balanced. The Cadenza should be used with a power amplifier having an input impedance of at least 20k ohms if the bass is not to roll off prematurely. The bottom two traces in fig.1, for example, show the balanced response into a low 600 ohm load, -3dB at 65Hz. Into 100k ohms, however, the output is flat down to below 20Hz (fig.1, top traces). At the other end of the spectrum, the Cadenza's output was not down 3dB until a very high 175kHz. Gratifyingly, the preamplifier's extended bandwidth remained the same at all settings of the Volume and Gain controls and was the same from both balanced and unbalanced outputs.

Channel separation was excellent in the midrange and bass, but decreased at higher frequencies due to capacitive coupling somewhere in the circuit (fig.2), reaching a still good 85dB at 20kHz. The Cadenza had a low noise floor, revealed by the linearly increasing percentage of THD+N up to several volts in figs.3 and 4, which plot THD+N against balanced and unbalanced output voltage.
In the world of Digital Audio there are only Ones and Zeros

Once you audition the new P8i CD/SACD player from dCS, the number one name in digital sources, everything else will sound like a zero.

"... the best sound quality I have yet heard, not only from SACD but from CD as well”

– Stereophile March 2005 review of the dCS Reference System

Audiophile Systems
Telephone: 317-841-4100 www.audiophilesystems.com
U.S. Importers & Distributors for: Arcam, dCS & Nottingham Analogue

"I have a fair amount of experience with high-performance AC power conditioners, but the Adept Response took me by surprise. Comparing my system's sound with the components plugged into the Adept Response and straight into the wall, I heard a wide range of obvious, musically significant improvements”. Robert Harley – The Perfect Vision – Sep/Oct '05

Dealer inquiries invited PH (760) 743-1997 (800) 565-4390 www.audience-av.com
Jayson points out that the choke also "cushions" power-supply components from major fluctuations, which prolongs reliability. The audio portion of the Cadenza employs fully balanced class-A circuits. The motherboard houses the signal switching relays, local power-supply sections, and input and output connectors—a topology that keeps signal paths as short as possible. The amplification stages are handled by three custom-designed OTA gain modules, which combine dual-monolithic FET input and cascode topology to preserve wide dynamic range while minimizing the effects of power-supply variations. Jayson reckons the OTA modules "approximate an idealized gain stage." Constructed from discrete components, each module employs ultra-high-precision (0.1%), thin-film resistors (for their low noise characteristics) and is optimized for its specific application within the circuit. Jayson designed the input section to have a 1 megohm input impedance, reasoning that high impedances: 1) reduce errors at the connector contact junctions; 2) conserve the source's output drive current, which makes more of the source unit's output current available to drive the interconnects, therefore improving the high-frequency performance and transient response; and 3) preserve the balanced input's ability to reject interference if the output impedances of the signal source are not perfectly matched.

respectively. The maximum output voltages, at 1% THD+N into 100k ohms, were 15.5V balanced and 8.75V unbalanced. The Cadenza's actual distortion can be seen to lie below the noise floor until 5V or so; fig.5 plots the THD+N percentage against frequency at 5V balanced into 100k and 600 ohms. The midband distortion was very low into both impedances, and though there is a rise in THD evident above the audioband, particularly into the low impedance, this is still to a very low level.

At a 1V output level, other than the subjectively innocuous second harmonic at —104.5dB (0.0007%), all the harmonics are at the residual level of the signal generator (fig.6). The Cadenza performed similarly well when tested for high-frequency modulation (fig.7), where the 1kHz difference component lay at —96.5dB (0.0015%). DC offsets in the preamp's output were negligible.

It was a pleasure to measure such a well-engineered product as Viola's Cadenza preamplifier. Provided it is used with a power amplifier having a suitably high input impedance, it is hard to see how it could add anything adverse to a system's sound quality. —John Atkinson

MY TUBE DREAM CAME TRUE

when the VTL siegfried 800 WPC mono tube amplifiers came on the scene, finally the tonal sophistication of the best single-ended triode tube amplifiers, with the speed, power, impact and authority typical of monster solid state amps had arrived.

Recently I've begun to dream in stereo now that VTL has introduced their Reference S-400 ($20,000) two-channel tube amplifier. Identical in circuitry and appearance to the renowned Siegfried, the Reference S-400 gives up nothing to its mono counterpart in terms of sound except power. Both use VTL's new "smart-tube" technology, which allows these marvelous amplifiers to continuously monitor and adjust their performance for maximum reliability and consistency. With the Reference S-400 and the Siegfried any concern about the difficulty of maintaining tube amplifiers is eliminated.

Just as the Siegfried was the first amp good enough to reveal fully the quality of the VTL TL-7.5 Preamplifier, the new VTL TL-6.5 Line Stage ($8,500) enables the reference S-400 to exploit all of its strengths by passing musical information into it with nothing added but gain. Utilizing exactly the same circuitry as the VTL TL-7.5, the VTL TL-6.5 makes you aware of its presence in the system only through the absolute silence which accompanies changes in volume. Utter transparency, exceptional dynamics and tonal neutrality are the hallmarks of the VTL TL-6.5. Add user configurable balanced and single ended inputs, RS-232 and IR Control and near perfect reliability and I guess you could say that the VTL is the answer to a prayer...or, perhaps, a dream.
Regarding this last point, Jayson says that small differences—say, 1%—in the output impedances of the two halves of a balanced output (a not infrequent occurrence) can lead to a “significant reduction in the preamp’s common-mode rejection ratio (CMRR)—and a consequent rise in the noise level—when used with an input impedance in the conventional range of 10k ohms to 50k ohms. Not so much with high impedances,” he says.

The Cadenza’s output-stage modules employ a “special kind of compensation which preserves the phase integrity of the balanced output signal across the audio spectrum.” Translation: increased timbral accuracy and three-dimensional imaging and soundstaging. The output stage is muted during power on and off.

In addition to its stereo volume control, the Cadenza has two 11-position stepped gain switches that control channel balance and allow input sources with widely divergent output levels to be matched. Jayson placed these in the inverse feedback loop because that’s where they’re quietest.

Then there’s the volume control itself, a custom-made, stepped attenuator with 59 increments of 1dB each. It uses 0.1% Vishay film resistors, and the contact material is a high-gold-content alloy that also contains platinum, silver, and copper. The wiper contact was designed so that “external vibration does not modulate the pressure,” because that would affect the sound. This is one sexy volume control—I had to restrain myself from clicking it up and down while cackling Bwah-ha-ha-ha-ha!

An embellishment or flourish
Setting up the Cadenza was a snap. The nice, long umbilical that connects the power supply to the main chassis let me put that hefty PS down on the floor next to my equipment rack. A good thing—at 20 lbs, it weighs as much as many power amps.

The Cadenza’s balanced input let me connect the Ayre Acoustics C-5xe universal player in its best-sounding mode, and the preamp’s single-ended and balanced output options allowed me to use it with a variety of different power amps. (I had no Fischer-equipped MLAS or Cello gear on hand, so I couldn’t pursue that option.)

The Cadenza and its PS run cool, so ventilation wasn’t a big issue, though the generous vents in its top plate gave me a start one evening when I noticed they were glowing bright crimson. I walked over to the preamp and bent down to peer inside. It sure was red in there. I asked Jayson about it. “Those are LEDs. They just mean the power supply is operating correctly.”

Do they change color if it isn’t?
“No, they don’t turn on if there’s a problem—and neither does the preamp.”

Viola also supplied their 200Wpc Symphony power amplifier for the audition, because everyone there thought that was the way to hear the Cadenza. I also listened to the Coda S5, Conrad-Johnson Premier 350, Ayre V-5xe, and NuForce Reference 8 monoblocks.

A final usage note: It may seem obvious, but the absence of remote control means there’s no remote control. Duh. Deal with it—or look for another preamp. At first I suffered from Phantom Remote Syndrome, but I soon adjusted. Actually, I began adjusting loudness before I cued the music and rediscovered my old talent for getting that right—mostly. The Cadenza is a preamp for purists, but I liked it, too.

The fall or modulation of the voice
In a properly run universe, obviously, a preamplifier can’t make a whit of sonic difference. I’d like to report that I couldn’t hear a thing that the Cadenza did. I mean that literally: I’d like to report that. But it just weren’t so.

Cutting up the ReBirth Jazz Band’s “You Move Ya Lose,” from Do Whatcha Wanna (CD, Mardi Gras 1003), I was slammed into my listening chair by the sledgehammer strut of Philip Frazier’s tuba line, followed by the snare drum’s ratatatatatatatatatatatatatatatatatatatatatatatat. (Bet you didn’t know you could put a burr on a tat. Actually, I can, but ReBirth’s Derrik Tabb sure can.)

But it wasn’t just the muscular attacks, bass solidity, and vivid textures that impressed me. The Cadenza delivered ReBirth’s restless energy and sinuously shifting lines better than I’d grown used to hearing them. ReBirth is a jam band, and when it plays, it tends to buildoove over the conventional structures that normally define the songs it pours out—the guys seem to cram extra measures into these tunes’ conventional 32-bar structures. This is vividly apparent when you hear ‘em live—and this sort of fluid shifting in and out and around the form was more
VIOLA CADENZA

ful preamp—not the ACT2—proved to be the sticking point. I just didn’t have one, so I decided to use my reference preamp, the decidedly real-world Musical Fidelity Nu-Vista, which cost around $2500 when last available. No, it isn’t mass-market, but as much as I like it, it sure ain’t perfect either. Besides, isn’t that what a reference is for?

While I did feel that the Cadenza exhibited a particular synergy with its Viola Labs stamemate, the Symphony power amp, my use of two single-ended preamps in the head-to-head comparisons meant that I couldn’t use that balanced-input-only design. Level-matched comparisons were made using the Ayre V-5xe amp, which accepts both SE and balanced inputs.

Remembering the revelations wrought by the ReBirth Jazz Band’s “You Move You Ya Lose,” I listened to it again. Sure enough, the Cadenza made it hard, if not impossible, to listen sitting down. The music was rooted in my body (I probably don’t need to tell you where). I just had to get up and move, much to mention groove.

Not so much with the Nu-Vista. That tuba line was less forcefully forward and the snare was mired deeper in the mix. The sound was more mixed together—sort of like moving back 15 rows in the hall.

This was interesting, and a point that can be argued: Which better served the music? It’s an argument I’ve had in many a late-night bull session. I have a friend who insists that, at its ideal, music soothes the soul as a mother’s lullaby pacifies a child. Well, I’m all for that (hence my love of that Adagio assai in the Ravel concerto), but it seems to me that that particular argument cheats me of far too much musical expression. ReBirth ain’t about soothing you at all; it’s about making you want to boogie, even if it means that the band emits some spectacular clams along the way. The Nu-Vista let me hear those clams, but they were tamed. And tamed ain’t right.

When I say that the snare drum was mired in the mix, I’m not just referring to a sonic attribute—at least, not in the usual sense of sonic. The Cadenza had “pace and rhythm,” in Martin Colloms’ memorable phrase. The measures—those neat little boxes the music is supposed to come in—barely contain a group like ReBirth. The individual instrumental lines may all make strict metric sense, but when they’re laid out on top of one another, they weave in and out of those boxes most anachronistically—they overflow, they ooze. That creates dynamic tension (sheesh, now I’m quoting Charles Atlas). I suspect that one reason the Nu-Vista’s presentation sounds calmer is that it undersells that tension.

I’d hoped that the less frantic Pentangle and Ravel tracks might reveal areas in which the ACT2 would better the Cadenza, but the results were quite similar. The Cadenza sounded immediately and deeply rooted in music as a sensual experience, while the Nu-Vista seemed a step farther away. Time for the Conrad-Johnson ACT2.

Time for another Whoa! I hadn’t listened to the ACT2 for far too long—what a great-sounding preamp it is. And how phenomenally different-sounding from the Cadenza. Sort of.

ReBirth had me jumping. Frazier’s tuba was slamming and Tabb’s snare line was skittering all around and under and ahead of the brass’s second line. Oh, wait—that’s pretty much what I heard from the Cadenza. But they didn’t sound alike. Not at all.

The difference wasn’t timbral; both preamps were quite convincing tonally. And it wasn’t dynamic range; again, each had more shades between soft and BLAM! than I have adjectives. (I once worked it out: infinity minus one.)

For lack of a better word, the difference between the Cadenza and the ACT2 was in their presentations. The Cadenza had an in-your-face physicality that reminded me of being in the front row at a concert. Yes, the music is all around you, but it’s what’s in front of you that’s so overwhelming. The ACT2 also partakes of that physical immersion in the sound, but is perhaps less direct. Not gentler, not softer, just... different.

This became more apparent with Argerich’s Ravel. The Cadenza made me more aware of the attacks of her Steinway, while the ACT2 more completely integrated each attack into its bloom. That’s not quite right, because it sounds as though I’m saying the Cadenza shorted the bloom, which it didn’t. It was still there, but the ping of hammer on string
“Classé Audio is High-End Audio’s New Leader in a Full-line Electronics Company.” - Terry Menacker

True “status” must be earned. Classé Audio doesn’t like to boast, so we’ll do it for them. Classé Audio’s new Delta Series firmly establishes them as the leading full-line electronics company in high-end audio. If you’ve been considering purchasing or upgrading from well known brands like Krell or Levinson, you owe it to yourself to audition Classé Audio’s new Delta Series. We think you’ll reach the same conclusion we did... Classé is simply better!

Today, choosing or upgrading a quality music or home theater system requires the help of experienced professionals. For more than a decade Overture has gained the trust of our clients by only offering the “authentic high-end.” There are many famous brands you won’t find at Overture, because their performance is generated from marketing hype and not from the design of the equipment.

From the world’s finest multichannel amplifier, to the world’s first 1080P DVD player and state of the art processors, to the awe-inspiring CA-M400 monaural amplifiers, the new Delta Series firmly establishes Classé as the industry leader in a full line electronics company. Classé offers extraordinary performance, superb build quality and design, and unbeatable value. Please drop by or call 1.800.838.1812 for more information.
seemed more important than the rest of the note. No, even that sounds too black-and-white, which it wasn’t. These were subtle differences, and I got different things out of each presentation, which means that while they were minor, they might also mean everything.

I went back and forth, convinced that I had to prefer one to the other. But each time I’d start to think I did, I’d rest, then start over, and... No. They were different, but I couldn’t call one “better.” I moved on to Pentangle’s “Willie O’ Winsbury.”

I thought I’d had problems with piano! The two preamps both delivered Jacqui McShee into my living room in holographic solidity. Perhaps the Cadenza had more facets in its crystalline clarity, but the ACT2 gave me ever so slightly more glamour on her voice. Maybe.

One thing was instructive: My long-dormant need for a remote control asserted itself while I was listening to “Willie.” I grabbed the ACT2’s remote to savor the laird’s declaration: “If I was a woman as I am a man / My bedfellow you would have been.”

That’s it? That’s all I can say? The ACT2 has a remote? Well, no. There are fundamental differences between the sounds of the Cadenza and the ACT2, but they don’t relate to quality. I can’t honestly say that one is better than the other, but I also can’t say that you won’t prefer one to the other. You may well—or you may end up as confused as I am. It might come down to something as simple as how you feel about remotes. Or color. Or Whoo!

**Taken near the end of a movement**

Or cost. $16,000 is a ton of money. Even in our housing bub—er, market opportunity, that’s a down payment on a nice home. But I think we have to assume that no one seriously considering buying a Viola Labs Cadenza will have to choose between a house and a preamp. That would be silly.

But not as silly as ignoring the Cadenza if you’re shopping in that exalted neighborhood. This is a fantastic preamp, as good as any I’ve heard—and one that sent me scuttling through my music collection for forgotten gems and new discoveries alike. If you’re thinking about buying the “best” preamp out there, you’ll be selling yourself short if you don’t check out this one.

Disregard your intellect. Listen to your ears.
I've Got a Woody!

Last week, I was in bed with my wife when she whispered in my ear “what turns you on?” I thought carefully about my answer. “Finding a stash of Mullard 12AX7s! Talk about HOT!” She laughed, “Stop! Now... what REALLY turns you on?” OK... think man, think. “Uh... the Cary SLI-80 Signature, the new F1 model with all the groovy upgrades. Whew!”

According to her, I got two wrong answers. But they're right to me, and this sofa doesn't feel too bad. If you're an occasional sofa-sleeper, you're my kind of audiophile.

Here's some more woody material.

A P.S. — Don't forget. We seek out special buys and show pieces at great prices to get you back into the "big bed."

CARY SLI-80 Signature F1 Integrated Amp. In black, blue, red or green.

Exclusively at upscaleaudio.com

MUSICAL FIDELITY
A5 Integrated Amp and A5 CD player

AESTHETIX CALYPSO

CARY SLI-80 Signature Fl Integrated Amp. In black, blue, red or green.

Exclusively at upscaleaudio.com

MANLEY STEELHEAD

AESTHETIX CALYPSO

MUSICAL FIDELITY
A5 Integrated Amp and A5 CD player

PATHOS CLASSIC ONE

MANLEY STEELHEAD

AESTHETIX CALYPSO

MUSICAL FIDELITY
A5 Integrated Amp and A5 CD player

PATHOS CLASSIC ONE

TRIANGLE ALTEA Es

PATHOS CLASSIC ONE

TRIANGLE ALTEA Es

Upscale Audio retubes more high end gear than anybody. Strong attention to detail, including a $21,000 FFT analyzer and custom built test gear. Names like Mullard, Telefunken, Siemens, Svetlana... you name it. See pictures on our website! And remember... we DO NOT use your amp as a tube tester.

IN STOCK NOW: ACOUSTIC ZEN, AESTHETIX, AHU, JTOEB, ANTHEM, ARCAM, ATMA-Sphere, Audio Electronic Supply, Avantgarde, B&K, Balanced Audio Technology, Benz Micro, Cary, Chang Lightspeed, Clearaudio, Coincident, DH Labs, ERA, Equitec, ExactPower, Fanfare, Gallo, Graham, Kimber Kable, Magnum Dynalab, Manley, Music Hall, Nitty Gritty, Nordost, Nottingham, Opera, Pathos, Primaluna, Primare, PS Audio, PSB, Rega, REL, Sonus Faber, Triangle, Unison, VPI, Vienna Acoustics

www.upscaleaudio.com

2504 Spring Terrace • Upland, CA 91784
(909) 931-9686 FAX: (909) 965-6966
MANLEY Steelhead Reference Phono Stage
The most flexible phono preamp ever designed. It will work with the lowest output moving coil and the most robust moving magnet cartridges. Includes line input.
Power supply not shown.
S STEELHEAD $7,300

ACOUSTECH PH-1P Phono Stage
The PH-1P has received a coveted "Class-A" rating in Stereophile's Recommend Components, plus most of the "Class-A" competition costs several times the AcousTech's asking price.
S PH1P $1,500

SUTHERLAND Ph.D. Phono Stage
Hear the music, not the noise with the battery-powered Sutherland Ph.D. (Call Clark or Stelly at 1-800-716-3553 about trade-ins.)
S PHD $3,000

SUTHERLAND Director
Performance, price & innovation; those are the key ingredients that made the Ph.D. a smash success. Now, designer Ron Sutherland has applied that same recipe to this unique new line stage. Call Clark or Stelly at 1-800-716-3553 for more information.
S DIRECTOR $3,000

LYRA Titan i
The flagship model from Lyra and replacement for the Parmassus D.C.T. The Titan i is also the most advanced cartridge that Lyra has ever made.
S LYTITAN $4,500

CLEARAUDIO Emotion
The Emotion turntable possesses all the qualities of a high-end analog turntable. High-value, carefully-selected materials, excellent technical attributes, an elegant appearance and the design philosophy derived from reference-quality products. Computer controlled Clearaudio-machined parts made in their German factory.
S EMOTION $1,000

VPI Scout
Packaged with a unipivot JMW-9 tonearm, the Scout is an outstanding rig at a very reasonable price.
S SCOUT JMW9 $1,650 (with tonearm)

VPI Scoutmaster
The Scoutmaster combines key features from several of VPI's most successful tables.
S SCOUTMASTER $2,500 (with JMW-9 tonearm)

VPI Super Scoutmaster
All of the features of the Scoutmaster (dual plinth, inverted bearing, JMW-9 tonearm) but with the addition of the HR-X dual motor assembly, periphery ring clamp and SDS speed controller. This is one killer turntable!
S SUPSCTMAST $5,200 (with JMW-9 tonearm)

VPI TNT HR-X
The HR-X is a souped-up TNT. This monster features a triple-laminated chassis, an integral air system which rejects 98 percent of acoustic feedback, and an inverted main bearing that incorporates a steel ball running on Teflon. The drive system uses two low-powered 24-pole motors driving a seven-pound flywheel, and the power supply provides a pure AC signal. The clamping system centers on the platter rather than the record, giving you vacuum-like coupling. And if that ain't enough, this baby comes with the world-class JMW-12.5 tonearm bolted directly to the chassis for ultimate rigidity and easy adjustment.
S VPI TNT-X $10,000 (with tonearm)
THE DISC DOCTOR Miracle Record Cleaning Kits
Kits contain 12" LP-sized applicators (Type A brush) plus cleaner.

S PTKT-A $65.50 (Pint Kit)
S QTKT-A $78.25 (Quart Kit)
S 1/2KT-A $100.75 (1/2 Gallon Kit)
S 1GKT-A $154.50 (Gallon Kit)

SENNHEISER HD650
Sennheiser has taken the incredibly popular HD600 headphones and given them the ultra-audiophile treatment. The HD 650 is the ultimate in open-air, dynamic headphone design.
S HD650 $499.99

X-CAN V3 Headphone Tube Amplifier
This is an improvement on their already-excellent headphone amp, the X-CANS. This product now raises the standards of excellence in tube-based audio components.
S MFXCAN V3 $399.95

ZERODUST Stylus Cleaner
The Zerodust cleans your delicate stylus without using brushes or fluids. It will extend stylus life and enhance fidelity, and it can be used indefinitely.
S ZERODUST $69

AUDIOQUEST Record Brush
Over one million polished carbon fibers gently remove particles of dirt from record grooves. Works on LCD screens & keyboards, too!
S AQ BRUSH 620 $20

RGPC 600S
Offering all the same striking good looks and benefits of the larger RGPC 1200S at a more attractive price, the RGPC 600S is perfect for the more budget-conscious audio/video enthusiast with a smaller system.
S RG 600 (Black) $1,395
S RG 600S (Silver) $1,395

VPI HW-16.5 Record Cleaner
VPI's most affordable record cleaning machine, but neither its build quality nor its cleaning power has been compromised. Clean your records with the HW-16.5 and hear what you've been missing.
S VPI 16.5A $499.99

CAYIN A-88T/KT-88 INTEGRATED/POWER VACUUM TUBE AMPLIFIER
• Classic McIntosh MC-275 Sound
• 22 Watt Triode / 45 Watt Ultralinear*
• Remote-controlled
S A-88T/KT-88 $1,895
* switchable via Remote Control

Acoustic Sounds will not sell Richard Gray products in areas where there is already a Richard Gray dealer.

VPI HW-16.5 Record Cleaner
Introductory price of 10% off all Cayin products until the end of 2009
30-day money-back guarantee
Warranty: five years (parts); three years (labor); 90 days on tubes
Italian wine. Italian fashion. Italian food.

Italian furniture. Italian shoes. Italian sport cars.

Italian jewelry. Italian art. Italian coffee.

We also know a thing or two about music...

“The Pathos Acoustics Classic One is one of the finest-sounding amps I have ever heard, of any era, from anywhere — including amps costing $20,000 and more…” — Sam Tellig (Vol 26/No.11) Stereophile, Class A Integrated amplifier, $2,295

US distribution:
Musical Surroundings
5662 Shattuck Ave.
Oakland CA 94609
tel: 510•547•5006
fax: 510•547•5009
www.musicalsurroundings.com

International:
amer@pathosacoustics.com
Musical Fidelity
kW & kW750
HYBRID LINE PREAMP & POWER AMP

Not every audiophile needs an amplifier powerful enough to tax a small town’s power grid while simultaneously draining his or her bank account. So, having quickly sold out of its ultra-limited-edition, extravagantly powered and priced combo of kW preamplifier ($14,995) and kW power amp ($27,995) that I reviewed in January 2004, Musical Fidelity set about capitalizing on the enthusiastic reviews earned by those giants with less expensive, less powerful, “real-world” replacements.

At $4500, the kW Hybrid preamp isn’t exactly inexpensive. Nor is the kW750 stereo amplifier that much less powerful, being conservatively rated at 750Wpc into 8 ohms (or 1100Wpc into 4 ohms). But at $10,000, the kW750 is considerably less costly than the 1000Wpc kW. And because the kW750 is two mono amplifiers packed into a single chassis, it guarantees that at least some carpet will show between your speakers. Make no mistake, though: the kW750 is still a big, heavy brute weighing 75 lbs—and that doesn’t include the 47-lb outboard power supply. It does, however, fit on a standard equipment rack. The power supply requires an additional 11" by 14" of floor or rack area and another 7" of height—a
Perfect System Balance at Upscale Audio. $80

Perfect focus and tonal balance is often best achieved by just a gentle nudge...

The revolutionary Cary CD303/300 will adjust to your CD’s, your gear, your room, and your tastes.

**Color** / Push a button on the remote, and shift to tube output stage. Two distinct flavors. For real fun, visit upscaleaudio.com where you’ll find super-sexy, vintage, NOS (New Old Stock) 12AU7 tubes. Mullard, Siemens and many others, premium selected for $80 a pair and less. Just plug in. No adjustments.

**Warmth** / 24-bit upsampling and six selectable filter rates to 768 kHz allow you to fine tune the “temperature” via remote. Find a setting you like? Leave it. Get different speakers? Or maybe a new recording that is a little too... uh... digital? Change it. No rules. You choose.

**Data, durability, and flexibility** / True balanced design throughout with XLR and RCA outputs. Using the built-in audiophile grade remote volume run it with or without your preamp and compare performance. The special commercial grade ROM drive makes multiple laser passes for maximum data retrieval and unparalleled dependability. A first on any CD player we’ve encountered.
lot. But compared to the three-story edifice of the kW, whose power supply alone weighed 94 lbs, the kW750 is almost petite.

After reviewing the original kWp and kW, I bought the review samples. Though I could have lived without the kWp's cartoony looks and the kW's ungainly, boxy clutter, I'd fallen in love with their effortless sound. I also figured that I'd then have a power amp beefy enough to drive any loudspeaker I might get for review. That has proved to be the case; soon thereafter, mbl's hideously inefficient 101s arrived (see review in the October 2004 issue). I also knew that, had I passed on the kWp-kW combo, the opportunity to own them wouldn't come again soon— if at all—as they were very limited editions (only 75 sets were made).

You'll face no such buyer's remorse should you hesitate to run out and plunk down your $14,500 to buy the kW and kW750 immediately after reading this review: their production runs are not limited. If you come, Musical Fidelity will build it—not forever, but at least for the foreseeable future.

**MEASUREMENTS**

The Musical Fidelity kW Hybrid preamplifier offered a sensible maximum gain of 12.5dB, this sourced from a very low impedance of less than 1 ohm across the audioband (including the impedance of 6' of interconnect). The preamp preserved absolute polarity. The input impedance was lower than specification at a moderately high 41.5k ohms at low and middle frequencies, dropping slightly to 36.5k ohms at 20kHz. The volume control demonstrated excellent channel matching at the top of its range, but at 12:00, where it would more likely be used, there was a channel imbalance of 0.4dB (fig.1). Note the extended ultrasonic response in this graph, which was not affected by the load impedance. However, the -3dB point did increase, from 126kHz to 162kHz, at the maximum setting of the Volume control, though this will have no subjective consequences. Channel separation was excellent at middle and low frequencies, but was degraded by capacitive coupling to an okay 65dB at 20kHz (fig.2).

Noise levels were very low, even with the Volume control at its maximum—1 measured an unweighted, wide-band signal/noise ratio of 82.5dB ref. 1V output—but distortion was even lower. This was revealed by the linearly decreasing level of THD+N below 10V output in fig.3. (Because the measured THD+N percentage is dominated by a constant level of background noise, it drops as a percentage as the output level increases.) Only at around 10V output level (!) does the distortion start to rise above the noise floor. You can see in this graph that the traces for 100k, 10k, and 1k ohms overlay each other. The Musical Fidelity's output stage is effectively immune to loading effects. Note also that the traces stop well short of clipping at an astonishing 54.7V output voltage, which is where my Audio Precision System One's signal generator reached its maximum output of 15V. The kW Hybrid has...
This gorgeous hand-crafted line of tube gear comes from a Chinese aeronautics company that happened to have a couple of audiophile higher-ups. So, back in 1993, China National Aero-Technology took an interesting turn and began designing and manufacturing audio equipment under the name of Cayin, and Acoustic Sounds is thrilled to have been named their exclusive mail-order dealer. Cayin products have only been available in the United States for a few years. Believe us, these folks have taken their designs very seriously, a quality you'd hope for from people charged with making airplanes. These pieces are meticulously hand-crafted. They look **ABSOLUTELY CLASSIC.** They're **REASONABLY PRICED.** And they **SOUND FANTASTIC.** This is a very exciting acquisition for the Acoustic Sounds catalog. Give us a call, and let us tell you more.

**Introductory price of 10% off all Cayin products until the end of 2005**
**30-day money-back guarantee**
**Warranty: five years (parts); three years (labor); 90 days on tubes**
**These Cayin products are remote-controlled**

**A-501/EL-34** $1,195
INTEGRATED EL-34 VACUUM TUBE AMPLIFIER
- Classic Dynaco Stereo 70 Sound
- 16 Watt Triode / 35 Watt Ultralinear*

**A-881/KT-88** $1,895
INTEGRATED/POWER VACUUM TUBE AMPLIFIER
- Classic McIntosh MC-275 Sound
- 22 Watt Triode / 45 Watt Ultralinear*

**CDT-17A** $1,795
2 CHANNEL - 4 TUBE AUDIOPHILE CD PLAYER
- 4 (6922) Tube XLR Balanced Output
- Dual Toroidal Power Transformers

**SCD-50T** $1,795
2 CHANNEL TUBE/TRANSISTOR SACD PLAYER
- Super Audio CD Player
- Transistor and Tube Output

* switchable via Remote Control

"The Cayin 881 is the first integrated amp I have ever had in my system that sounds so good I have absolutely no desire to go back to the big mono block amps and the preamp. In fact, in many ways, the Cayin sounds better!" — Harry Weisfeld, owner of VPI Industries

www.acousticsounds.com 1-800-716-3553
source selected and the status of the On/Off and Mute controls. As with the kWp, LEDs built into the kW's feet glow yellow on turn-on, blue when the unit has warmed up, and red when the preamp is muted. The kWp's Flintstones-sized rectangular aluminum remote—heavy enough to break a toe or crush a jewelbox if dropped from armrest height—is gone, replaced by one of lightweight plastic. Though the full-featured remote is ergonomically laid out, I wonder if anyone at MF tried using it in normal room lighting. Most of the time I found it impossible to read the pale, silk-screened letters that identify the source buttons.

While the kW's RCA output and tape-monitor jacks are chassis-mounted, the input and tape-monitor jacks protrude through holes in the rear panel, indicating that they are mounted directly to the board. While this was probably done to keep the retail price down, this construction method also shortens signal paths, which is a potential benefit.

**Preamp or small power amp?**

With its output of more than 62V RMS peak and 4.5 amps, the kW is capable of producing nearly 20W RMS into 8 ohms—not that you'll want to, or be able to use the kW Hybrid as a power amp. In practical terms, these numbers mean that it will be virtually impossible to overdrive the kW. With a claimed line input impedance of 500k ohms and an output impedance of less than 0.5 ohm, the kW presents sources with an easy load to drive and offers similar ease to the accompanying power amplifier. Like the kW750, the kW Hybrid is single-ended only.

The kW's low-feedback hybrid circuit includes a tiny "Mu Vista" (6112) vacuum tube in each channel's driver stage. This tube must be ultraquiet—the kW's specified signal/noise ratio at 1V RMS output is greater than 105dB (A-weighted at half volume). The tube must be long-lived, too: it's soldered in place. The THD+noise is said to be probably the highest dynamic-range capability of any preamplifier I have measured, more even than MF's own kWp.

I plotted the percentage of THD+N against frequency in the preamp's output at a 10V output level (fig.4). The result hovers at the 0.001% level throughout the bass and midrange but begins to rise above 1kHz, reaching a still low 0.08% at 50kHz, due to the preamp's circuit running out of gain-bandwidth margin in this region. Note also that the traces for a 600 ohm load overlap those for 100k ohms, again showing that the kW's output stage is not fazed by low loads.

The kW Hybrid offers extraordinarily low levels of distortion at the more modest output levels typical of those found in normal operation. Fig.5 shows a spectral analysis of the preamp's output while it drove a 1kHz tone at 1V into 8k ohms. The measured THD (true sum of the harmonics) was just 0.0004%! The only harmonics that can be seen are the third and fourth, lying at the residual level of my National Instruments signal generator; and the second, at -110dB, which is only just above the residual level. Intermodulation distortion was also very low (fig.6).

Regarding dynamic range, linearity, and the ability to drive low impedances, this is an extraordinary preamplifier. Turning to the Musical Fidelity kW750, I preconditioned the amplifier by running it at 250W into 8 ohms for about 35 minutes, by which time my dummy load was too hot for safety. (It was also when the amplifier's illuminated feet changed from orange to blue.) The kW750's chassis and heatsinks were very hot, implying that they are only just large enough to pass the FTC heat test. The THD+noise at
**PROLOGUE ONE** $1095

- Integrated Amplifier

Hand made with the finest point-to-point wiring and workmanship equal to—or better than—any product you can buy at any price.

- SoftStart™ and advanced conservative design provides extended tube life.

- Premium parts featuring fully-vented ceramic sockets; Nichicon and Realcap capacitors; WBT-style speaker terminals; ALPS volume control; and gold-plated input jacks.

- Adaptive AutoBias™ (a PrimaLuna exclusive) reduces distortion 40% to 50%. No need for matched tubes or bias adjustments.

- EL34 Output tubes, 35 wpc.

“Lustily, heartily, and enthusiastically... recommended.” — Art Dudley [RECOMMENDED COMPONENT] February 2005

“How does it sound? Bitchin’, that’s how it sounds.”

— Jeff Dorgay *The Absolute Sound* December 2004

---

**PROLOGUE THREE** $1295

- Preamplifier

- True dual mono design with two toroidal transformers, choke regulation and two 5AR4 rectifier tubes.

- Point-to-point wiring and premium parts, including Solen capacitors and ALPS Blue Velvet potentiometer.

- Wide bandwidth (4Hz to 85 kHz) for true bass, glorious highs and mids, and all the magic of tubes.

- Mates perfectly with tube or solid state power amps. Two sets of line outputs.

---

**PROLOGUE TWO** $1345

- KT88s & Solen Caps

- 40 wpc Integrated Amp

**PROLOGUE FOUR** $1045

- Zero Negative Feedback

- 35 wpc Power Amp

**PROLOGUE FIVE** $1295

- KT88s & Solen Caps

- 36 wpc Power Amp

All PrimaLuna products are available with black or silver faceplate and include a quick-release tube cage.

www.upscaleaudio.com

2504 Spring Terrace • Upland, CA 91784

[909] 931-9686 FAX: [909] 965-6969

World Radio History
MUSICAL FIDELITY kW & kW750

less than 0.0068% (5V output, maximum volume), and MF claims a frequency response of 20Hz–30kHz, ±0.5dB. The proverbial “straight wire with gain”?

kW750 dual-mono amplifier

Styled to complement the kW, the single-ended kW750 has an attractive and understated appearance and is remarkably compact for its power rating. Its rear-panel facilities consist of two pairs of gold-plated, multiple-termination binding posts, input and loop output RCA jacks, and a 20 amp IEC AC jack.

With almost unlimited reserves of power and ultra-high current, the kW750 would seem capable of driving any speaker ever built without sounding strained, never mind going into clipping, no matter the volume. When I spoke with Musical Fidelity’s reliably excitable founder and CEO, Antony Michaelson, he was that and more. While the kW750 can’t match the original kW’s output, it comes pretty close, though Michaelson was quick to point out that there’s still a substantial difference in dynamic headroom of 1.5dB between the two behemoths. That said, few if any amps ever made will be able to match the power output of either of them. 

"[The] kW amps are capable of even greater dynamic swings," Michaelson told me, “and when John [Atkinson] measures it, I’m sure he’ll find that the kW750 can’t match the original kW’s output capabilities into low-impedance loads, because we used smaller transformers in the power supply. But 1100W into 4 ohms (vs the kW’s 1800W) is still beyond the capabilities of most other amplifiers.”

“In practical terms,” I asked him, "will I hear a difference?"

“I think you will,” he said. “Perhaps not in terms of power, but the sound, particularly in the top octaves, should be smoother and more refined. We’ve learned a thing or two since we designed the kW, especially when it comes to circuit layout. We’ve shortened the signal path and changed some

**measurements, continued**

this power level was 0.02% with the amplifier cold, dropping to 0.013% after five minutes, 0.01% after 15 minutes, and returning to 0.017% after 25 minutes. The THD percentage then slowly moved back and forth between 0.012% and 0.017% with a time constant of around three minutes. I doubt that this is meaningful, but I thought it worth noting.

The Musical Fidelity’s voltage gain into 8 ohms measured 30dB, a little higher than usual. Its input impedance was 21k ohms across the audioband, lower than the specified 100k ohms, and the amplifier was noninverting. The output impedance was relatively low for a bridged design (though high for a solid-state amp), at 0.2 ohm in the bass and midrange, rising slightly to 0.3 ohm at 20kHz. The interaction between this impedance and that of our simulated loudspeaker resulted in ±0.25dB of frequency-response variation (fig.7, top solid trace at 2kHz). Fig.7 also reveals a slight (0.15dB) imbalance between the channels.

The kW750 has a wide small-signal bandwidth, the response being –3dB at a very high 141kHz. This was into 8 ohms; the bandwidth decreased slightly with decreasing load impedance. Into 2 ohms, for example, the –3dB point lay at 53kHz, associated with an output down 0.75dB at 20kHz. The wide bandwidth resulted in superb squarewave reproduction, with short risetimes and no overshoot or ringing. Fig.8 shows a 10kHz squarewave into 8 ohms, for example. Channel separation (not shown) was better than 100dB below 2kHz, but decreased above that frequency to reach 80dB at 20kHz. Background noise was superbly low, the A-weighted signal/noise ratio measuring 96.9dB. The
of the parts. Distortion is measurably lower without increasing feedback—though the kW’s distortion was low to begin with.”

So this new amp, which costs less than half as much as the kW while providing three-fourths of its power, will also sound better? We’ll see . . .

Assessing the sound

Given its high overload margins, ultra-low noise, low distortion, wide bandwidth, and flat response, the kW had the potential to be as close to a straight wire with gain as a preamp can be. Still, the distinctive sonic consequences of the tubes remained to be heard, and I couldn’t help but note that the kW’s channel separation was rated at >84dB compared to my reference kW’s >110dB. Rather than beginning by auditioning the two pieces separately using my reference amp and preamp as a control, I chose to first listen to the new combo together, figuring most buyers will opt for both.

So out went the kWp and the original kW power amp and in went the new kW Hybrid preamp and kW750. That was more difficult than it sounds. Wilson Audio Specialties supplies a floor jack with their massive MAXX2 loudspeakers. Musical Fidelity should offer a cable with the original kW.

Out of the boxes and cold, the new kW and kW750 indeed presented a sonic picture somewhat different from what I’d become accustomed to from their predecessors. While much solid-state gear can sound chilly, clinical, and brittle on first power-up, the kW and kW750 were anything but. They sprang to life rich, full-bodied, and sweet, yet also detailed and reasonably fast. And that’s how they sounded throughout the months I kept them in my system.

The duo’s upper-octave performance was noticeably richer, more refined, and less aggressive than my reference but also somewhat mellow, and instrumental separation was not quite as pronounced. The presentation was more tube-like, though not at all soft and smooth—over in the way of some solid-state designs that are intended to sound like tubes. Transients were satisfyingly fast, never flaccid or repressed, but faster rides are available. The midrange presentation was about as delicate and neutral as you could want—or at least as I could want. Whether it was the tube in the preamp or something else, the combo never sounded transistorized or mechanical. String tone was on the

unweighted, wideband figure was lower, of course, but was still excellent at 78.9dB. Given that these ratios are referenced to 1W into 8 ohms and the amplifier is specified as delivering 750W of unclipped power, or 28.75dBW; into that load, the kW750 has an extraordinary dynamic range—better than 16-bit digital, for example.

Fig.9 shows how the THD+N percentage changes with output power. The amplifier clips (1% THD) at 750W into 8 ohms, to specification. I got slightly lower power into 4 ohms than specified with both channels driven—1010W (27dBW) rather than 1100W—but my AC line voltage had sagged appreciably at this point, from 125V to 119V, even though my test lab is powered from a dedicated 20A line. The shortfall in power is inconsequential. And into 2 ohms with one channel driven, the kW750 delivered 1350W (25.3dBW), the wall voltage again dropping to 119V.

The minima in the fig.9 traces between 6W and 8W suggest that below this level, any distortion in the amplifier’s output lies below the noise floor. I therefore ran my

plot of THD+N against frequency at 10V rather than the usual 2.83V (fig.10). The usual small rise in THD above the audioband is evident, but more interesting is the difference in behavior between the channels. The right channel hardly changes its very low level of THD+N between 8 and 4 ohms (dotted traces). In contrast, the left channel’s THD+N (solid traces) increases each time the load impedance is halved, though not to any extent that might be thought subjectively significant.

Figs. 11 and 12 show that this increase is associated with a change from predominantly second-harmonic distortion to third-harmonic as the output current doubles. But even at very high powers, the harmonics don’t rise to a level that might be audible. Fig.13, for example, shows the spectrum of the amplifier’s left output while it drives a 50Hz tone at 750W into 4 ohms. The third harmonic is still the highest in level, but it lies at just −71dB (0.029%), with the second harmonic at −80dB (0.01%). The next
lush side, but not to the point where massed violins turned to mush.

At the other end of the spectrum, amp and preamp offered rich, deep, and slightly underdamped (but not "fat") bass. Well-recorded kick drums had pleasingly weighty and elastic textures, and if the kW750 erred every so slightly in favor of a "thick" bottom, I’ll take that over polite, overdamped, and hyperdetailed—as if the initial strike was more important than the consequences. I don’t want a kick drum or an electric bass to sound "polite"—I want it to appropriately kick ass!

If anything, the Wilson MAXX2's high-frequency presentation and their ability to express air are somewhat repressed compared to those of some other speakers I’ve auditioned, yet I never wanted more of anything on top when playing familiar recordings that are particularly spacious and airy. There seemed to be a slight lessoning of cymbal shimmer and string pluck compared to the kWp-kW combo, but some regular listeners here think that combo sounds slightly bright and sporty. Only with a few rock recordings did I wish for more splash and sizzle than the kW and kW750 delivered. Most of the time I found their top natural, fast, extended, and sufficiently airy. Aggressive recordings sounded aggressive, but somewhat dull ones were never suffocated.

Cisco’s fabulous reissue of June Cristy’s sultry Something Cool (LP, Capitol/Cisco), from 1956, proved the combo to be supple, delicate, and detailed performers. The recording of Cristy’s voice is nearly ideal, the former singer with Stan Kenton’s big band close-miked and unprocessed. Though it’s monophonic, the recording carves out intricate layers of instrumental detail and produces subtle microdynamic gradations of voice and instruments. Cristy was cleanly presented well in front of the musical backdrop with convincing three-dimensional solidity but without being clinically delineated in space. I could easily hear her making small adjustments to her volume and her distance from the microphone. Pete Rugolo’s playful, almost campy arrangement of the title tune floated on a velvet cushion, neither strident nor muffled. My recollection was of a bit more edge and perhaps a hint of vocal spotlighting through the kWp and kW. This was better. While the new combo didn’t produce the midrange bloom and airy delicacy of a great tube system, it did float remarkably graceful, effervescent,

highest in level, the fourth harmonic, is at just –94dB (0.002%), and despite the high power, there are no AC supply-related spuriae in evidence. I have measured pre-amplifiers with higher distortion.

Intermodulation distortion, revealed by a spectrum taken just below visible waveform clipping on the oscilloscope, was also low (fig.14), but some low-level sidebands at ±120Hz are now evident around each spectral tone, suggesting that the amplifier’s power supply is starting to break a sweat under these very demanding conditions. I always stand well away from an amplifier when I perform this last test: clipping a high-power amplifier into 4 ohms with a mix of 19kHz and 20kHz tones often blows fuses and sometimes blows output devices. The kW750, however, was unruffled by this mistreatment.

I was very impressed by the Musical Fidelity kW750’s exemplary behavior on the test bench. I might well give it a workout in my listening room before returning it to the distributor.

—John Atkinson
images that never sounded wiry, hard, harsh, thin, or overly analytical, though those preferring a faster, more stiffly tuned presentation might describe the kW750 as being tilted toward the bass, and somewhat sluggish from there up in order to make the sonic picture cohere. Not I—this sort of presentation suits my tastes far better than what I've heard from Mark Levinson, Krell, Hal-cro, or Theta amps, which tend toward the cool, the analytical, the tight-fisted. Your tastes may be otherwise.

The better tube amps I've heard deliver bass weight and authoritative textures managed by few if any solid-state amps, with speed and control usually taking hits. Most solid-state amps err on the side of precision and taut-ness while giving up bass weight and depth. The kW and kW750 neatly walked the line between the two, producing believable weight, texture, and control. The Wilson MAXX2's bottom end is the best I've heard from any speaker, especially in terms of extension and control, and in this regard I heard no differences between my MF reference and the new combo. Both drove the MAXX2s' bass bins with spectacular ease and control.

Minimally miked two-channel recordings, such as David Chesky's stupendous-sounding Area 31 (SACD/CD, Chesky SACD288), were slightly more laterally compact than I recollect their sounding through my references. Though my references and the review pair produced equally convincing stage depth from familiar favorites, the former were consistently better able to separate individual images in space—though some would say at the expense of ultimate transparency and image palpability.

Are you lucky enough to own an original stereo "six-eye" pressing of The Sound of Jazz (LP, Columbia CS 8040), a studio recording made the day after a December 8, 1957, live CBS TV broadcast starting veteran and modernist jazz greats including Billie Holiday backed by Mal Waldron, Lester Young, Coleman Hawkins, Ben Webster, Doc Cheatham, and Jo Jones, and a big band led by Count Basie including many of the above? If so, you'll love hearing it through these electronics. Through the Wilson MAXX2s, this fabulous 30th Street Studios recording arrays the musicians dramatically in a great U-shaped soundstage. The sound is imbued with that convincing breath of life: the brass sound metallic yet feathery, as you hear live; woodwinds sound reedy, yet with an overall mellowness. The mid-bands delivered by the hybrid kW and solid-state kW750 was fully fleshed out, almost tubelike, with a complete absence of etch, grain, or harshness—but again, I've heard other amps stretch the "ether" out of which this musical activity emanates more tightly, yielding a faster, more agile presentation.

My overall impression of the combination of the kW and kW750 was of a rich, buttery musical presentation that was not at all smothered or starved on top for air or transient speed. I can't imagine anyone not responding enthusiastically to the pair's overall performance, though those seeking a faster, tighter, somewhat brighter, more damped sound might not respond as enthusiastically.

My sense was that anything much faster and tighter than the kW and kW750 would sound less like live music and more like "hi-fi," but I'm sure different speakers and source components would yield different results. But needless to say, with 750Wpc on tap—and given Musical Fidelity's admirable track record of meeting published specs, I don't doubt that claim—the dynamic range was limitless, and the kW—kW750's effortless presentation almost matched that of the even more powerful kWp-kW's.

kW Hybrid Line Stage out
To sort out the contributions made individually by the kW and kW750, I needed to remove them one at a time. Having the Manley Labs Steelhead phono preamp ($7300), which has a volume control and a line-level input, made getting the kW line stage out of the way easy: I ran Musical Fidelity's kW SACD player into the Manley and ran the Manley's variable output directly to the kW750. Now, only its volume control separated the Manley's circuitry from the amplifier. With the kW Hybrid line stage out of the circuit, previously played LPs sounded somewhat different, but much to the kW's credit, not dramatically so—especially in terms of all-important transparency.

The biggest differences were at the very top and bottom. The bass became somewhat more supple, though, surprisingly, attacks seemed slightly softer and less assured. The upper mids to highs seemed ever so slightly more recessed yet more graceful and delicate, and transients lost a bit of edge. Whatever the differences, they were so minor that, after I'd listened to the system for a few minutes, with and without the kW Hybrid, they quickly fell between the sonic cracks and were lost; I'm not sure which presentation was "better" or more accurate. Whether these differences improved or hurt the final picture will surely depend on the associated gear—that's how essentially transparent and colorless the kW was. If you want your preamp to add "soul" or sprinkle "magic dust" on your system, the kW won't do it.
"In the world of 'Ultra High-End Audio', MIT's Overture Oracle Maximum Articulation speaker cables and interconnects blow the competition away; it's not even close." – Terry Menacker, President of Overture

Overture Oracle MA cables are available exclusively from Overture. Hear them with the world's finest components in our state-of-the-art listening rooms. For more information, please call 1.800.838.1812.

There is sound I've dreamed of for more than forty years. My long time friend and associate, Bruce Brisson, suggested a joint effort between our two companies. The plan was to use Bruce's and MIT's engineering expertise and to do the critical listening in Overture's 2C3D sound rooms. There was no time limit and no cost restrictions. The goal: create the world's most advanced audio cables.

The results are in, and I can say that the "Overture Oracle MA" cables offer the serious listener an entirely new listening "experience." They are the best, and by a huge margin. The listener enters the "realm" of the artist. The realism is breathtaking. Dimension, clarity, tonality and dynamics are unprecedented. Overture Oracle MA is the "ultimate" audio cable. I'll stake my reputation on it!

Overture
ULTIMATE AUDIO/VIDEO
2423 Concord Pike (Rt. 202)
Wilmington, Delaware
302.478.6050 • 800.838.1812
No Sales Tax in Delaware
USE A TRANSISTOR, GO TO JAIL.

Made in the U.S.A. by the premier tube hi-fi manufacturer in the world. Point-to-point wiring, premium parts, and dependable.

SIX PACS MONOBLOCK POWER AMPS

$2400 pr

50 Watts RMS, 110 Watts PEP, all triode. Feedback switchable on or off.

AE-3 DJH Signature $1200

Bring your $8,000 preamp to compare and get ready for a spanking. We're not kidding. Direct coupled, Jensen oil and copper caps, tube rectified, Noble potentiometer. Works perfect with even the whackiest amps.

PH-1 Phono $599

All tube phono stage. Point-to-point wiring. Super quiet.

AE-3 and SIX PACS available with silver or black faceplates.

IN STOCK NOW: ACOUTIC ZEN, AESTHETIX, AN: TJOER, ANTHEM, ARCAM, ATMA-SPHERE, AUDIO ELECTRONIC SUPPLY, AVANTIAGE, B&K, BALANCED AUDIO TECHNOLOGY, BENZ MICRO, CARY, CHANG LIGHTSPEED, CLEARAUDIO, COINCIDENT, DH LABS, ERA, EQUITECH, ExactPower, FANFARE, GALLO, GRAHAM, KIMBER KABLE, MAGNUM DYNALAB, MANLEY, MUSIC HALL, NITTY GRITTY, NORDOST, NOTTINGHAM, OPERA, PATHOS, PRIMALUNA, PRIMARE, PS AUDIO, PSB, REGA, REL, SONUS FABER, TRIANGLE, UNISON, VPI, VIENNA ACOUSTICS

www.upscaleaudio.com
2504 Spring Terrace • Upland, CA 91784
(909) 931-9686 FAX: (909) 985-6968
Switching to digital through the Manley's Line In input yielded more of a difference. While the Steelhead's signal/noise ratio is impressive for a tube product and I didn't hear its higher noise floor as noise per se, it can't match the kW's dead-quiet backgrounds. Playing pure DSD recordings, I noted (or imagined) a slight loss of low-level dynamics when I bypassed the kW and ran the SACD player through the tubed gain stage. And while I preferred SACD/CD through the kW Hybrid line stage, the Manley Steelhead's impressive performance (add Manley's $900 Skipjack line-stage switcher to increase input choices) was something potential buyers ought to consider when factoring in its high price ($7300).

Next I inserted my reference, two-box kWp preamp, which cost $12,000 compared to the kW's $4500. While I can't say it was more than twice as good, the kWp took my system to a new level—especially spatially. Whether the "improvements" were additive distortions or the result of the kWp's ability to pass the signal with greater transparency while driving the amplifier more effectively, only an oracle or an over-stuffed know-it-all audio reviewer can say with confidence. I can say that in my system the kWp produced a somewhat more expansive soundstage, extending its dimensions in all directions and adding or revealing more air and shimmer to the upper octaves, as well as seemingly finer gradations of attack and decay. (This was perhaps partly due to the kWp's greater channel separation, though for analog, >84dB is more than enough.) It added a level of musical and sonic excitement I wasn't expecting, given my long-term listening satisfaction with the kW Hybrid.

That said, the newer combo still sounded somewhat more mellow than the kWp-kW combo.

kW750 out

Finally, after months with the kW750, I once again fired up the 1000Wpc, three-box kW amplifier (and yes, I dutifully switched back to the kW line stage, then replaced it with the Manley). Before doing so, I spent a few days listening to large-scale symphonic works. Recordings with wide dynamic swings might let me know if 250 additional watts per channel—more than most amplifiers deliver to begin with—could possibly produce greater dynamic scaling. The kW750 was already loafing along, laughing at the most dynamic DSD recordings I could throw at it. Yet when I inserted the big monsters and their 1.5dB of additional dynamic headroom, the picture seemed to open up yet again, producing an even greater sense of overall sonic ease while delivering even more prodigious macrodynamic bangs.

I'm talking about performance at the outer edges here—performance that requires big speakers capable of playing very loud and handling enormous amounts of power, such as the Wilson MAXX2. But more than ever, I'm convinced that if you want to reproduce in your home a concert-hall dynamic reality that is liberated from sonic strain and hints of congestion, you'll need more power than you think.

Conclusions

The kW Hybrid Line Stage is an easy call. Overloading it would seem to be impossible. It's as quiet a preamp as I've heard, and whatever changes it made to the music fed it were so minor as to be inconsequential. Operationally, it was flawless.

As for the kW750, back in August I attended and participated in a two-day open house at Seattle's Definitive Audio. It was a great chance to meet with subscribers and encourage the rest to start reading Stereophile. The timing couldn't have been better: the store was hosting Wilson Audio, B&W, Classé, Halcro, Musical Fidelity, and Transparent Audio, and my review of Wilson's MAXX2 was the cover story of the issue of Stereophile then current.

One of Definitive Audio's sound rooms included the Wilson MAXX2s and the Musical Fidelity kW and kW750—essentially what I was listening at home. Another room was reserved for a B&W-Classé system, while a third housed another pair of MAXX2s in front driven by big Halcro monoblocks, and a pair of WATT/Puppy 7s in the rear. Surround-sound source material was provided by Wilson's Peter McGrath, a renowned classical-music recording engineer. Each 45-minute listening session was followed by a 15-minute break so that guests attending each
Taking inspiration from our reference Magellan models, the words “trickledown technology” never sounded so good.

Esprit

www.triangle-fr.com

Audio Products for the Music and Home Cinema Enthusiast

Tel.: 1-800-771-8279 / (514) 932-7786 Fax: (514) 931-8891
www.vmax-services.com Email: info@vmax-services.com

evening’s four-hour event could hear all three rooms.

There were no surprises: the Wilson-Musical Fidelity combo sounded remarkably similar to what I heard from it at home. What surprised and instructed me—and, I’m sure, those in attendance—was how different those three rooms, each filled with expensive and highly regarded equipment, sounded.

It was no surprise that the two pairs of MAXX2s sounded very different from the new B&W 802Ds with diamond tweeter. What surprised me was how different the MAXX2s sounded, in one room driven by the Musical Fidelity kW750, in the other by a pair of far more expensive, ultra-low-distortion but less powerful Halcro amps. At the end of the second day, after listening to a spectacular recording of Mussorgsky’s Pictures at an Exhibition Peter McGrath had recorded in surround sound, I got him to play some of the CDs I’d brought along and had listened to throughout the event. (I brought LPs too, and some of the CDs were sourced from vinyl.)

The rooms were not identical, but were close enough for me to be pretty sure that the differences I heard between the two pairs of MAXX2s were based on the amplifiers driving them. The Halcros produced a faster, tighter sound, with a spotlit soundstage on which even the most minute macrodynamic and spatial details were revealed with bristling energy, but I found the upper midrange and above dry and overly analytical. The bass was tighter yet lighter, though with more punch, and with less weight, texture, and tactile impact. I can understand why such a sound appeals to many music lovers, but to my ears the kW750 sounded richer and more attractive overall, with a sweetness, transparency, and depth more akin to what tubes deliver.

Two entirely different presentations of the same source material and by the same loudspeakers—which was “correct”? Neither, of course. We’re talking about recorded music and the illusion of re-creating the live event. Depending on your tastes, and where your ear and brain gravitate to to “sell” the illusion of live, you will prefer one or the other presentation. For my musical and sonic tastes, and compared to what I regularly hear when seated in Row 20 of the somewhat bright Avery Fisher Hall, I’d go for the more powerful, far less expensive, and somewhat less detailed kW750.
Synergy

Goldmund has been delivering the most real and emotionally engaging audio experience available on the planet for over 27 years. Designing and building the world’s most revolutionary audio products, Goldmund engineering has evolved a peerless synergy of sound and system design.

- Goldmund designs its components meticulously, matching input and output impedances to transmit information without loss or reflection.

- Goldmund constructs cables exactly matching the electronic specifications of connected equipment, perfectly preserving signal integrity.

- Goldmund tunes the driver control of its speakers (damping factor) by its power amps to precisely complement the Goldmund speakers design.

- Goldmund builds its entire product with maximum mechanical rigidity to control resonances ("Mechanical Grounding™"). A single less rigid product in the system creates audible colorations.

You must experience this unbelievable system synergy yourself: visit Goldmund New York at Rhapsody Music and Cinema in Manhattan or schedule a private tour of the Goldmund House in Los Angeles.

Goldmund Store In New York City

Rhapsody Music and Cinema
27 W 24th St. Ste. 502
New York, NY 10010
212.229.1842
PARAGON SIGHT AND SOUND

INVITES YOU TO SAMPLE
JUST WHAT GREAT COMPONENTS CAN DO FOR YOUR SYSTEM
FEATURING WILSON AUDIO SPEAKER SYSTEMS
AND TRANSPARENT AUDIO POWER CONDITIONING PRODUCTS

ATC
ARS
Benz-Micro
Clearaudio
Consonance Audio
Da-Lite
Definitive Technology
Denon
Draper
Elan
Fujitsu
Grado
Koetsu
Krell
Leon
Lutron
Oracle
Pathos
Philips
Pro-Ject
ROKSAN
Salamander
Samsung (DLP)
Sharp
SIM 2
Solid Steel
Stereo Stone
Stewart
Transparent
Velodyne
Von Schweikert
Wilson Audio

Introducing the new DUETTE Speakers from Wilson Audio and POWER CONDITIONING Products from Transparent Audio. Hear what these products can do for your system.

Paragon Sight and Sound
734.662.3595
www.paragonsns.com
4997 Ann Arbor-Saline Road,
Ann Arbor, MI 48103
Hours:
Mon, Wed, Thur, Fri 10 AM - 6 PM
Sat 10 AM - 5 PM
Tues by appointment
Sit back, relax, we make it easy.
WallyTractor
cartridge-alignment tool

Analog maven Wally Malewicz is no stranger to these pages. His first commercial product, a cartridge-alignment tool called the Wally Tractor, became a hit among the vinyl cognoscenti after Michael Fremer wrote about it in “Analog Corner” in the November 1998 Stereophile, and Malewicz’s full kit of Wally Analog Tools was the joint winner of our Accessory of the Year award in 2002.

The basic WallyTractor remains the same in 2005: In a departure from previous such devices, like the Denessen Soundtraktor, Mobile Fidelity’s Geo-Disc, DB Systems’ DBP-10, and the boomerang-like Cart-A-Lign, each WallyTractor is individually keyed to the effective length (pivot to stylus) of a specific tonearm model. There’s a Linn Ekos WallyTractor, a Rega RB-300 WallyTractor, an SME V WallyTractor, and so forth.

What we’re talking about here is a flat, rectangular piece of reflectorized plastic, precisely engraved with a scheme of fine lines—all rather like the Cart-A-Lign. Where the WallyTractor breaks new ground is in ease of use: Because each one is made for a specific tonearm, the user is spared the tedium of aiming the thing at the exact center of the arm’s pivot. Instead, the adjustment process is begun by placing the WallyTractor on the spindle; moving it slowly and carefully until the stylus can perfectly align  the cart-a-lign with the position of my Lyra Helikon Mono cartridge in a Linn arm, after using the regular Linn WallyTractor. And the sonic difference was...

Let’s just say that my appreciation of the difference wrought is a work in progress.

In his original paper on the subject, Baerwald’s general concern was to point out the precise correlation between small amounts of tracking-angle error and distortion—which his contemporaries had regarded as insignificant. The specific task that Baerwald set for himself was to mathematically prove that a given amount of tracking-angle error doesn’t always result in a directly proportional amount of distortion—groove radius is also a factor. A certain number of degrees of tracking-angle error will produce distortion where the groove radius is relatively large, but x times that amount of distortion if the groove radius is smaller—say, toward the spindle. The increase is mathematically predictable: a function, a curve. (Incidentally, it’s in the precise nature or weighting of that curve where lie the differences between Baerwald’s alignment recommendations and those of other theorists.)
All of that implies another, arguably more serious concern: record wear. Even in the days when phonography experts weren't worried about distortion, they were worried about destroying records by the very act of playing them. Consider the work of another needlemeister, one B.B. Bauer of Shure Brothers, who suggested in 1949 that the real problem with a continuously changing tracking angle was the fact that it increased the efficiency with which a once-spherical stylus tip—now ground something other than a perfect circle—would then chisel away at an increasingly more vulnerable vinyl path as said target did nothing but cooperate. Think of a woodchuck turning its soft underbelly toward, rather than away from, an attacking dog with self-sharpening teeth. (Well, Bauer didn't put it quite that way.) As with the distortion dynamic noted by Baerwald, it's the element of change that concerns us.

So as far as I'm concerned, no evidence is necessary: When it comes to warding off premature wear, good cartridge alignment is one of those things I take on faith—faith in the notion that, at the very least, I'm doing no harm.

At $149, this and the other WallyTractors may seem expensive for what is essentially an engraved plastic mirror. But as with Vladimir Lamm's astounding amplifiers, a large portion of what you're paying for is the experience distilled from the designer's life work—and in this case, that's considerable.

Whest Phonostage.20

As regular Stereophile readers know, I rely heavily on vinyl for listening and reviewing. So, like untold millions of similar-minded music lovers, I anxiously await each new issue of Stereophile. When it arrives, I suspend normal life while I pore over the latest installment of Michael Fremer's "Analog Corner" column, voraciously absorbing all the hot news and descriptions of the latest and greatest. As anyone who actually knows me will attest, I'm not fabulously wealthy, so I pay particular attention when MF ravels about a product I could actually consider buying.

In the March 2005 issue, MF fell head over heels for the Whest PhonoStage.20 + MsU.20 phono preamplifier ($2595). I don't think I can repeat his description and superlatives without Trish getting jealous, so I'll just note that he compared the little Whest to the Boulder 2008 and Mares 2.0, and declared it "in my list of top 10 phono preamps." He toned down his praise a bit in his June column and

```plaintext
MEASUREMENTS

Following his auditioning of the Whest PhonoStage.20 + MSU.20 (serial numbers 0701.01201.21 and 0801.0201.21, respectively), BD sent me the units to measure. The PhonoStage proved relatively immune to grounding issues between it and my test equipment. The 1kHz voltage gain in moving magnet (MM) mode measured 40.9dB; switching to moving-coil (MC) mode increased the gain to 64.3dB. The MM mode was noninverting; the MC mode inverted absolute polarity. The input impedance in MM mode appeared to be much higher than the specified 47k ohms, although it's possible that there was some interaction between the Whest and my signal generator that interfered with the measurement. Set to MC mode, without any loading resistors, the Whest appeared to have an input impedance of 2k ohms in the midrange and treble, this decreasing to 407 ohms at 20Hz rather than the specified 100 ohms.

The PS.20's output impedance varied with frequency while also depending on whether the preamp was set to MM or MC. In MC mode, the source impedance varied from 1 ohm at 20kHz to 463 ohms at 1kHz to more than 7k ohms at 20Hz. In MM mode I measured 21.5 ohms at 1kHz, this increasing to 3.5k ohms at 20Hz. The Whest needs to be used with a preamp having an input impedance of at least 47k ohms if its tonal balance is not to be skewed toward the high frequencies.

Even so, and even with the 100k ohm input impedance of my Audio Precision System One analyzer, the Whest's RIAA response showed an increasingly positive error above the audiband (fig.1), reaching +3dB at 47kHz and +6dB at 70kHz. In their literature, Whest makes much of the PS.20's extended high-frequency response, saying that
```
warned me, "don't expect miracles for $2595," but he was nonetheless very impressed by the Whese's balance of attributes and overall performance for the price.

I've spent about six months with the Whest, using it with my VPI HR-X turntable and Lyra Titan cartridge, amplification from VTL and Halcro, and both Thiel CS6 and Wilson Audio Sophia loudspeakers. For comparisons, I matched the Whest against the Sutherland PhD ($3000), the Ensemble Fonobrio ($4799; review forthcoming), and the built-in phono stage of the Halcro dmi10 preamplifier. I experimented with a variety of impedance loading levels, but found that the Lyra Titan sounded best at 220 ohms or 500 ohms with the Whest, and at similar values—typically 250, 500, or 1k ohms—with the other preamps.

Like MF, I liked the Whest a lot and agree that, at $2595, it's a must-hear. I, too, found its performance more dynamic and vivid than the Sutherland PhD's, though not as pure. However, I'm more in agreement with MF's later, more measured comments than his initial rave, and perhaps most of all with his warning not to expect miracles for $2595.

Compared to the Halcro, the Ensemble, and even the Sutherland, the Whest fell short in the subtleties: focus, transparency, detail resolution, even microdynamics. It did the big stuff very well, but skimmed over the last, say, 5% 1% of low-level information that distinguishes the sublime from the very good.

Still, my initial response to the Whest was to sit up, take notice, and think. Wow! And whenever I returned to it from either another source or from a listening hiatus, I was surprised great, at 50dB in both directions at 1kHz, though it did improve at higher frequencies. Noise levels were generally low, with an A-weighted signal/noise ratio in MM mode of 67.8dB (ref. 1kHz at 5mV). This worsened to 59dB, wideband, unweighted, and to 50dB in MC mode. (The additional gain is achieved at the expense of S/N ratio.)

The Whest offers very low distortion—0.01% THD+noise for high-level 1kHz tones—with superb overload margins in MM mode: no less than 50dB at 20Hz and 1kHz, this worsening only slightly at 20kHz, to 20.3dB. Despite the extra gain in MC mode, the overload margins were only slightly less superb, at 26dB and 16.9dB, respectively. Aiding that excellent linearity, the only distortion harmonics visible above the noise floor in fig.2 were both low in order and very low in level. With a 9mV input signal at 1kHz, the second harmonic was the highest in level, at just -103dB (0.0007%). With the additional gain required in MC mode, this rose by 20dB, to a still low -82.5dB (not shown). Intermodulation distortion was also vanishingly low (fig.3).

While the Whest PS.20 offers superb measured performance in some areas—very low distortion, very high overload margins—it is idiosyncratic in others, particularly regarding its departure from an accurate RIAA de-emphasis at low and ultrasonic frequencies. I was also bothered by the dependence of both its input and output impedances on frequency, which will make its sound quality something of a moving target, depending on the source and amplification components it is used with.

—John Atkinson
THE MISSING LINK.

pagode
master reference

Bring out the very best in your hi-fi system: Extreme dynamics, expressive detail, exiting emotion. Impossible to compare. Audio furniture designed and hand-crafted in Germany.

Don't go for less.

finite elemente
first class audio furniture

For a dealer in the U.S., please contact IMMEDIA: Tel. 510.559.2050 or www.immediasound.com
Foreign distributor inquiries welcome. Please contact: sales@finite-elemente.de
www.finite-elemente.de
and impressed all over again. Its presentation was bold and vivid, spatially, tonally, and in terms of its dynamic transients. The huge soundstage and solid, widely spaced images were instantly apparent, as were its slightly greater projection and dimensionality. Its soundstage was slightly farther forward than the other preamps', and images stood out in greater relief from their backgrounds. The result was a feeling of sitting pretty close to the stage—substantially closer than with any of my other phono stages. The Whest's large dynamic transients, particularly at the louder end of the scale, were another contributor to this up-front perspective.

The Whest's tonal balance was vivid as well. It sounded somewhat elevated in the midrange and upper midrange. It reminded me of an expression I heard years ago: “a go-for-the-gusto, va-va-voom midrange.” I wasn't sure what that meant back then, but it strikes me now as a pretty accurate description of the Whest. It was unfailingly engaging, but occasionally, loud midrange/upper-midrange passages could sound a bit strained or take on a hard edge. A couple of examples I noted were the massed higher-pitched vocals on “Witchy Woman” and “Peaceful Easy Feeling,” from the Eagles’ first album, Eagles (Asylum SD 5054), and louder flute and clarinet passages in Keith Clark and the Pacific Symphony Orchestra’s performance of Aaron Copland’s Appalachian Spring Suite (Reference Recordings RR-22).

The Copland recording provided several examples of how the Whest could skim over low-level details. The details of how the flute energizes the surrounding air weren’t as apparent as with the Halero, Ensemble, or Sutherland. And though the Whest's macrodynamics were arresting, it nearly lost track of subtle microdynamic nuances within a passage, and the leading edges of notes were distinct but slightly cruder and less precise than with the other units. On “Midnight Special,” from a 45rpm reissue of Creedence Clearwater Revival’s Willie and the Poor Boys (AcousTech APP 8397-45), the background vocals were slightly run together and the recording spaces around them less distinct than with the other preamps. And while the effect on the opening guitar was most dramatic through the Whest, the drum kit’s lower toms didn’t have nearly the roundness and tonal complexity they did with the other models. I suspect that the details weren’t really lost, just not clearly differentiated from a slight electronic haze. Though not obviously colored, the Whest did sound a bit electronic—it simply wasn’t as “free of electronic detritus” as MF had described the Sutherland PhD in his January 2004 column (Vol.27 No.1).

**Whest or Sutherland? Sutherland or Whest?** Perhaps the essence of this “Follow-Up” to Michael Fremer’s review of the Whest PS.20 + MSU.20 can be gleaned from our comparisons of it and the Sutherland PhD. I agree with MF that some listeners will prefer the Whest’s more dynamic presentation, others the PhD’s purity and “mesmerizing flow.” I infer from his comments that he’s in the former camp, and feels that the Whest betters the Sutherland in most ways—save the latter’s purity and flow. I’m firmly in the Sutherland camp. I think it’s the better preamp in all regards but macrodynamics.

Our perspectives on how the phono stages compare to the competition follow suit. MF opined that the Whest provides a balanced set of tradeoffs and is a spectacularly inexpensive entry point to the world of super-high-end phono preamps. He was troubled, however, by the Sutherland’s dynamics. I think of the Sutherland as a true thoroughbred with a noticeable but insignificant softening of macrodynamics. The Whest’s bold, engaging presentation lacks the subtlety and nuance that define the upper echelon—it’s a great-sounding mid-priced phono stage, but no giant-killer.

**Summing Up:** Though MF and I disagree on a few points and in our overall priorities and perspectives, this shouldn’t be taken to imply that I don’t think that Whest Audio’s PS.20 + MSU.20 is a great-sounding phono stage, and a good value at $2595. It is—in every respect, worlds beyond any sub-$2500 phono stage I’ve heard. Depending on your listening preferences and priorities, you might find it to be awfully close to sonic nirvana for a fraction of the competition’s price. The bottom line is that for someone considering upgrading from one of the good budget units—the Lehman Black Cube, for example, or the AcousTech PH-1—the Whest is an absolute must-hear.

—Brian Damkroger
SIMAUDIO MOON W-8 AMPLIFIER.

We heard it. We loved it. We bought it. Our Canadian friends at Simaudio tout the W-8's latest no-overall-feedback Lynx circuitry and capacitor-less signal path. They are the circuitry wizards; we just listen to the results. And listen with pleasure we have. The W-8 balances bold dynamics and vise-like control with precise imaging and a thrilling sense of speed and articulation. This is one amplifier that does everything very, very well indeed. Experience the Simaudio Moon W-8 amplifier in our acoustically-designed state-of-the-art listening rooms.

GOODWIN'S HIGH END

www.goodwinshighend.com
781-893-9000
899 Main Street Waltham, MA 02451
Hours: Tues. - Thurs. 11-7 Fri. - Sat. 11-6
Hey, I like things that are grand as much as the next guy. Grand opera is good, any kind of baked good with "grand" in the title is cool—even the sainted subway I ride stops every morn and eve at Grand Street.

But grand rock music is another story, one filled with ego bloat, overripe string sections—er, I mean, "soundscapes”—and (suppress that gag reflex) soaring voices. I blame Richard Wagner filtered through Coldplay for the whole thing, but that's yet another story. Marry anything "grand" to the tinkery, chiefly instrumental principles of progressive rock—which are nothing if not grand—and you have an alien traffic accident waitin' to happen.

Add an Icelandic quartet who sing in the nearly impenetrable language of their grandfathers and who titled their last album 0, and you have a reason to condemn new music and retreat to a listening program made up exclusively of such fuzzy blankets as Coltrane and the Carter Family. But then, you'd miss the persuasive moody fusion of Takk. Sigur Rós established their pattern in 2000 with the release of Agaetis Byrjun, their first album released outside Iceland: long, abstract jams that begin slowly and quietly, often opening (like "Takk" here) with quavering strings; eventually adding Jon Thor Birgisson's high-to-the-point-of-breaking falsetto vocals; live or programmed beats; and much spiral keyboard loomingness.

Nearly everything on Takk, hyped prior to its release as the Sigur Rós album that both radio and the common man would get, fits that pattern, except perhaps for a de-emphasizing of the guitars that were so prominent on past releases. Here, though, Birgisson, Kjarri Sveinsson (keyboards), Georg Holm (bass), and Orri Pall Dyrason (drums) have a sharper if still impossibly ethereal focus. After three albums that were distant and becoming deliberately more obtuse, on Takk Sigur Rós seems to have righted their alchemy.

Takk's most accessible tune, "Hippipolla," begins with a simple acoustic piano figure that blooms into a jaunty near-pop tune complete with layers of overdubbed voices, much good work by a prominent violin section, and a glockenspiel, before winding down into a quiet coda of sound samples and keyboard murmurs. Thankfully, Sigur Rós keeps the orchestral rock excess to a minimum; most of these alluring, often majestic little rock poems clock in at under five minutes. Now, that's accessibility! Even "Hippipolla" and its reprise, "Med Blodnasir," trundle in at a total of less than eight minutes.

Halfway through the album is "Soeglopur," which begins quietly with piano and a delicate vocal part that sounds like a pleading, melodic call—almost an animal howl—before the entrance of a drum kit and mountainous layers of keyboards. A storm of orchestral rock follows in which these elements build to a throbbing climax that cuts off and returns to just piano, metallic keyboard chords, and the same high, childlike voice, pleading and calling. Toward the end, keyboards and vocals follow the same line, and "Soeglopur" closes with keyboards drifting off into a mysterious distance. It's the kind of track you put on thinking it could be background music, then find yourself sitting in front of the speakers, mesmerized by its majesty.

After the bombast of Coldplay, the most obvious influence here, is Jon Thor Birgisson's re-imaging of another Jon: Yes's Jon Anderson. It's a similarity so striking that it will occasionally widen your eyes. Birgisson's voice is at once Sigur Rós's most creative and distinct instrument and, to some, its major annoyance. Listening to too much falsetto sighing or words squeaked out in Icelandic has been known to alter brainwaves. Depending on your taste, Birgisson's pipes will be the band's main attraction or its Achilles' heel.

This is one band for whom compressed, flat sound would be death. As you might expect, on Takk the waves and currents of their music have both the depth and the dynamic range required to give them their presence and power.

What's most gratifying about Takk is that, just when Sigur Rós seemed about to slip off into more theatrics than actual music, more sound effects than structured songs, they've pulled themselves back from the edge and re-energized their best instincts, atmospheres, and ability to turn grim grandiosity into the kind of more buoyant, less troubled whole that will spawn a thousand happy downloads.

—Robert Baird
Early Piano Works

Herbert Henck, piano
Performance ****
Sonics ****

This enchanting collection of piano works from the 1930s and '40s romantically captures John Cage before he develops the Cageian methods—prepared piano, his philosophy of indeterminacy, an exploration of silence—that would earn him philosopher-king celebrity status along with the ire and aggravation of listeners far and wide. Here one finds only lyrical serenity, most notably in the suite The Seasons, which is transcendent in the hands of Herbert Henck, who passionately elucidates this quiet journey. We hear the footfalls of Satie, Stravinsky, and Webern, but the music is clearly Cage, thanks to the American master's facility at shifting directions mid-phrase without fear of losing the listener or feeling the need to explain himself for the (apparent) lack of tact. Cage's comfort in this regard mirrors the ease of unprepared modulations to distant keys of Beethoven, of whose boldness in such matters my music professor said, "He goes there like it's his job." Which, in a way, it was.

Cage, whose fearlessness at least matched Beethoven's, considered it his job to explore the boundaries of Western music—a line all too handily affixed to lesser talents of imagined innovators, but entirely appropriate in the case of Cage. With In a Landscape, Cage pushes the possibilities of a flowing Satie-like melodic line within a predetermined rhythmic construction, hinting at the compositional developments of his later years. The work is hypnotic in its serpentine variation as it constantly reinvents itself, and Henck keeps it fresh through its 12 minutes.

Among the shorter pieces, Ophelia, dedicated to choreographer Jean Erdman, distinguishes itself with inventive gestures and lively rhythms, evoking Stravinsky and even Sondheim. As in the rest of the album, Henck seems to see inside the composer's vision and reflect it effortlessly. The sound is unabored and just throughout the disc, though the dynamic range of The Seasons feels precipitously vast. —Ben Finane

James Levine's Munich Philharmonic appointment (1999–2004) was, on this side of the pond, puzzling—it seemed a case of a major conductor trying to shore up his European career with a not-so-major orchestra. Having spent 17 years (1979–1996) under the idiosyncratic, recording-phobic Sergiu Celibidache, the Munich Philharmonic had little international presence, and with Celibidache's legendary steep rehearsal demands, you never knew from concerts if the orchestra was truly playing well or was just well-drilled. Now that Levine has moved on, to the Boston Symphony, a dozen live-concert discs from his Munich tenure have come out on Oehms Classics. They show an evolution in Levine's nonoperatic art that hasn't been apparent to those who haven't heard his one-off symphonic concerts with the MET Orchestra at Carnegie Hall, and may stand as a major body of work in his discography.

Most of the Oehms discs have more to say than much of Levine's nonoperatic work during the 1980s, when, like Riccardo Muti, he was recording interpretations before they had fully matured. Levine's interpretive fallback position—in contrast to Mutti's, which was all-purpose rhythmic thrust—was generic surface polish. That element is still here, but as part of a healthy process involving more of a chamber-music groupthink approach than that of a central figure laying down The Truth. In one all-American disc, which includes Ives' Symphony 2 and Gershwin's Cuban Overture (Oehms OC507), I wish Levine had micromanaged the performances a bit more: the Munichers just don't know what to make of Ives' hiccups or Gershwin's breezeines. But Brahms' infrequent heard Song of Destiny (OC506) has a deeply satisfying performance thanks to a German-speaking chorus singing in its native language with thoughtful, fully internalized commitment. (The accompanying Brahms Symphony 1 is also good, though not recommendable over its recorded competition, from Leonard Bernstein on DG to the more recent Semyon Bychkov on Avie. Levine's Munich recording of Mahler's Symphony 9 is excellent, but doesn't eclipse his even better outing with the Philadelphia Orchestra on RCA.) The best sets are the double-disc Gurre-Lieder by Schoenberg (recorded 2001) and another all-American program, this one featuring Elliot Carter's Variations for Orchestra, Charles Wuorinen's Grand Bamboula for String Orchestra, and Roger Sessions' Piano Concerto (2002 and 2003). As live recordings go, these from Gasteig Munich don't have a lot of personality but plenty of clarity and depth.

The Schoenberg is now more a special occasion than an oddity, but leave it to a seasoned Wagnerite such as Levine to get his arms around the piece in a way that few can. Unlike Simon Rattle, whose recording successfully proves that the piece's gargantuan instrumental means are used with great economy, Levine uses his customary surface polish in
For over 23 years Audiophiles around the world have relied on HCM Audio as their #1 source for the superb line of AudioQuest cables, including fantastic bargains on discontinued models unavailable anywhere else, like these great buys! See the entire selection at: www.hcmaudio.com

Moving up to AudioQuest may be easier than you think...

**AudioQuest GBC Deluxe SST 12 awg Speaker Cable**

<table>
<thead>
<tr>
<th>Length</th>
<th>Sale Price</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 foot pair</td>
<td>$79.95*</td>
<td>$244.00</td>
</tr>
<tr>
<td>12 foot pair</td>
<td>$91.95*</td>
<td>$276.00</td>
</tr>
<tr>
<td>15 foot pair</td>
<td>$100.95*</td>
<td>$300.00</td>
</tr>
<tr>
<td>20 foot pair</td>
<td>$115.95*</td>
<td>$340.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length</th>
<th>Sale Price</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 foot pair</td>
<td>$130.95*</td>
<td>$380.00</td>
</tr>
<tr>
<td>30 foot pair</td>
<td>$145.95*</td>
<td>$420.00</td>
</tr>
<tr>
<td>40 foot pair</td>
<td>$175.95*</td>
<td>$500.00</td>
</tr>
<tr>
<td>50 foot pair</td>
<td>$205.95*</td>
<td>$580.00</td>
</tr>
</tbody>
</table>

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 #P8MS, 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

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

<table>
<thead>
<tr>
<th>Length</th>
<th>Sale Price</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 meter pair</td>
<td>$52.50</td>
<td>$115.00</td>
</tr>
<tr>
<td>1.0 meter pair</td>
<td>$65.00</td>
<td>$150.00</td>
</tr>
<tr>
<td>1.5 meter pair</td>
<td>$77.50</td>
<td>$185.00</td>
</tr>
<tr>
<td>2.0 meter pair</td>
<td>$90.00</td>
<td>$220.00</td>
</tr>
<tr>
<td>2.5 meter pair</td>
<td>$102.50</td>
<td>$255.00</td>
</tr>
<tr>
<td>3.0 meter pair</td>
<td>$115.00</td>
<td>$290.00</td>
</tr>
<tr>
<td>4.0 meter pair</td>
<td>$140.00</td>
<td>$360.00</td>
</tr>
<tr>
<td>4.5 meter pair</td>
<td>$152.50</td>
<td>$395.00</td>
</tr>
<tr>
<td>5.0 meter pair</td>
<td>$165.00</td>
<td>$430.00</td>
</tr>
<tr>
<td>6.0 meter pair</td>
<td>$190.00</td>
<td>$500.00</td>
</tr>
<tr>
<td>8.0 meter pair</td>
<td>$240.00</td>
<td>$640.00</td>
</tr>
<tr>
<td>10 meter pair</td>
<td>$290.00</td>
<td>$780.00</td>
</tr>
<tr>
<td>12 meter pair</td>
<td>$340.00</td>
<td>$920.00</td>
</tr>
<tr>
<td>15 meter pair</td>
<td>$415.00</td>
<td>$1130.00</td>
</tr>
<tr>
<td>20 meter pair</td>
<td>$540.00</td>
<td>$1480.00</td>
</tr>
</tbody>
</table>

Our special volume purchase makes it easy for you to upgrade to the superb sound of AudioQuest's Solid PSC copper conductors. Coral/CQ is an extremely musical and transparent sounding cable, outperforming older AudioQuest models costing many times the price, thanks to the use of their superior PSC Solid conductors in a Double Balanced configuration with foamed polyethylene dielectric, and 100% coverage foil shield. Coral/CQ is terminated with the AudioQuest CQ Gold Plated RCA plug with Teflon Dielectric.

- 21 awg Solid PSC Copper Conductors
- Foam Polyethylene Insulation
- Polypropylene Fillers
- 22 awg Solid Silver Plated LGC Copper Drainwire
- Foil/Mylar/Foil Shield
- Shiny Black PVC Jacket
- Nylon Braid - Black + Red

HCM Audio

800-222-3465 • 530-891-8326 • Fax 530-345-7269
2725 Hwy 32, Suite C, Chico, CA 95973
e-mail: sales@hcmaudio.com

www.hcmaudio.com

We ship anywhere in the world!
ways that release the piece’s meaning: The performance’s complete lack of labor, technically speaking, allows the artists to express themselves with extraordinary freedom and fluency. You don’t realize how much Karita Mattila’s vocal strain (much of which is artfully concealed in the Rattle recording) inhibits her until you hear Deborah Voigt sailing through rough passages with a welcome air of musical exaltation. Ditto for Ben Heppner, who sings the often-torturous tenor part better than anyone. Star mezzo-sopranos often sing the Wood Dove, though not always with the dramatic resourcefulness of Waltraud Meier, and the character-tenor role of Klaus rarely enjoys the intelligence and vocal glamour of a Matthew Polenzani.

It’s no surprise that, in contrast to the Gershwin-Ives disc, this orchestra plays the likes of Elliott Carter better than most American ensembles: This kind of modernism is far more respected and in evidence in Europe than in the US. And in performances as genuinely lucid as this, there’s absolutely nothing forbidding about Carter’s Variations for Orchestra (composed 1955, revised 1967). Nor is it a case of notes merely being in the right place. Besides having a clear structure, the performance reveals any number of short, articulate comments from solo instruments and odd melodic turns that deliver momentary extremes of humor and tragedy. Carter’s music is about simultaneity; rarely do the disparate elements make such a clear, competitive case for their individual selves. The addition of concerto grosso—like interplay to this kind of writing in Wuorinen’s Grand Bamboula poses no problem to this orchestra. Robert Di Domenica’s Symphony, premiered in 1972, is a rather unknown piece, but Levine & Co. make a wonderful case for its descriptive, colorful use of atonality.

But the disc’s big triumph is Roger Sessions’ Piano Concerto (1955). Mostly known for his early The Black Maskers (1928), Sessions is one of the great post-WWII American composers, though you’d never know it from his scant discography. You would from this performance: Soloist Robert Taub and the orchestra are in astounding form performing a score that encompasses great extremes of range, though never during this chiseled-in-granite performance do you question the composer’s intuitive reasons.

This repertoire also has a healthy presence in Levine’s recent and forthcoming Boston Symphony programs. Given the BSO’s higher caliber, the quality of those performances (and the recordings that might come out of them) could dramatically change the way modernist music is perceived. And that would make history. —David Patrick Stearns

RODNEY CROWELL
The Outsider

Performance ***¼
Sonics ***½

A friend once described Rodney Crowell as a performer who had one ear on the Grand Ole Opry and the other on the Beatles. It was a huge compliment, and to this day, the Nashville resident is a keen storyteller with great pop sensibilities. These days, though, when you hear his songs on country radio, chances are they’re sung by younger, far more mainstream artists such as Tim McGraw, Lee Ann Womack, and Keith Urban.

The Outsider is Crowell’s second album since 2001’s The Houston Kid, the revealing semi-autobiographical set that marked his reemergence after taking a few years off from the recording studio. He wrote most of the songs on The Outsider while he and his high-energy band (bass, drums, two guitars) were touring Europe in fall 2004, and there’s no escaping the political fallout from the divisive presidential election. The thumping “The Obscenity Prayer,” sung from the point of view of a greedy bastard (complete with “gimme gimme gimme” backup vocals), articulates the me-first mindset of one American dreamer. On the other side of the aisle, the barfly in “Don’t Get Me Started” gets very much started indeed, and goes on and on about “slick politicians” and “a six trillion dollar debt you pay through the nose.”

At various points on The Outsider are references to Bob Dylan and Miles Davis, Picasso and Nostradamus. Like those sages, Crowell reflects on the wonders and
BOB DYLAN

No Direction Home: The Soundtrack, The Film

No Direction Home: The Soundtrack (The Bootleg Series Vol. 7)


Performance *****

Sonics ***

No Direction Home
A Martin Scorsese Picture

Paramount Pictures (2 DVDs). 2005. TT: 3:27:00

Film ****

There's an unforgettable moment that comes about a third of the way into No Direction Home, Martin Scorsese's sumptuous documentary probing the early years of Bob Dylan's career. He's performing "Man of Constant Sorrow" on a 1963 television show, and as he's about to end his harmonica solo and start singing the next verse, he looks up, and there's a delicate vulnerability in his eyes (disc 1, scene 6, 9:50). Not quite 22 and already the toast of the folk-music world, the fearless, unflappable, uncompromising Dylan exudes unguarded humanity.

Throughout the film, Scorsese captures megadoses of Dylan's humanity as well as his complexity and growth as an artist, which, during the early and mid-60s, came at warp speed. After establishing as a reference point Dylan's 1966 tour of the British Isles—when he went electric and pissed off thousands of prim and proper folk purists—Scorsese flashes back to Dylan's childhood, his influences, his early days in Greenwich Village, and his unfolding as a poet and songwriter.

In addition to tons of archival footage—Dylan at the March on Washington; at Newport Folk Festivals; reluctantly accepting an award from the Emergency Civil Liberties Committee in December '63; on the Steve Allen
End of the Year 
DEMO SALE 
featuring some of the finest names in Home Theater and Home Stereo 
check our website for a partial listing 
www.audiovisionsf.com

1603 pine street san francisco ca. 94109
ph:415-614-1118
www.audiovisionsf.com
Show in February '64 (on which Allen calls him a "genius")—Scorsese tells the story with the help of the Man himself, who extemporaneously looks back to those turbulent times. He also has the help of many of Dylan's contemporaries, from Joan Baez and Maria Muldaur to Pete Seeger and Dave Van Ronk. Like Dylan's five-star biography, Chronicles: Volume One (also available as an audio book, read by Sean Penn, and guaranteed to make your long drive whiz by), Scorsese's film contains revelation after revelation. Who knew that Bobby Z. once boasted about being schlockmeister Bobby Vee? Or has heard him talk about going to the Crossroads to make "a big deal"?

The same is true, in spades, of the film's two-CD "soundtrack," released as Vol. 7 of Columbia/Legacy's Bootleg Series. Unlike the last three two-disc Bootleg releases, No Direction Home isn't taken from a particular show (eg, Vol. 4's "Royal Albert Hall" concert) or tour (eg, Vol. 5's Rolling Thunder Revue compilation). Technically, it isn't a soundtrack at all. More accurately, it's music inspired by the film, or, as explained in the liner notes, "The compilers used the songs in the film as a reference point, finding alternate takes, rare live performances and unreleased tracks that amplify the pivotal sequences in the film and avoid duplication with previously released tracks."

The result is a sweeping overview of Dylan's revolutionary evolution. In the film we hear him telling about how he wanted to go east to visit Woody Guthrie. On disc, we hear the 20-year-old singing Guthrie's "This Land is Your Land" at New York's Carnegie Chapter Hall. In the film, we hear a snippet of Johnny Cash singing Dylan's "Don't Think Twice, It's All Right," juxtaposed with Dylan saying that meeting Cash "was the high thrill of a lifetime." On disc, we hear an early-1963 demo of Dylan singing the song. On film, we see Dylan performing "Mr. Tambourine Man" at a Topical Song Workshop at Newport. On disc, we hear the song's first complete take, recorded in June 1964 with Ramblin' Jack Elliott (and including Dylan stridently correcting the engineer, who calls it "Mr. Tambourine"). Throughout, the sounds of Dylan's voice, guitar, and harmonica are sparkling.

There are plenty of outtakes—from
"It sounds like all the other $4000 separates I listen to... except that it only costs $1795."

WES PHILLIPS, ONHIFI.COM

"I wanted an amp that didn't lose clarity, resolution, or dynamic impact at any volume level... I found what I wanted in the Panache." Reprinted by permission

THE ABSOLUTE SOUND   JUNE/JULY 2004, ISSUE 148

The Portal Panache Integrated Amp: A Serious Taste of High End Performance.

Factory Direct at www.portalaudio.com or at select retailers.

Toll-Free 1-888-737-4434

---

RECORD REVIEWS

The Freewheelin' Bob Dylan, Another Side of Bob Dylan, Bringing it All Back Home, Highway 61 Revisited, and Blonde on Blonde—and the sound is equal to that on those classics. On disc 2, after an alternate take of "She Belongs to Me," Dylan plugs in. Following a long, winding intro by Peter Yarrow, Dylan and members of the Paul Butterfield Blues Band (including Michael Bloomfield, who plays absolutely scorching electric guitar) play "Maggie's Farm" with reckless abandon, and Newport was never the same again. Then there's an odd, lyrically jumbled version of "Stuck Inside of Mobile with the Memphis Blues Again," with Al Kooper playing goofy organ fills between verses. And a rockin version of "Visions of Johanna" with Kooper and The Band that outdoes the official Blonde recording.

Two of No Direction Home's 28 tracks have been previously released: "Song to Woody," the only original on Dylan's self-titled first album, and the electrifying live "Judas" version of "Like a Rolling Stone," recorded May 17, 1966, in Manchester, England, previously heard on The Bootleg Series Vol. 4 (see Stereophile, February 1999).

One other caveat: On the loud version of "Ballad of a Thin Man," recorded live at the ABC Theatre in Edinburgh, Scotland, on May 20, 1966, Dylan's voice sounds in places as if it's about to pin the meters.

These are minor quibbles about a set that is yet another musical mother lode in the Bootleg Series. Dylan invented and reinvented himself, and contemporary culture was never the same. And as rich a Dylan dose as we get from No Direction Home on film and disc, it leaves us itching for the next chapter—when Dylan, after his motorcycle accident in 1966 and bored with Sgt. Pepper's and other Summer of Love overproductions, returns to a more acoustic sound on John Wesley Harding and Nashville Skyline and inspires a whole new movement fueled by Music from Big Pink, Workingman's Dead, and Crosby, Stills & Nash.

—David Sokol

YES

The Word Is Live

Atco/Elektra/Rhino 78234 (3 CDs). 2005. Yes, Steve Woolard, David McLees, compilation prods.; Steve Howe, add'l. mixing, eng.; Bill Inglot, Dan Hersh, remastering. AAD. 17:3:51:09

Performance ****

Sonics **

In rock lore, Yes has always had a reputation for being a persnickety bunch. The band's pursuit of perfection is supported by achievements strewn throughout a discography rife with intricacy and overstatement, landmark progressive grooves, and fattening musical indulgences. And while many of those studio albums, mainly created by the classic lineup led by Jon Anderson, Steve Howe, and Chris Squire, have always justified their existence in terms of performance and quality, Yes has always done its most credible work on the concert stage, where it validates its existence as a band.

Many acts struggle to reproduce their studio sound live, but not Yes. The band delights in proving that no matter how complex or filigreed the arrangement, they get the job done, taking their most technical works close to the edge and back. In 1973 the band released the three-LP Yessongs, one of the defining live albums of that decade, and certainly the premier live album of the early art-rock scene. A handful of live discs followed through the years, with mixed results, from the dreadful An Evening of Yes Music Plus to the passable Yesshows.

Gratefully, the three-CD, 26-track The Word Is Live is more consistent. Where Yessongs so capably covered a single, critical period in the band's artistic development, Word spans nearly two decades and many lineups, from the group's earliest material for the BBC ("Then," "For Everyone") to four tracks from a Houston performance during their dance-pop phase. Disc 1, mainly from 1971, targets enthusiasts, with prickly, primitive performances played with bristling electricity. Overall, while the songs receive cracking-good treatment, the live excitement is lost on
Show Your Passion

For over 30 years Accuphase has been producing world class audio equipment.

Accuphase M-8000
Monoblock Power Amps
$39,500.00 PR.

At David Lewis Audio
we specialize in high end audio systems.
If you have a passion for music consider making us your audio dealer.
Please call to schedule a visit soon.

ACCUPHASE
ASTHETIX
AIR TIGHT
ARCAM
ART AUDIO
ATC
AUDIOPHILE
AYRE
BAT
BENZ MICRO
BOULDER
Burmester
CHORD
CONRAD JOHNSON

DCS
DYNADيمIO
DYNAVEnCTOR
GRAHAM
GUTWIRE
HALCRO
HARBETH
HOVLAND
JEFF ROWLAND
KIMBER KABLE
KOETSU
LAMM
LYRA
MAGNUM DYNAFLAB

MARK LEVINSON
MBL
MERIDIAN
NAGRA
NAIM
NORDOST
NOTTINGHAM
ORACLE
PASS LABS
PIEGA
PROAC
QUAD
QUICKSILVER
REL

REVEL
SILTECH
SME
SONUS FABER
SPENDOR
THIEL
THORENS
TRANSROTOR
VAC
VAN DEN HUL
VERITY
VIVA
VPI
WASATCH

David Lewis Audio LTD
8010 Bustleton Avenue • Philadelphia, PA 19152-2802
(215) 725-4080 • Fax: (215) 725-4495
WWW.DAVIDLEWISAUDIO.COM
A better way to get from here to there

Great components are just the beginning of exceptional sound.

System matching is the balancing of all components within your system — each device has its own set of electrical characteristics. Balancing the interactions comes from carefully matching cables to each “circuit” (e.g. amp + speaker + cable is a circuit). Choosing the best cables to get from component to component is the key to great sound. This will allow your exceptional components to perform to their design ideals, and your system to transcend the components to get closer to the music. Use our Lending Library containing $2.5 million in cable samples to know for sure before you buy.

The Cable Company. The Cable Library. We can get you there.

And beyond cables, more tools for audio and video system enhancement:

Power Line Products
Dozens of Line Filters and Legions of AC Cables available for in-home audition!

Racks and Resonance Control
Resonance Control Library:
Over 25 brands of Footers and Platforms to try at home! Ten Rack Lines.

Accessories
#1 Audio Desk and Furutech Dealer.
Hundreds of Accessory Products.

Good people. Good advice. Great systems, one customer at a time.
125 Union Square • New Hope, PA 18938 • 1.800.FATWYRE • 215.862.4870 • Fax: 215.862.4871
Email: fatwyre@fatwyre.com • www.fatwyre.com
All major credit cards • Free consultation • Most orders ship free!
small crowds, smatterings of polite applause, or poor sound.

Disc 2 (1975–1979) shifts into a higher gear, if not crisp sound. By this time Yes had become true arena rockers, and their reception in the States was staggering, especially for a prog band. A packed house welcomes the opening track, “Apocalypse,” from a 1976 show in Detroit, and Yes reaches impressive heights on “Siberian Khatru” (from the same date), which closes with a spectacular Steve Howe guitar solo. “The Big Medley,” a suite constructed of excerpts from “Time and a Word,” “Long Distance Runaround,” “Perpetual Change,” and other quintessential Yes songs, best embodies the band’s precise technique, dizzy arrangements, and penchant for melodic hooks even amid all the zany complexities.

Disc 3 climbs a bit higher before descending. It sets out with a rockin’ rendition of the Fragile standard “Heart of the Sunrise” and courses through “Awaken,” their suite from Going for the One, before dipping into tunes from the band’s execrable pop phase: “Rhythm of Love,” “Owner of a Lonely Heart,” etc. The phase earned them cash but sacrificed their credibility in progressive circles, and almost permanently damaged the band’s legacy. Expectedly, these tunes have the best sound.

Still, it’s the euphoria of the band’s best material, the utter dazzle they created from a mix of whimsy, ambition, and technical ability, that studs this collection. Much of it ranks as some of the band’s best live work, which is truly saying something. —Bob Gulla

JELLY ROLL MORTON
The Complete Library of Congress Recordings by Alan Lomax

Jelly Roll Morton, piano, vocals, narration; Alan Lomax, interviewer
Performance ★★★★☆
Sonic ★★★

In 1938, Alan Lomax, then in charge of the Archive of Folk Song at the Library of Congress in Washington, DC, recorded a series of interviews with Jelly Roll Morton, the New Orleans pianist, composer, and bandleader. The Complete Library of Congress Recordings by Alan Lomax provides a comprehensive look at Morton’s career, from his early days as a solo performer to his later work as a leader of the Original Dixieland Jazz Band. The recordings capture Morton’s virtuosity as a pianist and his unique musical style, which blends African-influenced rhythms with jazz elements.

TheRM25si Signature Mk2:
“stunning” sound
from just $3499/pair

“If you have $3,500 to spend on speakers and want something that will entice you to relisten to every CD or LP in your collection, then put the Josephs on your very short list.” - Mike Quinn, Jazz Times

www.josephaudio.com

800 474-4434 (HIFI)
produced under license from Modafferi Acoustical Labs
US Patent #4771466
2006 INTERNATIONAL CES.
MAKE THE RIGHT CONNECTIONS.

The fusion of multiple technologies begins at CES. Digital devices and entertainment, wireless and mobile technologies—2,500 exhibitors make CES the global meeting ground for consumer electronics. Experience the world’s largest tradeshow for consumer technology.

HOTTEST PRODUCTS PEOPLE PLACE JANUARY 5-8, 2006 LAS VEGAS, NV www.CESweb.org

Look for these icons to navigate CES.
leader who claimed to have invented jazz.

The recordings, featuring Morton's playing and singing as well as his spoken reminiscences, were not intended for commercial release, but in 1947, six years after Morton's death, the Circle label issued an expurgated version on a dozen albums of 78rpm discs. Several LP editions followed, and in 1993 Rounder put out four CDs containing all the original music—including the dirty songs—but omitting most of the narrative.

Now Rounder has released the Morton-Lomax sessions in their entirety on seven CDs; an eighth disc contains excerpts from Lomax's 1949 interviews with some of Morton's early New Orleans colleagues, plus a full transcript of the interviews in a PDF file. It's all part of a piano-shaped boxed set that also includes extensive liner notes by John Szwed, a number of Morton's own writings, an assortment of letters and newspaper articles, and a copy of Mister Jelly Roll, the book that Lomax cobbled together from the interviews and published in 1950.

Originally captured on battery-powered disc recorders, the interviews have been cleaned up and corrected for speed, but there are still problems with surface noise and microphone placement; worse, Morton kicks the piano to mark the tempo, making a clapping sound that's often louder than the music. Although Morton plays background chords even while speaking, these sessions are ultimately more of musico- logical than musical interest. Lomax would later maintain, however dubiously, that they were not only the first oral history, but the first history of jazz.

As Szwed points out, Morton and Lomax each had an agenda: Morton to secure his place in history and revive his moribund career, Lomax to reclaim jazz as a species of folk music and rescue it from the forces of commercialism. Both men despised the swing style then in vogue and were eager to establish that the true spirit of jazz lay elsewhere. The result is less a coherent history than a collection of episodic ramblings, delivered in Morton's distinctively articulate voice and illustrated by his brilliant piano. He had not previously recorded as a singer, but his crooning baritone is oddly appealing.

Morton relates his family background, asserting—although he was plainly of mixed race—that "all my folks came directly...from France." His parents took him to the opera and gave him piano lessons, but behind their backs he began playing in New Orleans' celebrated red-light district. He describes the tawdry scene with unabashed nostalgia, recreating the styles of long-forgotten pianists: Game Kid, Buddy Bertrand, and Morton's idol, Tony Jackson, the composer of "Pretty Baby.

Recounting his early travels—from the Gulf Coast to the Mississippi Delta, Memphis, St. Louis, Chicago, Los
WANT TO LEARN MORE ABOUT DLP TECHNOLOGY & PRODUCTS?

DLP...SEE IT IS YOUR GUIDE TO EVERYTHING DLP
Go inside the technology and find out how DLP microdisplays work. Get all the latest information about DLP televisions and projectors. Learn the difference between DLP displays and the other technologies on the market. Use our shopping tips to help find the best television for your budget. Whether you’re a home theater enthusiast or a beginner, DLP...SEE IT has the info you need.

Log onto www.dlpseeit.com

SPONSORED BY

SAMSUNG
MITSUBISHI ELECTRIC
TOSHIBA
SIM2 Multimedia
Angeles, and San Francisco—Morton dwells as much on his picaresque adventures as a pool hustler and card sharp as on his music. The chronicle leaves off before his return to Chicago in 1923, when he began to cut the hit records that made his reputation. Morton does not discuss his Windy City heyday, his unsuccessful move to New York, or the Depression-era decline that, by the time Lomax met him, had left him managing an obscure Washington tavern.

Rattling on about his gambling escapades, flashy wardrobe, and rivalries with other pianists, Morton grows tedious. But his recollections of trumpeter Buddy Bolden (generally considered to be the first jazz musician, though Morton says he played only ragtime) and his explanation of the “Spanish tinge” (the habanera bass line that Morton insisted was essential to jazz) are fascinating.

For all its wealth of information, this package will not settle the controversies that still cloud Morton’s image: whether he was born in 1885 or 1890, or whether he really wrote such seminal tunes as “Tiger Rag” and “Alabama Bound,” as he claims here. His tale of having first heard the blues in 1902, as played by a three-fingered pianist named Mamie Desdunes, is debatable: there is no documented evidence that the blues appeared so early, and Morton’s rendition of “Mamie’s Blues” sounds suspiciously modern.

Like the narratives, the musical performances are of uneven value. Morton plays superb piano on his classic compositions ‘The Pearls,” “Mamamita,” and “King Porter Stomp,” illustrating his effortless technique, relaxed rhythmic feel, and orchestral approach to the keyboard. But when he sings endless obscene verses on “The Murder Ballad” and “Make Me a Pallet on the Floor,” he’s as obnoxious as a 12-year-old at summer camp. To hear Morton at his best, you’ve got to get his 1926 Victor sessions with the Red Hot Peppers, a group of New Orleanians who showcase Morton’s genius as a bandleader. —Larry Birnbaum

SONNY ROLLINS

Without a Song & The Essential Sonny Rollins

Without a Song (The 9/11 Concert)
Sonny Rollins, tenor sax; Clifton Anderson, trombone; Stephen Scott, piano; Bob Cranshaw, electric bass; Perry Wilson, drums; Kimati Dinizulu, percussion
Performance ****
Sonics ****

The Essential Sonny Rollins: The RCA Years
Sonny Rollins, tenor sax; various artists, including: Coleman Hawkins, tenor sax; Don Cherry, cornet; Jim Hall, guitar; Paul Bley, Herbie Hancock, piano; Ron Carter, Bob Cranshaw, Henry Grimes, bass; Billy Higgins, Roy McCurdy, Ben Riley, Mickey Roker, drums; Candido Camero, congas
Performance ****½
Sonics ****

Sonny Rollins is known by many names: the greatest living improviser, jazz legend, the last of the modern titans, colossus. Massive and thunderous onstage, life-size and soft-spoken in person, with his career hiatuses and his music-infused spirituality, Rollins has lived a story line that has unfolded like a myth. Yet his recording career has been pockmarked by less than magnificent outings,
RECORD REVIEWS

especially in the last two decades. Now, in the year of his 75th birthday, two new releases arrive—one a sublime live performance, the other a retrospective of his two-and-a-half-year tenure at RCA in the early 1960s—that solidify Rollins’ stature as a creatively restless tenor-sax marvel who blows brimstone fire and pacific beauty.

Originally, Rollins had planned a studio album to complete his longtime contract with Milestone Records. But when, in 2004, his wife and coproducer, Lucille Rollins, died, Rollins instead opted to release an excerpt from a live show he had recorded just three days after the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon. In the wake of those events, Rollins and his sextet took to the stage in Boston and delivered a transcendent performance that is only partially represented on Without a Song (The 9/11 Concert). Listening to Rollins’ grace on the tenor sax, one senses that the concert was healing for performers and audience alike. The music has an otherworldly quality as Rollins gently dances through his calypso-fueled concert staple, “Global Warming,” then catches a swinging groove into the tide track. But the highlight is the cooker “Why Was I Born,” which Rollins opens with a gripping, curlicue tenor solo, then sparks the entry of the full band. The track clocks in at 16:15, with nary a dull moment.

But while Without a Song shows that Rollins still has power and empathy—the essentials for a potent performance—it crosses no new frontiers. For a taste of that, you have to return to one of Rollins’ most vibrant periods, 1962-1964, when he returned from his self-imposed woodshedding on New York City’s Williamsburg Bridge. At the time, revolutionaries like Ornette Coleman were changing the sound and shape of jazz, and Rollins was of a mind to do some experimenting of his own. This is splendidly sampled on RCA/Legacy’s vital two-CD collection, The Essential Sonny Rollins: The RCA Years.

The finely remastered set includes music from seven albums Rollins recorded for RCA, including his 1962 return, The Bridge, featuring guitarist Jim Hall and bassist Bob Cranshaw, who continues to perform with Rollins today. “The Bridge” opens with a gusty roll, as Rollins, hoarse and voluminous, uses Hall, who picks out oblique lines, as a foil. The sense of urgency and angst softens in the next track, a heartfelt balladic take on “God Bless the Child.” Other noteworthy tracks include the festive calypso “Don’t Stop the Carnival,” the bossa-nova-flavored “If Ever I Would Leave You,” the radical sax-and-congas jaunt “Jungoso,” and a liftoff into the avant zone on the speedy “Doxy,” including Ornette Coleman bandmates Don Cherry on cornet and Billy Higgins on drums.

Disc 2 is equally revealing of Rollins’ stretch. On three standout tracks from the captivating tenor-sax summit Sonny Meets Hawk, the 32-year-old upstart’s angular, sr-rato lines work with elder statesman Coleman Hawkins’ smooth, smoky soul. Especially engaging is the sax snake dance the two deliver in the closing choruses of “All the Things You Are.” Just as he raided Ornette Coleman’s band for a new approach, Rollins brought aboard two-thirds of Miles Davis’ new quintet of that time, pianist Herbie Hancock and bassist Ron Carter, to record his Now’s the Time. Featured here are the sweetly lyrical calypso “St Thomas” and a moving rendition of Thelonious Monk’s “Round Midnight.” The disc ends with...
Audio technology will surround and surprise you at the 2006 International CES. From stand-alone products to integrated components and systems, experience the difference audio can make for your business at the world's largest tradeshow for consumer technology.

HOTTEST PRODUCTS PEOPLE PLACE JANUARY 5-8, 2006 LAS VEGAS, NV www.CESweb.org

Look for these icons to navigate CES.
the relaxed, blues-steeped “Trav’lin Light,” with Hall, Hancock, and two bassists (David Izenson plays arco). Rollins sings on his sax—a given throughout, even when he’s honking and jarring—but the track ends with a fade. Blame it on original producer George Avakian. One feels cheated not hearing Rollins & Co. finish their musings—a minor flaw in this otherwise essential best-of.

—Dan Ouellette

DAVID WEISS
The Mirror

David Weiss, trumpet; Myron Walden, alto sax; Marcus Strickland, Craig Handy, tenor sax; Norbert Stachel, baritone sax, bass clarinet; Steve Davis, trombone; Xavier Davis, piano; Dwayne Burno, bass; E.J. Strickland, Nasheet Waits, drums

Performance ****
Sonic ****

The Mirror features some of the strongest young players in New York: Myron Walden, Xavier Davis, Craig Handy, and the Strickland brothers, Marcus and E.J. All of them are better known than the leader, David Weiss. But Weiss is a quietly influential presence on the current New York scene as trumpeter, composer, arranger, bandleader, and record producer. His sophisticated, meticulous writing provides contexts that allow the talent he has gathered here to shine.

There are five sextet and two octet tracks. Even when writing for six instruments, Weiss thinks orchestrally, in triads and polychords and complexities of counterpoint and recurrent unifying details. Both groups function as little big bands.

The opening “Stalker” is representative. Like many Weiss compositions, it carries the melody in the bass line, doubled in this case on bass and piano. All solos start or end or ride on an internal off-center vamp on “two” with no “one.” The vamp is the tense, unstable force that holds the piece together. It also suggests a stalker’s ominous footfalls.

Again and again, the primary soloists respond persuasively to the provocation of Weiss’s charts. Walden is an exhilarating improviser on alto sax who shapes his creative volatility into complete statements. He catapults straight up from the vamp on “Stalker” in splintered keening flurries, and it is a rush when he hurtles forward into time. Strickland’s solos, such as his gradually intensifying reaction to “The Sacrifice,” are also passionate yet thoughtful. Weiss himself is the most orderly of trumpet players, and builds elaborate structures on top of his own thematic exposition. If some of this sounds intellectual, Weiss’s music still swings with sensuous fluidity.

The two octet pieces are very different, both deep. “Love Letter to One Not Yet Met” is Weiss’s yearning, fervent, neoromantic trumpet feature. The dark “Mr. Jin,” by Wayne Shorter, sends up Craig Handy’s only solo, a fierce and articulate ascent that bounces hard off the ensemble’s kicking riffs.

Fresh Sound New Talent is an independent label with the taste to use excellent engineers and studios. The sound quality of both sessions, sextet (Joe Ferla, Avatar) and octet (Joseph Marciano, Systems Two), is first-rate.

The Mirror is evidence that, whatever the challenges of economics and exposure now facing jazz, the art form itself is thriving.

—Thomas Conrad

Wavelength Audio
How a computer system at $1250 can beat your $10K transport? Stop by and see how!
www.WavelengthAudio.com

Ultimate Digital Processing Unit
Cosecant USB DAC
Brick USB DAC Stereo Class A Component

Digital Music made perfect with Tubes
Stop by and see our award winning SET amplifiers based on 300B, 45/2A3, WE205D, PX25 and 50.

Wavelength Audio, ltd.
513.271.4186

A DRAMATIC UPGRADE
GOLD ELECTRA™ 5
SILVER ELECTRA™ 5
ELECTRA™ 5
AURORA™ 5
STRATUS™ 5

WIREWORLD
CABLE TECHNOLOGY
telephone: 954-680-3848 • fax: 954-680-1525
www.wireworldaudio.com • sales@wireworldaudio.com

188 World Radio History
"I consider the Reference 8b a standard-setter equal to the Mark Levinson ML2(TM) of the 1970s or the Bel Canto eVo2 (TM) of the 1990s..." -- Jim Saxon, soundstageav.com

"The NuForce Reference 8 amplifiers have solidly met all my criteria for a true breakthrough product. Namely, they perform better than any other amplifiers I’ve tried in my system..." -- Frank Alles, stereotimes.com

"With the latest upgrade, we just have to purchase the reviewed amplifiers. At the moment it is our new reference power amplifier" -- Par Hornell, component.se

http://www.nuforce.com/

"IT'S MOST SIGNIFICANT ASPECT SIMPLY CANNOT BE COUNTED. IT IS... MUSICAL SOUL"

TODD WARNKE
ENJOYTHEMUSIC.COM

Built with a true love for music...
The new MX Series from Merlin Music goes further than any of our much acclaimed previous models.

Book an audition today and discover why many audiophiles, reviewers and sound engineers have chosen Merlin as their reference speakers.

www.merlinmusic.com

"CARLSSA SIGNATURE 16 WPC, SINGLE-ENDED, PURE CLASS A, B45 AMPLIFIER"

Art Audio
401-826-8296
Total Victory:
HP's Super Component List
TAS Issue 144 and 146

The TOTAL VICTORY
Loudspeaker

COINCIDENT
Speaker Technology
www.coincidentspeaker.com
tel (905) 660-0800 fax (905) 660-1114

- Crafted from Premium Solid Hardwoods (Oak, Walnut & Cherry).
- Ships fully assembled.
- Modular Design
- Backed by a 30-day money-back guarantee and 5-year warranty.

CD & DVD Storage

SORICE

- Solid Hardwood or Black MDF Shelving
- Solid Steel Spacer Rods (6, 9 and 13.5" lengths)
- Vertical or Horizontal Configurations
- Easily assembled without tools.

Component Racks

HYPERION
Hearing Is Believing

Enjoy the Music
Decade Award

www.hyperionsound.com
Info: (626) 968-1022, CA (646) 262-7027, NY
Available as a basic stereo amp or outfitted with options that can take it all the way to an integrated unit with a direct, adjustable-level digital input, the Model 200 is the most sophisticated, best-sounding power amplifier that Muse has ever made.

For more information, contact Scot Markwell at (323) 466-9694 x22
info@eliteavdist.com
Come and see us: 2006 CES, Alexis Park, Suite 2701

High Water Sound
2 channel with attitude
introduces
DaVinci Audio Labs
Made in Switzerland

Grandezza Reference
9", 10" and 12" Tonearms

Every DaVinci Tonearm includes a dedicated WallyTractor for perfect azimuth cartridge alignment.
Other Wally Phono Tools are available from www.simplyblack.net and click on Wally's Vinyl Corner.

U.S. importer & distributor
www.highwatersound.com
274 Water St, NY, NY 10038
212.808.8841

Innovative technology.
Finest German engineering.
Un-compromised sound.
Available in the US from Q-USA, INC.
www.q-usa.com
www.ELAC.COM

Stereophile, December 2005
Audio Physic Caldera III

Editor:
We would like to thank Michel Fremer and Stereophile for having the time to audition our Audio Physic Caldera speaker [November 2005].

We have looked at the measurements and read Michael's review and have compared both with our laboratory tests. From the reports we get from our customers, our experiences at the High End Show in Munich (see show report by Markus Sauer in Stereophile, August 2005), and the very positive reviews in other magazines, the differences are more than obvious. Considering all of this, there is no doubt that Caldera serial number 002 had some problems.

We are very sorry about this matter. We are disappointed that we were not confronted with this problem before the review was finished. A short communication at any time would have given us the chance to send Michael another pair.

Gabby Amann
Soundquest

Spendor S6e, S8e

Editor:
I acquired Spendor four years ago. On its own, that makes me a mere Spendor "novice." However, my experience with Spendor loudspeakers goes back to the very earliest Spendor BC1 (and BC3) loudspeakers, which is when I first met Spencer Hughes, founder of Spendor. I remember vividly how his designs transcended so many established boundaries. They delivered exceptionally neutral sound while maintaining fine technical performance. But what I remember most vividly is how Spendor loudspeakers have always appealed to a remarkably wide spectrum of people—not just professional sound engineers and "audiophiles," but mostly "normal" people with "normal" budgets. Among these there were always many musicians, both classical and rock, some performers, some teachers.

What all these people valued so highly was the natural, articulate Spendor "sound," which favored no particular music, and which would always paint an accurate and involving sound picture. When we developed our new S-series designs, we were acutely aware that to lose these abilities would be to lose a vital element of the enduring Spendor magic—so you will understand we are delighted that John Marks, in "The Fifth Element," chose some of our most modern S-series loudspeakers for your music teacher's system. Like the BC1, our new S8e uses an 8" bass driver, which is quite rare these days.

On a practical note, we find our customers (and they do include many audiophiles) tend to be very specific about the maximum height of loudspeaker that is acceptable. Often they want loudspeakers that will sound good when placed close to a wall. Room decor and aesthetics no longer take second place to good sound; both must be "perfect," and that is where our smaller models, the Spendor S5e and S6e, really come into their own. But when it comes to bass, biggest is still best, and that is where, as you have correctly indicated, our S8e and S9e offer significant performance improvements over their smaller brothers and sisters.

Philip Swift
Managing Director, Spendor Audio Systems Ltd.

Lipinski Sound L-707

Editor:
As a recording engineer and producer who specialized in classical and jazz, I spent my entire professional career looking for competitive gear to create my recordings. Since 1985, I have been using my own personal system, which I maintain with the highest possible standards. I have discovered that a fine AV system is about fun, pleasure, and pride. The fun starts when you discover the extraordinary sound that flows from well-designed components. The pleasure grows as you hear new nuances in your favorite music. And the pride of ownership of an exceptional system will be with you every day.

Featured Component: The Gallo Acoustics Nucleus Reference 3

Firmly grounded in the classics...

At Audio Nexus, demonstrating the finest audio and video equipment from the world's most renowned manufacturers isn't a job. It's a passion! When helping you choose a component or system, we'll use all the expertise we've developed in the last quarter century. We'll listen carefully to your needs and use our knowledge to make sure your purchase fulfills your exact expectations.

And remember the most important thing. A fine A-V system is about fun, pleasure, and pride. The fun starts when you discover the extraordinary sound that flows from well-designed components. The pleasure grows as you hear new nuances in your favorite music. And the pride of ownership of an exceptional system will be with you every day.

Öwith our eyes fixed on the future.
I can only create as good a recording as my equipment allows me to hear, monitoring equipment was my first concern.

Behind the idea to create a speaker was a mission to have a monitor that sounds good and measures well—a rare phenomenon among the 1800 models available on the American market today. We spent months measuring in the anechoic chamber, starting from scratch many times over, to reach a design of a speaker without compromise. Because I began experimenting with quadraphonic recordings in the 1970s, and currently focus on high-resolution six-channel surround (ceiling channel instead of LFE) all the way down to SACD, my second objective was to have the best possible monitors for stereo and for surround.

Keeping the above in mind, my concern was to tighten manufacturing standards to deliver identical speakers for years to come. Professionals, especially mastering studios ready to upgrade their stereo monitoring systems but not yet ready for surround, ask if we will be able to deliver identical speakers whenever they are ready to expand to surround. We set our standards at a level where we can deliver such consistency.

My professional friends also inquired about power handling—some of them are known as addictive tweeter burners. The tweeter alone can handle up to 1000W in peaks. At Georgetown Masters in Nashville we were testing the L-707s with 1000W Pass Labs X1000 monoblocks with great sonic results.

Finally, I created the L-707 as a no-compromise monitor to help me create better audiophile recordings for my audiophile label, with no intention of making it a commercial product. It wasn’t until my son, Lukas Lipinski, convinced me to share my gear with the rest of my profession in order to raise the quality of recording and playback to higher standards, that we started Lipinski Sound. Thanks to the discerning ears of Stereophile reviewers, we now have the opportunity to give the L-707 back to the community that instilled in me a consistent, money-no-object pursuit of sonic perfection and helped me grow.

Andrew Lipinski
Lipinski Sound

EAR 912
Editor:
Art Dudley has not left me much to comment on in his review of the EAR 912 preamplifier. I am extremely pleased, of course, that he liked what he heard, and equally pleased by the thoroughness with which he describes its operational capabilities, but was puzzled by one thing: In his opening comments, he states that he used to think that preamps were more important than power amps in the hierarchy of an audio system, but is no longer certain. I would have liked to know what made him change his mind.

In my experience, they are and they aren’t. Many believe, and I agree, that the loudspeaker/amplifier interaction has the most to do with the sonic character of a system, but I have also found that this character can be considerably enhanced (or diminished) by the interaction of the amplifiers and the preamp. Attentive readers know that Art has settled on speakers and amplifiers that give him what he wants, so it makes sense that the contribution of a preamplifier would be more subtle. It is therefore gratifying to learn that he found that the 912 “allowed music to come through with so much of its intensity and nuance intact that literally everything I played was impossible to ignore,” and that “it helped to pull levels of meaning, of emotional engagement, out of what would otherwise be just electro-mechanical noise.” To my mind, intensity, meaning, and emotional engagement are what music reproduction is all about, so once again I leaves me little to express except my thanks for capturing the singularity of the EAR 912.

Dan Meinwald
EAR USA

Wally Phono Tools WallyTractor
Editor:
Thank you, Art Dudley for writing a “Follow-Up” on the WallyTractor cartridge alignment tool. We all know that vinyl playback equipment is now at its best technical level ever. We also know that a Steinway piano or Stradivari violin cannot perform at its potential without perfect tuning. The cartridge-tonearm-turntable system is not exactly a musical instrument, but it also needs tuning and alignment in order to provide the best vinyl playback. Mounting the cartridge in the tonearm (pivoted or linear-tracking) should be done with optimum geometry in the horizontal plane (azimuth).

The new WallyTractor Checker has been developed to allow visual confirmation of perfect alignment at standard null points (Baerwald at 66mm and 121mm and/or Loefgren at 70.3mm and 116.6mm). In addition to the above, it allows for checking the horizontal tracking error across the recorded area, from 60mm to 146mm radius in 10mm increments. It is also suitable for aligning cartridges in linear-tracking arms for overhang = 0mm and horizontal tracking error = 0°.

Last comment: Most cartridges have very complicated body shapes, so we should always use the stylus and cantilever for alignment.

To all Vinylphiles: Align your playback
The PS20 was designed around a very tight brief:

• small, compact size
• extremely high levels of audio reproduction for price level
• extremely low noise levels
• able to handle any MC cartridge, no matter the output level

The size issue is a very real one. Most high-end phono stages come in two very big boxes that take up two whole shelves on an audiophile rack system. The PS20 was designed to be accommodated by just one shelf. It sounds unimportant, but the reality is that we are all running out of shelf space!

The ability to use any MC cartridge is very real. Before, this accolade applied to only a very select few, and at very high prices. We have broken that mold at this price level, the user being able to use MC cartridges with an output of just 0.15mV into the PS20 with absolutely no noise or audio-quality problems.

The RIAA figures measured by John Atkinson look a bit worrying, as the unit was tested in the UK by another audio guru and audio measuring expert prior to a review with absolutely no problems with RIAA error figures—we’ll have to look into that. Like the majority of source components, the PS20 was designed to work into the world-standard 47k ohm input impedance used on about 99.89% of integrated, pre-, and A/V amplifiers. As long as the end user is one of that 99.89%, then the PS20 will do its job with no problem at all.

Like many audiophiles out there in the audiophile world, we tend not to be too bogged down in the measurement side and concentrate purely on the listening, as this is really what it is all about—listening to beautiful music.

Reviewing must be one of the most enjoyable and yet one of the hardest jobs in the world. You get to listen to some great equipment, then try to place it in the “hierarchy of audio gold.” The PS20 is, without doubt, a challenge. The audio reproduction really doesn’t match the price level. It was never meant to. I wanted to develop a product that would turn the audio world upside down: “Give the end-user a taste of real high end for the price of mid-fi,” I thought while calculating this project’s costs. I honestly feel I have met that criterion, and that it would satisfy a very large majority of vinyl music lovers the world over.

The tradeoff between microdynamics and macrodynamics is a hard one. We asked many dealers and audiophiles which was more important at this price level. A good 85% said “macro” every time. A system’s ability to reproduce microdynamics is pretty much proportional to its overall price...as long as it has all been designed properly...and all things are equal, etc., etc.

At $2500, we took a calculated guess that most of the systems the PS20 was to be used in would fall short of microdynamics reproduction compared to the “big guns.” This is where we feel the tradeoff works. We have given the end-user endless amounts of resolution, plus the musicality that he or she can actually hear in their systems.

Ultimately, the proof of the pudding is in the eating. As Brian Damkroger states in his review, “the Wisest is an absolute must-hear.”

James Henriot CEO, Whest Audio Ltd.
A virtual encyclopedia of the world's finest audio components and accessories.

www.hififarm.com

Why? Because he listens to them.

People with the finest multichannel & two channel audio systems in the world listen to Steve Davis.

Just call Steve.

*Most major brands of multichannel components available.

Some not listed on website. Contact us for details.
Stereophile
Editor's Choice: Sampler & Test CD

You've got a Class A audio system —
here are some Class A recordings to show it off at its best

Order online at www.stereophile.com
Becoming known as the "home" of anything can be a dangerous game—good for a time, perhaps, but ultimately self-limiting and deadly. Of course if it comes to a choice between making a new business work by becoming the "home" of a product or service or taking your chances, most people—like Rob Miller, co-owner of Chicago's Bloodshot Records—make the prudent choice. And so, in 1994, the fledgling Bloodshot became the "Home of Insurgent Country Music."

"The C word was so poisonous back then, and now still," Miller says one Sunday night from his home in Chicago. "There was no critical language around this roots-inflected stuff. People were immediately hostile to it if they heard it was country music, and 'insurgent' gave us the punk edge we thought we had."

Eleven years and 125 records later, Miller and his co-owner, Nan Warshaw, may have finally shed the "home" label, even if it has helped spawn the thriving alt-country subgenre and allowed Bloodshot to survive as an indie label in a very tough market.

"All of a sudden there was this weird momentum, this [alt-country] movement, and we were a vanguard of this movement and we're still working off a dining-room table. We were just sitting there, kind of going, 'What?'"

"Despite that, I've always thought of us as a rock label first," Miller adds. In many ways Bloodshot's story parallels that of Seattle's Sub Pop label who've spent a decade redefining themselves. Once the home of Nirvana and Soundgarden (and the underrated Afghan Whigs), Sub Pop's journey out of the grunge wilderness has been long and arduous. It's a path Bloodshot seems determined to replicate.

Bloodshot's first release was the compilation For a Life of Sin. To mark their 11th anniversary—what www.bloodshotrecords.com calls "the improbable accomplishment of surviving in this racket"—the label has now released For a Decade of Sin: 11 Years of Bloodshot Records, two CDs full of songs by various friends and artists signed to the label. Artists on the 42-track collection include The Bottle Rockets, Waco Brothers, Kelly Hogan, Old 97's, Graham Parker, Richard Buckner, Blanche, Handsome Family, My Morning Jacket, Ralph Stanley, John Doe, and Petty Booka.

Bloodshot began like most indies: with a group of music geeks sitting around talking. Miller vividly recalls that slippery slope.

"Like a lot of good things, we really didn't know what we were doing. We were kind of bored with what was going on in music, and we saw a lot of bands around Chicago that were going undocumented, and they happened to have this roots thread going through them, and so we kind of put together a label...

In what the label's website now deems "a spasm of hubris, boredom and naiveté," Miller, Warshaw, and now-departed partner Eric Babcock decided to "press up a thousand copies of A Lift of Sin and see what happens." It was another four or five years before any of them could quit their day jobs.

"So how quickly did you get convinced that this is something that's going to work?" I ask. Talk about naiveté.

A pause, a breath, and then laughter pours from the phone. "We still don't. More long-distance hilarity? No, we knew we were on to something pretty quickly."

Miller says that, in the partners' mind's eye, there was always an audience they thought about making records for.

"People who'd cut their teeth in the first wave of the punk scenes and then got fed up. When Nirvana hit, we were seeing Gap grunge ads on the sides of buses and bands that had absolutely no business being on major labels—like Flipper or Blues Explosion—all of a sudden being on major labels. The whole underground vibe that we had to ourselves was now in the mainstream. It was for those who could see the aesthetic connection between Hank Williams and really raw rock'n'roll and punk."

One of the label's first signings, the Waco Brothers, remains one of its biggest acts. Waco leader Jon Langford, a Welshman who once fronted The Mekons, a punk band turned New Wave turned country-rock, moved to Chicago in 1992 and played in what he calls "a heavy-metal, drum-machine, power-trio, insane-noise band—three guys running around with a drum machine clanking away," before switching to a loose form of old country music that he played in some of that city's ubiquitous, "funny little beer joints."

"We really didn't sound like a country band. What we were sticking into the sausage machine was George Jones, Johnny Cash, and Hank Williams songs, and they were coming out sounding like this weird punk-rock hillbilly music."

The Wacos' contributions to the Bloodshot catalog now number seven full-length albums. Langford, also an artist who's designed Bloodshot album covers, says his relationship with Nan and Rob remains productive. He remembers his first meeting with Bloodshot's ruling triumvirate with a chuckle.

"I was in a bar, and they were sittin' there having a drink, the three of them, and the two guys didn't want to talk to me, so they sent Nan over. That's the story she tells, anyway. They were shy boys."

These days, Miller says he's more tired than shy. Four years ago, Bloodshot moved to Albany Park from its longtime home near Wrigley Field, a basement commonly called "Das Boot" for its low ceilings. Now with five employees and a pack of new releases—headed by the Detroit Cobras' Baby—Miller's confident that the label can outrun the taint of being alt-country central (albeit using a White Stripes-like vibe) but the knowledge that the transition will take time has him feelin' the miles.

"It used to be that I could make Circle Jerks references, and they'd see 'em or knew what I was talking about, and now all the employees and the bands are 15 years younger than me, and they're talking about podcasts, and I just kind of stare into space and go home and play my Hound Dog Taylor records and wonder what the hell happened and where the time went. And then there's a Cobras record, and the reasons I got into it are still there."
Announcing the New DK Signature LSA Model

Numerous changes have transformed this amazing amplifier to another realm...

We've replaced the tubes, utilizing a better design than our previous model.

We are employing metal film resistors.

We've improved the internal wiring to Siltech.

And, frankly, we've done some other things that shall remain forever secret... until you listen!!!

LSA Group/DK Design
10111 Production Court
Louisville, KY 40299
888.671.8607 Toll Free
502.671.8608 Fax

LSA Group:
Real World Technology for Music Lovers

Oh yeah... for those owners who have already purchased the new units, not to worry — we will upgrade your Signature at NO CHARGE (other than shipping).

How's that for raising the bar on customer service?

Sorry, other units may not be upgraded... of course, you can always go Signature!
With Profile we gave ourselves a new challenge: to closely blend the best in technology and design. Our objective: create a modern yet simple line, easy to live with and to integrate. Profile combines the best of the brand's technical expertise with a sophisticated air given by the choice of high quality materials. The all new Profile tweeter marks a significant point in the evolution of Focal's legendary reversed dome tweeter. It is a direct descendent of the Beryllium® tweeter found in the world reference Utopia Be line, and joins the sandwich w® cone mid-range and bass drivers in adopting unique technologies originally found in the hi-end range. Visit our site web site: www.focal-fr.com