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As We See It

Wes Phillips

I was watching Mr. Holland's Opus on the tube the other day and was surprised to find myself teary-eyed, even though the film lost me by subjecting me to Michael Kamen's atrocious "symphony" in the finale. Why had I become all choked up? Because I had a Mr. Holland of my own.

My high school band director was a man improbably named Sharon Hoose. He was a slim, dapper chap who had directed the Lane High School band for 25 years, and he had a credo that saved my adolescent sanity: If you were a musician, you were special.

When we weren't compelled to be in some class or other, band students at LHS virtually lived in the bandroom. We didn't have to gather in the cafeteria before school—if we didn't have early Marching Band practice, we could socialize or practice in the bandroom or one of the practice rooms. We could finish those last-minute assignments in the music library. Instead of study hall, Mr. Hoose would arrange for band members to be assigned to the bandroom, where we could practice, study, or, frequently, listen to records on his stereo.

Most of the stereo I'd seen prior to joining the band had been KLH systems or some other type of inexpensive hi-fi appropriate to the college students who populated Charlottesville, but Mr. Hoose had a rig that seemed incredibly exotic to me. For one thing, he had separates, and, while I can't be sure at this remove, I suspect he had tubes. There also was a new ritual Mr. Hoose introduced me to: warming up the system.

I wish I could tell you that I discovered soundstaging and imaging then, but I didn't. I do remember being impressed by the enormous stereo spread of the system. (That was mostly because my friend Michael Spence brought in his copy of Stan Freberg's History of the United States, Pt. 1, which had Native Americans tap-dancing from one speaker into the other.) But Mr. Hoose did teach me other audio lessons that have served me in good stead to this day. He taught me not to throw away the records' paper inner sleeves (as all my friends did), and how to put the sleeves in the jackets so that the records wouldn't come rolling out when you least expected it. I remember him playing different performances of the same work and asking us why one worked better than the other—which is also one of the few memories I have of a high school teacher asking me what I thought, rather than having me regurgitate what I'd been told.

Most important, he taught me that music was something that adults could care deeply about—and even, if they were very lucky, make their life's work.

My high school band director taught me that music was something that adults could care deeply about—and even, if they were very lucky, make their life's work.

...were very lucky, make their life's work. Correctly determining that I had no chance of making a living off my musical talent, he encouraged me to pursue musicology, recording, or even criticism (assuming I didn't feel compelled to earn an honest living).

He wasn't a character out of some Hollywood fantasy, though. He could be pretty crusty—especially if you didn't respect music or your own talent. And he certainly wasn't always open to music outside the canon. I came into band study hall one day excited over my latest discovery, Bessie Smith. I told Mr. Hoose she was the greatest blues singer who'd ever lived. He put the record on his stereo and was less than bowled over. "That's wretched," he said, "but that trumpet player is pretty good—whatever happened to him?"

"Not much," I mouthed off. "He just kept on being Louis Armstrong."

You could blame my lifelong love of high fidelity on Mr. Hoose. In the 27 years since my high school graduation, I've certainly thought of him more—and more favorably—than any other teacher I had. Hence my teary eyes at Richard Dreyfuss. There was no way Mr. Hoose could have known he was starring me on my road to becoming an audio critic—he was only sharing his passion.

Jonathan Scull likes to suggest that everyone share their passions for music and audio with their loved ones. No more sitting alone in the sweet spot—bring in the family and play them something you love! You'll all be richer.

I couldn't agree more. When neighbors, friends, or relatives drop by, play them something you cherish. In the long term, you'll be enriching your life—and theirs too. And in the long term, who knows?

About a week ago, my nephew called to tell us he's been offered a summer job in the chorus of the New Jersey State Opera. Next fall he returns to Westminster Choir College, where he'll start his senior year in music education, join the Westminster Choir on tour, and perform with the New York Philharmonic. We're very proud of him.

"Tell Wes this is all his fault," he told my wife. "I'd never heard of Westminster before he gave me that Chesky recording of the choir one Christmas. If I'd never heard that, I probably would never have come here." In a little over a year, Sean's going to be a music teacher himself, exposing the next generation to the wonders and glories of our musical heritage.

Our passions are what make us human—we must nurture them, share them. We never know where they'll lead, but we can be certain that the journey will be worthwhile. —Wes Phillips

Muse Kastanovich

With his review of the PSB Stratus Bronze loudspeaker in this issue, we say farewell to writer Muse Kastanovich. Physics graduate, choral singer, bass player, and DIY electronics enthusiast, Muse's first published review for Stereophile was of three $2000/pair loudspeakers—the Swans Baton, Thiel CS1.5, and Unity Audio Signature 3—in our November 1995 issue (Vol.18 No.11). Since then he has written about many inexpensive CD players and digital products and a potpourri of loudspeakers. We wish Muse well in his future activities. —John Atkinson

Stereophile, July 1998
SINGLE-ENDED CLASS A

CARY. A WORLD-WIDE STATEMENT IN AUDIO AMPLIFICATION.
TRIODE . . . CARY STYLE

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Please audition and look at one of the Cary Single-Ended Class A Triode Series Amplifiers at your favorite high-end authorized Cary Audio Dealer.
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Stereophile, July 1998
Paradigm Reference Wins The Best of 1998 Awards!

Video Magazine’s Home Theater System of the Year

AudioVideo International Grand Prix Product of the Year

"...combines solid bass with uncoloured midrange, fine soundstaging, and a detailed, open top end... definitely give the Studio/100 a listen."
- Tom Norton, Stereophile Vol. 20, No. 8

"...state-of-the-art performance."
- Joseph Cerdá, Sensible Sound

"...an acoustically crisp, credibly realistic, and untiringly musical performance."
- Andrew Kean, Hi-Fi Magazine

"Phenomenal...Highly Recommended!"
- Dan Reisz, Audio Magazine

"Skin Tingling...Truly Topnotch."
- Julian Hirsch, Stereo Review

"Outstanding...I Surrender..."
- Gary Peters, Audio Adventure

"Extraordinary...Bravo Paradigm!"
- Andrew Marshall, Audio Ideas Guide

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Website: www.paradigm.com
Audio yoga
Editor:
If only an audiophile could also establish noise and vibration control within himself, then life would become perfect indeed.

August Timmermans
Bangkok, Thailand
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Mass hysteria
Editor:
Reading Michael Fremer's "Analog Corner" in May (p.53) reminded me of the way the characters in Arthur Miller's The Crucible behave: mass hysteria.

I didn't believe a word of what Fremer wrote about Shirley's and Pat's reaction to the Rolling Stones albums. But just as a reality check, I played a couple of my Stones albums. I wouldn't be surprised to hear he shot those girls full of sodium pentothal. Of course, Miller's play points out that drugs aren't needed for a group delusion to happen.

Seriously, I'm a bit disappointed to see that your writers now have license to write absolutely anything. That unshige non-sense belonged, if anywhere, on Fremer's personal web site, if he has one. Paul Berk
pbny@compuserve.com

I find the essence of Paul Berk's letter—it that because what I hear as an experienced listener and respected (though obviously not by him) music and equipment reviewer doesn't agree with his experience on whatever it is he listens on, it is not fit for publication—to be disturbing. Mr. Berk can spray his letter with Arthur Miller quotes about witchcraft, but it doesn't gloss over an angry and intolerant mind. Still, intolerant and angry individuals are welcome in my listening room—I've hosted many who have all concluded that the records do sound better. So, Paul, if you're in the NYC area, I invite you over to listen to some Stones music on my system, and I promise not to shoot you up with sodium pentothal. You can then tell Stereophile readers what you heard.
(Pat is a gay, by the way.)

—MF

But really!
Editor:
I can no longer continue with Stereophile—nor, in fact, with any of the high-end magazines. I just don't earn anywhere near enough. True, I work on the periphery of the "industry"—doing audio engineering at a private college in upstate New York. But aside from building my own equipment, which I can do, have done, and will continue to do, I can no way support the kind of prices featured by most of the gear reviewed in your magazine.

I'm in my mid-50s and have followed audio since junior high school, first with Audio magazine and the late, lamented Ed Canby, and on through their acquisition by Hachette-Filipacci. Later I took up with Stereophile, and even the occasional issue of The Absolute Sound, but I find the field fit for lawyers, doctors, and politicians—in other words, people with lots of money and no sense of shame about spending $20,000 on hobby items.

I have run into this phenomenon as a rail aficionado, with model railroad people spending $2000—$4000 on brass locomotives. Sure, it's all nice and well constructed, but really!

Somewhere back in the dark ages, I bought and loved Dynaco tube amps and preamps—affordable and pretty good sound. Having shot my wad on that gear, I proceeded to acquire recorded music and sounds, both commercial recordings and ones I made myself. That was and is, for me, the whole reason for audio gear: to listen to music and sound, rather than to compare amplifiers or, god help me, wires. The fact that the record reviews are a tiny trailer that follows the equipment juggernaut in your magazine makes the magazine of little use to me.

I understand that there is a discernible improvement in reality from the careful setup and choice of equipment, but I also have a whole other life, not to mention real-world bills. Therefore, I must say good-bye to your world. Thanks for some entertainment over the years. I shall not give up listening.

Best of luck to you with your perceived monevedy audience.

Gene Endres
endres@ithaca.edu

A matter of priorities
Editor:
I have to concur with Mr. George Paik in the May Stereophile (p.11): "Anyone who can drop 50 grand on a Mercedes or Lexus can afford to buy high-end equipment." I doubt that anyone will disagree with me when I say that audiophila (yes, I think it is a disease) can affect one's priorities.

I am not immune. In fact, I would say that my case is rather acute. I wouldn't even consider spending $50,000 on a car, particularly with the way those things depreciate in value. However, Wes Phillips' review of the Conrad-Johnson ART preamplifier in the same issue makes me want to raid my 12-year-old's college fund, refinance the house, or knock off some relatives!

Rationalization can be devastating at 2am:

• C-J ART: My son will never know the difference.
• ART and C-J Premier 8s: He can go to a state school.
• ART, Premier 8s, and Krell FBP 600: The little ingrate can work his way through college.

You folks are doing a great job, but it's killing me!

—WP

Humor?
Editor:
Michael Fremer seems to think he's funny. Is he?

Simon Ellis
Simon.Ellis@umilev.com

We think so.

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Letters to the Editor should be sent to The Editor, Stereophile, P.O. Box 5529, Santa Fe, NM 87502-5529. Fax: (505) 983-6327. E-mail: John Atkinson, jatkinson@stereophile.com or Letters@stereophile.com. Unless marked otherwise, all letters are assumed to be for possible publication. If you have problems with your subscription, call (800) 444-8908 or visit www.stereophile.com.
Value.

A concept not relevant to high end audio? We would argue that products like the **N°39 Compact Disc Processor** prove otherwise. Combining the performance and functionality found in the highly acclaimed **N°36 Digital Processor** and the **N°37 CD Transport**, the **N°39** represents value unheard of in a single box CD player. The benefits of shared technology are many. From the elegant Madrigal-designed loading mechanism and Closed Loop Jitter Reduction™ circuitry employed by the **N°37** to the dual differential 20-bit digital to analog conversion derived from the **N°36** digital processor, the **N°39** enjoys a technological heritage unequalled in its class. Add HDCD® decoding capability, a high quality digital output, two auxiliary digital inputs, fully balanced analog volume control and remote capability, and it's readily apparent that true versatility and value can coexist in one remarkable component. Visit your Mark Levinson® dealer for a personal demonstration soon and listen to the sound of real value.
Cheerful
Editor: I was touched by John Atkinson’s cheerful willingness to alert Stereophile’s readers to my on-line magazine, La Folia (“Industry Update,” June ’98, p.41). Alas, to stand Mark Twain’s quip on its head, news of the mag’s existence was greatly exaggerated. However, it’s now up and running, and thanks to Madrigal Audio’s high web-page standards, a delight to behold. (Whether it reads as a delight is not for me to say). So that she be, gentlest all, at www.lafolia.com or www.madrigal.com as a link. E-mail comments welcome, contributors too.

Mike Silvertown
hen teneth@aol.com

Confused
Editor: Needlessly splitting an infinitive (changing “not to produce” to “to not produce”) is bad enough, but you misinterpreted what the phrase “by this writer” means in my May letter (Vol.21 No.5, p.28), and made it say “Adams’ AES preprint 3206…” “By this writer” is different-speak for “my”. I wrote the preprint. (Glyn Adams had died prior to that, I think.)

David Moran
dmoran@eleom.com

Sorry about our anachronism, Mr. Moran. –JA

Disappointed
Editor: I am sorry to say that I am deeply disappointed with Stereophile’s reviewers and the quality of information that they provide to the readers. Their opinions are usually limited to one or two positive characteristics of a piece of equipment, but have very little to do with the overall quality of the audio reproduction. Negative aspects are either not mentioned or glazed over as not being too serious. I’ve yet to read a review that truthfully says that a particular model has poor midrange or bass. This information is usually phrased as “its strengths are in the upper-octave region of the audio spectrum” or “a careful speaker selection is recommended.” Give me a break!

The reality is quite different, and not as rosy as your magazine tries to portray. Around 80% of Stereophile’s Class A recommended components are complete garbage. Adding injury to insult, they usually are the more expensive units. Hi-fi manufacturers selling $10k equipment that sounds like a $200 receiver should be out of business. Companies like Conrad-Johnson, Rowland, and Audible Illusions should be torched for the crap that they make, yet your magazine gives them an A rating. You are just as phony as they are.

Alex Kusenko
elvis-future@worldnet.att.net

Puzzled
Editor: I have been an avid Stereophile reader for a while now, and very much enjoy it. I only wish there were two monthly issues, since it always seems like I am done with one way before the next one comes out!

I have a question, though, regarding your policies regarding equipment that you review: Do you review more equipment than you publish reviews of? The reason I ask is that it seems like it is very rare that a piece reviewed in Stereophile is not recommended. The vast majority of reviews seem glowing. The worst that is ever said seems to be that the piece in question is better suited for certain applications than others.

I have trouble believing that all of the audio components that Stereophile are worthy of such praise. Unless, of course, a large number of products that are reviewed are not published thereby making the appearance of a review in Stereophile a recommendation (conditional in some respects, unconditional in others) in and of itself.

Mr. Kusenko’s letter does not require a response other than to note that our experience of components made by the companies he attacks has been the opposite. But Mr. Crivore asks an interesting question. The answer is both quite simple and not at all obvious.

The simple answer: No, Stereophile does not review more equipment than it publishes. If we were to review equipment “under the table” and not report on it, we would lose credibility. Only by guaranteeing that every item we are sent will result in a review can we assure our readers that we do not solicit any review due to manufacturer pressure. If a product is submitted, a review will result. Period. No exceptions.

That does somewhat beg your question, however. Since most of our reviews are positive and it is not possible that every product out there is worthy of recommendation, some sort of selection process must be involved. With the exceptions of John Atkinson, Tom Norton, Michael Fremer, Martin Colloms, Jonathan Scull, and me, all of the Stereophile reviewing staff have other jobs. They tend to select gear that has impressed them at shows, has been highly recommended by audiophiles they trust, or has created a buzz among other listeners. This tends to preselect for quality.

The full-time staff cannot always be so selective, however. We must also review components that might or might not be so refined, are offered by companies that have produced significant products in the past, or who are exploring new technologies—not always successfully. Stereophile has space and personnel to publish only between 100 and 120 equipment reports each year, so we try to guarantee that these be of products that are exciting, interesting, and noteworthy. But we cannot always know before the rigorous audition process whether or not a product will qualify on all counts. When it doesn’t, we will say so.

By the way, manufacturers are of the opinion that we rarely publish good reviews—unless, of course, we’ve reviewed one of their competitors recently!

WP

Pompous asses
Editor: It becomes more and more difficult to read Stereophile. This difficulty is not caused by any desire to see the magazine become more “objective” or “subjective” in its reviews, nor does it change in the magazine’s “look” enter into the picture.

What bothers me is the increasing smugness and arrogance that permeates so many pages in each issue. I happened to focus on one particular example during my reading of Wes Phillips’ review of The Pet Sounds Sessions in March’s “Quarter Notes” (p.165). In the review, Wes quotes John Atkinson as saying “Brian Wilson didn’t have the vocabulary to communicate what he was trying to do in the studio—he was reduced to singing parts at the musicians, and sometimes banging on the console.”

Unbelievable! If only JA had been present to “properly” communicate to the musicians, think how good Pet Sounds would have been.

"Reduced" says JA. John Atkinson couldn’t shine Brian Wilson’s shoes, but he sure can show the world how much smarter he is than Brian when it comes to communicating to studio musicians.

I use this instance only because it is such a blatant example of what is so irritating about the magazine’s content. This “holier than thou” attitude is a regular part of the equipment reviews also. Looking at my stack of back issues, I find very little of this in the early days, but now it’s all too common.

Pardon the off-color terminology, but the term “pompous asses” seems to be the best fit. A large dose of humility is certainly needed in Santa Fe, and needs to be administered quickly.

James C. McShane
MLJS45A@prodigy.com
Some notable quotes from Edward M. Long in *Audio*’s September issue:

“...KEF has gained an enviable reputation for producing excellent loudspeakers.”

“...clear, precise imaging.”

“The RDM one reminds me of the classic BBC LS3/5a, but with deeper bass and higher output.”

“...the KEF RDM ones are an excellent value—and very good looking, too.”

Designed by the same engineers as our legendary Reference Series, the RDM one features KEF’s patented Uni-Q® technology. Uni-Q places the tweeter at the exact acoustic center of the woofer cone to create a single point source for the entire frequency range—the ideal to which all speakers aspire—producing a flawless soundstage over a much wider listening area. Whether on a bookshelf or stand, the RDM one no longer confines you to sitting in a central sweet spot to enjoy exceptional performance. Audition them for yourself by contacting us for the name of the authorized KEF dealer nearest you. Ask for a full reprint of the RDM one review when you call.
Thank you for writing, Mr. McShane. I believe that you have misunderstood the thrust of what I was trying to say, as quoted by Wes Phillips. Please allow me to elaborate.

Before I started to work full-time for a magazine, I spent some years of my life working as a session musician. The producers I worked for varied from one extreme to another in their abilities to communicate what it was they wanted from the musicians with whom they were working—from the few who had charts written out in microscopic detail to those who left it completely to the players to come up with “head arrangements.” What fascinated me about Brian Wilson’s working method, as revealed by the studio dialogue included in the Pet Sounds boxed set, was how, as a musically unschooled man, he did not have the formal vocabulary to describe what he wanted to the players in the studio. His suggestions and comments were therefore broad rather than specific, vague rather than clear. Yet such was his genius that, despite this, he apparently had no problem communicating exactly what he needed from his musicians.

And that he knew what he wanted, that he had a formed idea of what each song on Pet Sounds was to sound like, is revealed by The Pet Sounds Sessions. Listen to the way the instrumental arrangements on their own leave the appropriate space for the vocal tracks, despite the latter being recorded months after the instrumental tracks were recorded. Listen to the vocal parts on their own, and marvel at how neatly they subsequently dovetail into the instrumental tracks. This is music-making of the finest kind—and from the brain of an inarticulate, musically self-taught, parentally abused teenager from suburban Los Angeles. It leaves me in awe.

What puzzles me about Mr. McShane’s e-mail is that it seems to want to deny me my observations; that because of Brian Wilson’s genius and his subsequent effect on popular music, it is “pompous” of me to wish to point out that his talent was not without flaw. I am sure that, had Brian been formally educated in music, it would not have made one jot of difference to Pet Sounds. However, when he later hit the brick wall of his own lack of imagination, it might have given him some insight that would have enabled him to avoid the slide of his life into drug-dependence, petulant despair. It might have allowed him to better cope with the fact that his best work had been done in the early part of his life.

Regarding Mr. McShane’s overall point: Is Stereophile a better-written, better-edited, more thorough, more responsible, more professional publication compared with how it used to be? Undoubtedly. Has it lost a certain something? Maybe it has. Lack of competence is often equated with charm, as though the presence of mistakes makes the work seem somehow more human. Mr. McShane suggests we need to acquire humility. Perhaps we do. But forgive us our belief in ourselves: the current team of writers, editors, and graphic artists is the finest group of people I have been associated with in my career, and I am proud to work with them.

And in response

Editor:
I appreciate JA’s response, but I do ask readers to compare these two statements. One is written the way I think JA would have written it five years ago, the other is current:

“Brian Wilson didn’t have the vocabulary to communicate what he was trying to do in the studio—he was reduced to singing parts at…”

“Brian Wilson didn’t have the vocabulary to communicate what he was trying to do in the studio—he sang parts at…”

Which of those could be described as pompous? Which of those might be considered condescending? What did the passive voice of the verb “reduce” add to the clarity or accuracy of the sentence/paragraph/article?

Incidentally, I’m not a big Pet Sounds fan. I do like the Beach Boys’ music, but I find I prefer some of their other, simpler work. Maybe I’m the same way about Stereophile. Is the magazine better than years ago? In some ways, I think it is. In others, I’m not so sure.

Humility is a very endearing trait.

Jim McShane

A matter of references

Editor:
Larry Greenhill uses Richard Thompson’s astounding Rumor and Sigh as one of his references, and rightly so. But I’m beginning to wonder if LG is listening to a different version from what I spin on my VPI turntable. At least twice now, he’s described the “acoustic guitar” at the right of the soundstage on the instrumental finish of “Why Must I Plead” (January 1998 Totem review and May 1998 PMC review). Will someone please tell Larry that this is an electric guitar, although played with such taste and restraint that it might fool the casual listener into thinking otherwise? Hate to be a nit-picker, but this is one of my all-time favorite rock LPs.

Anyway, LG does a great job, and I enjoy your magazine. Best wishes and blessings in His name.

Tony Biancardi
Tbiancar@juno.com

It’s good to learn that readers like Mr. Biancardi listen carefully to the same music I do. I stand corrected — the guitar referred to, in Richard Thompson’s “Why Must I Plead” on Rumor and Sigh, is an electric guitar.

I use that instrumental ending because it so clearly demarcates the margin of the soundfield. With a good loudspeaker, Thompson’s guitar creates the illusion of being outside of the usual soundfield, off to the right — at least in my system. I’m glad Mr. Biancardi enjoys that recording as well. By the way, I’m listening to the CD version.

LG

A good temporary solution

Editor:
Four weeks ago, I was all set to buy a professional CD-R recorder for a little under $2k, which gives you the capability to record on regular data-grade CD-Rs (instead of the costlier audio-only variety), as well as some other nonconsumer perks. I had listened to MiniDisc a while back when it came out, and was disappointed at the thinness of the sound, and somewhat irked that Sony would do so much so right (erasable media, random access, nonlinear recording—like floppy disk and unlike CD), yet do the most important thing wrong: the sound. As far as I was concerned, MiniDisc could be ruled out from the start.

Then I began to think that pretty soon the source material available to consumers is going to exceed CD quality. Knowing that CD-R will soon fall short of doing justice to the high-bit, high-sampling-rate source material that will hit the market, I started to question whether MiniDisc was as much of a sonic compromise as I had previously thought, especially in light of tales of the miracles of fourth-generation ATRAC encoding, and how some CDs have been mastered off of MiniDisc session recordings.

To make a long story short, I figured that the $400 that could buy me a MiniDisc bundle would be worth the expense, so I bought one. Here are my comments:

• MiniDisc does not sound nearly as bad as its opponents would have you believe.
• MiniDisc does not sound nearly as good as its proponents would have you believe. (Some claim better-than-CD quality; check out the e-town threads).
• MiniDisc does something weird to the high frequencies.
• Come to think of it, LPs and CDs also do something weird to the high frequencies.
• What the MiniDisc does to the HF sounds similar to what LPs do to it (also noted by Alex Carreira in May’s “Letters,” p.17)—that is, it seems to soften the HF harshness present on
CDs, even when recording digitally from those CDs.

- We consumers must demand the editability of MiniDisc in whatever disc-based digital recorder comes along that surpasses it—that is, freedom from sequential disc recording so that tracks are recorded like files on a hard drive, with no concern for where the pieces of the segmented file are physically written, making for efficient use of the medium.
- The sound quality of MiniDisc depends on the complexity of the musical passage—things that are very dense become congested on MiniDisc, but things that are musically “sparse”—likefolk rock, for example—seem to really shine on MiniDisc.
- 148 minutes of mono for archival purposes is mighty sweet.
- After a little while, what flaws ATRAC does have become less apparent—they are at least minor enough to allow you to get involved in the music, which is more than I can say for any analog tape I’ve heard.
- In making compilation MDs for my car, I’ve rediscovered music that had been sitting on the shelf collecting dust for a long time.

So, suffice it to say that I’m happy with my MD setup. I long for the disc-based digital recorder that will be able to capture DSD or WG-4 DVD-Audio, or whatever comes along to put ATRAC to shame—but for now, MD is a good temporary solution.

Agin Perolli
meistertrinker@juno.com

It seems as if Mr. Perolli bought an MD recorder for the right reasons, and that the current ATRAC algorithm is better than its predecessors, which made poor use of the data space compared, say, with Philips’ PASC or Dolby’s AC-3. Earlier versions of ATRAC were better than they needed to be at low frequencies, but “ran out of bits” above 10kHz.

JA

A problem

Editor:
I have B&W speakers with proud-mounted tweeters. Where the hell do I put my $1.20?

Name withheld
axt@netcom.ca

A Texas tweak

Editor:
Ye Gods! I tried this $1.20 BS, but to no avail. I decided that I would go whole hog and invest big bucks. So I spent Morgan silver dollars on the corners and the center fronts of my speakers. Still nothing. But not being one to give up easily, I forged ahead. I tried my Susan B. Anthony silver dollars. She got sick, threw up all over the rug—I threw up my hands and gave up.

So, Darlin’, my advice is to save your money on so-called tweaks and invest it in a subscription to Stereophile. The rewards will be much greater.

‘Nuff said.
Norma Desmond
Palo Pinto, TX

An English tweak

Editor:
I recently reread Sam Tellig’s March column, which mentioned the $1.20 tweak, and, as I was bored the other afternoon, I thought I’d give it a shot. As quarters and dimes are in short supply in the UK, I’ve anglicized into the 40 pence or 50pence tweak. I tried two versions: one using two 5p pieces and one 10p piece per speaker; the other using two 10p and one 5p per speaker. Here’s what I heard.

With version 1 (the 40p tweak), the soundstage widened and deepened, but at the expense of the center, which lost substance and incisiveness—this was most noticeable where one instrument is prominent in the center; e.g., the slide guitar on My Coober’s Paris, Texas.

With version 2 (the 50p tweak), the soundstage widened and deepened a touch more, but the center retained the same degree of substance and incisiveness as when the coins were not used. Pieces in which spatial information is vital to making sense, such as Vaughan Williams’ Thomas Tallis Fantasia (Barbirolli/Sinfonia of London on EMI), benefited especially, but so did some fairly unnatural, processed rock recordings.

The effects of the 50p tweak are more noticeable on CD than vinyl; however, my CD player is better than my turntable/cartridge. And continued listening to the 50p tweak is revealing more detailed treble and bass. Interesting.... Is this also to do with diffraction effects and their reduction? Or am I simply listening more attentively?

Another very cheap tweak that has some interesting effects involves clear Scotch Tape, and came from a 1997 issue of Hi-Fi World; stick strips of tape around the edges of the frames of the loudspeaker drive-units, which ensures that any slight gaps between the drivers and the baffle are covered. This, so the theory goes, reduces diffraction effects. I noticed smoother, cleaner sound with improved detail and imaging.

The effectiveness of this tweak should be dependent on how flush, or otherwise, the drivers are to the baffle. However, even on my Ruark Talesman IIs, which have a high standard of cabinetwork for the price, there was an improvement in sound.

Needless to say, after the above—not to mention the cones, the marble pastry boards added to the shelves, and much playing with cables—my wife is totally convinced that I’m mad. She claims not to be able to hear any difference, and reckons I was a train spotter in a past life.

David Ballard
Bristol, UK

Now we’re talking tweaks!

Editor:
I’ve been reading about the $1.20 tweak in Stereophile, and it has prompted me to share with you a cheaper tweak that I picked up a year ago. Bear in mind that this tweak doesn’t work for everyone, and in some cases may be bad for the listener. However, it works for me.

Take two quarters and a dime. Stop listening to music for a few minutes. Walk to your locak convenience store and purchase two articles of chocolate. Go home and eat the chocolate. Five to ten minutes after consuming the chocolate, start listening to music again. Though you won’t notice improved focus, soundstaging, boom, slam, or whatever, your overall enjoyment of the music will be much greater.

D. Asherman
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Play it loud!

Editor:
Okay, I’m not disagreeing that tube amplifiers sound “different” from (better than) solid-state ones. I will even acknowledge that laboratory measurements do not accurately reflect those tonal qualities that make zero-negative-feedback single-ended-triode tubes sound “better” than (different from) push-pull tubes or solid-state. I can hear a difference.

But let’s get realistic here, Sam Tellig: 3.5W “maximum power” from an amp using 2A3 tubes? 3.5W??

I don’t know what kind of listening environment you live in, but everywhere I have ever lived has enough of an ambient noise floor to make 3.5W “maximum power” inadequate. Maybe Sam doesn’t have to compete with airplanes, automobiles, HVAC systems, washers, dryers, dishwashers, dogs, cats, children, etc., but I’d wager that most of his readers have to face these impediments to a perfect listening environment on an everyday basis.

Regardless of the music being played, it seems to me that I need 5W just to get
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listening levels that I rarely consider "moderate." Heaven help me when I want to listen to Mahler, Bruckner, Miles, Stan Kenton, Yes, or any other music that contains not just the microdynamics of chamber music, but macrodynamics as well. With 3.5W "maximum power," I'd be so nervous of speaker-wrecking distortion that I'd probably never listen on anything but headphones again. My car would become my primary listening environment, because the stereo there has more than 3.5W "maximum power," and I don't really care if I blow the speakers out— they're (relatively) inexpensive to replace.

I am a subscription regular at the Cincinnati Symphony. My seats are in the lower level, 13th row center. There is nothing quite like the impact one feels when the entire group is playing together, regardless of the dynamic level. This impact is greatly heightened when the dynamic is forte or fortissimo. I am truly convinced that while a low-wattage SET amp can accurately convey detail, it cannot convey the impact one feels from an orchestra. High-powered solid-state amps can (and do) convey this impact.

In a way, I really envy Sam Tellig. I wish I had the facility and dollars to put together a system with a nearby 0W SET amplifier and a pair of sensitive speakers in a small room. But I'm sure that even if I had such a system, I'd also find a way to have another one with a "muscular" solid-state amp in my rather large listening room, which would allow me to play large-ensemble music the way it is meant to be heard (loud).

Thomas A. Taylor II  
Cold Spring, KY  
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**Letters**

**It's in the accent**

Editor:  
Mister Jonathan Scull, on your JMLab Utopia review in April (p.205):  
• _Mélomanes_ (you omitted the acute accent on the "e") are not audiophiles in France, or anywhere else _dans la francophonie_, for that manner. _Mélomanes_ are referred to as music lovers, basically. Audiophiles are referred to as sound lovers, or, if you prefer, hi-fi lovers. Both words exist in French. Thus, to make things easier to differentiate, _les mélomanes_ collectionnent les disques tandis que _les audiophiles_ collectionnent les appareils audio!  
• _J'avoue!_ Non, je n'écoute. The é on your keyboard (I assume that you run Windows) can be done with the ASCII 030 key-stroke combination.  
• Un petit peu, petit: Non: Un petit peu (a little bit).

_La morale?_ La prochaine fois que vous écrivez un article à propos d'un produit français, s'il-vous-plait, vérifiez l'orthographe et le type des quelques expressions françaises que vous inutile à écrire. Il est bien — et même recommandé — de vouloir montrer que l'on n'est pas trop idiot, mais lorsque l'on rate son coup, et bien c'est dommage, mais on a vraiment l'air idiot, et malheureusement aussi prétextes! On obtient l'effet inverse.

May I suggest a good book to read?  
_The Elements of Typographic Style_ by Robert Bringhurst (Hartley & Marks). You will learn a lot about the acute, the grave, the caron, the circumflex, the ogonek, the cedilla (en français) . . . Patrick Blart  
blart@actuswom.com

**My Dear M. Blart:** To paraphrase my editor, "Build a schick and they will beat you with it!" The roomful of "audiophiles" at the JMLab exhibit at the Paris show (whom I gave credit for being "mélomanes") acted amusingly and disarmingly much like their Stateside brethren. We are all, in spite of our cultural differences, much alike at heart.

As to my cavalier use of French, please consider that I'm seasonably to taste. It is perhaps true that I've relied too heavily on diverse EditPersons for help with my spotty, argot-laced French. Nevertheless, I don't embarrass easily (as you might guess), and when I sally forth in France — or with the French — I generally make myself well enough understood. I'm less concerned with appearing polished than in sharing my deep, abiding, unbridled enthusiasm for audio and its practitioners with our readers wherever they may be around the globe. Amicalemens.

---

**It's in the loop**

Editor:  
I read with interest Martin Colloms' article in the January '98 Stereophile, in Martin points to an insidious mechanism within feedback systems: the multiplicative effect on harmonic order created by reiterative trips of the audio signal around the feedback loop. It can be shown mathematically that each trip around the loop generates sum-and-difference products of progressively higher order. Two of these products are the object of suspicion in Martin's article.

Martin states that audible distortion tends to increase above the breakpoint of the dominant pole compensation. Speculation follows as to how these multiplicative products interact with the dominant pole "filter" to produce "glare." Curiously, Martin does not mention the case wherein the dominant pole is placed "above" the audio band. It is quite possible to place the dominant pole above the audio band and still maintain stability. Two approaches are available: 1) reduce phase shift and/or 2) reduce feedback. Option 2, however, pretty much guarantees that the multiplicative artifacts will become audible. This is what Martin discovered when he added small amounts of feedback to the Cary 805C.

Option 1 is more promising. Bode has shown that amplifier gain-bandwidth product is the only first-order constraint on the amount of feedback that can be applied. Here we face the truly staggering implication that feedback per se is not the issue. The issue is whether enough "effective" feedback has been applied. What Bode is saying, in so many words, is that by preventing phase shift we can increase the feedback indefinitely and still maintain stability. The upshot here is that, so long as feedback is maintained in inverse phase to the input, nonlinearity decreases. Since nonlinearity decreases, the multiplicative artifacts also decrease.

This is a terribly important point.

If feedback per se is not the problem, what, then, is? The problem lies in providing an underlying environment in which feedback can be made to operate "effectively." The human body is one such environment in which feedback systems operate with self-evident effec-

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Stereophile, July 1998
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tiveness. Take, for example, the touch of a master pianist: the moment finger touches ivory there is feedback as to pressure, position, key response, etc. Indeed, there is further feedback from the ear, culminating in aesthetic judgments and the resulting model corrections needed to sustain the artistic conception from one keystroke to the next.

Would anyone argue that feedback is somehow corrupting the purity of the pianist's artistic conception? I think not. I think, rather, that the failure of feedback in audio systems is a failure by designers to materialize the ideal underlying conditions for its effective use.

Scott Frankland
audioeng@ix.netcom.com

Double the voltage . . .

Editor:
It seems to me that Mr. Klare's letter and JA's response (Vol.21 No.5, p.21) are both incorrect. If my amp is putting out 8V into an 8 ohm speaker, then to double the loudness I need to increase the output to 16V, a 6dB increase in voltage. The power output, however, goes from 8W to 32W, a 6dB increase in power. The figures of 3dB (mentioned in the letter) and 10dB (mentioned in JA's response) are both wrong.

Bernard A. Engelman
Carlsbad, CA

Double the loudness?

Editor:
I've just come across JA's response to a reader's letter in the May Stereophile (p.21), concerning the decibel step needed to double or halve the perceived loudness. (Sorry, that's a tautology, as "loudness" is subjective anyway.)

I wrote about this subject in my "Sidelines" column in Hi-Fi News & Record Review (December 1997 and January 1998). Such feedback as I've had, plus tests on visiting friends, all confirm my doubts about the 10dB convention. Indeed, not a single person has opted for such a high figure when using music, with most coming in the 5–7dB region — thus nicely confirming my own 6dB. But I must beware the "experimenter effect."

Also, Rex Baldock has pointed out that if one approximates the use of single tones at very low frequencies (such as the fundamental component of deep organ pedals), one can easily contrive not just to halve or double the loudness, but to make the music appear or disappear completely with a change as small as 1dB.

Incidentally, in response to George Reisch's "Undercurrents" in May (p.63), it was not John Stuart Mill but his father, James Mill, who joined Bentham as a Utilitarian.

John Crabbe
Walsden, Lancashire, England

The sweet pleasures of popular music

Editor:
I have to say I agree with George Reisch when he points out (May, p.63) that it is really hard to pin down the differences between Bach and Bon Jovi, or between the experience of listening to Celine Dion singing "My Heart Will Go On" and the experience of the band on the Titanic playing "Nearer My God to Thee" (or whatever it was they played as the great ship sank). In the end, in the final neurochemical analysis, isn't it all just a certain frisson of nerve endings and sound pressure that we then call delight? And if we feel differently about these empirical delights, what is that? It is merely contextual, not intrinsic — for what is the difference between a couple saying good-bye as the band plays their final song on the Titanic, and Mr. and Mrs. Consumer saying their final "I love you's" as Celine Dion happens to be playing on the radio as their Taurus slips on the road and crashes through the guardrail?

I know the sweet pleasures of popular music, both recent and past. Just the other day, I had a totally fine afternoon after a visit to my local Good Will store. (As Mr. Reisch will confirm, the Good Will has long been recognized by philosophers as a supreme boon to humankind. Immanuel Kant went so far as to say, in his Foundations of the Metaphysics of Morals, "Nothing in the world — indeed nothing even beyond the world — can possibly be conceived which could be called good without qualification except a Good Will.") The first reason was that I found an NAD 4020 tuner for four bucks — and my Audiolab has no tuner, so, as they say, trash score! But second, I picked up totally fresh copies of greatest-hits records from Steely Dan and Kool and the Gang. About the Steely Dan, all I can say is, if one were fortunate enough to own a Fez, why would one ever do it without the Fez on?

The point is, I ain't gonna try to argue about deep pleasures and delights in all forms of music. I ain't going to go down a Kantian route and try to argue that low art is hedonistic while high art is sublime. But even if all delights are equal (and boy, is that a big "if," as Mill appended to Bentham in speaking of the differences between the happiness of a pig and the happiness of a human), still there are empirical differences in how these delights are produced and reproduced.

Ole Henrik Ree
Norway
amsand@online.no
HOW DID THEY DO IT?

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I guess it was a mistake in my earlier letter to speak about "intrinsic" value. The point rather is in the very real differences between music produced as art and music produced as commerce. And while there probably has never been a "pure art," still one would have to be obtuse to argue that things don't happen to a form of aesthetic production when market forces and the drive for profit become dominant in it. For example, what would be one of the main things that should happen to classical music if it is to become "popular," where popular means simply profitable and an item for commerce? George Reisch was right: Yanni and John Tesh. But I'm not referring here to the "quality" of their music! I'm referring to something else: I'm talking electronically amplified and processed, and played in large sports arenas. The amplification and processing of classical music is the number one thing that should happen to classical music if it is to become commercially fecund. Make it louder, bigger, and larger than life, and people will buy it; and that's the very heart of marketing.

To all classical music lovers: Be careful what you ask for! Dolby Surround might be coming to your local symphony all too soon!

But, of course, would electronically amplified and processed Beethoven still be Beethoven, still be the art it is? I am going to stand the purist ground here: no, no, NO. The space and place of classical music are part of its art (as Stereophile's own recording projects realize, by the way), and if this space and place fall short of the amphetaminic production and distribution vectors of 20th-century post-industrial culture, then so be it. And it's not electronicization as such that's the issue, but rather the scale: if you were to process and amplify Roger Reynolds' work to the scale required by the standards of today's popular musical forms, you would lose the art there too.

Indeed, I would suggest that the same problem of means of reproduction and distribution exists whenever we look at non-Western music as well. So-called World Music usually strikes me as simply a form of neocolonialism, where we are extracting an aesthetic raw material but then processing it as we see fit for our usual manner of consumption. Is it possible to listen to, for example, sub-Saharan tribal chant on a Western hi-fi system and transparently experience its art? I think so, but the point is that a great vigilance must be exercised over the distortions of our culture's modes of reproduction and consumption. Music of other cultures, uncritically processed and reproduced by our usual means, is no longer other cultures' music; it has become ours. Of course, following Bentham, we are all free to delight in it; but we are not free to call it what it isn't. I can prefer pushpin to poetry, but I am not free to call pushpin poetry.

I can say I just luuuv the Czecuh soulfulness of Celine Dion's "My Heart Will Go On," except for the fact that I've misspoken: there is no Celtic soul there, but only a simulacrum, a fake, a front, of Celtic musical art. But can't Celine Dion's Celtic costume be of the same "value" as real Celtic musical art? No—not because of some nebulous difference in "intrinsic quality," but rather because of the subtle musical differences of production and reproduction that the commercial simulacrum loses and changes.

Arts change when you change how they are handled and experienced, and that, it seems to me, is the crux of the difference between high and low art, or between "true" art and art that becomes dissolved by the forces of commerce.

Paul Canis  
(A pioneer of the Mellotron)  
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Pernicious thoughts about classical music  
Editor:  
Mark Zelinka makes some very good and perceptive comments on current attitudes toward classical music in his April letter (Vol.21 No.4, pp.11-13), and I would like to offer some of my own observations.

The problem with classical music today is not that there is something intrinsically "wrong" with it that makes people reject or avoid it, but that too many people believe that this is so.

They blindly accept the myth that classical music is boring, stuffy, and "elitist," even though this is totally erroneous. Repeat a falsehood often enough and people will believe it. The old saying that "familiarity breeds contempt" is not true of classical music, but the opposite: unfamiliarity breeds contempt.

How can people say that they would not like it if they have never even given it a chance? The issue of "relevance" is a red herring. Jazz is relevant to jazz lovers, dtno rock, folk music, etc.; classical is relevant to those who know and love it.

Who is to say that one kind of music is "better" than another? Just as I, as a classical person, should not look down on others for liking other kinds of music, others who are not classical music lovers should not look down on me as a snob or an elitist.

Mr. Zelinka's claim that "most people have difficulty accepting classical music because, unlike popular music, it is without words," is not quite correct. What about opera, which is actually more popular than ever in America, or art songs, oratorios, etc., which are vocal?

You cannot "make" anyone like classical music. One hears it and either likes it or not. But it is unfortunate that so many people's minds have been closed to the possibility of enjoying it because of myths about it. There has to be some way of debunking these pernicious thoughts.

Robert Berger  
Levittown, NY

He's lived long enough!  
Editor:  
Guess I've lived long enough. I've just about seen it all now that I've read Keith Moerer's Dr. John overview—in Stereophile, of all places ("Building A Library," April 1998). It's a good piece on the recorded (sometimes poorly) legacy of that gifted, eccentric, erratic, but always authentically American piano professor, who continues the tradition of Longhair, James Booker, Tuts Washington, Archibald, and other almost forgotten players.

Mr. Moerer missed two noteworthy albums of the late '70s: City Lights (1978) and Tango Palace (1979), both on Horizon/A&M and fairly well recorded. City Lights is definitely the better of the two, and was Mac's first work produced by Tommy LiPuma (along with Hugh McCracken). It also contains the original recording of "Wild Honey" (co-written with Bobby Charles), which is reprised on Trippin' Live. Tango Palace is spotty, with some of the songwriting too contrived, but it's worth looking for if you are an avid Dr. John fan. Both albums can be found on occasion in the pre-owned vinyl outlets that many of us so obsessively frequent.

Thanks again for spotlighting the music and musicianship of Mac Rebennack/Dr. John—he's been down in the trenches and deep grooves of roots music for over 40 years now, and deserves his props.

Dan Phillips  
Hog, New Orleans: Under the Influence  
WEVL FM 89.9, Memphis, TN  
dpb.mjr@ix.netcom.com

July 1998
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But awesome power is only part of the Parasound story. The HCA-2205A guarantees the flawless reproduction of musical detail and subtle special effects. In other so-called high end amplifiers, music must work its way through capacitors and inductors that block harmful direct current and maintain stability. Unfortunately, these parts also smear the sound and limit your bass response. Not so with Parasound amplifiers. Audio design legend, John Curl, has created circuits that are inherently stable and are DC-protected with active servos operating outside of the signal path. This means you get movie dialog that's fully articulate and bass that reaches all the way down into the nether regions.

Every detail has been thought through and refined to reproduce the original event. Look at our use of hand-matched complementary JFET inputs and MOSFET drivers. You see, Field Effect Transistors offer the warmth, sweet sound of vacuum tubes and the crisp, tight bass of transistors. Our heat sinks are so massive, we've eliminated the need for a noisy fan. So visit your Parasound dealer and get the power of your dreams. Without having to pour all that concrete. **Parasound has always had a reputation for superior quality and our 10-year limited warranty backs it up.**
UNITED STATES Barry Willis

Women now buy 51% of recorded music, according to Billboard's merchants and marketing editor Don Jeffrey. The growing proliferation of music displays in mass-market retail outlets like Wal-Mart and in bookstores like Borders has contributed to the trend, he claims. Women are much more likely to browse and buy on impulse than are men, who tend to be goal-oriented shoppers. The figure seems appropriate: Women are 51% of the US population.

Also, "watermarking" of Internet-delivered music has been officially adopted by Nordic Entertainment, a Napa, California–based Internet music provider. Nordic operates the Downloadable Music Site (Nordic DMS), which claims to be one of the most extensive online music archives. The company has implemented ARIS Technologies' MusiCode Audio Watermarking System, which imposes an "indelible" signature on recordings for tracking purposes. Intended to thwart piracy of copyrighted material, watermarking is said to be so persistent it will survive generations of copying, whether analog or digital, and can be detected even on AM radio or on a cassette tape playing on a boombox. Paradoxically, the technique is also claimed to be "transparent" to end-users.

UNITED STATES Jonathan Scull

DATELINE NEW YORK: It was a gray and soggy day, pouring with rain. Kathleen and I pounced on a taxi and headed up to B&B Italia in the Architectural and Design Building on 58th St, just next door to retailer Innovative Audio. Ever-present Nicoll Public Relations had invited us to the press and industry launch of B&W's Nautilus 800 Series speakers in the elegant surroundings of this high-end furniture emporium, with auditioning to take place afterward at Innovative.

Most readers know B&W as a large British speaker manufacturer. If you've haunted dealer showrooms or done the high-end circuit for a while, you'll have tripped over a pair of Matrix 801s with their signature Cyclops head. I even confess to owning a pair of 802s earlier in the decade. Hardly a me-too kind of company, B&W is known for their innovative design work. Witness Kevlar driver technology, the ellipsoid tweeter housing on the Silver Signature, and the wild Emphasis speakers that grace the cover of one of my favorite Art of Noise albums, *Below the Waste*. (Perhaps you've seen them; they look like twin tubas on acid.) And, lest we forget, consider B&W's $40k/pair Nautilus speakers, shaped like huge, beautifully finished escargot and requiring four stereo amplifiers to drive them. So I was interested, to say the least, at what B&W hath wrought.

First there was a video and introduction by well-known executive VP Chris Browder, supported from the wings by president Peter Wellikoff and other B&W luminaries. Then, with due drama, Chris pulled back the shroud covering the new 801.

I don't recall having seen a collection of jaded journalists and industry types sit up and take notice in quite the same way before. *Whoa, Nothing*! While the shock of the new still lay heavily upon me, a Surprise Mystery Guest signed in: Alan Parsons, the man himself. Mr. Parsons gave us to understand that he relishes the use of Nautilus 801s at Abbey Road Studios, where he is the current head honcho. (Ten Grammys, say no more!)

Afterward, as promised, we took the elevator down to Elliot Fishkin's Innovative Audio. K-10 and I first heard the big 801s on an all-Spectral/MIT system. Wow. The low bass was extraordinary: controlled and tight, with tremendous impact and extension. I found the midrange alluring: smooth, grainless, and transparent. The highs were linear and extended, and imaging was first-rate, highly focused and palpable. I was impressed by the utter coherence of the sound. An excellent first impression—no doubt about it, the big 801s are very musical.

The 802s sounded lovely as well, driven by huge Rowland monoblocks fronted by the Coherence preamp and...
Thumbs Up for THE 2™
with the Isolated Shielded Matrix™

"The 2" Interconnect: Rectangular Solid Core™ conductors and ISM™ technology at a remarkably affordable price.

Stereophile reviewer Robert Deutsch recently replaced the highly-acclaimed Decade interconnects in his system...

"Late in the audition period, two sets of Isolated Shielded Matrix™ 'The Two' interconnects replaced the Decades, bringing major benefits in intertransient silence and freedom from EMI/RFI-induced hash."
—Stereophile, March 1998

There's a reason top reviewers like Robert Deutsch and Jonathan Scull are turning to cables with the Isolated Shielded Matrix™. Rectangular Solid Core™ cables with the ISM™ system are the only to use a floating shield that absorbs and grounds RF/EMI outside the signal path. So you can actually hear the resonating tone of a cello's wood, the subtle overtones in a woodwind's solo...all the natural ambient textures that bring a musical performance to life.

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If your system is currently equipped with TARA Labs Decade interconnects, contact the authorized dealer nearest you about TARA Labs' "Trade Up To The 2" program.

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a Wadia 27/270 combo. I have to say, they sounded *much* better than my old pair had, even on their best day. Through a door I spied SGHT’s Larry Johnson listening to a pair of Nautilus 803s driven by an all-Naim system, and was about to join him when my stomach growled loudly. (It might have been the 801s in the next room.) I gave K-10 the slip and headed for the hors d’oeuvres.

At home I thumbed through the sumptuous press kit. The Nautilus 800 Series adapts key Nautilus technologies into seven “radically new” B&W models. There are four full-range floorstanders, a two-way bookshelf model, and a pair of dedicated center-channel speakers. The Cyclops head of old has been replaced on the 801/802 series with the Nautilus midrange and tweeter enclosure. “The midrange ‘head’ combines an ultra-rigid spherical mounting chamber with the Nautilus tapered tube — a combination derived from extensive computer modeling — to deliver unprecedented midrange performance; the spherical midrange head further presents a completely diffusion-free exterior.” They look bitchin’ too.

Other high-technology tidbits include: Raychem Isopath gel between the head and bass modules of the bigger speakers, with heads made of Marlan, a proprietary mineral-filled polyester resin with thickness varying from 10 to 60mm; bass and bass/midrange enclosures with curved sides and back made from high-pressure laminates, thus, in conjunction with B&W’s well-known Matrix construction, killing internal resonances; “Second-generation Flowport cabinet venting” on most models; a newly developed 1” aluminum-dome tweeter; all-new 6” and 6½” Surroundless F.S.T. (Fixed Suspension Transducer) midrange drivers of woven Kevlar; and four new low-frequency drivers of paper/Kevlar construction. The crossovers are computer-optimized and laid out for biwiring on two separate circuit boards. I was surprised to see that the 801 is spec’d at a notable 91dB sensitivity, nominal impedance 8 ohms, but drops to a 3 ohm minimum. The 802 is rated at 90dB/8 ohms and also falls to 3 ohms.

All Nautilus 800 models are available in black ash, natural cherry, or red cherry, and range in price from $1000/pair to a hefty $11,000/pair for the 801s. As B&W says, it’s the rebirth of a legend.

**UNITED STATES**

**Barry Willis**

The world’s first DVD-Audio single will soon be out from the rock group Full on the Mouth. “People Mover” is a track from the group’s forthcoming album, Collide. “We felt a 5.1 surround-sound mix would be a great medium to showcase the capabilities and technology of DVD and the electronic elements of Full on the Mouth,” said Charlie Lico, chief executive officer of the band’s label, Pioneer Music Group, which is a subsidiary of Pioneer Electronics Corporation.

Full on the Mouth, the first act to be signed by Pioneer Music Group, has been together eight years. The band’s debut album Collide is “an organic and electronic amalgam, combining a definitive rock edge with electronic florish-es to create a heaping platter of undeniably catchy songs,” according to a company press release dated May 5. Ben Grosse mixed both the album version and 5.1 surround-sound version of the song. “People Mover” features “huge rock hooks mixed with a technostyled groove.”

Full on the Mouth will be part of the Warped Tour this summer.

**Robert Baird**

When I began writing about music, I always knew in the back of my mind that, if I stayed with it, the day would come when I’d have to write an obituary for arguably the most influential figure left in American music: Frank Sinatra.

So here I am, May 15, 1998, and yes — after many close calls, Francis Albert Sinatra, aged 82, has died of a heart attack in California. There are so many things to remember Sinatra for; it’s hard to know where to begin. Will there ever be a voice in American popular music as influential? I doubt it. Will there ever be such a walking conundrum — a man of tastes and habits so base who nevertheless, once he walked on stage and began to sing, became a great artist? No way. Will anyone — film star, athlete, or politician — ever live as large as the Chairman of the Board did? Not a chance.

Much as I love his music, it was Sinatra’s intriguing personality that first attracted me. I saw Sinatra twice — once in Vegas in the early ‘80s and once during his last tour — and one of my most indelible memories is of how at home he was on stage, all by himself. He had no stage fright. Though he was slight in stature, his immense confidence as a performer made him appear much larger, and ultimately drew you in. When you saw Sinatra in concert, goofy crap like his famous “Dooby dooby doo” ending to “Strangers in the Night” made perfect sense. His infamous dark side, too, appeared in live performances via a whole array of politically incorrect expressions, a few of which I can’t print in this magazine.

**C a l e n d a r**

**X-1000 power amplifier, and to join GSBAS if they wish. For more information, call (562) 430-3496.**

**GEORGIA**

- Sunday, July 19, 2-5:30pm: The Atlanta Audio Society and Electronics Home Consultants will host a home-theater and historic-cinema seminar. Andy Regan of Meridian will demonstrate his company’s latest home-theater and audio products, including 96/24 audio DVD. Cinema scholars Dr. Gary Lemo and Sam Patton will screen and discuss historic clips. The seminar will be held at the Atlanta Decorative Arts Center (West), 349 Peachtree Hills Avenue NE, Atlanta. For information, contact Chuck Bruce: tel. (404) 876-5659, web: www.mindspring.com/~chucksaudio.

**HAWAII**

- Friday, June 19, 7pm: Audio Direction (at its new location on 1814 Alaroba Street, Honolulu) is hosting Art Manzano of AXISS Distribution, for a demonstration of Air Tight, Accuphase, and Odeon gear. For more information, call (808) 941-6550.

**ILLINOIS**

**Audio Consultants** is hosting the following audiophile seminars at its Evanston and Hinsdale stores. For more information and to make a reservation, please call the appropriate number.

- Tuesday, July 14, 7-9pm: Jeff Boccaccio of Tributaries will discuss the way video systems interface with DSS, laser-
“Musically Superior”

When one reviewer proclaims ARCAM
musically superior components at down to earth prices,
it’s just one opinion.

When a second reviewer says
smart, fine-sounding, and future-proof,
ARCAM is where the sensible money should go this year,
it could just be a coincidence.

But, when a third says,
ARCAM’s vibrant and tonally refined midrange
approached the finesse of fine tube electronics,
and rivaled vastly more expensive solid-state gear,
maybe... just maybe...
it’s the beginning of a ground swell.

And, when all the reviewers seem to agree and start using words like
fantastic, amazing, and my new reference,
you could begin to think
it’s a movement...

And that’s what it is,
the ARCAM Modular, Upgradeable,
More-Performance-For-Your-Money Movement.
And all you gotta do to join, is to sing it
the next time it comes around on the guitar, with feelin’...

For more information on the complete range of ARCAM amplifiers and CD players
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Shown above: The ARCAM Alpha 10 integrated amplifier with optional Dolby-Digital® / DTS® home theater module. The matching Alpha 10P power amp accepts a “third-channel” module, making the Alpha 10 Integrated & 10P Power Amp ideal for both high performance audio and advanced home theater applications. Arcam is distributed in North America by: Audiphile Systems, Ltd., 8709 Castle Park Drive, Indianapolis, IN 46256, (317)849-7103 and Emerald Audio Resources, RR1, Palgrave, Ontario L0N1P0, (905)880-7170
which I will recount in a moment. And then there was the Sinatra who later tried his hand at all sorts of soft-rock tunes, proclaiming without a trace of irony that rock'n'roll was “sung, played, and written for the most part by cretinous goons.” Before anything else, the man could talk.

Musically, there’s much to argue over when it comes to Sinatra. Only a few singers in recent history — Billie Holiday and Patsy Cline come to mind first — were the equals of Sinatra when it came to phrasing. He also had an astonishing ability to subtly vary the lyrics and vocal inflections of songs from performance to performance, the most famous example being his constant tinkering with “The Lady Is a Tramp.” Most of all, no matter what you knew about his tumultuous personal life, the man sang with a passion that may never be equaled.

In the aftermath of his death, I launched into a weekend’s worth of nostalgic listening. In the early years, when he recorded for Columbia, his voice was a wonder (“worn velveteen,” said one writer), but the material and the arrangements, at least for me, have not aged particularly well. The 1997 2-CD collection, Portrait of Sinatra: Columbia Classics (C2K 65244), is a reasonably complete summation of this period. For those who want to dig deeper — and spend more — there’s the 12-CD, 285-song The Columbia Years (1943–1952): The Complete Recordings (Columbia/Legacy CXK 48673).

For the majority of fans, the Capitol records undoubtedly represent the classic Sinatra, so much so that it’s nearly impossible to pick just one. The problem is that you have to do exactly that — the material on these discs, which were “concept” albums, doesn’t work as well when cut up and anthologized. Therefore Capitol’s 2-CD The Capitol Years: The Best of Frank Sinatra (Capitol 99225) has an odd, disjointed feel. If I had to choose from among them, I’d go for Songs for Young Lovers (Capitol 48470) or A Swinging Affair (Capitol 94518).

But as much as I love the Capitol records, the Reprise material is where I go most often. While his voice had hardened, he was by then so skilled that his mastery of phrasing and inflection were never better. And the punchy horn arrangements by Nelson Riddle, Don Costa, Billy May, and others matched his style perfectly. The single-disc The Very Good Years (Reprise 26501-2) is the finest Sinatra “best-of” in existence, collecting later recordings of a number of signature pieces like “Luck Be a Lady,” “The Way You Look Tonight,” “Strangers in the Night,” “My Way,” and the “Theme from New York, New York.” Anyone whose tax bracket is larger than the functioning percentage of their brain will want to open their wallet for what is reputed to be the most expensive boxed set in the history of the record business, the Complete Reprise Studio Recordings — a leather-and-metal mini-steamer trunk better known as “The Sinatra Suitcase.” For hard-core collectors, the two-volume live set, F. Sinatra, D. Martin, and S. Davis Jr. at Villa Venice, Chicago Live 1962 (Jazz Hour JH-1033; JH-1034) is Rat Pack high jinx at its best.

My vote for the best single Sinatra disc, however, goes to a live set issued in 1994: Sinatra and Sextet: Live in Paris (Reprise 45487-2). Recorded on June 5, 1962, it catches ol’ blue eyes in his absolute prime, tastefully backed by longtime pianist Bill Miller and five other like-minded musicians. Every tune on this disc is a precious stone carefully faceted by an obviously “on” Frank. Along with absolutely stunning versions of “At Long Last Love,” “Day In, Day Out,” “I’ve Got You Under My Skin,” and many others, there’s also a taste of Sinatra’s dark side: “Of Man River,” for example, is a song about “Sammy’s people,” and before “One for My Baby” he announces that “cherchez la femme” means “Why don’t you share the broad with me?”

But then, that was Sinatra: the artiste and the thug; the borderline racist, the sexist, and the voice that, thanks to his incredible recordings, will never be silenced.

**UNITED KINGDOM**

**John Atkinson**

Professor Malcolm Omar Hawsford, occasional Stereophile contributor and director of the Centre for Audio Research and Engineering at the UK’s Essex University, tells us that there is a limited number of EPSRC studentships available to UK and EEC citizens for the University’s M.Sc program in Audio Systems Engineering. These are available on a competitive basis, so early application is recommended for entrance in October 1998. Full details can be found on the program’s web site: http://esewww.essex.ac.uk/research/audio.

**UNITED KINGDOM**

**Paul Messenger**

American readers probably need no introduction to CEDIA (the Custom Electronic Design and Installation Association), so important has the custom-installation sector become to the US consumer electronics scene. Indeed, I dare say many will preface the acronym with some less than complimentary adjectives, accusing discs, and DVD), and give a brief historical perspective on video technology at the Evanston store. Call (847) 864-9565 for reservations.

- **Wednesday, July 15,** 7–9pm: Jeff Boccaccio of Tributaries will discuss the way video systems interface with DSS, laser discs, and DVD, and give a brief historical perspective on video technology at the Chicago store. Call (312) 642-5950 for reservations.

- **Saturday, July 25,** 11am-6pm: **Holm Audio** (450 Ogden Avenue, Lisle) will host Scott Novak of Synergistic Research for a demonstration of how to use Synergistic’s system-dependent cable technology to match cables for your system. For more information, call (810) 732-2220.

**NEW JERSEY**

- **Thursday, June 18:** **Freehold Stereo Video** (3585 Rt. 9 North, Freehold) is hosting Richard Segal of Synergistic Research for a demonstration of how to use Synergistic’s system-dependent cable technology to match cables for your system. Call (732) 866-9500 for details.

**MICHIGAN**

- **Thursday, July 23:** **Stereo Center/Front Row** (2065 S. Linden Road, Flint) will host Scott Novak of Synergistic Research for a demonstration of how to

**Calendar**

- **Wednesday, July 15,** 7–9pm: Jeff Boccaccio of Tributaries will discuss the way video systems interface with DSS, laser discs, and DVD, and give a brief historical perspective on video technology at the Chicago store. Call (312) 642-5950 for reservations.

- **Saturday, July 25,** 11am-6pm: **Holm Audio** (450 Ogden Avenue, Lisle) will host Scott Novak of Synergistic Research for a demonstration of how to
Create your own musical oasis outdoors or in. Oasis All-Weather Speakers from Mirage. Featuring a contoured cabinet design in a black or white finish, these high-performance, all-weather speakers install discreetly under eaves or in tight corners.

- Unique indoor-outdoor equalization switch for the increased bass impact necessary for an open-air setting
- Weather-resistant 1/2" (13 mm) dome tweeter faithfully reproduces extended high frequency sounds
- Injection-molded 5-1/4" (13.3 cm) woofer, also weather-resistant, for impeccable accuracy in mid and deep bass frequencies
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Oasis. Performance that’s guaranteed rain or shine, year in and year out.

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WEB: www.miragespeakers.com
the installation sector of diverting attention and resources away from serious sound reproduction in favor of convenience and gimmickry—but more on that later.

Here in Britain, installation activities have been much slower to catch on for a variety of reasons. However, CEDIA's UK chapter has just held its third annual symposium/conference/exhibition, Expo '98, at the mostly delightful Selhurst Park Hotel on London's southeast fringe. A comparison with the same event last year suggests that this US-inspired trend might at last be starting to take off in the UK.

An abject failure to predict such trends accurately is one of the reasons I'm still chained to a word processor rather than sitting under a palm tree with a margarita. I did my first (and only) custom-install job way back in the late '80s, and reckoned we'd all be taking our multizoned lifestyles for granted long before the millennium started to loom in the collective consciousness. (I didn't reckon CD would take off either, not appreciating that its convenience would triumph over its naff sound quality!)

Multizone audio/video/lighting/security/etc. might now be taken for granted Stateside, but what are the chances of it spreading to Britain in a serious way? This year's CEDIA UK bash was twice the size of last year's, which itself had been twice the size of the inaugural '96 event. The organizers had expected 400-500 delegates but ended up with 550, while some 45-50 brands were represented in the exhibition section, up from 25 in 1997.

We're still talking relatively small potatoes here. The UK chapter membership has only recently reached three figures, well behind the 1300 listed in the US. But the growth rate is very healthy indeed, and the sector is now making real money for the retailer/installers involved.

What surprised me most was finding that some of the most hair-split, dyed-in-the-wool purist hi-fi dealers had started taking the emerging installation sector very seriously indeed. These are guys who still take pride in setting up a turntable properly and can lay hands on an alignment protractor at five minutes' notice. What are they doing messing around with security cameras and patio speakers?

I chatted to Simon Williams at leading London specialist dealer Graham's, and was surprised to find that two of five "front-line" staff at that highly respected establishment are now working full-time on installation work. And my one-time coauthor David Watson at Russ Andrews Hi-Fi Fidelity in Edinburgh claims he hasn't sold a thing over the counter all year. He prefers to leave that to the other two as he puts on his jeans and goes out to hack away at plaster. Does he still bother with real hi-fi? "Of course," came the retort. "That's why I came into the business in the first place."

Dave sees the install business as a natural extension of traditional activities. The passing years, and especially the changeover from vinyl to CD, have tended to "de-skill" the hi-fi retail business. In Scotland, Linn sells some of its products through the denationalized Scottish Power chain, alongside everything from light bulbs to fridge/freezers. Meanwhile, as is the way with mature markets, the volume sales move steadily away from the specialists and toward the box-shifters.

There's still a lot more to serious hi-fi retail than merely selling boxes. Demonstration and installation skills remain vital ingredients, and that installation experience leads quite naturally to multiroom and other-than-audio signals and applications. Hi-fi remains a core ingredient, but a major strength of the CEDIA organization is the proactive way it gives the small but skilled specialist dealer the confidence and support to add new and unfamiliar areas like lighting, security, and video to traditional expertise, and also to come to grips with the new business strategies required to deal with a different kind of client. Although Expo '98 did include an exhibition, by far the greater emphasis was on the training sessions and seminars, for which an extra day will be added next year.

A quick trip around the exhibits showed that the hardware continues to evolve. It still comes mostly from specialist suppliers, so a genuine mass market doesn't look to be on the agenda for a while yet. Highlights included the latest developments in plasma displays and interesting new systems from B&W (Casa) and QED (MiniQ).

What I'm really looking forward to trying are B&W's new active-drive in-wall speakers. "In-walls" are usually ignored by the serious hi-fi sector (with some justification, in my experience). When I last tested a group of them, way back in 1992, the feeble mechanical integrity of the mounting systems tended to be the dominant limiting factor.

However, once those problems have been gotten around, flush-mounted speakers actually have some real acoustic advantages over their box-bound brethren. A pair of wall-mounted 15" Tannoy Dual Concentrics (the older Alnico/pepperpot type, from the Westminster Royal), operating under genuine infinite-baffle (open-backed) con-

Industry Update

• Friday through Sunday, June 19–21: The Consumer Electronics Manufacturers Association (CEMA) is hosting Fuse '98 in conjunction with Atlantic City's Beachfest festival. Fuse will combine "the hottest in car sound and electronics" with cutting-edge music, sports, and mobile electronics training and testing. For more information, call (703) 907-7600.

• NEW YORK
  • Each month: For information on the monthly meetings of The Musical-}

  • Saturday, June 20, 11am–6pm: Toys From The Attic (203 Mamaroneck Avenue, White Plains) is hosting Lloyd Walker of Walker Audio for a demonstration and discussion of the Proscenium Gold Signature tunable and tonearm system, Omega Mikro Cables, and the Valid Points isolation system. Dan Fanney from American

Hybrid Technology will discuss the "Non-Signature phono stage," and George Stanwick from van den Hul will talk about cartridges, particularly The Frog. For more information, call (914) 421-0069.
  • Saturday, July 11, 12–5pm: The Analog Shop (57 East Main Street, Victor) will host Tor Sivertsen of Conrad-Johnson for a seminar on the new Premier 16LS tube preamplifier and Premier solid-state products. For more information, call (716) 742-2860.

Calendar

StereoBase, July 1998

29
QUITE AN EYE OPENER.

The eye is the window to our soul.
The IRIS™ is the gateway to our music.

Introducing the stunning new TRANSPORT 3 CD TURNTABLE from Sonic Frontiers, the IRIS™.

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The TRANSPORT 3 distinguishes itself with the following design details and features:

- At the center of the design is the finest Philips CDM-12 Industrial top loading mechanism which is constructed of cast aluminum and isolated via a tuned spring suspension. The CDM-12 sets the standard for reference calibration performance around the world.
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- Implemented with an enhanced power supply to ensure complete electrical isolation between the various motors, optics, digital clock and AC line voltage which is necessary to achieve state-of-the-art music reproduction.
- The Transport 3 IRIS™ also includes SFI's famous, ergonomic, machined aluminum remote control.

For those who simply require the best in digital playback, look no further than the TRANSPORT 3 - an inspired piece of digital audio equipment which serves the music through advanced and innovative engineering.

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Dallas, TX (903) 732-9288

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diotons, has been one of my main points of reference ever since. I don’t necessarily expect to go from the big Bang to the new B&W ASW700 full-time, but the latter’s spec sounds very promising, with a cast-alloy baffle and twin 100W power amps mounted inches away from the voice-coils.

I went to Expo ’98 faintly suspicious that CEDIA’s approach seemed somehow “anti-hi-fi.” Sure, a lot of it doesn’t have much to do with real hi-fi, but it doesn’t by any means exclude the High End either. And since the guys who make and sell “the real thing” look like the same guys who are now extending the options to a range of extra lifestyle choices, I came away in a much more positive frame of mind.

The main reason why custom installation has been so slow to take off in Britain is that we’ve just been through a decade-long housing-market slump. Now that the real estate agents and moving companies are back in business again, there’s every good reason to expect that the CEDIA UK bandwagon will really start to roll.

UNITED STATES
Barry Willis

On May 5, the beleaguered Carver Corporation announced that it had received a financial transfusion of almost $400,000 and that it would make a move into direct marketing in an attempt to bolster flagging sales. The Woodinville, Washington-based company announced in a press release that it “had closed a sale of 3,000,000 shares of restricted Common Stock of the Company to one of its preferred shareholders, Renwick Special Situations Fund, L.P., for $375,000, or $0.125 per share.”

The infusion of capital provides the company short-term funding while “it continues to refine and commence implementation of a new business plan and seek further financing that the company believes will allow it to return to profitability.” Part of the plan includes a move into direct sales, allowing customers to purchase Carver’s complete line of audio and home-theater products directly from corporate headquarters.

“Carver is the first major high-end audio manufacturer to offer a complete line of audio and home-theater electronics to the consumer through direct-sales channels,” the press release stated, adding that the company will continue to support its network of dealers.

No mention was made as to pricing of products to be sold directly from the company’s distribution center. If products are priced at retail, the move will provide access to Carver products for customers without local dealers. If the prices are discounted significantly below retail, Carver will essentially be competing with its own dealers for what might well be a diminishing pool of customers. Carver may be the first major specialty electronics manufacturer to venture into direct sales, but it should be noted that many small companies have gone this route, almost always losing their dealers in the process.

Carver reported 1997 sales of $11 million and a net loss of $3.2 million, or $0.84 per share, compared to 1996 revenues of $14.5 million and a net loss of $3.2 million, or $0.86 per share. The company stated that “revenues were impacted by a severe shortfall in working capital which restricted its marketing and sales efforts and its ability to supply product. Revenues for the quarter ending December 31, 1997 were $4 million, with a net loss of $957,000, or $0.24 per share compared to sales of $2.5 million and a net loss of $1,232,000, or $0.48 per share for the corresponding period in 1996. Fourth-quarter 1997 revenues were impacted by stock orders for the company’s two new Cinema Speaker systems.”

That’s accountant-ese for “business is bad.” Carver is seeking to improve its cash flow by obtaining extended terms from its suppliers and quicker payment from its dealers. More funding will be needed for a complete turnaround, the press release stated, and it mentioned that other sources of capital are being pursued.

While sounding a cheery note for its future, Carver also included a disclaimer that its “forward-looking statements are subject to a number of risks and uncertainties that might cause actual results or achievements to differ materially from those expressed or implied by such statements.” Should the hoped-for turnaround fail, such disclaimers help ward off litigation from disgruntled investors.

UNITED STATES
Barry Willis

Specialty audio emerged from a protracted slump in 1997, according to a recent survey taken by the Consumer Electronics Manufacturers Association,

C a l e n d a r

WASHINGTON
• Sunday, August 2, 3pm: Curtis Havens of Advanced Audio Systems (6450 Tacoma Mall Boulevard, Tacoma) will welcome Richard Vandersteen of Vandersteen Audio for a Q&A seminar, followed by a listening session featurin the new Model Fives. Space is limited, please call (253) 472-3133 for reservations.

CANADA
• Robert Silverman will perform all 32 of Beethoven’s piano sonatas in both Toronto and Vancouver. In Toronto, he will perform on July 8, 9, 15, and 16, with the remaining recitals to be scheduled in 1999. The Vancouver cycle will continue at the Chan Center for the Performing Arts on September 20, October 18, November 22, and December 8. For more information, visit his web site, www.sloth.com/silverman. Silverman’s Sterophile recordings of piano works by Liszt, Brahms, Schumann, Schubert, Chopin, and Bach can be obtained by calling (800) 358-6274 or by visiting the Sterophile web site: www.stereophile.com. He also will perform three of the Beethoven sonatas at H1-Fi ’98 in Los Angeles in June.

MALAYSIA
• The Star, Malaysia’s leading daily English newspaper, will hold the third AV Fest hi-fi, home-theater, music, and musical instruments exhibition at the Crown-Princess Intercontinental hotel in Kuala Lumpur this August 7, 8 and 9. AV Fest 98 promises to be just as big as last year’s event, which drew about 50 exhibitors and over 9000 visitors over the three days. As in the past two shows, coverage of the event (and publicity tie-ins) will be through The Star’s weekly hi-fi and home-theater pullout, AudioFile.

Stereophile, July 1998
The speaker only Jim Thiel could create

Introducing the new THIEL CS7.2

Jim Thiel’s 12 “Speaker of the Year” and 15 “Design and Engineering” awards are just a few of the reasons to own his new model CS7.2.

Audio Magazine’s Anthony Cordesman describes Jim Thiel as “clearly the kind of speaker designer who just never stops improving his products. Each new generation of Thiel speakers has sounded more detailed, more coherent, and more transparent ... Each added refinement has been another step toward making the musical experience more real.”

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which estimates last year's high-end factory sales at between $1 billion and $1.4 billion. CEMA's figure is a projection based on sales by 32 representative companies whose combined total sales amounted to $256 million—an increase of 7% over 1996. Exports, which typically account for 40% of high-end production, rose by 10%, to $73 million.

The survey was the largest ever undertaken by CEMA, and this first industry-wide projection is probably the most accurate figure available. More than 220 specialty-audio companies took part in the 1998 Consumer Electronics Show.

More figures from the Consumer Electronics Manufacturers Association indicate that the High End's good fortune is part of a bigger trend. A sales spurt in February helped boost year-to-date sales of all audio products to $1.01 billion. Sales volume for home audio systems (in, rack systems) rose by 3.4%, to $115 million. Year-to-date for home components totals $217 million, according to CEMA.

The top 100 retailers in the US racked up $65.8 billion in sales last year. Riding the wave of prosperity are the nation's two largest consumer electronics retailers: 284-store Best Buy, which posted $76 billion in sales, and 556-store Circuit City, with $6.8 billion. Best Buy stores did better than twice the sales volume on a per-store basis than did Circuit City, whose result is nonetheless an impressive 16.1% increase over 1996. Best Buy's stock has risen 700% in the past year.

Both chains are expanding into new markets. Best Buy plans to open 25 new stores this year, and Circuit City will open 50. CC is also heavily invested in the rollout of Divx, the controversial purchase-pay-per-view DVD scheme.

Best Buy is planning five new stores in the Boston area, plus: 45,000-sq.-ft. flagship stores in Portland and Manchester, NH; two in Nashville, TN; a slightly smaller store in Charleston, SC; and a 40k-sq.-ft. outlet in Wausau, WI.

The West Coast's 76-store chain The Good Guys hasn't fared as well as its larger siblings. The San Francisco-based retailer posted a 2% increase in sales in 1997—a total of $499.4 million. On April 22, The Good Guys announced a net loss of $2 million for its second fiscal quarter, ending March 31.

CEO Robert A. Gunst blamed his company's lackluster performance on "a soft market overall" and the lack of "new technologies entering the Audio/Video marketplace." Gunst expressed high hopes for High-Definition TV and DVD as revitalizers of the industry. The company plans to open 12 new Audio/Video Exposition stores this year, and recently signed on as a retail supporter of Divx.

**UNITED KINGDOM**

**Paul Messenger**

Speakers come and speakers go, but only a handful in the history of hi-fi have become legends and hung around forever. Tannoy's series of dual-concentric drive-units, designed by R.H. Rackham and first introduced in the 1940s, are still widely regarded as the first truly great hi-fi speakers. Their high sensitivity, good power handling, and simplicity of installation saw them used in a wide range of applications and enclosures, from public address through studio monitoring to the systems of serious hi-fi enthusiasts.

The Tannoy's apotheosis in the latter role was arguably the GRF Corner Horn enclosure (and the subsequent, even larger GRF Autograph variant), another Rackham design. The Corner Horn first appeared in 1953 and remained in production for more than 20 years, with just minor changes in the horn's throat dimensions to suit the different stages in the evolution of the 12" and 15" dual-concentric drivers.

Now Tannoy enthusiast and anachrophile Mike Harvey of Bristol, England, with Tannoy's blessing, is reviving the famous enclosure under the company name of Octave Audio Woodworking. Furthermore, he claims that his versions actually improve on the original by using higher-quality timber—epoxy filleted birch plywood—that is more rigid and less prone to panel resonances than the materials used the first time around.

OAW's Corner GRFs are supplied as "unloaded pairs" in various hard-wood finishes and French polish, oiled, or lacquer surface treatments. Prices (excluding delivery and installation) range from £5000 to £6000, and customers are expected to find and fit their own vintage Tannoy dual-concentric drivers, sending OAW the crossovers for installation (a capacitor upgrade also makes sense). The enclosures are suited to Monitor Silver, Red Gold, HPD, 3808, and 3828 variations on the dual-concentric theme. Other vital statistics: the Corner Horn measures 45.5" H by 10" W by 26.5" D and weighs 190 lbs.

Harvey doesn't claim that his Corner GRF revival is necessarily a match for more recent horn designs. Rather, his intention is to create something that recaptures the spirit of the times in both sound and appearance, to which end he prefers to drive them with the amplification of the era—he favors Leak TL10s. He also has plans to build a pair of the gigantic GRF Autograph designs; this could well become a future customer option. Given the large numbers of vintage dual-concentric drivers that must still be scattered around the globe, lurking in attic storage or mounted in ancient home-built or factory reflex enclosures, the prospects of his building up a business look pretty good.

Octave Audio Woodworking: Tel: (44) 117-9246005. Fax: (44) 117-9872762.

**UNITED STATES**

**Jon Iverson**

Everyone claims "CD-quality" sound over the Internet these days, but the reality always seems far short of that promise. As a result, work continues to develop an encoding scheme worthy of the CD-quality title. Recently we reported on developments at AT&T regarding the a2b format, and both Liquid Audio and RealNetworks compete on a weekly basis to grab headlines for their audio technology announcements.

Thus, we read with interest news coming out of MIT about their new approach to sound processing, called "Structured Audio," that is to be incorporated in the new MPEG-4 international Standard. But before readers get too excited, there's a catch: the format's "Structured Audio Orchestra Language" can "describe" and sequence synthesizer-like sounds, but doesn't handle real voices or recorded sound directly. This is similar in many ways to the Beantnik approach, recently incorporated into the Java Standard.

MPEG, the Moving Picture Experts Group, is part of the International Standardization Organization, and is chartered with the development of industry standards for the compression, processing, coding, and transmission of audio and video. These standards are used worldwide as a blueprint for the design, development, and manufacturing of audio software and hardware components (for example, MPEG-2, used for DVD and digital TV).

The MPEG-4 standard will be released in October 1998 and formally become an international standard in December 1998, and is intended as a standard for multimedia applications. Last month, the Final Committee Draft was completed, which
Creating a new balance of power in high-end audio

Since its world debut at CES '95, Balanced Audio Technology has garnered critical acclaim for creating a series of innovative components that capture the soul of a great musical performance.

Whether your source requirements are digital or analog, or your system demands ultimate performance or utmost flexibility—Balanced Audio Technology offers a wide variety of solutions, both tube and solid-state, that bring joy to the reproduction of music.

Call for our informative 1998 product line catalog or visit your BAT audio specialist. All you need to do is listen.
indicates that all parts of the specification, including the Media Lab's contributions, will proceed into the final standard. The current draft will change little before completion.

"The contributions the Media Lab has made to MPEG-4 are a crucial part of the audio tool set, and represent a fundamental advance in audio standardization," said Leonardo Chiariglione, MPEG convener and chairman.

According to MIT, Structured Audio is a set of specifications for the description and transmission of sound. While existing audio standards represent sound as a stream of bits, in Structured Audio, content is stored and delivered as a computer program in a flexible language, then translated into sound on the user's computer. Because transmitting data as a program is considerably more efficient than transmitting streams of bits — compare the bandwidth required to transmit a PCM-encoded recording of Beethoven's Symphony 9 with that for the MIDI instructions to play back the same symphony — this method enables an increase in the quality and efficiency with which sound is delivered.

Eric Scheirer from MIT also points out that "it's true that Structured Audio by itself doesn't have built-in primitives for voice encoding. However, the Structured Audio method is powerful enough to encapsulate and transmit a voice codec. You don't get a bandwidth savings with this method, but you're guaranteed performance at least as good as any existing and known method. This is not true of model-based synthesizers like Beatnik or Yamaha XG.

"The Structured Audio work isn't meant to stand on its own. We have carefully developed the tools to be a well-integrated part of the overall MPEG-4 standard. And of course MPEG-4 has the state-of-the-art voice and recorded-sound methods in addition to Structured Audio." The Structured Audio method, developed by researchers in the Media Lab's Machine Listening Group, comprises more than 20% of the MPEG-4 Audio standard. This submission, which includes software, technical documentation, and testing methods, was evaluated and verified by MPEG and found to meet the requirements of the standards body.

The Media Lab's Structured Audio method is designed to integrate seamlessly with the other components of MPEG-4. These include methods for the transmission of speech, recorded music, computer graphics, and compressed digital video. All of these tools may be combined in a single MPEG-4 presentation.

A statement from MIT says, "The Media Lab has executed its current standardization work in an open arena, free of patent and copyright restrictions, in order to encourage advances in multimedia for all computer users and technology companies. All of the computer tools developed by the Media Lab in the Structured Audio project have been freely donated to the Internet, and the Media Lab maintains no control or veto power over the direction of the standard."

MIT reports that their Structured Audio "CD-quality" (their words) stereo audio data will be easily transmitted and received via a normal computer modem.

"Structured Audio points the way to a more powerful common platform for sound processing," said Professor Barry Vercoe, head of the Media Lab's Machine Listening Group and leader of the Structured Audio research project. "By incorporating these findings into an accepted international standard, we can ensure that musicians, producers, and PC users around the world can benefit from this research."

MIT reports that the "CD-quality" (their words) stereo audio data will be easily transmitted and received via a normal computer modem. "The performance levels achieved through the MPEG-4 Structured Audio method enable significant new composition and commerce models. Composers of popular music styles such as house music, rave music, techno, and electronica will be able to efficiently sell high-quality compositions directly to listeners via the Internet.

"Interactive movies and virtual-reality experiences containing music, sound effects, and dialog will likewise be able to envelop the listener in a 3-D world of sound. MPEG-4 also allows the creation of 'virtual karaoke' songs, where the music actually slows down and speeds up to follow the singer."

"Structured Audio will also have an impact on the music-composition process itself. Composers are free to create new 'virtual synthesizers' at will, so their creativity is no longer limited by the capabilities of the fixed hardware synthesizers they own. A composer's PC system incorporating MPEG-4 Structured Audio technology can replace an entire studio of synthesizers, effects processors, and mixing consoles. The standard unifies a growing marketplace in 'software synthesizers,' which overcome some of these limitations, but until now have been hampered by restricted features, data incompatibility, and a small user base."

UNITED KINGDOM
Paul Messenger

In a presentation just prior to the formal procedures of the annual general meeting of the BFA (the British Federation of Audio, relatively recent successor to the longstanding FBA), journalist Malcolm Steward announced that he and graphic designer/spouse Philippa were putting together a new UK trade magazine/web-site publication called the British Audio Journal.

The first issue will be published in August, but the plan is to provide news and information for general worldwide access via the BAJ's web site at www.britishaudiojournal.com, with more sensitive trade-oriented material restricted to the bimonthly print format. The web site will be the medium for breaking news stories. "So you won't have to wait a month or two to find out that Ferrari has taken over Arcam," Steward quipped to a guffaw of laughter, particularly from Arcam's John Dawson.

BAJ's content will extend well beyond hi-fi products, news, and gossip, and will constitute a forum for the business issues affecting the trade as well as its leisure activities (a wine column is promised). The magazine will be mailed direct to the UK retail and manufacturing sectors. Overseas subscriptions have not yet been organized, but serious trade inquiries should be e-mailed to ian@britishaudiojournal.com.

The BFA's Committee seemed to support this new venture, albeit in a rather muted way. The atmosphere was decidedly charged, those at the top table glancing anxiously toward Angie Curtis, publisher of the 10-year-old trade journal Inside Hi-Fi, hoping to avoid any confrontation or scene. (We're talking about a British institution, after all!) CEI1A UK has also voiced its support for the new venture.

During the meeting proper, attention was drawn to new government directives on the thorny question of accurate
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**UNITED STATES**

**Jon Iverson**

The Experience Music Project (EMP), a 130,000-square-foot interactive music museum opening in Seattle in 1999, announced on April 30 that it has acquired 19 recently discovered audio tapes of rare Jimi Hendrix recordings from 1969 and 1970.

The tapes, from Hendrix’s Band of Gypsies period, were acquired at international auction; terms of the acquisition were not disclosed. As a museum “dedicated to the creative process in American popular music,” Experience Music Project will preserve and protect the recordings and give museum visitors the opportunity to learn about and experience them for generations to come.

“These rare recordings are true works of art. They are long-lost reminders of an electric-guitar master at his absolute peak, and EMP plans to preserve and protect them to honor the rich musical legacy of Jimi Hendrix,” said Peter Blecha, senior curator for Experience Music Project. “We are pleased to have these in our possession — both as a museum dedicated to creativity in music, and as a cultural institution chartered to chronicle the powerful history of American popular music. Foremost, though, we are excited by the opportunity for future EMP visitors to have the chance to finally hear these fabled performances.”

The recordings are of four concerts Hendrix and his band performed at the Fillmore East in New York City on December 31, 1969 and January 1, 1970. The 19 tapes feature approximately 50 live recordings of such Hendrix staples as “Purple Haze,” “Hey Joe,” and “Foxy Lady,” as well as rarities like “Paper Airplanes,” “Auld Lang Syne,” and “Burning Desire.” The tapes also provide insight into the Band of Gypsies, a group who played together for only a few months and who created a remarkably different, more rootsy, style of music than Hendrix had produced during the initial psychedelic pop period of his career.

“These recordings are the missing link. They are the aural evidence that music fans and scholars have needed in order to allow further study of the development and evolution of Hendrix’s skill and artistic style,” Blecha enthused. “Having heard the tapes now, I can assure you that additional proof of his genius comes through loud and clear.”

Established by Microsoft founder (and Hendrix fan) Paul G. Allen and designed by world-renowned architect Frank O. Gehry, the nonprofit Experience Music Project museum will open in Seattle at the base of the popular Space Needle next year. According to EMP, it will combine “the interpretive aspects of a traditional museum, the educational role of a school, the state-of-the-art research facilities of a specialized library, and the audience-drawing qualities of live performances and popular attractions.”

**INTERNATIONAL**

**Barry Willis**

**True Facts:**

• Nineteen people died at rock concerts last year, according to a report by Crowd Management Strategies, a Chicago-based consulting firm. The number has climbed steadily since 1992, when one death was reported. Thirteen of the dead, or 68%, were teenagers, an increase over the 60% in 1996. “Moshing” was blamed for part of the problem, as was “festival seating” — the practice of selling tickets without seats. Festival seating contributes to crowd-nush injuries and deaths, claims CMS, admitting that hard statistics were difficult to obtain. Promoters and venue officials, it noted, are reluctant to cooperate.

• Three Polish car thieves were foiled in mid-April when they were tracked down electronically. The Austrian truck they’d stolen was equipped with a Global Positioning System transceiver that relayed the truck’s position back to company headquarters.

• In case you were wondering, the preferred wood for clarinets is an African blackwood called grenadilla.
Finally...

I got my Acurus ACT 3

I've been waiting months for it. My dad used to joke that I'd be in college by the time we got the ACT 3. But it's here and it's sweet. The ACT 3 is so easy to set up, my dad let me do it. I had it totally set up and running in about 10 minutes.

My mom is thrilled with how easy it is to use. She just drops a disc in and the ACT 3 knows if it's DTS®, Dolby Digital® or a stereo CD, automatically loads that format and the speaker balance I set up for it. The Acurus ACT 3 is the only thing in the world that can do this...cool!

My dad is thrilled with how it sounds. He checked it out in stereo, as a stereo preamp with a built in D/A converter, and said it is one of the best sounding high end audio components he's ever heard. The ACT 3 has 20 bit D/A converters and discrete Class A direct coupled outputs for all the channels, so it sounds as good in 5.1 surround as it does in stereo. My dad explained all this to me. He's really into audio, but sometimes he admits that mom has better ears than he does and she thinks the Acurus sounds great.

Now my friends would rather watch a movie at my house than at the movie theater. They all agree my Acurus system sounds way better than a movie theater. Was it worth the wait? Are you paying any attention? I've got the most advanced audio/video gear on the planet...what have you got?
Talk with John Atkinson and he’ll tell you that you need a BIG amp, with lots of power, to play, say, Mahler’s Fifth.

In Santa Fe.

I put on my fake English accent:
“Well, John, I just heard Mahler’s Fifth with Riccardo Chailly and the Concertgebouw Orchestra live at Avery Fisher Hall.”

[dramatic pause]
“I’m not sure I need to reproduce Mahler with wide dynamic range in my living room.”

“But what if you live in New Mexico?”

I deliver a withering look.
JA may tell you that you “need” the 200-300W range for those moments in Mahler when all hell — or is it heaven? — breaks loose, but I’m not so sure. You really can’t replicate concert-hall sound in your listening room, especially when it comes to symphonic music’s wide dynamic range.

And powerful amps, be they tube or solid-state, come at a price. If you want high power and sound quality, you’ll have to pay plenty. $20,000, $30,000 for a set of monoblocks. It’s enough to make you start thinking small even if you do have the money.

I can certainly think of better ways to spend money.

Travel. Go hear the Vienna Philharmonic live on Sunday morning at the Musikverein. (You can sometimes get a deal from Austrian Airlines, particularly in the depths of winter when the concert season is at its height.)

Instead of supporting amplifier manufacturers so they can purchase their second Ferraris, support live music. Buy tickets for your local symphony, chamber music society, or — if you’re lucky — opera company. Hear some live jazz or blues.

Get out and be with people — it beats looking at expensive amps and garden hose cables sprawled across your living room rug. In other words, get yourself a life. Hi-fi, when taken to extremes, is a very unhealthy habit.

And settle in with some reasonably scaled tube or solid-state gear.

End of lecture.

What’s reasonable?

What’s reasonable?

Depends on your room, your speakers, your listening preferences — lots of things. But my own rule of thumb is to scrape by with as little power as possible. That’s because power not only costs, it corrupts.

My first choice may be single-ended triode (SET), but it shouldn’t necessarily be yours. You have alternatives, as my friend John Rutan would say — the Hi-Fi Gentleman of Verona, at Audio Connection in Verona, New Jersey.

For instance, relatively low-powered solid-state amplifiers.

There’s wonderful-sounding stuff available at affordable prices if you don’t need all that power. Do you? Let’s ask ah, John Atkinson.

“What’s that you’re listening to in your office, John?” (I was in Santa Fe for the Stereophile writers’ conference.)

“It’s an Advent 300 receiver, Sam. I believe you owned one.”


“So does this one. It gets FM only in mono.” He looked affectionately at the receiver.

Fifteen solid-state watts is perhaps too little.

The first week I owned my Advent 300 receiver I blew it up while playing Pierre Monteux’s recording of Stravinsky’s The Rite of Spring, on London. (Advent replaced the unit and I was more careful about pushing the amp from then on. So far as I know, the receiver — in my attic — is still alive.)

Solid-state’s not like tubes. You tend to need more power than you do with tubes. That’s because solid-state amps tend to clip less gradually and not quite as forgivingly as tubes. They don’t recover from clipping so quickly, either; when an amp clips, you really notice. Listening to a solid-state amp at or close to clipping is like . . . well, eating spinach.

This is why people are surprised when they hear a little 5Wpc single-ended triode amp. Where’s the clipping? It’s there, particularly if you crank up the volume. But at low levels you might not notice. All you might notice is a limitation in the dynamic range.

Think small!

This is going to be the rage again in hi-fi, I predict. You can already see (hear) it happening, not only with single-ended triode but also with the variety of relatively low-powered (40-60Wpc) integrated amps available.

I applaud this. For one thing, it’s making high-end hi-fi accessible to many more people. High-end does not necessarily have to mean high-priced. Or high-powered.

Besides, one Ferrari is enough.

Musical Fidelity X-A1

So far as I know, Wayne Schuurman, president of Audio Advisor, Inc. does not drive a Ferrari. And he’s not going to be able to afford one in the future, either, direct-importing and selling the Musical Fidelity X-A1 integrated amp for $499.95 — which is less than its UK retail selling price of £449. That includes VAT at 17%. Ouch!

Buy the X-A1 now and you can “save” $100.

Wayne is “introducing” the X-A1 for $499.95. You “save” $100 off his “regular” price of $599.95. (Is anyone paying “regular” price?) I feel duty-bound to point out that you will save five times that amount — it’s $500 — by not purchasing the X-A1 at all.

But then you’d be missing a great $500 integrated amp. It looks much better, feels much better — I’m talking about the feel of the controls, now — and sounds much better than you might expect a $500 amp to sound.

“If the dollar takes a pounding, Audio Advisor takes a bath,” explained Wayne with some pain. He’s right. You might want to order your X-A1 now. It could be like the new Volkswagen Beetle — a long waiting list!

The X-A1 is probably Musical Fidelity’s best budget integrated amplifier yet. Like the Creek 4330 — which I don’t think
A none-too-subtle prophecy about the future of loudspeakers.

Never before have speakers this affordable played true to the standards established by their more costly brethren, producing a sound that is, well, a revelation.

Introducing the Revelation Series music and home theatre loudspeakers from Hales Design Group.

Four models, including a dedicated center channel, faithfully travel that narrow road of performance, quality and value—all Hales trademarks—all in equal measure.

While you will have to visit your authorized Hales dealer, you won’t have to step through the pearly gates to hear sound this good. And with their down-to-earth price, the Revelation Series is bound to make even the most intractable unbeliever change their tune.
the X-A1 surpasses, by the way — the sound quality is so good for so little money that you might seriously question the need to spend more.

They usually play Mahler's Fifth twice a season in New York. Why not get on a plane, fly to New York, and attend Carnegie or Avery Fisher Hall? It would be cheaper than buying an expensive 200-300W amp!

The look
Antony Michaelson, Musical Fidelity's managing director, recently told Hi-Fi News & Record Review (April 1998) that he'd had an epiphany. Back in 1984, shortly after he founded Musical Fidelity (MF — those initials are unfortunate), some Italian journalists were very disparaging of the appearance of the stuff he was making.

This was at the start of my Stereophile career. I had some of the same MF gear the Italians laughed at. It sounded great, and I said at the time that it offered superb sound for the money. The stuff should have sold like crazy on sound quality, but didn't on looks.

Antony learned his lesson. Chastised, he flew back to Britain and decided he would make equipment the world wouldn't laugh at. After all, if you're so busy laughing — as some critics are at single-ended triode amps — you won't bother to listen. Still a problem with some British-made gear today.

A couple of years ago, Antony came up with the X-series of components, housed in attractive cylinders. The X-101J analog output stage was the first.

Others followed, including the X-CANS headphone amp and X-Pre line-stage preamp.

But even Antony couldn't cram an integrated amp into one of those cute aluminum cans — he calls them "piglets." So he devised a sort of double cylinder. The two knobs — volume and source selector — are like little snouts.

(As you may know, I love pigs.)

The X-A1 is MF's first component to use this new chassis. It has the same 4" height as the other X-gear, but is 8½" wide (about twice as wide) by 11" deep. Still rather compact and tidy. A matching CD player in the new chassis is coming soon and should be a beauty!

The entire metal chassis functions as a heatsink. And the rails at the bottom now have rubber strips recessed into them so the unit won't scratch your tabletop, as other X-gear is apt to do. The volume and source-selector knobs (the snouts) are machined aluminum and very elegant. Antony clearly does not want to give the Italians — or anyone else — occasion to laugh. Except for the power supply, the unit looks much more expensive than it is. For $500, the fit and finish are superb!

Power supply
The power supply — ah, yes, the power supply, so beloved by the Brits — is external. Nigel can place it on the floor away from the unit itself and Fiona or Gillian will hardly know it's there. Thus, too, electromagnetic fields from the power-supply transformer won't muck up the sound inside the cute little double piglet.

I wonder, though: Why such a dinky-looking power supply?

To save money, of course. The thing is meant to be placed on the floor, out of sight, maybe behind the cabinet. You won't have to look at it every day.

It's unfortunate, though, that the power supply isn't a little beefier, although that would increase the price by not a little. Antony should offer an optional hails-out upgraded power supply, perhaps built into the original piglet or the new double-piglet. If he did that, I think the 50Wpc might sound more like 100Wpc. (Uh-oh, now I'm starting to sound like JA!)

Line-stage only
The X-A1 is line-stage only, with six auxiliary inputs and a tape-monitor loop. If you need a phono stage, you can add the matching Musical Fidelity X-CP (separate circuits for moving-magnet and moving-coil) for another $249.95. If you fancy a headphone amp, Antony and Wayne can sell you the matching X-CANS, again for $249.95.

The X-A1 itself is a minimalist design, with just a volume control, a selector switch, and a tape-monitor button — no balance control. The On/Off switch is on the power supply, and thus hard to reach. It's meant to be left on all the time, and the sound improves markedly when you do. So much for energy conservation.

I especially like the silky feel of the volume-control knob and the way the selector switch glides firmly into each setting.

Sound
Remember what other Musical Fidelity gear sounds like?

You don't? Of course you don't. You've only read about it here in Stereophile. That is, unless you've actually bought some of the gear. Buy first. Listen later. I actually like that idea. Sometimes I think reviewers do the same thing: Write first, listen later.

Okay, other Musical Fidelity integrated amplifiers have tended to sound very musical in the sense of being full-bodied and harmonically rich — much like tubes. But they've also tended to sound a wee bit bland. Not exactly devastating when you're talking about a budget integrated amp used with typical budget speakers — a blessing more often than not!

The X-A1 is a different kettle of fish. Antony has managed to preserve most of the sweetness of his A2 and A220, with added transparency, more detail, and some measure of kickbutt bass. Part of the X-A1's sweetness is undoubtedly due to the fact that it's still generously biased into class-A, just not as richly biased as the A2 and A220. As I said, the entire chassis acts as a heatsink, so the X-A1 hardly runs warm. You can leave it on all the time.

What speakers to use?
Antony recommends the 95dB-sensitive Kelly Transducer K-2 and K-3 models, which he himself manufactures in the UK. Unfortunately, these aren't available Stateside.

So I tried the X-A1 with: the floor-standing Orpheus Double Sixes from Germany, rated at 92dB sensitivity ($3600/pair, imported by AXISS Distribution); the Cabasse Farella 400s, rated at 94dB sensitivity ($1995/pair, 2 Energy consumption is not specified, but it's probably no more than 15-20W at idle. This is a big advantage of the Musical Fidelity A2 and A220 integrateds, which are more heavily biased into class-A, run hot, and consume considerable amounts of electricity at idle.

Stereophile, July 1998

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1 X-101J "Extended" — get it? British humor.
Some think this level of excellence is extravagant.

Quite frankly, we'll be the first to admit that a McIntosh audio system is not for everyone. Some people are so accustomed to compromise they'll actually choose mediocrity. But then there are those who appreciate the difference in violins, the way a gold-nib fountain pen glides on paper, or the distinct sound of a twelve cylinder engine. For those willing to sacrifice nothing, no level of excellence is too lofty. For nearly 50 years, we have made McIntosh Audio equipment for them. Call 1-888-929-7000 or visit our website at www.mcintoshlabs.com.
imported by Northstar Leading The Way); and the Atelier de Synergie Acoustique Baby Monitors, rated at 89dB sensitivity (still not available in North America, helter).

Despite the lower sensitivity rating, the ASA speakers produced magnificent sound — ravishing in harmonic presentation and precise imaging. Of course, if I cranked the volume, I ran out of power and lost the X-A1's magic as clipping set in.

**Antony's answer**

But wait — Antony has an answer. (He usually does.)

The X-A1 is equipped with a pair of preamp-out jacks (but no power amp—in jacks). So you can easily biamp, using, say, a pair of Musical Fidelity XA-50 50W mono block amps to drive your woofers (assuming your speakers are biwirable). Audio Advisor offers these amps at $749.90/pair. Now we're looking at a total of $1249.85 for the X-A1 and a pair of XA-50s. Still a bargain for so much stuff!

Sorry, this biamping arrangement won't do you any good if you have speakers like the ASAs or Cabasse Farellas, which aren't biwirable or biampable. But the arrangement could give you all the power you need to drive, say, a pair of Martin-Logan Aeric i speakers. While I no longer have the Aeric i's chez moi, I'm reasonably certain you'd need more than just an A-1 to drive them. Martin-Logan speakers have a special synergy with Musical Fidelity gear.

You have another option Antony didn't mention: Go from the preamp-out jacks directly to a powered subwoofer, like the excellent Bob Carver-designed Sunfire True Subwoofer (I have one and love it!) Don't use a crossover. Let your main speakers run full-range and use the subwoofer, as Bob Carver suggests, to fill in.

**A classic?**

The X-A1 may become a classic like the original Musical Fidelity A-1 (no longer available, so don't go lusting after one).

The sound is sweet — not as harmonically full and rich as the A2 or A220, but more detailed, more resolving. Overall, the sound is quite astonishing... for $500. Now if Antony would offer an upgraded power supply — which would undoubtedly push the price closer to $1000 — the X-A1 could turn into a killer.

This is the main area in which I can fault the X-A1. The amp does sound a little small for 50Wpc: Dynamically reined-in. Bass could be tighter and tauter still. More extended, too. A balls-out power supply would probably take care of all these things and improve resolution to boot.

I think you can get better sound from an integrated — from the 50Wpc Creek 5250, for instance ($795 without phono stage; add $200 for full-function remote). Before I turned the Creek over to my stepdaughter and her husband, I tried it briefly and thought it very

more important for a class-AB preamp than for a class-A preamp.

"In class-AB, the current drawn from the power supply and flowing through the circuit changes with the signal. So the magnetic flux in the transformer and its variations have an effect on the signal within the circuit, because the transformer lets off magnetic fields that affect the capacitance, the components, and everything. When you get the transformer out of the box, it's not going to affect anything."

"Now a class-A amplifier, or mostly class-A amplifier, will emit a constant magnetic field, which has a constant effect on the noise and distortion residuals. With a class-AB amplifier the magnetic fields from the transformer will be altering continually, depending on power required, and affect noise, distortion, and maybe even bandwidth."

"The X-A1 doesn't suffer from this. It has remarkably constant distortion and noise residuals over a wide range of power and load requirements. We're not claiming that the distortion and noise are identical at all frequencies and all powers, but that the change is of no sonic significance."

And the reason the distortion and noise vary so little?

"A cleverly designed and carefully laid-out circuit," triumphed Antony. "If the circuit and its printed-circuit-board layout were perfect, the distortion would be constant at all frequencies. The X-A1 is not far from this ideal."

"For example, you take a [name of amplifier deleted at Antony's request]. It measures very well at 1kHz. At 10kHz, it's a dog. As you increase the power, it gets more doglike. That doesn't happen with the X-A1!"

And the output transistors? Are they MOSFETS or bipolar?

"Bipolar," answered Antony. "You can get much higher current and much greater symmetry of current and power delivery with bipolar. That is, if you are able to develop a circuit that won't self-destruct under hefty driving conditions. MOSFETS can have very simple driver circuitry, which is good, but you need multiple pairs of MOSFETS to drive a decent amount of current. A pair of MOSFETS can put out about 5 amps RMS per pair. If you want 15 amps, you have to parallel up several pairs, and that drives up the price."

"Bipolars are much more cost-effective. You can get 15 amps out of a single pair of bipolar." 

Good job, Antony!

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3 The English LFD range of amplification is now being distributed in the US by The Sound Organisation, P.O. Box 2876, Carefree, AZ 85377. Tel: (602) 488-0028. Fax: (602) 488-0029. E-mail: steve@soundorg.com
Over fifteen years ago, we tamed a lightning storm and harnessed the exquisite clarity of electrostatic technology used in all MartinLogan loudspeakers. Since then, our ongoing research and commitment to developing advanced speaker technology, has produced a series of break-throughs resolving the impossible issues of dispersion, dynamic range, and power handling.

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The heart of the MartinLogan product line is our proprietary CLS™—curvilinear line-source—electrostatic technology. This unique assembly consists of an extremely low-mass diaphragm which floats between two perforated metal plates called stators. The application of an electrostatic charge enables the diaphragm to move at a level of accuracy and at distortion levels traditionally associated with only the finest audio electronics. The CLS™ projects a 30 degree phase coherent wave-front producing a wide listening area with minimal room interaction. This ground breaking transducer is unequaled in its ability to reveal previously hidden harmonic detail, the experience of which suspends disbelief.

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The reQUEST and AERIUS® systems exemplify the exhaustive engineering in electrostatic transducer, dynamic driver, and crossover technology, required to manifest this new standard in reference sound reproduction. Remarkable efficiency, impedance stability, and superior power handling make CLS™ technology appropriate for use with a broad range of amplifiers. Outstanding attention to design and detail along with strict attention to fit and finish have resulted in uncompromised form and function—with surprising affordability.

When you become disenchanted with the ordinary, I invite you to audition MartinLogan CLS™ hybrid electrostatic loudspeaker technology. Experience music as it was performed—experience audio as it was recorded—experience the electrostatic technology.
It turned out this wasn't a "pop up" toaster—it's one of the more sophisticated models that dramatically lifts the toast slowly and gently to the surface. That old Sunbeam makes much better toast than the almost-new toaster even now in the attic awaiting my garage sale.

You know what this is leading to, of course: enjoying watching a stylus course through a spinning black-vinyl biscuit. There's nothing like it. It's just aesthetically and sonically right. I know it, you know it, the guys and gals who make movies and television commercials know it: that's why they always use records, not CDs, when they need to show a sound source. Needle in the groove beats laser in the pits every time!

Okay, that's romanticizing it: Records are primitive and they belch audio pollution and they're noisy and unpleasant to use and if you mishandle one it goes splat and it's ruined.

I spent the past week listening to nothing but CDs. I had to, it's part of my music-reviewer job description. And today's better discs are really good. On a modern digital front-end, you can listen to and enjoy them, and that's a good thing—most new music is out only on CD. But after a week's worth of listening I got tense and twitchy. My wife said, "Why don't you just go downstairs and forget about what you have to listen to; and play something you want to listen to?" So I did. I put on an original green-label "Warner-7Arts" pressing of Van Morrison's Astral Weeks and sank into the sound.

My musculature and central nervous system finally relaxed. I took a deep breath, exhaled a week's worth of crap, and let Van carry me away. I probably would have enjoyed the CD; in fact, the new 20-bit Polydam Van Morrison remasters (not including Astral Weeks, which I guess is controlled elsewhere) sound superb. But could the CD of Astral Weeks carry me into the mystic? I don't think so. The record does every time, however, and as I listened to one of Van's greatest recordings, and watched it spinning on the Simon Yorke table, I thought to myself: "This is what having a great sound system is all about!" Is it because I'm habituated to the old pre-Eisenhower-era crumbs? I don't know, and I don't care!

They still make records?
Here's a shocking statistic (it shocked me!): According to the April 11 issue of Billboard, 51 of the top 200 albums are available on vinyl! That's a full quarter, and some others that are on vinyl, like Dylan's Time Out of Mind, are not included. Just thought you'd like to know.

Stylus cleaning fluids
I'm staring at four bottles of stylus cleaning fluid: Record Research Lab's LP #9 (a takeoff on the old Lieber/Stoller Coasters song, "Love Potion #9"), distributed by Musical Surroundings; LAST Stylus Cleaner; Clearaudio Diamond Cleaner (The Elixir of Sound); and Inmedia's Needle Nectar. Which one(s) do I recommend? If I wanted to do some serious, well-lubricated self-
Living with loudspeakers isn't easy for an audiophile. Sonic wonder comes at the price of visual clutter, even for stereo! If you're planning to add home theater, most choices for high-end sound are just plain ugly. But now, there's a graceful system audiophiles can be proud of. If you love big sound more than big ugly boxes, Anthony Gallo's new Nucleus Dittos are for you. Derived from the spherical compression technology in our patented Nucleus designs, our Dittos offer the seamless soundstage that can only come from both genuine point source radiation and the total absence of crossovers above 120 Hz. Depth of field and resolution of inner detail are unbounded. Dynamics are so astonishing that you can enjoy truly satisfying emotional music, even at listening levels your neighbors can live with. Even late at night, in an apartment or condo, even with home theater.

Satellite spheres you can hold in your hand, and in your heart. They sit on a shelf, mount on a stand, or on a wall. Subwoofers with slam, that actually can fit behind a sofa or chair. And the best news is that you can afford them now, starting at $699 per system. At this price, is the sound really high-end? Believe it.

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stroking, I’d talk about how each imparts a different and quite particular tonality to the music. I’d guide you toward a particular brand in an effort to impose my leadership upon you with a certainty designed to enhance your position and cauterize your audiophile nerves.

Count me out of that kind of wank- ing. I’ll do mine in private, thank you. If that’s what you need, there are other writers you can read. What I did was to try figuring out a methodology by which I could determine if there were any sonic and/or cleaning differences among the brands.

I played a few records, including Paul Simon’s Graceland, which I’m rediscov- ering after watching “The Making of Graceland”—a superb and highly recom- mended Rhino VHS video that contains interviews with Simon, engineer Roy Halee, and the South African musican/collaborators. Partway through a side, I lifted the stylus and cleaned with one brand; then I played some more and cleaned with another brand; then another. I couldn’t hear any differences.

How about this? Take a filthy, grimy garage-sale record, play it until the stylus on a $400 cartridge is thoroughly gummed up, then clean with one brand and check with a magnifying glass. Play some more, gum up some more, and repeat three more times. Tell you what: You do that and tell me what you find, and I’ll report your results!

What I can tell you is that Needle Nectar, formulated by Gary Garfield, is the only water-based fluid of the bunch, judging by its odor— or lack thereof. Does that make a difference? Do you have to worry about alcohol dissolving the cement that binds the stylus to the cantilever? If my experience is typical, I don’t think so. Do you have to worry about the alcohol being deposited in the grooves where it can dry out the vinyl? I don’t think so—I doubt there’s enough to do any damage.

In any case, be sure to use one of these fluids (all of which appeared to be equally effective) with every side of a record you play. The stylus gets hot tracing the grooves, and any dirt adhering to it will bake on if you don’t remove it. The baked-on schmutz will literally change the shape of the stylus, causing both record wear and distortion.

When you clean the stylus, never en- gage the arm lock. Otherwise, if you slip and exert too much upward force as you clean, there’s no way for the arm to move and relieve the pressure. By leaving the arm free to move vertically, you ensure “no fault” stylus cleaning. And always brush back to front, never front to back or side to side. I like using the stiff carbon-fiber-type stylus brushes that come with LAST products, though others prefer the softer bristle brushes attached to the bot-

tle caps of most stylus cleaning fluids. [And I still use the abrasive plastic strip recom- mend ed by Linn dealers.—Ed.]

Also, while I’ve used battery-pow- ered ultrasonic stylus cleaners on and off over the past decade (no pun intended) without problems, I’m hearing from a few cartridge manufacturers/importers that it might not be a good idea to use this type of device because it imparts ultrasonic vibrations to the cantilever suspension system. The jury is still out on this, so proceed with caution — and at your own risk.

As for “StyLast,” a lubricant that is supposed to decrease friction and heat and thus prolong stylus life, I use it every time, but judiciously, taking care not to slop it all over the cantilever, where it can “creep” up into the motor and gum up the works. I suggest dab- bing a drop of StyLast onto a stiff-bris- tled stylus cleaning brush and using it to apply the fluid.

Speaking of Graceland, readers often ask me about the sound quality of the various overseas reissue labels whose products are available here (often not exactly legally due to copyright restrictions, which the labels don’t bother enforcing because of the small numbers involved). While that’s a subject more appropriate for The Tracking Angle magazine (shameless plug), I must say that the recent German WEA 180gm pressing of Graceland is not really worth the money.

Original American pressings, mas- tered by Greg Calbi at Sterling Sound from the original master tape under the supervision of engineer Roy Halee, are cheap and plentiful and sound “snappier” and closer to the original source tape. The outstanding Japanese pressing from the same DMM (Direct Metal Master), cut and coupled with superior plating and pressing, is the best-sounding of all, in my opinion, though the ordinary American pressing is also superb.

There’s no way German WEA got the original tape of Graceland or any of the other titles it has reissued. But if you are a virulent DMM hater, you might prefer the mellow German WEA cut. I prefer the plain-vanilla, dollar-at-a- garage-sale Fleetwood Mac Rumors to either the German WEA pressing or the Nautilus digitally remastered LP, which for some reason still commands big bucks. If you want to hear the damage early digital did to analog, compare that toe-stopping version with an original American pressing. A few of the titles, like Ry Cooder’s stunning but oh-so-short Paris, Texas, while better-sounding on original American vinyl, are difficult to find, and so are worth getting while you wait to get lucky at a garage sale.

Two labels out of England, Simply Vinyl and Absolute Analogue, are liter- ally flooding the market with outstanding American titles. Both series are very well pressed, but here’s the scoop: The Absolute Analogue records sound ana- log — probably mastered from the sec- ond-generation tapes originally sup- plied to the British subsidiaries of the American labels. Some of the titles, like Kind of Blue, are far better served on domestic reissues cut from original tapes, but others, like Carol King’s Tapestry and Dylan’s Highway 61 Re- visited, are quite good and currently not available as reissues here.

The Absolute Analogue Blood on the Tracks is disappointing compared to the readily available original. The one Simply Vinyl title I auditioned, The Byrd’s Younger Than Yesterday, was simply awful compared to an original American “360 Sound” pressing: It sounded sourced from a mediocre CD transfer, and my e- mail to the company asking about source material went unanswered. I’m speculating about source, but not about the sound: glossy, flat, and distant.

My take on these reissues, especially the pop and rock titles, is: If you can find an original pressing in good condition, it will usually sound better. Many of these are common and easy to find for a few dollars each, so save your money and visit a good used-record store before dropping the big bucks on the reissues.

Back to Washington, DC

I promised in the June column to con- clude coverage of my visit to the Library of Congress’ Recorded Archives, so here goes — and these aren’t leftovers. Among the items on display was one of

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1 Garfield’s Musical Fidelity company (not the British one) made a very nice power-supply upgrade for Oracle turntables back in the ’80s.
Emile Berliner's finest inventions: the flat-disc record player. Unlike Edison's cylinder, Berliner's invention could easily be mass-produced.

The German-born Berliner came to the United States in 1870 when he was 19. He invented the carbon microphone, which improved upon the device Bell used in his original telephone demonstration at the United States Centennial Exposition. He sold the patent to the then-fledgling Bell Telephone Company for $50,000 when he was 25.

Fortunately, instead of retiring, Berliner came up with the flat disc, later founding Deutsche Grammophon and the English Gramophone Co., Ltd. in order to market his invention in Europe. You know what else he came up with? The original painting and trademark that we all know and love, of a dog listening to "his master's voice," which the Victor Talking Machine (eventually Radio Corporation of America) licensed domestically. The rest, including Dynagroove and Dynaflex, is history.

According to a biography I found online (http://204.210.221.2/Inventure_Place/HOF/frames/9_d.html), back in 1919, Berliner also invented a helicopter that actually flew. He also "...commissioned what was likely the first radial aircraft engine. He formed a public health organization that helped safeguard the US milk supply. In 1911 he established the Esther Berliner (his mother) fellowship to give qualified women the opportunity to continue scientific research." I would have expected no less from a fellow who invented records. While Berliner was definitely Jewish, it is mere speculation on my part that the inspiration for the flat record with a hole in it came from a bagel.

One more Berliner innovation: I was amazed when I inspected his phonograph to see a screw-on clamp atop the disc, much like you see on a VPI or Oracle turntable. You have to wonder how that great idea got lost for the next 70 or so years.

One question I've often been asked is, where did the 33 1/3, 45, and 78 rpm speeds come from? Good question! Did you ever think about it? I have to admit I never did, so when I got to Washington I asked Sam Brylawski, Head of the Library's Recorded Sound Section. His answer? 33 1/3 started with 16" discs, the combination of which was the fastest speed that would fit the audio contents of an entire reel of motion picture film for Warner Brothers' Vitaphonic talking pictures system without distortion. I never got an answer about 78, but 45 was easy: 78 minus 33 equals 45.

Finally, here's a quote from Gerald Gibbons of the Audio and Moving-Image Preservation Specialist Preservation Research and Testing Office: "One of the things the AES preservation standards group and sound archivists in general feel is that the present digital sampling rate and bit rate is not adequate for preservation purposes. [This is] because we're preserving not only what the average person can hear and understand and appreciate, but also trying to preserve the information, because if we don't preserve it, it's going to be lost forever."

The Audio Olympics

I was thinking about how either CES or the annual consumer HI-FI Show might be enlivened with some international inter-magazine competition. Following the lead given by Michael Gindi in the June 1997 issue of Fi magazine, I came up with the following ideas, in which teams of audio writers representing the top four or five magazines worldwide (by influence, circula-
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tion, percentage of bullshit content, whatever) compete with one another for fabulous prizes.

• “Room Without a View”: Each team is given an identical hotel room containing the same complete audio system in sealed cartons—a amplifiers, preamp, turntable, cartridge, speakers, etc. The team has x hours to open the boxes and set up the system in the room however it sees fit, but by ear only (except for the cartridge installation, of course). A panel consisting of manufacturers whose gear is used in the system rate the sound quality (imaging, soundstaging, frequency balance, etc.) of each (unidentified) room. The room receiving the highest score wins.

• “Equalizer Toss”: Each team is given a bad-sounding room (not too difficult to do at either CES or HI-FI) containing a system and a sophisticated graphic/parametric equalizer like the Cello Audio Palette. Using just music and their ears, the group attempts to obtain “flat” response from the system. The flattest-measuring system wins.

• “Name That Tweak”: Blindfolded reviewers are led into two rooms containing identical systems: one is connected using lamp cord and the cheapest RadioShack RCA interconnects and AC cords money can buy. No cones, feet, pucks, cubes, discs, etc. are used, and all equipment (except for the turntable) is placed on the hotel-room desk and dressers. In the other room, the same gear is connected using the most-expensive speaker cables, interconnects, AC cords, Mpingo, bongo bongo, oingo boingo, come-back/go-away/whatever-dics, pucks, feet, cones, boards, racks, rocks, etc. Teams of reviewers have to identify which room is which.

To make the results “scientific,” one of the variables would be to have a team visit the same room twice, the goal being to get them to claim that they heard no difference because they visited the same room twice. (Note: Please do not write in explaining why this is not a valid scientific test—or why it violates the Hindenburg principle or whatever it’s called. I am writing this for entertainment purposes only.)

• “Amazing CD Tweak”: Reviewers are forced to submit to blindfolded tests of tweaks and/or accessories they have raved about in print (digital cables, CD treatments or discs, power-line conditioners, etc.), which they claim make “earth-shattering” sonic differences. The same music is played with and without the tweak or accessory, and the reviewer must identify which is which. Anyone who actually identifies anything correctly above and beyond chance must wear an “I AM A LUCKY COIN” T-shirt for the duration of the show and have dinner with Peter Aczel of The Audio Critic.

• “VTA Adjustment Humiliation”: Blindfolded reviewers listen to a record and have to determine whether or not the VTA is being adjusted as the music plays. Sometimes it is, sometimes it isn’t. Can he or she (“she” included for political correctness purposes only) reliably tell when?

• “In-phase”“Out-of-phase”: The enormous sonic difference between “in-phase” and “out-of-phase” signals are put to the test, with reviewing teams having to tell which is which, and when.

• “Live Mike Feed vs 16-bit/44kHz Sampled Digital”: At the flick of a switch, blindfolded reviewers listen to either a live mike feed of a stand-up bass, piano, and drum trio, or a 16-bit, 44.1kHz real-time-sampled version. Those who cannot hear which is which win a five-year reviewing contract with Consumer Reports!

If you can think of more events, let me know via letters@stereophile.com.

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John Atkinson recently forwarded me an e-mail from reader Daniel Sandmeier. Eight full months after moving into a new home, Mr. Sandmeier had finally experimented with speaker placement. He was flabbergasted by the result.

"I think I just got 2000 bucks' worth of difference. Moved the [Paradigm 7se Mk.III] speakers two more feet from the back wall, toed 'em in a little, and Radiohead exploded from my humble setup."

So what compelled Daniel to e-mail Editor Atkinson? "Everybody knows about speaker placement. What I want is more info. I want to know basics, I want to know advanced formulae. I want to know how to set them up just right. [At this point, I'm guessing from the tidbits dropped in your reviews.] Could we get a little setup basics column? Please?"

Well, Daniel, your prayers have been answered — J-10 hears you. (Now would be a good time to run screaming from the room.) In the coming months I'll explore the vagaries and vicissitudes of system setup and maintenance, and how to get the best sound from your system without spending any money. I'll train my beady eyes on the complete care and feeding of your high-end system: How to set up speakers, how to run cabling to best effect, how to organize your components, and other pressing issues. Together we'll fine-tune your equipment and coax from it the finely coded musical messages therein.

Take the room, for example. There are really two types of listening areas: dedicated rooms for the well-heeled and the unbetrothed, and those that are, of necessity, dual-purpose in nature. (I'm told that some audiophiles actually have a life, and that it takes place in what's called the "family room." I'll look that up.) Your space must meet certain basic criteria for decent sound. Remember, you're listening to your speakers and their interactions with the listening space. First, you simply have to get the speakers out from the rear wall and some small distance away from the side walls. And if you give it half a chance, together we'll fine-tune your equipment and coax from it the finely coded musical messages therein.

The floor would love to resonate along with your speakers; let's try to avoid that, shall we? It's advisable to get the speakers up on spikes or cones of some kind to better couple them to the floor. Use carpet-piercing points for thick shag, or rounded-point cones like Golden Sound DH Cones or Black Diamond Racing kit for scratch-prone wooden floors.

Plunking an enormous television between the speakers is Frowned Upon. Well, if you must ... but set the speakers up in an arc with their baffles forward of the offending CRT, and toe them in toward the listening position (as they should be set up for home theater anyway). The closer you place your speakers to the rear wall and corners, the greater the bass reinforcement. Mini-monitor-type speakers may benefit from the boost, but full-range floorstanders can become congested and boomy due to the pernicious effects of standing waves. (I'll go into more detail, do the math, and cover certain basic formulae for speaker placement in upcoming "Fine Tunes" installments.) Back-corner placement also kills the enlivening sense of spaciousness, imaging, and depth.

Now take my pal Dan Billet: "No tubes, never!" he'd declared. A slow brainwashing ensued. Queried "Tubes, Sir?" whilst shopping for a preamp at a Long Island audio dealer, he reputedly shrugged his shoulders and bleated, "But of course!" He went home with a Conrad-Johnson PV9 to drive his McIntosh solid-state amplifier. He says he likes the way the Mac looks, but he loves how the PV9 sounds. He even changed a tube without incident.

But, like Daniel Sandmeier, he was really clocked when we pulled his speakers away from the back wall and toed them in. A major shock to his system, as it were. We also moved his listening chair back and forth until the soundstage locked in and the bass smoothed out. Try this yourself; it's like setting VTA on a turntable — you'll know when you get there. While you're at it, play with toe-in. Use the

---

**Fine Tunes**

Jonathan Scull

Stereophile, July 1998

53
8 Stereophile Recommended Component Cable Listings!

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In a dark, smoky office, a desk lamp beams a cone of light onto papers, books, pipes, and notepads. A theoretical physicist hunches over his desk, half-illuminated, visualizing the world inside his equations.

Masses move silently through space-time, through lines of force and gravitational fields. Energies expand and absorb. Symmetries couple and uncouple in an abstract, mathematical dance. But something isn’t right — some hands aren’t joining, some quantities need balance. This world is stilled. “What if...?”

He starts, grabs an eraser, and rubs away the symbol “+” in his fourth line of equations. A minus sign, “-”, heals the wound.

Insensibly at first, motions reappear. Others take their cue. But the dance has changed. One player moves backwards, forcing others to recombine into beautiful and unexpected patterns. This time, everything fits and balances. This world makes sense. Ahah!

Theoretical scientists play God. When they reverse a mathematical sign, its bearer obediently turns on its heels. The price of this omnipotence, however, is truth. The worlds they create are fictions. They exist on paper and in the mind’s eye of their creators. Some of these theoretical constructions tell the truth about nature — but which? When experimental tests are impossible, scientists rely on their gut feelings or, as philosophers say, their “intuitions.” Einstein believed that an awkward, uneconomical theory could never be correct. “God is subtle,” he said, “but He is not malicious.” This intuition served Einstein well, but another led him down a blind alley. Einstein rejected much of quantum mechanics, for he insisted that God does not play dice. But that, most scientists believe, is the game nature plays. When they rely on such basic and fundamental beliefs about nature, scientists become metaphysicians. By “metaphysics,” I don’t mean the astral bodies and alien beings that haunt your local “metaphysical” bookstore, but rather the sober and difficult question: What is nature fundamentally and ultimately like? Does it have aesthetic properties, as Einstein believed?

Why should it be that a beautiful theory is likely to be a true theory? Is nature itself essentially rational and knowable? Or, as Camus’ Meursault hinted at the end of The Stranger, are beauty, reason, and truth merely subjective noises within the “benign indifference of the universe”?

Yes, metaphysical ponderings like these seem remote from the passions of audio. So imagine my surprise at the recent Stereophile writers’ conference in Santa Fe when our discussion veered into some classic metaphysical terrain. During one seminar, as copy editor Richard Lehner offered tips and guidelines for writing equipment reviews, I felt as if I had wandered into the agora one sunny afternoon in ancient Greece.

LEHNERTES: ...and remember: use the past tense when you describe a component’s performance. Don’t write “These speakers throw an impressive soundstage.” Write that they “threw an impressive soundstage.”

TELLIGUS: Why, Lehner! Why should we write in the past tense?

FREMERLOTTE: Yes, Lehner! Tell us. Wouldn’t the present tense have more punch and energy? We do want our papry to be lively and entertaining. Oh, and Telligus, there’s soup on your toga.

LEHNERTES: The present tense says too much about a component — it requires some metaphysical assumptions that just aren’t warranted. Plato, whom all of you probably know, wrote a review that read, “These speakers throw a soundstage as wide as the walls of my cave,”...
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You're stuck. Of course, you could just announce to your colleagues that "some swans are white," but that doesn't sound very impressive. Go with "All swans are white" and keep your fingers crossed.

Metaphysics to the rescue? Maybe. One way to avoid Popper's roadblock is to base your new law on a metaphysical intuition—something like, "God is subtle, but He insists that swans be white." In that case, your observations of these birds don't have to support any logical leaps. They simply count as evidence that your law, now resting on your metaphysical convictions, is true. It makes a big difference whether or not you reach for metaphysics. Suppose that, while you're at the podium in Sweden thanking the Nobel Foundation for recognizing your pathbreaking research, there's a commotion in the audience. Someone is shouting:

"Stop, stop! This man does not deserve the Nobel Prize. I've discovered a blue swan!" Those who resist the lure of metaphysics would simply have to back down.

"Oh, I see. Well, thank you all very much for the dinner. Those meatballs are delicious. I mean... were delicious." But those members of the metaphysical majority would resist:

"Ladies and Gentlemen, that can't be! There are no blue swans, only white ones. After all, it's a law (thanks to my insights) that all swans are white. A blue swan? That's impossible. Nature doesn't break laws. Whatever this guy saw, it wasn't a swan. Or he was hallucinating, or wearing blue glasses, or something."

Like the theoretical physicist who reverses a sign and expects the clockwork of the world to reverse, or who insists that a beautiful theory must be true, many forget that nature does not necessarily conform to our intuitions. It's best to avoid metaphysics altogether and admit defeat in the face of the induction problem. Popper insisted that successful scientific laws are not necessarily true—instead, we should think of them as not yet falsified. In fact, Popper used some of Darwin's universal acid when developing his theory of science (called "falsificationism").

Accepted, reliable scientific laws are like living species. They've managed to survive so far without, as it were, going extinct. But that doesn't mean they won't. Lehner's advice not to use the present tense in equipment reviews solves the induction problem in the same way. If the speakers I'm reviewing sounded great for several days in a row, what can I accurately report?

Simply that, in the context of my review, "they sounded great." But if I write, "these speakers sound great," I'm making a huge inductive leap and claiming to know how they will perform for other people, in other places and times, with different components, with other recordings and kinds of music. The statement is equivalent to a natural law that holds that it is impossible, under any circumstances, for the speakers to sound bad.

Why would a reviewer make such sweeping claims? Seduction by metaphysics: I might reason that they sound great, day after day, precisely because they have a deep, unchanging metaphysical property—the property of sounding great. But this is just asking for trouble. There may be a blue swan, and there may be an audio system that will make these speakers sound not so great. Just say "no" to metaphysics.

Does this Popperian advice give in to the dark forces of subjectivity and anti-science that lurk within high-end audio? Although one won't impress many scientists by insisting that scientific laws cannot be proven true, using the past tense to write (and even to speak) about how components performed will put us more in step with the workings of science. Recently, evidence was reported that Hubble's Law, which holds that distant astronomical bodies move away from each other at speeds proportional to their distances, might be false. (New York Times, "Ideas and Trends," Sunday, March 8) Since this law is one foundation of the widely accepted "big-bang" model of the universe, many scientists probably received the news with skepticism. Some, leaning on metaphysical crutches, may insist that the law reaches into the very fabric of reality and will never turn out to be false. But they should take a tip from wise Lehneris: When evaluating laws of nature, and when describing how components perform, it's best just to play it by ear.

"Recommended Components" is another corner of audiophilia that could use some metaphysical housecleaning. As a summation of reviewers' opinions, it has no more claim to truth than any of its parts. Still, take those categories and rankings to be a metaphysical grid that is tightly fastened to the realities of audio. Did your system sound better yesterday than it does today? Rest assured, it's not because our editors in Santa Fe hit the "delete" key, changed a B to a C, and altered the metaphysical properties of your components.

Stereophile, July 1998
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Wes Phillips
Stereophile Vol. 20 No. 4

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Dave Brubeck

The wheels seemed to beat in steady 5/4 time whenever the train came up to speed. I'd get the opening rhythm of "Take Five" in my head, and couldn't shake it, no matter what I'd conjure up to try to mask it. Infectious. And appropriate, considering I was on my way to visit Dave Brubeck, an artist well-known for his experimentation in rhythm. Pick a number from one to 20, put it in front of a 7/4 or 7/8, and you'll probably describe a time signature Brubeck has worked in.

"I was raised on a 45,000-acre cattle ranch. I'd ride horseback all day, and the gait of the horse would be a constant rhythm, like the rhythm of the bass or the drums, that I would just put other rhythms against. My father would send me to pump water, and the pump motor was absolutely arrhythmic; you never knew where it would go. I would put a constant rhythm against this arrhythmic rhythm. Sometimes I'd be there two or three hours just listening, all alone under the water tank."

Looking around in the serenity of the "Wilton Hilton," Dave's elegant home in Wilton, Connecticut, one sees the touchstones of a rare musical life that bridges the gaps between the admiration of fellow musicians, the acclaim of critics, and the adulation of the public. There's Brubeck's face on the cover of Time. There are moments from the greats of jazz. There's a self-portrait of Darius Milhaud, Dave's teacher in classical composition. And there, in a place of honor, is the original cover painting for Time Out, the first-ever jazz record to sell a million copies.

"Neil Fajita painted that. Remember him? They didn't want to put out Time Out. It was breaking too many unwritten laws. One of them was to have a painting on the cover. All originals on the same LP wasn't done, and different, crazy time signatures wasn't done, either. 'People won't be able to dance to it,' they said. Goddard Lieberson, the president of Columbia Records, loved the whole idea, and he had to fight hard for it."

"It turned out to be worth fighting for." "Oh, yeah! It's still going strong. We had a lot of firsts. Did you know I'm the first one to use a tape recorder commercially? It was an old Ampex that Bing Crosby was using for his broadcasts. Sol and Max Weiss, my partners at Fantasy Records, wanted to try this equipment on my first trio session. For two and a half hours, we tried to get the tape machine up to speed. Finally, they came out of the recording booth and said, 'Dave, we have to go back to acetate and cut it the old way. You have a half an hour to do four sides.' So we did 'Tea For Two,' 'Laura,' 'Back Home Again in Indiana,' and... 'Blue Moon.' Those four. They're still selling, and they sound great."

"It's funny, with all the advances in recording, the simple approach still holds up."

"I did one recording with my sons, where we went back to cutting on wax, direct-to-disc. I remember my conductor's head popping up right under the piano lid, and he was motioning 'cut it off,' you know? Because if you go over, it just ends. [laughs] So we went over the limit. But that was great-sounding."

"And now you record for Telarc, which is really an audiophile label. How is that different from working with other labels?"

"Well, in another studio you've got all kinds of outs in case you made a mistake, you know? But I hate where everyone's in a booth. I've seen Jack, my bass player, with tears in his eyes 'cause he can't hear, and what they're feeding him doesn't sound right. But when you record for Telarc, it's oftentimes just two-track. It's live, so you'd better be right, you know? They do get a good piano sound."

"How does it compare to the sound of your recordings of the past?"

"Well, you go back and listen to the old trio, from 1949. These new CDs of those sessions are coming out, and I can't believe how good they are. That might have been one nuke. People shouldn't forget how we used to record, and yet it sounded great."

"In your history of recording, you've done a lot of stuff live."

"Live. It was usually so much better for me live. Have you ever heard recordings we did live in Berlin with Gerry Mulligan and Paul Desmond? Boy, those things are smoking! It was the end of a three-day festival, so we went on at midnight. They told us we had to quit. The stagehands were really getting salty. We went to the dressing room, and the stage manager came in and said, 'They won't go home, you gotta go back.' We went back in our street clothes, and they were all over the stage at that point. People had come down and were sitting on the floor, on the stage, all around, right up close. You can hear that audience, just... That's the way I like to record."

"The immediacy can really make a great record. Dave, how much listening to music do you do at home?"

"I'm usually working, and I try to listen to music when I can. But I don't have enough time to do everything. My favorite recording, I think, of all time, is..."

Stereophile, July 1998
The Choice is Clear.

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The Golden Dragon project is controlled in England by former employees of Mullard, M-O Valve, and Brimar. Each Golden Dragon tube goes through many prototype iterations, each of which is evaluated for both measured performance and sonic character. Only when superb sound is achieved does a design become a Dragon.

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Stereophile, July 1998
the Brandenburg Concertos. Telarc just sent them to me, and I’ve been listening to them while I eat breakfast. That’s the way I’ve got to listen, when I’m eating.

“You never just sit and actively listen?”

“Once in a while, sure. But it’s usually to do with work. Like later on today, I’ll listen to my oratorio called Beloved Son, because I’m going to be performing that in San Francisco and Berkeley. See, it’s always getting ready for the next concert. Then I’m always writing new pieces. I’m writing for eight poems of Langston Hughes. So there’s not a lot of time to enjoy other people’s music.”

“I’ll just listen to the two opening tracks from the Dave Brubeck Quartet’s latest release, So What’s New, a recording of new, original compositions. “It’s Déjà Vu All Over Again” has that classic Brubeck feel, while “Fourth of July” is, suitably, a study in fourths, with a thoroughly modern sound and solid alto work from Bobby Militello. The sound of the disc is typically Telarc, ie, topnotch. Dave’s system is typically “musician,” meaning “modest,” to put it delicately. In case any of you audiophiles want to shop for one just like it, you’ll need JVC’s RX400 receiver, KD-V400 cassette deck and AL-Y66F turntable with a Tascam DA-20 DAT and big Jensen 1533 loudspeakers. Dave seemed to like the way it sounded just fine.

“Telarc just gets a wonderful piano sound, you know? Should it be louder, do you think? Is it okay?”

“Tell you the truth, Dave, I don’t hear the left speaker so well, with the chair in front of it…”

[Brubeck laughs loudly]

“…It’s not what I would call an audiophile setup. How about you? Can you hear the left?”

“Not so good, Rick, no. But I sit in that big chair, so I don’t hear the right one!”

“Well, so much for stereo. [laugh]

It’s a funny thing with musicians. It seems they’ll go to great lengths to get and appreciate a really great piano sound, for instance, but in the playback system, it’s like, ‘Ehh, it doesn’t really matter. So what if the chair’s in front of the speakers?’ Do you see a bit of a contradiction there?”

“HA-HA!”

“A paradox, maybe? No?”

“You see, it doesn’t make any difference if the chair’s in front of it. I can still hear whether it came off, the playing. That’s all I’m interested in.”

“And what about the quality of the piano sound?”

“Yeah, it’s good. And I know it’s good. And maybe it’s better for other people.”

“Can you listen like someone who’s simply listening to the music, rather than to what the musicians are doing, the technical stuff and the mistakes?”

“It’s new like this, I’m listening for mistakes. It hasn’t got to where I can relax yet. It’s the first time I’ve listened to the real release.”

“And what if you’re listening to somebody else’s music?”

“Oh, I love to hear mistakes then. Makes me feel better.” [laugh]

“What else shall we listen to, Dave?”

“Let’s see. Here’s the Bach Brandenburg Concertos, on original instruments. A lot of times the original instruments sound scratchy or out of tune, but this is a great, great recording: Boston Baroque with Martin Pearlman.”

“There are so many different recordings of every classical piece. Especially now. Do you pay attention to different versions, or to different orchestras?”

“I don’t have time to do that. Friends of mine do. In fact, my drummer, Randy Jones, is a fanatic about different versions of classical pieces. All over Europe and Russia — wherever we are on tour — he goes straight to the record store. He’s going to a cab because he’s heard of some store that has a certain kind of music, and he’ll go out there…”

“Sounds like my affliction…”

“See, he’s one of those people that I’d like to be like. And have the time to do it. He discovers them all over the world. In Japan, Europe… it’s funny, but Randy likes the LPs.”

“A lot of people love LPs.”

“Yeah? Isn’t that strange? Well, I was just playing one here the other day, and it did sound good. In the ‘30s, when I couldn’t afford to buy anything, I spent all my money on old records, 78s, boxed sets. When I look back on what I would save up to buy, it would be Stravinsky, Bartók, Milhaud, Ravel, Charles Ives, Copland… and Ellington. You remember ‘Jumpin’ Punkins,’ ‘Jack the Bear,’ ‘Blue Serge?’ Those were the things where you’d save your money just to get those records, and they would mean so much to you.”

“What did you play them on?”

“Oh, boy. What I’d go through to get a record player! [laugh] Cactus needles, where you have to sharpen them yourself. That was in 1942, I guess. Even earlier in the ’30s, my mother and father had a windup phonograph. And you didn’t realize how bad that sound was. It was great to me.”

“Do you remember when stereo came in?”

“Oh, sure. We were in on that, too. There was a place in New Jersey where I went to hear my first stereo. It was the sound of locomotives! [laugh] It was some laboratory. Wild.”

“That’s embarrassing—the classic view of audiophiles listening to trains instead of music. So how about your old records? They’re all gone now?”

“Naaah! I’ve got some old records downstairs. Do you want to see them?”

“We descended to Brubeck’s work room, a large space crammed with works in progress, scores, one of his many pianos… and LPs. Hundreds of them, including his original Fantasy 10-inches on red vinyl! Oooh, baby.”

“See, someday, I’m going to quit traveling and listen.”

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- WHAT HI-FI, April 1997

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- HI-FI NEWS, April 1997

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doesn't really listen here any more. Back upstairs on his main system, we listened to some Bach.

"Brandenburg. Isn't it great?"

"It is. Dave, it's kind of odd. You have this beautiful equipment you don't listen to, and here you have Japanese mass-market stuff with speakers sitting behind a chair...

"The stuff downstairs is good, huh?"

"It's quite good. Classic."

"This isn't too bad, though, is it?"

"No, it's fine. It's actually very nice, somehow. I find it really strange that almost all musicians have very modest or lousy systems, and yet a musician always manages to have something that sounds musical, no matter what it is. And I'm not certain how they do it."

[laughs] "It's not because it's expensive. It isn't."

Dave appeared to be enjoying the music immensely. I noticed his answers to my questions seemed to be getting shorter and shorter.

"Do you ever find yourself listening to kinds of music that you don't play?"

"No, not much."

"No rock and roll, for instance?"

"If I had a lot of Frank Zappa, I'd listen to that. My kids liked Frank Zappa."

"Do you have other musician friends who have fancy systems?"

"Most of them don't. Except Randy."

[laughs]

"Have you listened over at his place?"

"Once, yeah."

"Was it impressive?"

"Yeah. [pause] You hear that violin sound? Everett. I love that, when it's in tune. You know?"

"You were telling me when I first got here that you usually listen while you're doing something else; you don't sit down and concentrate."

"Yeah. That's right."

"Dave, you lied to me!"

[laughs]

"I mean, look at you. You're completely focused on the music. Drumming your fingers..."

"Yeah. I suppose you're right. I love this music. I really enjoy it."

"Do you listen or hear differently than other people, do you think?"

[pause] "I think so, because... I listen more for the music than the quality of the music. Like when I first heard the radio broadcasts of Bartók playing these piano pieces. That knocked me out! And it's probably terrible as far as an audiophile would be concerned, but where are you going to hear something like that? So you've got to compensate... Oh, and recently I heard some early Gershwin stuff, with him playing music that you put on player pianos."

"Oh, right, the piano rolls. Fantastic!"

"That is so great! And to hear that it's Gershwin practically."

"That's quite a gift he left us. You know, some people won't even listen to records unless they have a perfect sound. So they're missing all this music that's maybe badly recorded, but is incredible music."

"Do you encourage your readers to not be so serious? I remember Darius Milhaud's phonograph was sitting on an orange crate, and it was almost a mystery to him. It was just a plain old phonograph with needles. I don't think he was absolutely positive of what made it go... but for him, that was music. And he was one of the greatest musicians in the world."

"Do you think listening changes your playing or your composition? Does it affect how you..."

"You mean hearing my own stuff?"

"Sure. Your own stuff, other people's stuff. Just listening..."

"Well... you see, you're influenced by everything you hear. If it's bad, you say 'I'll never do that.' That's an influence. People don't realize that everything you hear is an influence."

"Right. I was just thinking about the experience I told you about—the rhythm of the train..."

"Duke Ellington always liked to write on the train. When we were on tour together, he'd be writing a lot and he liked to ride over the wheels, where you could hear the sound of the wheels on the track. Rhythm is like a language that speaks to us all the time."

"Obviously, that experimentation with rhythm—that's a big part of your life's work, right?"

"Oh, yeah. And I'll never finish what I've started. No way. If I had every second to work, I'd never finish. That's why I don't sit around and listen too much. It's all a question of time."
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Brian Damkroger, Stereophile, Dec 1997
A Dave Brubeck Selected Discography

**Fantasy**


**Jazz at Oberlin** (1953), OJC-046, OJC-046-2. With P. Desmond, Lloyd Davis, Ron Crotty.

**Jazz at the College of the Pacific** (1953), OJC-047, OJC-047-2. With P. Desmond, R. Crotty, Joe Dodge.


Dave Brubeck Plays and Plays and Plays (1957), OJCCD-71. Solo piano.


**Columbia Jazz Masterpiece Series**

**Jazz Goes to College** (1954), CK 45149. With P. Desmond, J. Morello, E. Wright.

**Dave Dip Disney** (1957), CK 48820. With P. Desmond, J. Benjamin, J. Morello.


**Gone With the Wind** (1959), CK 40627. With P. Desmond, J. Morello, E. Wright.

**Time Out** (1960), CK 40585. With P. Desmond, J. Morello, E. Wright.

**Time Further Out** (1961), CK 64668. With P. Desmond, J. Morello, E. Wright.

The Real Ambassadors (1962), CK 57663. With J. Morello, E. Wright, Louis Armstrong and His All Stars, Trummy Young, Carmen McRae, Lambert, Hendricks, & Ross.

**Anything Goes** (1963), ICT-9402 (cassette). With P. Desmond, J. Morello, E. Wright.


**Concord Jazz**

**Back Home** (1979), CCD-4103. With J. Bergonzi, C. Brubeck, Butch Miles.

**For Iola** (1985), CCD-4259. With B. Smith, C. Brubeck, R. Jones.


**Blue Rondo** (1987), CCD-4317. With B. Smith, C. Brubeck, R. Jones.


**MusicMasters**

**New Wine** (1990), 5051-2-C. Russell Gloyd conducting the Montreal International Jazz Festival Orchestra with the Dave Brubeck Quartet: Brubeck with B. Smith, C. Brubeck, R. Jones.

**Trio Brubeck** (1993), 65102-2. With C. Brubeck, Dan Brubeck.

**Musical Heritage Society**

**Light in the Wilderness** (1968), 513442A. Brubeck, piano; William Justus, baritone; Miami University A Cappella Singers; Erich Kunzel, Cincinnati Symphony.

**Telarc**


In Their Own Sweet Way (1994), CD-83355. With Chris, Dan, Darius, and Matthew Brubeck.

**Coming from Columbia this year:**

**Jazz Impressions of Japan** (1964).


**Brubeck Plays Brubeck** (1956). Solo piano.

**Jazz Impressions of the USA** (1957).

**Brubeck and Rushing** (1960).
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Stereophile, July 1998
Romanian conductor Sergiu Celibidache knew the power of saying "no." After a brief, stormy tenure with the Berlin Philharmonic following World War II, during which he proposed that the entire orchestra be fired, the handsome, square-jawed Celibidache declared a Garbo-esque boycott of the recording studio. Over the decades, he became such a contrast to the world of jet-age, overexposed classical recording stars that, in the years prior to his death in 1996, he acquired a powerful mystique that will either be deepened or exploded by EMI's recent release of 11 live CDs, all recorded with the Munich Philharmonic between 1988 and 1995. Authorized by the conductor's family to counterbalance all of the unauthorized Celibidache radio broadcasts issued by semi-pirate labels, these recordings are as puzzling and controversial as the live concert videos released during his final years — so much so that I wonder if the conductor was right in keeping his recording profile so low.

The firebrand of the 1940s became something of a Buddha-like figure in the 1990s, espousing metaphysical theories in which sound was only the vehicle of that incredibly subtle entity known as music, which couldn't possibly be captured by anything so mundane as a microphone. Thus, EMI has decorated these discs with ancient Chinese Zen symbols, and in this and other ways has attempted to create a sense of occasion. The sound quality is as clear and detailed as live recordings get. The CDs not only include applause, but do so on separate tracks, not just to communicate audience rapture but also to head off critics who may look at the timings and accuse Celibidache of tempos even slower than those he took.

The tempos are slow indeed. In fact, they seem even slower than the intermittently mesmerizing concert performances I heard during Celibidache's US tour with the Munich Philharmonic some eight years ago. You can initially forgive Celibidache's Bartók-on-Quaaludes reading of the Concerto for Orchestra; it wasn't in the conductor's core repertoire, and, in this performance, seems like an experiment in dissolving tempo relationships for the sake of a uniformly majestic gait broken only by rhetorical flourishes.

I shuddered slightly less on turning to the Debussy disc: The music's pictorial effects don't lend themselves to slow motion, and the Iberia, with its flaccidly executed Spanish rhythms, confirmed my worst fears. However, Celibidache's La Mer memorably conveys a sense of unstoppable oceanic elements in a way that few recordings do. Surprisingly, one of the stronger discs of the series is the similarly pictorial Pictures at an Exhibition; amid the slowness, the conductor frequently surprises with wonderfully characterful moments that astonishingly crystallize Mussorgsky's intentions.

In repertoire closer to the Germanic core of classical music, Celibidache's moments of eccentricity and brilliance are check-by-jowl, often in the same movement. These are some of the most bewildering recordings ever made. Hopes often run high in the opening moments: Even at his most perverse, Celibidache was a terrific scene-setter, and his treatment of slow introductions have an arresting sense of drama and introspection. The opening drum roll of Haydn's Symphony 103 is played so emphatically as to suggest the onset of war.

He could also excel at finales. In the last movement of Schumann's Symphony 4, Celibidache pulls inner details out of the orchestral fabric that have relevance to the whole and create a highly memorable effect. Similarly, the trio sections of Haydn's minuets often seize your attention, even if the dance rhythms of the outer sections of the movement are impossibly heavy. Thus, the all-Haydn disc (with Symphonies 103 and 104) is recommended for those who enjoy the stimulating and provocative. However, one of the least notable discs of this group of releases is the pairing of Haydn's Symphony 88 and Mozart's Symphony 40, the latter giving Celibidache so little interpretive fodder that he gives only a heavy-going run-through.
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Not far behind that are Beethoven's Symphonies 4 and 5. There are some fascinating moments in which a woodwind obbligato, or an inimitable counterpoint that had previously escaped your attention, comes rushing to the fore. But the crusty temperaments of these symphonies hardly lend themselves to Celibidache's meditative calm. In fact, the tempos are so slow that I couldn't help being reminded of a certain Washington, DC radio shock-jock who commemorated the death of conductor Eugene Ormandy by claiming to have his last recording, then playing an unidentified Beethoven 5 at half speed.

Schubert's Symphony 9 can seem long in conventional performances, but your clothes could go out of style while waiting for Celibidache to get through the final cadence of the first movement. His tour of Schumann's Symphonies 3 and 4 is comparatively cogent, again with woodwind details you're amazed to have previously missed. However, Celibidache often runs aground with Wagner. In the disc of orchestral music, sounds tired out in the celebratory Prelude to Act I of Meistersinger. Predictably, there are grand statements in the other Wagner selections, but they're so long. Compared to post–World War II Wilhelm Furtwängler (never known as a speed demon), Celibidache's Siegfried Idyll is seven minutes longer (at 23:45), his Tannhäuser overture three minutes longer (at 16:57).

But the two discs of Tchaikovsky symphonies (5 and 6) have a grandeur that keeps the music from degenerating into symphonic soap opera, and even the final movement of 6, which can seem self-indulgent at slow tempos, has majesty. Though these are some of the more successful performances—in fact, some of his slow tempos in 5 have much greater purpose here than in his 1948 recording of the same piece with the London Philharmonic (London 425 958-2) — thematic ideas are so heavily underscored that the listener feels talked down to, as though the conductor thinks the audience isn't perceptive enough to know what's going on in the music. I'm not sure if these are eccentric interpretations for connoisseurs or Tchaikovsky for Dummies.

The most immediate problem common to these performances is a lack of architecture. Celibidache seems to love all moments of the music indiscriminately — transitional passages are given the same intense, microscopic examination as first-movement expositions. The problem behind the problem, though, may have been that Celibidache the mystic got the best of Celibidache the conductor. Western music from 1600 on is essentially a series of musical events — themes primary and secondary, key changes, etc.— not all of them created equal. Music tied more specifically to spiritual enlightenment — whether Renaissance masses, African drumming rituals, or Bruckner symphonies— tend to be eventless, unfolding in a long stream, which was the primary inspiration of Philip Glass's and Steve Reich's respective brands of minimalism. Applying this to most symphonic music turns it into a Brucknerian soup, and goes against the grain of the music's essence. That's why Celibidache's videos of Bruckner's Symphonies 6, 7, and 8 (Sony SLV 48 348, SLV 48 316, and S2LV 48 317, respectively) remain, to me, the most convincing recent examples of his art.

But those Bruckner videos aren't why I'd tentatively venture to say that Celibidache, at least at one point, was a great conductor. Having sampled live recordings from all periods of his career, I've heard much willfulness — though a Brahms disc from 1959 (Symphonies 3 and 4, Cetra CDAR 2011) is as masterful and multifaceted as any I've ever heard. As Jean Giradoux once said, "Only the mediocre are always at their best." Unfortunately, Celibidache wasn't at his best frequently.

**Celibidache on CD**

All of the CDs listed here are DDD recordings of Sergiu Celibidache conducting the Munich Philharmonic. They were recorded between 1988 and 1995, and released just after Celibidache's death in 1996 by EMI Classics in 1997. Producers and engineers are not named.

**BARTÓK: Concerto for Orchestra**
5 56528 2. TT: 77:48
Performance ★★
Sonics ★★★1/2

**BEETHOVEN: Symphonies 4 & 5**
5 56521 2. TT: 77:57
Performance ★★1/2
Sonics ★★★1/2

**DEBUSSY: La Mer, Images pour orchestre**
5 56520 2. TT: 65:04
Performance ★★★
Sonics ★★★1/2

**HAYDN: Symphonies 103 & 104**
5 56518 2. TT: 70:32
Performance ★★★
Sonics ★★★1/2

**HAYDN: Symphony 88**
5 56519 2. TT: 60:13
Performance ★★1/2
Sonics ★★★1/2

**MOZART: Symphony 40**
5 56519 2. TT: 60:13
Performance ★★1/2
Sonics ★★★1/2

**MUSSORGSKY: Pictures at an Exhibition**

**RAVEL: Boléro**
5 56526 2. TT: 74:48
Performance ★★★
Sonics ★★★1/2

**SCHUBERT: Symphony 9**
5 56527 2. TT: 59:26
Performance ★★★1/2
Sonics ★★★1/2

**SCHUMANN: Symphonies 3 ("Rhenish") & 4**
5 56525 2. TT: 74:17
Performance ★★★
Sonics ★★★1/2

**TCHAIKOVSKY: Symphony 5**
5 56522 2. TT: 58:26
Performance ★★★1/2
Sonics ★★★1/2

**TCHAIKOVSKY: Symphony 6**
5 56523 2. TT: 61:36
Performance ★★★1/2
Sonics ★★★1/2

**WAGNER: Orchestral Music**
Die Meistersinger von Nürnberg, Prelude to Act I; Siegfried Idyll; Götterdämmerung, Funeral March; Tannhäuser Overture
5 56524 2. TT: 66:06
Performance ★1/2
Sonics ★★★1/2
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Bold Listings available in New York City exclusively at Sound By Singer.
Table-card-carrying what against been wonderful wing add frequency-shaping, the systems digital (tone side sound more these effects to the audience. As a card-carrying audiophile, I wanted just what the engineer had inscribed on the recording, with as little change as possible (read: high fidelity).

But such purism has left me unarmored against boomy or screechy recordings of wonderful music. The only choices have been to endure or abjure such recordings because analog frequency shapers (tone controls, equalizers, filters, etc.) add phase-shifts, noise, and distortion. At the same time, mid-fi and home-theater systems (and recording studios) incorporate sophisticated and complex frequency-shaping, modifying tonal, decay, and reverberation characteristics with digital signal processors (DSP) to superimpose a chosen aural ambience on the sound source. Few of us on the other side of the track, who have taken the more ascetic route, would deny that these effects can be impressive.

NAD 118 digital preamplifier: Line-level preamplifier/control unit with remote control. Inputs: 4 analog (100k ohms + 450P input impedance, 80mV sensitivity, 86dB S/N ratio), 4 digital (S/PDIF RCA). Analog and digital tape loops, 1 digital output (S/PDIF RCA). 18-bit A/D converter (106dB S/N), 20-bit D/A converter (108dB S/N). Frequency response: 10Hz–20kHz, ±0.3dB. Voltage gain: 16.5dB max. THD+SF+RHF IM distortion: 0.03%. All processing in digital domain using 24-bit DSP. Analog outputs: Main (220 ohms, >3V), Tape (100 ohms, >1V), Headphones (120 ohms).

Dimensions: 17¼” W by 3½” H by 11” D. Weight: 8 lbs net.

Serial number of unit reviewed: SX6118000013.

Price: $1599. Approximate number of dealers: 300.


Dimensions: 17” W by 4½” H by 10” D. Weight: 14 lbs.

Serial number of unit reviewed: 251.

Price: $5000. Approximate number of dealers: 32.

Manufacturer: Z-Systems Audio Laboratories, 4614 F NW 6th Street, Gainesville, FL 32609. Tel: (352) 371-0990. Fax: (352) 371-0093. E-mail: zsys@z-sys.com. Web: www.z-sys.com.

Now the time has come for DSP to give the audiophile some powerful tools to tailor frequency response and to correct faults in the recording. Both the Z-Systems rdp-1 and the NAD 118 are designed to use digital signal processing to effect changes in the shape of the frequency response without introducing any side effects into the audible signal. Both products rely on powerful general-purpose DSP chips, have memory modes for the storage and recovery of settings, and can be operated from their front panels or from their remote controls. Aside from those common points, they differ in terms of capabilities, intended applications, and user interface because the designers of these two devices chose different models to emulate. The NAD emulates a line-level preamp/controller with tone and separation/blend controls. The Z-systems rdp-1 emulates a controller/parametric equalizer. Each, however, is much more capable than its ancestors.

Meet the NAD 118
Although it handles analog as well as digital signals, NAD calls the 118 a “digital preamp.” Since the signal processing operates in the digital domain (using a 24-bit Motorola 56004 DSP chip), analog inputs are converted to digital by a Philips SAA7360 18-bit, 48kHz-sampling ADC; analog outputs are driven by the Philips 20-bit TDA1547 DAC used with a TDA1307 digital filter. The ADC’s 48kHz default sampling frequency can be changed to 44.1kHz if necessary. TDA1315 S/PDIF I/O chips handle digital inputs and outputs. (A separate TDA1305 DAC is dedicated to the tape-monitor loop.) All of these are among Philips’ best offerings in their respective applications, and are found in other high-end components.

You needn’t concern yourself with any of this, as the basic operation of the 118 will be intuitive to anyone who has used other audio gear. Take it out of the box and you can hook it up to your sys-
tem just as you would any other preamp. Plug your analog sources into the analog inputs and your digital sources into the digital inputs. Connect your power amp to the outputs and you’re ready to go. (What do you do with your DAC? Keep it handy.)

With notable exceptions, every control on the front panel and remote does what you’d expect, and tiny LEDs clearly indicate the status of each control. But there’s much more lurking behind NAD’s conservative front panel. Input sensitivities should be adjusted individually for each analog source. Of course, it’s nice not to get blasted when changing from a lower-signal-level input to a higher one. But, since the 118 digitizes the analog inputs, it’s essential that the input gain be set to match the dynamic range of the ADC. Using a dynamic and fairly loud source, input sensitivity is set by holding down the input selector button and turning the volume control until the overload LED flashes only briefly and infrequently. Once adjusted, the 118 remembers the setting for that input. You can also set the analog output level to “High” or “Normal” to match the input sensitivity of your power amp(s).

In addition to its operation as a complete line-level preamp/control center, the NAD 118 has the following unusual features:

1) Digital signal inputs in addition to analog signal inputs. With digital sources, there’s no need to use DACs. Analog and digital sources are handled identically.

2) Digital tape input/output in addition to analog tape loop. Analog tape output is available, unprocessed, from the analog inputs; or, via the DSP, from both analog and digital sources. Digital tape input and output are also available, but monitoring is possible only if the recorder has a DAC; the 118’s monitor (Tape Check) circuits are entirely analog.

3) Digital signal output in addition to analog output. The 118 has a coaxial (RCA-type) 5/PDIF output that permits you to substitute your own DAC for the on-chassis DAC.

4) A wide array of digital signal processes. This, the heart of the 118, includes a number of interesting and potentially useful DSP modes. In the standard, Tone Control mode, the controls are fixed in frequency but have variable boost and cut. At these frequencies, the bass (40Hz) and treble (10kHz) controls modify mainly the frequency extremes and have minimal effect on the rest of the spectrum. Hence, one can use these controls more liberally than ones at, say, 100Hz and 4kHz. The midrange frequency (2.8kHz) is set exactly where the average ear is most sensitive, and tiny adjustments are easily audible. I found a small boost with this control most useful in increasing the intelligibility of spoken voices, particularly with the BBC dramas rebroadcast by NET.

The 118’s Compression mode, which affects the dynamic properties of the sound, is useful for very-low-level listening, or for making recordings to be auditioned in noisy environments such as an automobile.

A related mode substitutes a fixed Infrasonic filter for the bass control while retaining midrange and treble adjustments. This is a quite effective function for eliminating LF noise, as it implements a steep cut beginning at about 24Hz. While I could dial in an effective equivalent with the rd-1, the 118’s Infrasonic filter was much simpler to use. The tradeoff, of course, is that the 118’s filter supplants the Bass control, and thus you are unable to shape the musical range at the same time.

The FM mode lets you vary the channel separation from full stereo to full mono. Since the noise and hiss on FM broadcasts is usually out of phase between the two channels, channel blending minimizes it. As it reduces separation, the 118 applies a synthetic stereo algorithm. I found this mode to be useful for poor FM signals. Switching my tuner to mono or an intermediate blend mode was as effective in reducing noise, but, with the variable control of the 118, I could retain as much true separation as the noise would permit in all but the worst situations. The synthetic stereo effects were subtle, restoring a bit of spaciousness that was, at times, appreciated.

The Width control purports to be able to reduce excessive separation and to expand the width of some minimally separated stereo recordings. (It has no affect on mono recordings.) It is useful in minimizing the “hole in the middle” of very early stereo recordings, but only at the expense of some intended effects. Thus the 118 took all the fun out with “ping-pong” demo discs; but with some older classical recordings (eg, some of the early Westminster stereo LPs), a greater sense of presence and weight was gained. Rotating the control the other way to increase Width was effective in replacing the clumpy, center-weighted image on Mravinsky’s recording of Shostakovich’s Symphony 8 (Philips 422 442-2) with a semblance of space and air, but this function was usually less satisfactory because the separation was achieved at the expense of instrumental delineation.

The Width & Spread mode is similar to the Width mode, but adds a variable Spread function intended for mono sources. Starting with a decent mono recording and the consequent phantom image of all the instruments crisply fixed midway between the speakers, careful tweaking of the Spread and Width controls created a more spacious stage, and, with a little help from recorded phase anomalies and asymmetries in the listening room, a suggestion of instrument distribution. I did not find this mode especially useful, though, and great care was required to not destroy coherence. Don’t push it, or everything will become vague and the center will not hold.

Finally, the 118 has Compression mode, which affects the dynamic properties of the sound. Increasing the degree of compression (turning the control up) raises the level of quieter sounds without affecting the louder ones. This reduces the dynamic range and is useful for very-low-level listening, or for making recordings to be auditioned in noisy environments such as an automobile. While this is a major musical corruption, it definitely has its uses. The 118 is also capable of expanding the dynamic range by reducing the level of softer sounds, but this is limited by the noise levels in the source. I’ve found it convenient and effective for radio (and DMX) broadcasts that have been subjected to dynamic limiting.

Despite my less-than-effusive praise for each of these individual modes, together they constitute an imposing battery of weapons with which to battle for better listening. Moreover, the 118 is capable of storing and recalling a particular DSP/Balance configuration for each input, and a pre-
ferred Setting/Balance for each of the DSP modes. And, with the flick of DSP In/Out, a flat response is always at hand.

How to evaluate the sound?
The 118's versatility can be employed in several ways. First, as a complete analog in/out preamp, it works as a line-level preamp controller in a standard audio system. Second, as a digital-in/analogue-out preamp, it functions as a system controller and DAC for an all-digital system. In addition, an external DAC can replace the 118's built-in DAC. Note that the DSP engine is always in the listening circuit because the gain and balance controls are always operable. This also means that the DSP In/Out button is merely changing the processing algorithm to one that affects only gain/balance. Thus, switching DSP In/Out is not a bypass of the processor.

As a complete analog preamp/controller, the 118 was lively and dynamic. The preamp exhibited no real nasties, and sounded for all the world like a decent analog preamp. The soundstage was neither as wide nor as deep as with my Klyne 6.3.3P or Sonic Frontiers Line-2, and the 118 seemed just a bit tingly in the treble. Bass was excellent, but with a little less "slam" than expected. Actually, such performance, though not outstanding, is quite amazing when you remember that the signals are subjected to ADC, DSP, and DAC processing.

Replacing the 118's DAC with an external one was a significant step in the right direction; I tried the Audio Alchemy DAC-in-the-Box and DDE 3.0, Parts Connection Assemble DAC-2, and the Uther 3.0. Overall balance of the 118+DAC-2 was excellent, with "slam" restored. Depth was improved, and only the lack of width and a slight veiling in the upper midrange distinguished the combination from an all-analog pathway. With the Uther there were minor improvements in clarity, but I suspect that here I was coming up against the limiting performance of the ADC. As a purely analog preamp, the 118 was a quite satisfactory performer, but one that I'd have a hard time recommending; unless the user prizes the DSP capabilities, it cannot justify its price. Adding a superior external DAC is warranted by the improved performance, but also adds to the bottom line.

The 118 was a stellar performer with digital sources. In my bypass tests, the 118 was set for unity gain (by voltmeter), and the S/PDIF output from my Audio Alchemy DDS-Pro was connected directly to the Uther DAC, or via a loop through the 118. Matched Apogee Wyde-Eye cables were used to minimize cable effects. With the external DAC, it was difficult to detect whether the 118 was in-circuit except on immediate switching. The only difference was a very slight but consistent compression of the depth and width of orchestral images. Small groups and solo voices were unaffected. Indeed, extended musical listening sessions were a delight, and the minor faults disappeared into the general enjoyment of both the music and the great convenience and flexibility of the 118. Without an external DAC, the soundstage compression and tinge of HF brightness returned; still, they were noticeable only on switchover, and were not troublesome with extended listening.

Thus, with either analog or digital sources, the 118 benefited from being mated to a congenial external DAC with decent line-driving ability. (The 118 will not pass decodable HDAC signals even with a compatible DAC.) The real bugaboo is that the digital output signal is subject to interruption with input switching and, depending on the muting ability of the DAC, you may hear switching transients. With the DAC-2, for example, these were plainly audible but not disconcerting. The fault is not entirely NAD's, as other DACs were untruffled by the switching.

Although most of the test listening was done in my main system, long-term (and, boy, do I mean long-term!) listening was done with the NAD in my weekend system. Here the 118 was fed by a Pioneer CD transport, DMX receiver, and analog audio from cable TV, and it drove an Assemble DAC-2, BOW Wazoo amp, and a pair of Paradigm Esprit bipolar speakers.

Sheer delight. The speakers needed no help for themselves, but the sources often demanded the talents of the 118. DMX signals vary considerably, and the Width/Spread functions were effective on some of the mono-sourced selections on the blues and oldies channels. TV audio is often horrible, but the 118 could tame almost anything. For the first time, I could enjoy those wonderful opera performances on A&E that are so often hoity and hollow, and I could put some presence and kick into the House of Blues broadcasts. As for CDs, there are quite a few whose frequency extremes need a bit of tweaking: the 118 did that without destroying the musical integrity of the midrange. It was wonderful to be able to get more out of those signals, and it certainly was addictive.

Was it worth it? You bet. The combination of the 118 and the DAC-2 (or better DAC) gave me a nearly transparent and immensely flexible control center. While you might get more transparency for the same (or fewer) dollars with straight-line analog preamps, such transparency may not be enough when the source itself is far from perfect. The 118 let me improve the quality of the less-than-perfect sources with which we all live, and which, by Holt's Law, contain the best music.

Z-Systems rdp-1: A professional tool
The Z-Systems rdp-1 is a much more serious tone-bender whose heritage is in recording studio. Glenn Zelniker, president of Z-Systems, has taken the principles of a studio parametric digital EQ and adapted them to work in home systems as a "Transparent Tone Control." In fact, the rdp-1 (reference digital preamp one) is derived from recording/mastering studio devices that Z-Systems has been making for a number of years. Zelniker has developed and incorporated sophisticated DSP algorithms that minimize noise and phase shift even at low frequencies and with large boost/cut settings.

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The consumer rdp-1 is a completely digital device without ADC or DAC (Z-Systems offers a reasonably priced 24-bit ADC as an accessory), and it is both more potent and more complex to operate than the very user-friendly NAD 118. Basically, and in addition to input selection and gain/balance, the rdp-1 consists of four independent parametric stages and low- and high-frequency shelf controls. The adjustments are not as intuitive as with bass and treble controls; the potential for abuse looms if they are not used with care. On the other hand, the rdp-1’s precise adjustments can effectively remaster your recordings.

The rdp-1 uses the industry-standard Crystal Semiconductor CS8412/CS8402 chips and quality Scientific Conversions signal transformers for input/output with up to 24-bit/44.1kHz/48kHz precision. (An 88.2/96kHz upgrade is available.) The DSP engine is a 32-bit TI TMS320C31, which does its computations in 40-bit floating-point arithmetic. All front-panel controls are duplicated on the rdp-1’s remote handset so that adjustments and mode selections can be made from the preferred listening position. I did have some problems adjusting the controls. Both the front-panel knobs and the corresponding buttons on the remote were often too efficient, each touch moving the control two or three steps instead of just one. I had to develop a light, careful touch to get only the change I wanted.

Placing the rdp-1 into the Input mode permits selection of input source, output resolution/dither, and whether the DSP operates on both channels (Stereo) or on each channel independently (Dual-Mono). Since the output of the DSP is 32 bits wide, the rdp-1 will wordlength-reduce the output to a defined bit-width of 16, 20, or 24 bits. Selection of output resolution and dither will determine whether the full capabilities of the DAC will be realized. Dither, a calculated (not random) noise signal based on a statistical algorithm, is added during the wordlength-reduction from 24 to 20 or 16 bits to avoid the effects of truncation, the visual equivalent of which is the pixelation seen on low-resolution digital images. The rdp-1 offers 24-bit, 20-bit (truncated, no dither), 20-bit (dithered), 16-bit (truncated, no dither) and 16-bit (dithered) outputs. Feed your DAC more bits than it can chew and the result is truncation and harsh sound. Feed it fewer than it can handle and the result is a lower level of performance than you paid for.

And don’t rely on the advertising fluff. A 20-bit DAC chip is too often mated with a 16-bit S/PDIF receiver (like the Yamaha YM3623) or a 16-bit input oversampling filter (like the NPC SM5813), and the package is still touted as a 20-bit DAC! Beware: Such devices will lop off anything over the smallest bit limit inside, and actually sound worse than they would with a correctly formed 16-bit signal. The DACs I use are capable of processing 20-bit signals, and they sounded best to me with the 20-bit (dithered) output. The only exception was that the 20-bit (truncated, no dither) form was needed to pass HDCD signals for decoding. Indeed, the rdp-1 passes decodable HDCD in any of its nondithered modes, as indicated by the LEDs on the DACs and by my ears.

Selection of Stereo or Dual-Mono depends on the kind of processing that you intend to perform. Adjustments to low-frequency balance in loudspeakers are often best made in Dual-Mono mode, as such responses are greatly influenced by the unique position of each speaker in the room. On the other hand, adjustments to frequency response to correct anomalies or imperfections in sources are usually best made in Stereo mode, as true stereo recordings carry something of each voice and instrument in both channels. Changing one channel in a way different from the other destroys harmonic and spatial representation. With mono and pan-potted recordings, Dual-Mono mode may be of use.

**Transparent (?) Tone Control**

The Volume mode is an absolute delight: it covers a range from -95dB to +12dB, and, in the critical ±12dB span, in exquisitely fine increments of 0.2dB. Increment size increases with decreasing gain, which makes large changes easy where fine control is rarely needed. Aided by my trusty multimeter and a test CD, I could match levels from different sources, eliminating a pesky source of listener bias.

More important, this volume control seems entirely unburdened by the subjective effects of bit truncation, at least in the usable range around unity gain. This is probably due to the high bit-width of the DSP. Raising or lowering the gain by fixed increments (with equivalent analog-domain gain compensation) was an entirely transparent operation to my ears. Even large amounts of attenuation (~20dB to ~40dB) were difficult to fault, but the varying noise contributions of the source and analog components made the audible evaluation less than critical. I’m happy to say that, even though the DSP chip is always in the circuit (even in Bypass), inserting the rdp-1 into the system did not compromise the sound in any discernible way.

Actually, I think the system, connected via S/PDIF, sounded better with the rdp-1. At first this bothered me, but it soon began to make sense. I had inserted the rdp-1 into the system between the DDS-Pro transport and the Other DAC in place of an intervening anti-jitter box (DTIPro32 or DragonPro). Bypassing the rdp-1 in that arrangement resulted in a soundstage less stable and deep, and a slight loss of instrument delineation. Zounds! That’s the kind of observation often associated with anti-jitter boxes.
ETF, or How I Learned to Love My Equalizer

Because I'm suspicious of just twiddling knobs to make the sound "nice," I didn't rely solely on my ears when I used the rdp-1 for speaker and room contouring, but instead I used the ETF speaker/room-analysis software to help me manipulate the rdp-1 properly. This program can measure the first, on-axis speaker response, as well as the room response with its early and late reflections and its resonances. Without the visual and objective feedback that ETF provides, each adjustment would have required extended listening sessions with diverse program material for assessment. Using ETF, I knew exactly the effect on the initial response and how room response reshaped it. With a tool as precise and powerful as the rdp-1, ETF (or another analysis tool) is almost essential to the preservation of sanity.

ETF runs under Windows 95/NT and requires a PC with soundcard and a microphone. (A calibrated microphone is preferred; one can be purchased from ETF.) The user plays a series of calibrated test signals (preemphasized pulses) through the system under test, records the response with the microphone at the listening (or other) position, and analyzes them with ETF. The resulting displays show the frequency response of the speaker (early response), and the later responses as filtered through the room acoustics. The displays can be stored, compared, and/or printed.

ETF provides RT-60 reverberation evaluation, bandwidth-limited and time-gated displays, and statistical correlation between your room/system reverberation and an ideal diffuse reverberant decay. It can also measure THD in subwoofers and loudspeakers, guide in the placement of speakers for stereo and home-theater applications, and assist in the design and construction of Helmholtz resonators and QRD diffusers for room correction. There are extensive Help files, and the price includes free upgrades for a year. This last is important; the designer, Doug Plumb, has upgraded the software substantially in the past year, and each new version (now at v4.0) includes welcome functional and interface enhancements. In fact, Plumb's rapid upgrades have outpaced my ability to conduct a formal review, so don't hold your breath.

ETF v4.0 is available for $199.95 US from ETF, Oshawa, Ontario, Canada L1J 5M4. Order desk: (800) 301-1423. E-mail: etf@oshaigs.net. Web: www.speedline.ca/ETF.

Kalman Robinson

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Transparent Tone (?) Control

Okay, the rdp-1 was transparent. So what? It was supposed to change the sound. This did with great finesse. The LF and HF shelf controls may have fixed 6dB/octave slopes, but the nominal frequency is variable, as is the magnitude of the boost/cut. Remember that the slope alone determines how far from the latitude frequency the full effect of the boost/cut will occur. A 6dB cut from a frequency of 50Hz will reach ~6dB at about 50Hz. A 12dB cut won't achieve that level until about 10Hz!

Consequently, these controls can mimic standard bass and treble controls, but with added flexibility and precision. It is the four parametric stages that distinguish the rdp-1 from a tone control. One can select center frequency (% octave ISO frequencies from 28Hz to 18kHz), magnitude (from ~95dB to +12dB), and bandwidth (Q=0.4 to 8). As Q is increased, the width of the frequency band affected is narrowed and the steepness of the cut/boost increased. Thus, one can attack specific spectral problems with specifically tailored correction and have minimal contamination of the rest of the audible bandwidth. With the four parametric stages and the two shelf controls, the rdp-1 has greater flexibility than octave or half-octave graphic equalizers of fixed, or preset, Q. (Graphic equalizers with 3-octave resolution approach this precision.) Moreover, the independence of each stage of the rdp-1 makes it easier to focus on one acoustic problem at a time. The learning curve is steep but short: Use the rdp-1 for a few recordings and you'll develop skill quickly.

The rdp-1 offers a wide range of settings for input source, output mode, and frequency response, and setting these for a particular application takes some time and effort. Fortunately, once you've done this, you can store your preferences as a Preset in any memory location from 1 to 99 for easy recall when needed. Preset 99 is the user-default location and should be programmed to contain the settings you wish to be applied on power-up. Preset 0 is an unmodifiable "flat" stereo setting with 24-bit output. Your choice of any two Presets can be defined as A and B for making rapid comparisons between them. This is particularly useful for comparing an EQ setting against a modification of it as you incrementally approach your optimum EQ setting. In addition, the Bypass mode (filters flat, 24-bit output, no dither) is always accessible for reference. However, the 24-bit output associated with Bypass can create truncation problems with many DACs, so it's best to create your own flat or reference setting with the appropriate output mode.

The tools are there; how can they be used?

Remastering your recordings

I witnessed a most impressive demo a few months back in which an experienced mastering engineer offered to re-
has been captured, and also for some really potent LF sounds. In fact, I find the LF on these CDs a bit overbearing. With a fixed bass control (or, indeed, with just the LF shelf control of the rdp-1) it was impossible to reduce the bottom boom without losing the slam. No problem with the parametric, though. I put in a 6dB cut, swept it down to find the offending range, adjusted the cut to suit my taste, and, finally, trimmed the Q to limit the effect to the range needed. Now that I have just what I want for my system in my room on this recording, I can save that setting as one of the rdp-1’s 99 Presets. Every time I haul out that CD, I call up that memory site and I’m back on track.

One of the most problematic issues for me is the relative prominence of solo voices. With the rdp-1, I can use one or two parametric stages to grab and adjust the voice to what I regard as an appropriate balance. Diana Krall’s Love Scenes CD (Impulse! IMPD-233) is just a bit more breathy and soft than her earlier discs. I pushed up the low bass around 31Hz with a low Q (0.4) to get some whack on the bottom end, and, starting at 2.8kHz, added an HF shelf cut of -0.6dB to minimize the breathiness and let the voice fundamentals come up. Am I right? I can’t say, but I made it sound right to me.

Patently inappropriate sounds are also attackable. You know the (literally) subterranean noise on Classic’s otherwise wonderful reissue of the Witches’ Brew LP (LSC-2225)? I attacked it by feeding the signal through the NAD ADC, and then the rdp-1 via the tape-monitor loop of my Klyne preamp. Since the lowest frequency setting on the rdp-1 is 28Hz, I used a 45Hz LF shelf cut that took full effect at subway levels, and a 31Hz boost with a parametric stage to compensate for what little the shelf cut took out of the musical range. With a bit of interactive tweaking of gain and Q, I was able to wipe out the underground noise without any discernible effect on the bass in the music.

My greatest success was with the Mravinsky Shostakovich Eighth on Philips. This is a powerful and emotionally draining in-concert performance of Shostakovich’s depiction of the “bitter suffering of the times,” but it suffers from poor balance and bad digital transfer. The sound lacks weight and detail, has a nasal midrange, shrieks in the treble, and is cramped into a small center space. Not only that, it was mas-

tered at the wrong speed — the pitch is high. Technically, this is a terrible recording, but the performance warrants attention.

Since the rdp-1 operates only in the frequency domain, it cannot affect how the room acoustics filter the reflected/refracted sounds that reach the ear after the direct sound. First, I used a parametric stage cut (-3.8dB, 315kHz, Q=0.4) and boosted the bass with the LF shelf control (+3.4dB, 1411Hz). This took the vicious edge off the violins and added a bit of weight to the bass. An additional LF boost (+2.6dB, 50Hz, Q=1.0) helped me delineate the bass drum, and an HF shelf boost (+1.6dB, 1kHz) restored the overall balance. What a difference! Not only was I able to hear into the orchestration, but the instruments were no longer crowded together, and there was a sense of space and place. What a marvelous transformation, even if the pitch is off?

Tweaking your system (or not)

Before I received the rdp-1, I was thinking that it would be a great device for equalizing my system and room in the frequency domain. I’m no longer quite so sure. I’ve used the rdp-1 to modify the system response with a few speakers I’ve had in-house for review. For example, the Gershan GA-P 520-x benefited from a 0.8dB HF shelving at 1.41kHz, which knocked down the mid-high response and improved the soundstage spread considerably. The settings of the rdp-1 confirmed and quantified my perceptions; for this, it is a valuable tool.

However, I would not want to rely on the rdp-1 (or similar devices) to equalize speakers for continued use, because frequency response should be determined by design and not by Band-Aid EQ. For example, while the rdp-1 can modify the amplitude response of the speaker, it cannot correct phase interactions between drivers, nor can it change the radiation pattern of the speaker. Moreover, since the rdp-1 operates only in the frequency domain, it cannot affect how the room acoustics filter the reflected/refracted sounds that reach the ear after the direct sound. Thus, changing the amplitude response of a reasonably flat speaker to compensate for room anomalies may result in poor on-axis response. Even with a well-behaved speaker, careful measurements are the only way to determine the EQ settings needed to correct in-room response (see sidebar, “ETF, or How I Learned to Love My Equalizer”).

With the rdp-1 in my system and its remote held lightly in my hand, I attempted to solve problems in system/room response. The best place in my room for my Duettas’ imaging and overall balance is just where they’re likely to excite a 30Hz resonance with some signals. Until I can get off my duff and damp that mode, the rdp-1 did a dandy job of reducing the boom.

Another example: I have a wood console on the left wall of my listening room and an upholstered couch on the right. With small speakers widely spaced, I improved performance by compensating for the slight brightness imbalance due to the unbalanced acoustic. Both of these problems would be better solved in other ways (absorbent/diffusive treatment and/or furniture rearrangement), but the rdp-1 made it quick and easy (if you know what you’re doing).

The rdp-1 can serve as a control system for an all-digital system, reduce the need for more than one DAC in such a system, and, to a degree, supplant an anti-jitter device. I have found it transparent, flexible, and useful, and I feel that its performance justifies the asking price. Do you need one? Perhaps not, but I certainly do.

Conclusions

The NAD 118 and the Z-Systems rdp-1, in their quite different ways, successfully bring DSP into high-end audio. Although both perform best in all-digital environments, each has different target users. The NAD, preferably with an external DAC, presents the same interface as traditional preamps and will appeal to those who want flexible control but prefer not to think about such quantities as frequency and Q. The rdp-1 requires an external DAC and demands that the user be analytical and precise with it. Each is a rewarding device, but my heart lies with the rdp-1.
T
hem which is of other nature
thinks different," said Martin
Chuzzlewit's Mrs. Gamp. If
that is true, then Naim's Julian Vereker
must be of a very different nature
indeed. Vereker — and, by extension,
Naim — has never done things the
conventional way. Take, for example,
power regulation and stiffening power
supplies. Long before the rest of
the world was taking them seriously, Naim
offered upgrades to their components
not by changing the audio circuitry, but
by adding stiffer and stiffer outboard
power regulation.

Their new "entry-level" CD player,
the CD 3.5, follows in this tradition. It
is a stand-alone CD player that offers
an upgrade path. This, in itself, is not
unusual — many companies offer a
player that can be allied with a DAC
when improved sound is desired. The
CD 3.5, however, has no digital out —
its upgrade path consists of an add-on
outboard power supply, which powers
the analog filters and output stages of
the player. Different.

**Internal difference is where the meanings are**
The CD 3.5 doesn't look fancy. It's less
than 3" tall and is 12" deep and 17"
wide. Its case is metal, with a black
crinkle finish, and its faceplate is sparsely
populated. On the left is a hinged
drawer, which the user must pull open
by hand to load and empty the player.
This drawer houses the transport mecha-
nism, a Philips VAM 1205—a variant
of the CDM12—and includes a Hall-
Effect disc drive. A small magnetic
"button" clamp is used to stabilize the
CD in play. The only other adornments
on the faceplate are four large buttons
(Previous, Next, Stop, Play) and a small
but readable display—which can be
switched off. In contrast, the remote is
small and rather cluttered.

The rear panel may look strange to
anyone who's never examined a Naim
component. In addition to a dedicated
AC cable and a power switch, it has
three DIN-style connectors. One of
these connects the analog filters and
output to the player's main board; if an
outboard power supply is not used, a
"link plug" —a small plastic paddle with
shorting plugs—must be connected.
Another connector accepts the output
from an outboard power supply, while
the last is the audio output. If the CD
3.5 is not used as part of a Naim system,
DIN-to-RCA cables are available.

The CD 3.5 is based on the Philips
CD7 part set. The servo controller chip
is a Philips SAA7376, which controls all
transport functions, transformation of the
"eye pattern" FM signal into digital data,
error correction, and digital filtering.
Following this is a Philips TDA 1305
chip, which provides additional digital
filtering and 18-bit D/A conversion.

A separate master clock controls all
the primary digital functions, and the
clock circuit's configuration is engi-
neered to minimize jitter. A seven-pole
analog filter follows the DAC to re-
move spurious noise.

The CD 3.5 has 14 low-noise regulat-
ed power supplies on the main board,
and one more on the servo control
board, which is mounted on the hinged
tray. And, as I mentioned earlier, the
player can be connected to any of

**Description:** Single-chassis CD
player with optional outboard
power-supply for analog filters
and output amplifier. Frequency
response: 10Hz—20kHz, +0.1dB/
-0.5dB. Maximum output level:
2.1V RMS at 1kHz. Output imped-
ance: 10 ohms maximum. Phase
response: linear phase, absolute
phase correct.

**Dimensions:** 17" (430mm) W by
2.5" (56mm) H by 12" (300mm) D.

**Serial number of unit tested:**
135666 (CD 3.5), 136898 (FlatCap).

**Price:** $2150; FlatCap power sup-
ply, $750 extra. Approximate num-
ber of dealers: 30.

**Manufacturer:** Naim Audio Lim-
ited, Southampton Road, Salis-
bury SP1 2LN, UK. Tel: (44) 1722-
332266. Fax: (44) 1722-412034.
US distributor: Naim North Amer-
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Naim’s external power supplies (ranging from the $750 FlatCap to the $4400 SuperCap), which power the analog circuitry separately. Naim claims this arrangement maintains signal integrity by keeping the DAC in the ideal position (ie, close to the data it must convert), while offering an upgrade path that doesn’t compromise their design goals.

All main control functions are handled by a microprocessor running Naim-written software. Every aspect of the SA7376 remains under software control, says Naim, which allows for improved performance. According to Julian Vereker, “There are 57 parameters that you can adjust with software — everything from the focusing to the speed of data coming off the disc to the time it takes to find tracks. Most players are quite crude in the way they find tracks. Ours, for example, reads the ToC [Table of Contents] in, and it can go directly to a given track without having to search repeatedly on its way, as do most players — ours gets there within a few microns. When you put a disc into the player, its parameters are checked and the player optimizes itself for that disc. This gives us a tremendous amount of control.”

Another thing that sets the Naim apart from other players is its seven-pole analog filter. Vereker explained: “We found that digital filters in the early days weren’t particularly accurate — nor are the cheaper modern ones. So we devised an active filter which bolts on the end of the digital filter and compensates for shortcomings in the digital filter — so the overall performance of the two together is a proper time-aligned filter.”

A difference of taste in jokes is a great strain on the affections

The CD 3.5 couldn’t be simpler to use: Plug’n’play is the name of the game. The hinged drawer has a solid feel to it — for some reason, I found it oddly satisfying to open it up, put a disc in place, close the magnetic clamp on top, and shut the door. Is this just a sign of audio-geekness — perhaps nostalgia for the inconveniences of playing LPs? I’d probably be the last to know, but I’ve monkeyed around with a bunch of flimsy disc drawers in my time, and the Naim’s hinged transport tray has a no-nonsense feel to it that invokes greater trust. Of course, you might find it a huge pain in the keister.

My wife, normally stoic in the face of an unending procession of new gear, found the 3.5 a refreshing change from players that demand more of the user.

**Measurements**

All the measurements on the Naim CD 3.5 were performed using the FlatCap power supply for the player’s analog stages. The maximum output level at 1kHz was 2.184V (left channel), which was 0.76dB higher than the CD standard 2V and a negligible 0.04dB higher than the right channel. The player’s output was noninverting and sourced from a very low 2.5 ohms in the midrange. This figure dropped even further at high frequencies, to 1.5 ohms at 20kHz, but increased to a moderate 773 ohms below 20Hz, presumably due to a finite-sized coupling capacitor. With a preamp having a low input impedance (less than 2k ohms or so), this will result in a somewhat lean balance, but the only model I can think of like this are the Rowlands. This will not be typical, therefore.

The Naim handled damaged discs superbly. Track 34 on the Pierre Verany test CD has a gap in the data 2mm long; the Naim negotiated this without dropouts, and even managed to play some of track 35, which has an enormous amount of missing data — some 2.4mm worth!

The CD 3.5’s response at 0dBFS (measured with the CBS Test CD) is shown in fig.1 (top traces). The excellent channel matching can be seen, as can some small passband ripples and a slight (~0.6dB) rolloff at the top of the audio band. The bottom pair of traces show the Naim’s response with preemphasized data. There is a maximum error of ~0.7dB in the low treble, which will make that tiny proportion of emphasized discs sound too laid-back. The channel separation (not shown) was better than 100dB below 2kHz, which is superb, with a slight decrease above that frequency, to 85dB or so at 20kHz.

Fig.2 shows a spectrum of the player’s output while it decoded data representing a dithered 1kHz tone at ~90dB. There is a very slight negative level error apparent, as well as a sniff of second harmonic, but the trace is otherwise superbly free from noise and spurious.

Extending the spectrum bandwidth to 200kHz and driving the CD player with “digital black” data gave the trace shown in fig.3. The ultrasonic noise level is low, and while there is a blip in the left channel at 2kHz, this might well be due to the Audio Precision test gear rather than to a DAC idler tone in the Naim.

Regarding linearity, the Naim’s level error (fig.4) remained insignificant to below ~110dBFS. Its reproduction of an undithered 1kHz waveform at ~90.31 dBFS was accurate to within ~0.1dB in both channels from 10kHz to 50kHz. It is this sort of accuracy that makes the CD 3.5 a convincer — for all its technical ingenuity, the player is unassuming in presentation, with an unassuming sound and an unassuming price. It is a modest player — and one that might do well in a modest music system.
“Four buttons,” she explained: “Forward, back, stop, play—why confuse me with stuff I’m never going to use?”

“What if you want to program a disc?”

She looked at me incredulously. “As if. I can always walk over and skip a song if I don’t like it.”

“The remote has all those tiny little buttons on it, but you could use it, you know.”

“Yeah, right—like you’ve ever left a remote where I could find it. They always wind up under a pile of newspapers on the couch or on a shelf I can’t reach. That’s why I like this player. It’s simple.”

Another county heard from.

We are all Adam’s children, but silk makes the difference

I know Martin Colloms’ theories of pace, rhythm, and timing are controversial in some quarters, but I can’t help but believe that he’s on to something. Some electronic components just “swing” more than others. Perhaps we haven’t come up with a definitive measurement that reveals this property yet, but I suspect that’s because we’re dealing with something that’s mighty close to the nature of music itself—after all, music is one of the few arts that deals directly with time.

Measurements

![Fig.5 Naïm CD 3.5, waveform of undithered 1kHz sinewave at -90.31dBFS (16-bit data).](image)

![Fig.6 Naïm CD 3.5, spectrum, DC-1kHz, 61Hz at 0 dBFS (linear frequency scale, 20dB/vertical div.)](image)

![Fig.7 Naïm CD 3.5, HF intermodulation spectrum, DC-22kHz, 19+20kHz at 0dBFS (linear frequency scale, 20dB/vertical div.).](image)

![Fig.8 Naïm CD 3.5, high-resolution jitter spectrum of analog output signal (1kHz at -10dBFS with LSB toggled at 22kHz). Center frequency of trace, 11kHz; frequency range, ±3.5kHz. Grayed-out spectrum is that of the Meridian 508.24.](image)
I mention this because the Naim CD 3.5 gets pace and rhythm so right—which, given the company's insistence that digital reproduction is primarily about *time*, shouldn't be a surprise. (See sidebar, "It's About Time!") In any event, as I played disc after disc I found myself focusing on rhythmic aspects of performance. I don't mean to make the 3.5 out to be a one-trick pony. It's not. It's genuinely good all around: good finitude, detail, low-level resolution, coherent top-to-bottom frequency response—all that audio checklist stuff. But where it excelled was in capturing the snap and electric crackle of live music. It made most other players seem like embalmers. ("Oh, it seems so lifelike!"—only, of course, compared to the real thing, it don't.)

Listening to *Nono* but the Lonely Heart by Charlie Haden and Chris Anderson (naimcd022), I was struck by how much momentum these two musicians impart to this music. You hear the term "stride" bandied about, but most of the time it merely seems to mean a fast walk. Here it meant saunter, saunter, strut, shamble, and swagger. Haden's bass had power, too, not just propulsion, while Anderson's crystalline chording rang like chimes.

Acoustic Mania, a guitar duo featuring Antonio Forcione and Neil Stacey, has a CD called *Talking Hands* (naimcd020) that lives or dies based on the portrayal of the rhythmic interplay between the two instrumentalists. Through the CD 3.5, it lived quite nicely, thank you. The opening cut is an arrangement of Joe Zawinul's "Birdland," which serves as a rollicking introduction to the playing of these two superb musicians. First and foremost, the song's a rompin', stompin' groove, kicked along by both guitarists' ability to comp and solo with great forward momentum. In the middle, they get playful, handing the lead back and forth repeatedly. Here, the CD 3.5's ability to sort out the differences between Forcione's nylon-stringed Ramirez and Stacey's steel-stringed Yamaha came to the fore—and not only were the gross differences between instruments neatly delineated, but so were changes in attack and, even, decay. It felt as if I were witnessing the sort of casual jam session that breaks out whenever any two passionate guitarists unplug their axes.

Shostakovich's String Quartet 3 played by the Allegri String Quartet (naimcd016), another superbly natural recording by Ken Christianson, was also a delight as played through the Naim. This is a five-movement piece of incredible power—by turns perky and jaunty, then somber and, in places, shockingly forceful—and the CD 3.5 did it proud. The player allowed me to hear far into the

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1. Stereophile used to examine digital wordclock jitter at the DAC, using a Miniver LIM analyzer. While this produced consistent results, it is the effect of jitter in the analog domain that really matters. We have therefore switched to using the Miller analyzer. Miller Audio Research can be contacted at 600576.3021@compuserve.com.

Fig 9 Naim CD 3.5, high-resolution jitter spectrum of analog output signal (11kHz at -10dBFS with LSB toggled at 229Hz). Center frequency of trace, 11kHz; frequency range, ±3.5kHz. Grayscale spectrum is that of the HFN/RR sample of the Naim CD 3.5. (Our thanks to Paul Miller for making these data available to Stereophile.)
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Stereophile, July 1998
It's About Time!

I asked Naim's Julian Vereker to describe his digital philosophy. The following was completely off the cuff, but on a subject he has obviously thought deeply about.—WP

"In the analog domain, information is stored in terms of amplitude — either voltage or level of magnetization, or the mechanical movement of a stylus in vinyl. In the digital domain, it's stored in terms of time — that is, when something becomes a one or a zero. Therefore the time element is absolutely crucial when you come to convert the digital stream back into analog. Any noise in the digital datastream can — and does — cause non-signal-related distortion. Even at very low levels, this is extremely disturbing."

"We were amazed at how quiet the soundstage, but was not hyperdetailed in the way that digiphobes assume we mean when we say that — the balance between instruments and hall was perfect. And the timbre of each instrument was exquisitely rendered, both individually and in ensemble. But once again, I was intensely aware of the pace of the performance — especially in the sustained tension of the Adagio. This is far more difficult, in my opinion, than establishing a rocking rhythm. Keeping a slow movement moving while keeping the tension high is a talent given only to great players. Which the CD 3.5 most definitely is.

All young men greatly exaggerate the difference between one CD player and another

As I've opined several times in the last few months, the cream of the CD crop is converging — the similarities between the finest players currently available are greater than the differences. Nonetheless, in one-on-one comparisons, there are still differences, no matter how subtle.

I compared the Naim CD 3.5 to Meridian's 508.24 ($3495) and was startled at how similar the two sounded for the most part. On "CC Blues" on the Haden/Anderson disc, both players captured the drive of Haden's solo bass opening and the down'n'dirty quality of Anderson's piano blues, but the Meridian had more bass slam and a richer, slightly more moshed-together timbre. The Naim seemed leaner in the bass and captured the separation between notes and tones to a greater degree. I found both appealing.

With Acoustic Mania, the differences were so subtle as to almost not even register, but here I felt the clarity of the Naim won out ever so slightly over the warmth of the Meridian. That was me — you may call it differently. Listening to the Shostakovich, I preferred the Meridian's warmer, richer

"WOW, I can't believe you have that CD!"

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timbre, but I also felt the Naim had more coherence in its presentation of long phrases — an area where the Meridian is no slouch itself. Call it a draw.

No matter how much I natter about differences between these two players, the scale of the differences was minute. To some listeners, there would not even be enough variation between them to care about; to others, even such small deviations might seem day and night. As always, try before you buy — but you can’t go wrong with either.

**If one be perfectly reasonable, the other can’t be perfectly right**

But what about the CD 3.5 with an external power supply powering the analog filters and output? I asked Vereker why it should make a difference at all.

"Filters have fairly extreme current requirements. The minute you take the load off the internal supplies and you power that separately, you make a worthwhile improvement. People assume that the next DAC technology will make a huge improvement, but that’s not necessarily true — in some ways it’s the least important part of a CD player. Things like the environment in which the analog stage is working can be more important than the DAC you’re using."

So I listened for myself, using a Naim FlatCap ($750).

Wow! The differences weren’t subtle — but neither were they simple to put a finger on. The sound was richer and warmer, without losing any of the snap or detail I found so beguiling in the single-box player. How much richer? Well, the CD 3.5 sounded far more similar to the Meridian with the power upgrade. But even more, the music was communicated more effortlessly.

I know, I know — that seems so uncommunicative itself. What could I possibly mean by it? I know what I heard, but it’s difficult to describe: There was greater warmth and an increase in tonal richness, certainly, but these changes were subtle. The bottom line is, as much as I enjoyed listening to music through the straight 3.5, I seemed to get further into the music with the FlatCap powering the player’s analog section. You won’t find it on any chart or graph, but the change was by no means insignificant. In my opinion, the FlatCapped CD 3.5 sounded far better than the stock unit.

Can you get even further improvements by upgrading to a HiCap ($1500) or a SuperCap ($4400)? I can’t wait to find out, but those power supplies are a lot more expensive than the FlatCap, so they’d better represent a helluva improvement to match the value represented by the FlatCap upgrade — at $2900, a FlatCapped 3.5 offers top-rank performance at an attractive price, but the equation might be quite different at $3650 or $6550.

Or perhaps not. I’ll be trying both options soon, and will report back to you.

**Vive la différence**

The Naim CD 3.5 is a great player — one with no real weaknesses and some very attractive strengths. One of the latter is that it costs only $2150 — not cheap, of course, but none too shabby for sound approaching the state of the art. And for $750, a purchaser can upgrade its performance in ways that, while hard to explain, make a great player even greater. That may be as much future-proofing as an 18-bit player can offer in our current digital environment.

So when are CD players not the same? When they’re different.
Ultimate Technology Ultech UCD-100 CD player

Ultimate Technology's Ultech UCD-100 CD player

Ultimate's base and manufacturing operations are in Wheeling, Illinois, but they draw on engineers and designers scattered around the world—some on staff, some contracted for specific projects. The Ares speakers, for example, were designed in Germany. The UCD-100, on the other hand, was a group effort combining US and Pacific Rim designers.

At $895, the UCD-100 was the ideal place to start my search for a reasonably priced, HDCD-capable replacement for the Marantz. In addition to the PMD-100 decoder/filter, it uses two 20-bit Burr-Brown PCM1702P DACs, hand-matched and used in a balanced circuit topography. On the analog side, Ultech claims a "massive, overdesigned" power supply, top-quality components like WIMA caps throughout, and circuit boards that are designed using CAD systems and optimized "to maximize signal transfer and minimize crosstalk." Information on the transport is scarce, but it's sourced from Sony. The chassis, reported to be designed with mechanical damping in mind, is somewhat deeper and heavier than average, and nicely built. A hefty 3/8"-thick faceplate adds to the impression of quality.

In contrast, convenience and features and I/O capabilities are adequate but not lavish. Up front, there's a small black-on-blue display that I found difficult to read, a power switch, the disc drawer, indicator lights for Data Lock and HDCD, and a row of eight small buttons. The buttons control the usual functions—Play/Pause, Stop, and track advance and retreat—that are more commonly accessed through the remote, plus Open/Close. Similarly, the remote (which is slim, light, and bears an uncomfortable resemblance to a large Nylabone) includes all of the standard features, but not those (such as Index selection) that are often included on more feature-laden models.

On the rear panel, the UCD-100 offers only the basics: removable power cord, unbalanced analog outputs, and a
coaxial digital output. Balanced outputs, according to Ultimate's Russell Lowe, would have made the $895 price target impossible to hit. I appreciate that the digital output is a market necessity and does keep future options open. However, given the emphasis on and excellence of the unit's DAC, decoder, and digital filtering, it's hard for me to imagine anyone using it as a transport. I would have forgone the digital output in favor of balanced analog outs, or at least have considered offering balanced outputs as an option. According to Lowe, Ultech's "next piece" will include all of the features that didn't fit into the UCD-100's budget, including — perhaps — balanced outputs.

Measurements

The Ultech's analog output was absolute polarity-correct. Its maximum output at 1kHz, however, was an audible 0.84dB below the CD-standard 2V, at 1.815V RMS. Its output impedance was a moderately low 300 ohms in the mid-range and treble, but this rose to a very high 2342 ohms at 17Hz. Make sure you use the UCD-100 with a preamplifier having at least a 10k ohms input loading if the balance is not to sound rather lean.

The Ultech's error correction was good, as assessed by the Pierre Verany Test CD: it tracked through track 31 (a 1mm gap in the data) without dropout. However, it failed to track some CDs from my damaged-disc collection.

The UCD-100's frequency response at full level (fig.1, top traces) showed a slight top-octave rolloff and a trace of passband ripple, but was otherwise flat, as was the response with de-emphasis (bottom traces). Note the excellent channel matching in this graph. The channel separation (not shown) was better than 100dB in the R–L direction, but only 85–90dB in the L–R direction.

As is my custom, I started by burning in the Ultech UCD-100 for approximately 200 hours using a mix of music and tracks from the Sheffield/XLO Test and Burn-in CD (Sheffield 10041-2-1). After that, the player was installed in a system built around Genesis 200 loudspeakers, feeding a Sonic Frontiers Line 3 preamplifier and VTL MB750 (triole mode) monoblock amplifiers. The analog front-end consisted of a VPI TNT Mk.IV and JMW Memorial (12") tonearms, Micro-BenZ LO4 cartridge, and Sonic Frontiers Phono 1 phono stage. Cabling was Straight Wire Virtuoso throughout, with balanced runs from the Line 3 to the VTLs and Genesis crossover/bass amps.

Other pertinent setup details included mechanical isolation products from Bright Star (not used with the Ultech, which was run on a natural stand 5), a Nirvana isolation transformer for digital components, and power cords from Synergistic Research (again, not with the UCD-100). CDs were treated with Nordost ECO3 (label side) and Music Fidelity Dissolution (data side) prior to playing. The system was set up in my larger listening room, which uses home-brew panel resonators and room-treatment products from Echo Busters. In addition, cables from Synergistic Research and Nordost were thrown into the mix, and CD players from CAL Audio (CL-15, DX-2), Parasound (CDP-1000), and
Marantz (CD63SE) were on hand for comparison.

**Listening to the music**

Dropping the UCD-100 into my system reminded me of when I upgraded from a modified AR turntable to a Linn Sondek/Ittok setup: Nothing immediately jumped up and screamed at me, but the sonic picture was more refined and detailed, and the overall presentation was noticeably more involving. There was a better sense of distinct instruments within orchestral sections, and images seemed more three-dimensional and tangibly placed within the surrounding space. Instrumental textures were more complex, and notes had distinct beginnings and ends as well as a basic tone. There was simply more information getting into the system, and it was being handled with greater resolution and precision.

Compared to the current crop of really good $500 CD players like the Marantz CD63SE and Parasound CD-1000, the Ultech resulted in exactly the sort of increase in resolution that I experienced with the Linn. There were other improvements and characteristics that I'll discuss in a minute, but what stood out was the Ultech's superior recovery and reproduction of low-level and inner detail. I took page after page of notes during my listening sessions, furiously trying to record and describe all of the details and subtleties that seemed new, or just more "right," with the Ultech.

For example, there were the fingersliding-on-strings squeaks when Steve Forbert changes chords on "Angel Flying Too Close to the Ground," from his live disc *He Here Now* (Rolling Tide), and the way his guitar string would go from a dull thump to a sharp ring and back as it was pressed against the fret and released. If you've ever played guitar, you know exactly how these sound, and the Ultech absolutely nailed them. The pick skipping down the strings, Forbert's head moving around the microphone — these sorts of details were portrayed with a refinement and nuance that brought the recording to life.

The Marantz, for example, sounded vivid, but crude and artificial in comparison. For another great example, I lis-

dither noise in the PMD-100 filter chip. It doesn't appear to affect the player's reproduction of an undithered $1kHz sinewave (fig.5), which has a fairly accurate, three-level waveshape.

The player's analog output featured a succession of harmonics, all of equal if very low level up to the 12th (fig.6). But the high-frequency intermodulation spectrum (fig.7) was clean, with the difference product at $1kHz$ better than $90dB$ down from peak level.

Using the Miller Audio Research analyzer to look at the Ultech's jitter performance, it offered a very low level of jitter—just 149.3 picoseconds peak-to-peak. Fig.8 shows a high-resolution spectrum of the UCD-100's noise floor compared with that of the Meridian 508.24, which is one of the best we've measured on this test. The overall noise floor is about $5dB$ higher than the Meridian's, but only a few individual jitter components can be seen. The spectral line marked with a green "2" is a spurious noise rather than jitter, the lines marked with a purple "1" are due to jitter with a fundamental frequency of $380Hz$, and the red "2" components are data-induced jitter. The Miller analyzer has indicated that the high-level component flagged with a "22" is sub-code-induced jitter, but I can't find a similar sideband the other side of the central peak, which casts doubt on the identification. It may just be a spurious noise of some kind.

Finally, the Ultech's clock accuracy featured a positive error of $226ppm$. While this is subjectively inconsequential, it would have been nice for the error not to exist. All in all, this is pretty good measured performance for a competitively priced CD player.

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1 See the Naim CD 3.5 review elsewhere in this issue for details of this test.

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**Ultech UCD-100**

Stereophile, July 1998

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**Fig.6 Ultech UCD-100, spectrum, DC-$1kHz$, $61Hz$ at $0dBFS$ (linear frequency scale, $20dB$/vertical div.).**

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**Fig.7 Ultech UCD-100, HF intermodulation spectrum, DC-$22kHz$, $19+20kHz$ at $0dBFS$ (linear frequency scale, $20dB$/vertical div.).**

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**Fig.8 Ultech UCD-100, high-resolution jitter spectrum of analog output signal (11kHz at $-10dBFS$ with LSB toggled at $22kHz$). Center frequency of trace, 11kHz; frequency range, ±3.5kHz. Grayed-out spectrum is that of the Meridian 508.24.**
HDCD: The Inside Story

I recently had a chance to talk with Keith Johnson and Andy Johnson of Pacific Microsystems about what was new in the world of HDCD, and how the technology works.

Brian Damkroger: Keith, it's been a while since we've talked about HDCD, and I'd like to revisit the technology itself. I don't think I've ever really understood it. Bottom line, how does HDCD work?
Keith Johnson: HDCD was designed to attack three problems inherent in the "red book" CD standard. The first is that there are not enough bits, which gets worse if you dither. The second problem is with the brickwall filters used in A/D and the interpolation filters in playback. Although you can build a filter with a sharp rolloff, there's a problem with energy storage due to the sudden cutoff. The energy can heat with the harmonic information and change the timbre of instruments. Finally, there's the implementation itself. Sixteen-bit accuracy isn't good enough—you need 20 or 22 bits to be truly transparent—but the timing needs to be within 20 picoseconds as well.

HDCD addresses all of these problems during encoding and then uses a "process determination" code hidden in the dither information to instruct the decoder to implement a conjugate process during decoding. One aspect of the process is the use, during recording, of peak limiting. If peak events are infrequent, they are slightly limited, which saves bits and allows the overall level to be increased and dynamic range to be preserved. On playback, the code tells the decoder chip that the limiting has occurred and the full peak level is restored, so it's perfectly linear on an overall basis. Similarly, at the low end, if the signals are getting into the dither range, they're kept alive—their level is increased a tiny bit on an RMS basis. Again, the decoder chip is instructed to track and reverse the process. The net effect is to allow 18–19 bits of actual resolution.

Damkroger: Conceptually sort of like the dither compensator systems...
Keith Johnson: Conceptually, yes, but fundamentally very different. The comanders used the signal itself to trigger the process, so were always behind. HDCD doesn't rely on the signal. The information is all contained in the hidden process-designation code. It's just a flag, like the number 1. When the decoder sees this, it knows to execute process 1. It only takes a microsecond—less, actually—of code to trigger the process. Plus, all the process selection, all the action, is taken prior to the event.

A second feature of HDCD is the filtering. During recording, a [24-bit, 88.2kHz] data file is stored and examined, and the optimum filter is selected for each situation.

Damkroger: So there are several filters coded into the DSP algorithms in my CD player, and the code selects a particular one? How many are available to choose from?
Keith Johnson: There's actually only one algorithm, which is very accurate and developed to be a perfect conjugate for the filters used in encoding.

Damkroger: And how many...
Keith Johnson: ...on the encoding side? Only a few. There's a "transient" filter, which is set up to best handle the energy-storage problem with hard transients. It keeps the ringing to a level below where it interferes with the sound. It has some slight frequency-response anomalies, though, so you wouldn't want to use it for, say, a violin section. A second filter is optimized for timbral accuracy, for perfectly flat response. Another, for example, is set up to undo what might have been done in upstream filtering, to partially untangle the garbage from an earlier decimation filter.

We could use more filters and set up the decoder chips with additional algorithms—the system is set up to do just that, and the chip is fully capable. We originally expected to do it. However, with a relatively small number of filters, all optimized to be perfect conjugates with the playback filter...we've gotten really good results. The filter, it's worth noting, is a serious filter. It's a very complicated and very good filter.

Damkroger: The system must be very computationally intensive.
Keith Johnson: Yes, we've been at it for 10 years. Well, almost 10 years. I first got into it during the early Spectral days, and when I was making my first digital recordings. I was using the Sounistream system, and it was terrible. This got us into looking at filters and trying to come up with a conjugate for the Sony algorithms that were ubiquitous at that time. This led us into cascading filters. [Spectral's] first CD player, the SDR-1000, had three switches. The first was a time-domain conjugate for the asymmetrical Sony process. The second was a

tended to the complexity of Miles's trumpet tone on the spectacular JVC reissue of Bags' Groove (JVC XRCB-0046-2), a 1954 Rudy Van Gelder recording originally released on Prestige Jazz. Percy Heath's bass actually sounded like someone plucking the strings, with each initial snap followed by a warm, bouncy resonance and decay. And Milt Jackson's vibes...with the Ultech there was a great sense of body, of the mallet stroke and ring, more of the inner detail that makes it sound like a real instrument.

With all this talk of detail and precision, you might be imagining an analytical, sterile sound. Nothing was further from the truth. All of the inner detail sounded delicate and sweet, without so much as a hint of overetching. The balance of detail and coherence was completely natural, and segued smoothly into image dimensionality, soundstage reproduction, and ambiance retrieval. Orchestral sections were obviously and beguilingly groups of individual instruments, each defined by its characteristics and position in the soundstage.

The Ultech had a slightly wider soundstage than the S500 players, and image boundaries were slightly sharper in the lateral plane. A bigger difference, however, was how the UCD-100 reproduced soundstage depth, and the dimensionality and body of the images in that dimension. The soundstage began slightly behind the speakers and then opened into a huge, three-dimensional envelope. The listening-room boundaries were nowhere in evidence.

This was another area where I took notes furiously, but the Ultech really blew me away on Classic's gold reissue of Shostakovich's Symphony 1 (RCA/Classic LSCCD-2322). At the piece's opening, I was stunned by how beautifully the French horns and trumpets were portrayed at the back of the stage. Each section and instrument was exquisitely detailed, precisely located, and entirely seamless with the surrounding ambient environment. The layers of
Damkroger: I've heard that some studios use the [Pacific Microsonics Model One] HDCD decoder, even though they don't use the HDCD code.

Keith Johnson: Yes, that's true. For one thing, the encoder is very accurate, to within one part in a million. This is a big factor in its transparency, the freedom from digital artifacts. A second reason is that the process, if not decoded, is a lot like the signal processing that's been done for a long time in the analog realm. For example, in the old days peak limiting would have been used to avoid tape saturation, and the lowest signals would have been boosted to keep them above the tape hiss. With an HDCD-encoded signal, if you don't turn the code on, the [peak limiting and low-level signal boost] mimics what's long been done in analog. If you do encode the signal, you get the full 100dB of dynamic range, about 18–19 bits' worth.

Damkroger: House the downward compatibility. If you don't turn the code on, or have a non-HDCD player, the only effect is that you don't undo the slight peak limiting and low-level boost.

Keith Johnson: Right. We're used to these sonic effects, so why reinvent the wheel? If the code isn't turned on—or you're not using an HDCD decoder chip—there's a little peak limiting and a slight boost of the lowest-level signals. On the recording side, the filters are superb in their own right, and if you do have an HDCD player, the interpolation filter is a perfect conjugate, even if the code isn't turned on. The signal just isn't expanded to the full 18–19-bit level. Most everything that's recorded uses this type of processing anyway, and to a greater extent. What you're selling is music, which has to come through even if it's background music, or if you're listening in a car. In very few cases will you be listening to 100dB of dynamic range, but on the super systems, you can with HDCD.

Damkroger: Thanks, Keith. Let me ask Andy Johnson some questions about HDCD releases. How many titles are there now? [Your] web site says “hundreds.” Can you be more specific?

Andy Johnson: Sure. Several hundred. [laughs] Actually, I think there are about 800 titles released, and about 1000 have been mastered. We expect, in 1998, to have about 1000–1500 mastered and about 75% of these released. It's hard to pinpoint because the numbers are growing. By the end of the year, I expect the release rate to be about 35–50 per month.

We have a pretty good handle on this because of the engineers. There are so many record companies now, it's impossible to follow them. What happens is that an engineer will call us and tell us about a project he's done with HDCD. Then we'll contact the record company and send them a logo kit. But all the companies have different schedules and processes for their artwork.

Damkroger: So sometimes a disc is HDCD-encoded but doesn't get labeled as such?

Andy Johnson: Yes. Probably 75–80% of them get labeled, but some don't. If they don't, it's almost always because we didn't make the deadline for artwork.

Damkroger: Can you give me an example of a disc that didn't get labeled? One that, when I stick it in my player, the little HDCD light will come on?

Andy Johnson: Sure. The John Lee Hooker disc, Don't Look Back, didn't get labeled. I think it won two Grammys. [laughs] And then there's that John Marks recording...

Damkroger: Music for a Glass Bead Game? That's a great-sounding disc. I never noticed the HDCD light, but I wasn't looking.

Andy Johnson: Well, look again. It even got written up in Stereophile. They said that it wasn't labeled but, sure enough, the HDCD light came on. Hey! You don't read the CD reviews?

Damkroger: [embarrassed, thinking fast] Not if I already have the CD... What's the least expensive player to use the chip?

Andy Johnson: Player? There's a Sansui that's not being imported yet. In Japan, it sells for the equivalent of about $500. Here, I think it's the Dynaco CDV-Pro for about $750. Then there's your Ultech. At the other end are players from Krell, Mark Levinson, and that new Linn.

Damkroger: What about decoders?

Andy Johnson: It's either the Musical Fidelity X-DAC or Sonic Frontiers' Assemblage DAC. They're both around $500, I think, depending on where you buy them.

plucked strings, the bass drum, the double reeds distinct and dimensional under the massed strings—all were superbly portrayed and placed.

The Ultech maintained its composers regardless of program material, keeping the images dimensional and distinct through the most complex passages, and with only a hint of soundstage compression during thundering crescendos. In comparison, the entry-level players seemed to have a more forward perspective; although the ambience cues were there, the instruments all seemed bunched up into a shallow plane at and slightly behind the speakers. The UCD-100's performance was evenly balanced across the frequency spectrum, with no particular region drawing attention to itself.

Since the Genesis 200s arrived, I've been acutely aware of components' low-bass performance, and the Ultech's was excellent. To quote from Jonathan Valin's description of the Shostakovich recording, "This is another [Kingsway Hall] recording on which you can hear the Underground—or something—rumbling." With the UCD-100, it didn't "rumble," it shook the room! What's more, I could hear the individual pulses, and the changes in their intensity and character as they came and went. I was tempted to time the intervals to figure out the train schedule!

It wasn't just a question of low-bass power—if anything, the Ultech had slightly less absolute weight from the very bottom up through the upper bass than some other players. Nor was it the reproduction of dynamic transients; while the UCD-100's dynamics were precise, they didn't quite match the impact and slam I've heard elsewhere. The secret, I think, was that the UCD-100 maintained its superb detail and precision even at the very bottom of the frequency spectrum.

I forgot the subway and listened to how well the skin tone of the bass drum was reproduced and how clearly the
notes started, bloomed, and decayed. Following the Ultech up as the frequency rose, the transition was smooth, with no discontinuities in tonal balance or dynamic transients. I mentioned that the bottom end was a smidgen light in weight, but double-basses and cello had just the right balance of fundamental and harmonics to give them their warm, woody bloom.

The midrange sounded superb. I could almost feel the different characters of the air resonating around the flute, clarinet, oboe, and cello as each echoed a passage and their harmonics propagated outward. Vocals were wonderfully complex and dimensional. I've listened to the Gin Blossoms' Congratulations I'm Sorry (A&M 31454 1469 2) on a huge range of players, but the Ultech was the first one to give me a real sense of a chest and throat behind the vocals. If you've got any taste for southern rock, check out "Follow You Down" and "Memphis Time" to see what I mean.

The Ultech's top end was a nearly perfect complement to its low bass: articulate, tonally correct, wonderfully detailed, and dynamically accurate, but perhaps just a bit down in absolute level. On some discs, triangles and cymbals didn't have quite the ring, shimmer, and decay that they do with some other players. The Ultech never sounded dull or closed-in; there just seemed to be a slight reduction in the sense of air.

I've already mentioned that the UCD-100's handling of low-frequency dynamic transients was precise, but perhaps couldn't match the absolute slam of some other players. This was the case across the frequency spectrum, and gave the Ultech a slightly delicate and sweet sound. Microdynamics, the subtle shadings within a voice or instrumental passage, were beautifully reproduced. The hard leading edges of notes, however, seemed to be crystal clear but softened oh so slightly. On the plus side, there was absolutely no sense of ringing or overhang to blur details or a note's subtleties. Notes started, bloomed, and decayed cleanly, and instruments maintained their characters even amid the most demanding crescendos. The Ultech never sounded shrill, edgy, or metallic.

On the minus side, the leading edges of notes weren't quite as sharp as I've heard with some other players. Kim slots didn't surprise me or snap my head around, and when a flute entered, there wasn't quite enough of the sharp sense of air being cut and passed through the instrument. This is a relatively minor effect, however, and, like the Ultech's other characteristics, was consistent top-to-bottom. The overall effect was simply a slight sweetening of the sound. You pay your money and you take your choice; looking at the Ultech's strengths, it's a sonic package that I could happily live with.

As I look back over my listening notes, I'm confronted with page after page noting things the Ultech did superbly. Even as I type this, I'm listening to "Fram Fram Sauce," from Diana Krall's first disc, Stepping Out (Justin Time JUS 50-2), and find myself tempted to grab my pen: "The sound is great, and it's a fascinating first look at raw talent . . ." Even under deadline, and even with a familiar disc playing as background music, I'm still drawn into the music and struck by new details, by how involving the performance seems.

Add some HDCD
And all this without the little red HDCD indicator lighting up once! When I did drop in an HDCD-encoded disc, things just got better. Tonal colors were enriched, and details were both more clearly delineated and more coherent with the fabric of the instrument's or soundstage's character. Any sense of grain, any dulling, the opaque texture that seems endemic in a lot of CDs— were substantially reduced. The string tone on Arturo Delmoni and Nathaniel Rosen's Music for a Glass Bead Game (John Marks Records JMR 15), for example, was completely grain-free, with a richness and density that I usually associate only with vinyl.

Another HDCD disc I've been listening to lately is The Bridge School Concerts, Vol. 1 (Reprise 46824-2), particularly the Pretenders and Elvis Costello tracks. It's far from a great recording, but on "Alison," Costello's guitar chops caught my attention as being stunningly right. With "Sense of Purpose," the inner detail and character in the background vocals were what stood out, as did the dimensionality of Chrissie Hynde's vocals. In both cases there was a transparency that seemed extraordinary, a slight reduction in the opacity and dulling that immediately distinguishes live from reproduced music.

With other HDCD releases—Delbert McClinton, Al Anderson, Paint It Blue —the sound and recording quality varied, but the HDCD encoding consistently accentuated the Ultech's strengths and magnified the differences between it and players like the Marantz.

Finally I put on The Pet Sounds Sessions (EMI/Capitol C 2 37662 2). How can you listen to music that you know by heart and be hearing it for the first time? My favorite is the stereo mix, but even with the mono, it's all new. Volumes have been written about the original masterpiece and the reissue package, so I'll limit my comments to saying only that I've got unplayed vinyl copies and versions of this album, but none matched the HDCD-encoded CD when played on the Ultech.

Conclusion
I was mightily impressed with the Ultech UCD-100. It's an absolute delight and, at $895, an incredible bargain. If you're looking to upgrade from an entry-level high-end player and you don't have a Krell or Mark Levinson bank account—or maybe even if you do—you owe it to yourself to check out the Ultech.

And what of my quest—the search for a reasonably priced CD player to hole up with and wait out the format wars? Arcam has recently introduced an HDCD player for under $1000, and the Dynaco CDV-Pro is certainly intriguing, combining HDCD and a tube analog stage for $799. For a bit more money, the CAL CL-15 looms in the wings, flaunting its gold-plated pedigree as the successor to the Icon Mk.II Powerboss. Then there's the Rega Planet to consider, but it's not HDCD-compatible.

Recent discs from such companies as Classic, JVC, AudioQuest, and DCC are incredible, but more HDCD software hits the shelves every day (see the "HDCD: The Inside Story" sidebar). The competition is certainly fierce, but for now, the Ultech is unquestionably a leading contender. It's a nicely built, superb-sounding unit that significantly raises the standard of performance you can expect from a reasonably priced CD player.
Ayre Acoustics K-3 preamplifier

The challenge for Ayre’s Charlie Hansen was formidable. Having already designed a world-class preamplifier—the highly acclaimed $7100 K-1 (see Wes Phillips’ review in Vol.20 No.3)—Hansen set out to offer audiophiles “80 to 90%” of the K-1’s sound and build quality at a price more of them can afford. Not that the new K-3 is a piece of “budget” gear. It’s not. But at $4500, the fully loaded K-3, complete with phono section and remote control, is within reach of many.

The “base price” version, minus the MC/MM phono section ($1000) and remote ($250), is an even more reasonable $3250… but in this day and age, who would order one without a phono section and remote? No one I know. I reviewed the complete package.

Like the K-1, the K-3 is an all-FET (field-effect transistor), zero-feedback, discrete balanced design. In fact, the two preamps share virtually identical circuit topologies—and that includes the fully balanced phono stage, which WP declared to be the best he’d ever heard at the time (March 1997).

So where did the designer make his compromises? Hansen is a “build and listen” kind of guy; he eliminated all signal-path wiring in the “price-no-object” K-1 because he could hear the sonic improvements, subtle though they were. But the increased sonic purity and lower noise floor came at a cost: in order to execute the design, Hansen had to position the main circuit board almost flush against the back panel, so the high-quality Cardas RCA and balanced Switchcraft XLR input and output jacks could be soldered directly to it. In addition, the four discrete-resistor, stepped-attenuator volume controls (two per channel for balanced operation) also had to be mounted directly to the board—a complex engineering feat requiring a series of nylon ladder belts and drive pulleys that looked to be straight out of the Gyro Gearloose design handbook.

Hansen has opted for a more conventional layout in the K-3, though the input and output jacks are still soldered directly to a circuit board. The biggest differences are the two short runs of Cardas wire to and from the volume control. The wired configuration saved a great deal of money. Hansen also uses a somewhat lower-quality “G10” circuit board, more in line with industry standards, instead of the special high-speed board used in the K-1. That saved some more. Other cost-cutting measures include using polypropylene and foil (instead of polystyrene and foil) capacitors. Hansen was not about to completely do away with what he considers to be one of the keys to the K-1’s ultra-pure, high-resolution sound: the four expensive, custom-made (by Shalco), “military-specification,” solid-silver contact/solid-silver wiper, 46-position stepped-attenuator volume controls (two are needed per channel in a balanced design—one each for the plus and minus parts of the signal), which are accurate to 0.01dB and, according to Hansen, are also “silly” expensive.

Instead, he was able to bring the cost down by designing a less expensive “mil-spec” version of the volume control that still uses solid silver contacts and silver wipers. The difference is fewer steps—31 (mostly in 1.5dB increments) instead of 46—which allows for two sets of contacts on a single wafer. Two wafers instead of four, and both mounted concentrically on a single shaft, cut a great deal of the cost without cutting the sonic benefits. Finally, Hansen reduced the number of inputs from six to four.

Otherwise, the K-3 is a very close cousin to the K-1, and is housed in the same high-quality chassis and fronted with the same ½"-thick, handsome, polished-aluminum fascia (black is also available). As with the K-1, the power supply is outboard, connected via a non-

**Description:** Full-function, solid-state control preamplifier. Maximum voltage gain: 16dB to balanced outputs, 10dB to unbalanced outputs (line); 40dB, 50dB, 60dB (phono stage). Line input impedance: 10k ohms (each phase). Phono input impedance: adjustable—50k ohms (default); 100, 250, 500, 1000 ohms supplied; other values available. Output impedance: 300 ohms (each phase). Power consumption: 30W. Dimensions: 18" W by 3¾" H by 11" D (main unit); 10" W by 3" H by 8" D (power supply). Weight: 25 lbs (11.5 kg). Serial number of unit reviewed: 3A 0126. Price: $3250; remote volume control, add $250; phono stage, add $1000. Approximate number of dealers: 25.

**Manufacturer:** Ayre Acoustics, Inc., 2300-B Central Ave., Boulder, CO 80301. Tel: (303) 442-7300. Fax: (303) 442-7301. E-mail: info@ayre.com. Web: www.ayre.com.
Controls are minimal. In addition to volume, there are rotary source and tape selector knobs—custom-made, solid silver Electro-Switch devices that, though not "null-spec," are "top quality," according to Hansen—and a Mute/Play switch. That's all. The rear panel features two balanced pairs of XLR and two unbalanced pairs of RCA jack inputs, and both balanced XLR and single-ended RCA outputs. Like the K-1, the K-3 features a tricolor LED that glows red on turn-on, switches to green when the unit is "ready" but muted, and goes blue when passing signal. Whatever happened to "green for go"? Read Hansen's explanation in WP's K-1 review.

Enough inputs?
If you're analog-impaired, the K-3 gives you four high-level inputs—two balanced, two not—plus a tape loop. That should be sufficient for most audiophiles. Even with the optional phono section, which connects to one of the balanced inputs, the three remaining inputs should suffice for most of you. Ayre offers high-quality XLR/RCA adapters ($75/pair), which you might need to connect unbalanced components to one of the balanced jacks, and Ayre Reference Series balanced-configuration phono interconnects ($475 per 1.5m set). I was supplied with a DIN/XLR set for the Graham tonearm and RCA/XLR adapters for the Immedia arm, which is hard-wired with RCA plugs. Most cable companies will custom-terminate phono cables for balanced performance.

**Circuit design**
Since the K-3 shares the K-1's circuit design, I'll brief, and recommend you read Wes Phillips' review. The line section is a DC-coupled, zero-feedback design with a simple three-stage topology: a differential input (which also converts unbalanced inputs to balanced) followed by a cascode stage, and finally a buffer that lowers the impedance so the unit can effectively drive almost any amp to which it is connected, no matter how far away. The low-noise phono section uses essentially the same topology as the line stage. It has enough gain for any cartridge currently available, and includes a totally passive, zero-feedback RIAA circuit, which allows the high and low parts of the equalizer to be split into two independent sections instead of

**Measurements**
A full set of measurements for the Ayre K-3 were made in its balanced configuration, with selected measurements repeated for the unbalanced mode. Unless otherwise noted, the measurements presented are for balanced operation.

The Ayre's impedance at its line output measured 558 ohms at 1kHz in the left channel, 561 ohms in the right (279 ohms unbalanced, left channel), with insignificant variations with changes in the level control. The line-level input impedance measured 21k ohms (10k ohms unbalanced), again virtually independent of the level control. Phono input impedance as reviewed measured 55.8k ohms. The output impedance at the tape output was 1k ohm with a 25 ohm source impedance and just over 1.5k ohms with a 600 ohm source impedance, indicating unbuffered tape outputs.

The DC offset measured a very high 213mV in the left channel, a more acceptable 2.3mV in the right. Pin 2 is positive in the balanced configuration, but the preamp is inverting its line inputs to its main outputs in unbalanced mode. The phono stage is similarly inverting its balanced input to its unbalanced tape output, when the phono source is connected with pin 2 positive.

Line-stage voltage gain (CD input to line output) measured 16.3dB balanced, 10.3dB unbalanced. Phono gain measured 52.5dB. (All measurements were made with the phono stage at its standard, nominal 50dB, gain setting.) Volume-control tracking was excellent. S/N measured 92.4dB (unweighted) over a bandwidth of 22Hz–22kHz, 81.7dB unweighted from 10Hz to 500kHz, and 94.7dB A-weighted (all ref. 1V) for the line stage. The same readings for the phono stages were, respectively, 75dB, 67dB, and 88.5dB. Except as noted, the line-stage measurements presented below were taken with a signal input of 500mV, with the level control set at a point that produced a gain of unity plus 6dB. The input used for the phono-stage measurements was 1mV. The Ayre K-3's frequency response is shown in fig.1. The slight low-frequency rise in the phono response is unlikely to be audible. The similarly excellent crosstalk results are shown in fig.2.

The THD+noise is frequency for the Ayre is shown in fig.3. Again, the results

![Fig.1 Ayre K-3, frequency response at 500mV into 10k ohms, phono stage (top), line stage (bottom) (0.5dB/vertical div.).](image1)

![Fig.2 Ayre K-3, crosstalk (from top to bottom): L–R, phono; R–L, phono; L–R, balanced line; R–L, balanced line (10dB/vertical div.).](image2)

![Fig.3 Ayre K-3, THD+noise into 100k ohms vs frequency at 197mv input (line, bottom) and 2.5mV input (phono, top).](image3)

![Fig.4 Ayre K-3, spectrum of 50Hz sinewave. DC–1kHz, at 5V into 100k ohms (linear frequency scale).](image4)
be...
And is burnt hemp resin as bad for electronics as Bill Bennett claims?)

I began listening to the K-3 about six months ago, and, as I write this, I haven't stopped (save for a few detours for comparison's sake). Let me put it to you this way: After a few weeks' break-in, the line stage was as close to the old "straight wire with gain" as I've heard in my listening system.

I listened to the EAD DSP-9000 Mk.3 HiCD processor directly out through its built-in analog/digital volume control. This is a switched resistive array that uses 0.1% Vishay resistors for large volume steps (6dB increments), and digital attenuation for smaller ones (0.2dB). Thus there is never more than one high-quality resistor in the signal path at any given time, and no more than 1 bit of degradation. The EAD fed either the Conrad-Johnson Premier 12s or the VTL MB-450s. Through the Ayre, the biggest difference I could hear was gain.

The K-3 was dead, dead quiet. If it imparted any tonal or textural difference that I could easily detect, it was a slight dryness and/or lack of bloom in the midband. But that was only until Charlie Hansen came — annoyingly late in the review process — to replace the internal ferrite ring with his new non-metallic device, and to remove altogether the ferrite ring on the umbilical cord between the power supply and the main chassis.

And then? Less dryness, more midrange "bloom" and overall liquidity — an easily audible improvement that did not change the K-3's fundamental tonal neutrality and transparency. I can't think of a "purist" CD transfer than Classic Records' Belafonte at Carnegie Hall (RCA/Classic LSOCID-6006), which really lets you "see" into the recording somewhat better than the LP. (Don't get me wrong — the LP still beats the CD in terms of liquidity, air, three-dimensionality, and image solidity, but the CD has a cool precision the LP doesn't.)

Going from the EAD which is on the warmish side compared to another player I'm in the process of reviewing) to the Ayre, I'm not sure I heard any tonal or textural differences worth mentioning. Swapping different brands of power cords on either the EAD or the Ayre made a bigger sonic difference than comparing the two using the same brand of cord.

The roundness and velvety-smooth tonality of Belafonte's voice (yes, it's somewhat icier on the CD compared to the LP), the resolution and "speed" of sibilants, and his focused, center-stage image didn't change to any appreciable degree with the EAD driving the amps directly or through the K-3. The same was true with the instruments — the bite of the brass and the chiming of the cymbals remained remarkably consistent.

I went back to the spectacular-sounding Shawn Murphy—recorded soundtrack CDs I used in my February 1996 review of the Audible Illusions 3A. Murphy used a Kenneth Wilkinson—style "Decca tree" mike setup to record Dances With Wolves (Epic ZK 66617, gold CD), Casper (MCA MCAD-11240), Moviola (Epic FK 52985), and Batman Returns (Warner Bros. 26972-2). These are all "audiophile quality" demo discs — tonally rich, with outstanding deep bass and bracing dynamics.

In the Audible review, I noted an "ever-so-slight overall darkening of sound" that I said was smaller than differences you can sometimes hear when changing cables. I didn't notice that kind of difference in this comparison. The Ayre matched the Audible's grain-free, etch-free top end, but offered slightly better high-frequency extension without sounding overly "solid-state," much as the Audible didn't sound "tubey."

**Love that phono stage!**

The big surprise for me was the K-3's superb phono stage. I shouldn't have been surprised — Wes's K-1 review of what is essentially the same board was a rave. The K-3's vinyl playback performance was among the finest I've ever heard — and I've had some ridiculously good phono sections in-house. The K-3 was as dead, jet-black quiet and as see-through transparent as the FM Acoustics 122 phono section, though I don't think it offers quite the same level of inner-detail resolution. Hard to say, though, since I haven't heard the 122 in over a year, and other parts of my system have changed.

The far more expensive Sutherland

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**AC Power Cords**

I want to neither overstate nor underestimate the effect power cords have on the sound of electronic components. Many manufacturers who've visited me have laughed at some of the boa constrictor—like power cords I have on hand — until they've heard them attached to their products. They do make a difference.

That said, how can one accurately assess the "sound" of a piece of electronics without assessing the "sound" of the power cord to which it is attached? Good question! The Ayre sounded fine with the supplied cord, but substituting a Yamamura Quantum cord (over $1000) tightened the bass somewhat, while the midrange took on a creamier, warmer overall tonality. Substituting the Electra-Glide Reference ($600) yielded a "blacker" background, with improved dynamics and better separation of instruments. It also resulted in a somewhat thinner, less fleshed-out midrange. Toward the end of the review I substituted the Electra-Glide Fat Boy, a large-diameter, snakelike cord that, once broken in, seemed to improve the midrange while leaving intact the Reference's black background, improved dynamics, and instrumental separation. It was easy enough to remove the Fat Boy, or any of the other cords I tried, and substitute the stock generic cord. Whenever I did, the sound seemed to slip down a few notches.

Without making wild, crazy, and overblown claims for power cords, they can make a positive contribution to your system. If you can, try a few on loan from your dealer or direct from the manufacturer with a money-back guarantee. You might be surprised by what you hear. But if you're not happy with the sound of your system in the first place, don't expect a power cord to turn things around.

— Michael Fremer
PH-2000 sounded more rich and delicate, but it was also noisier, which masked some of the musical details the K-3 delivered with ease.

The Ayre’s bass performance was clearly as good as I’ve heard, with a rock-solid foundation that really gripped the road. Deep, tight, lithe, and pitch-pure, the K-3 rendered all kinds of bass — skin, string, electric, and acoustic — with a richness and harmonic complexity that made it believable.

When my Rolling Stones fanatic friends paid me a visit a few months back (see the May issue’s “Analog Corner”), the K-3’s unraveling of “Can’t You Hear Me Knocking” on MoFi’s pressing of Sticky Fingers (Mobile Fidelity MFSL-060) threw me back in my seat. My friends almost fainted. It was not at all what I was expecting. I’d never heard the bass quite so deep, tight, and powerful, or Bobby Keys’ sax so timbrally and texturally rich and convincing — so “there,” stage left. I used to think MoFi’s cut was distant and sucked-out in the midrange. Not so. The imaging on that record was 3-D through the Ayre, with Jagger way out front, center stage, and Charlie Watts’s drum kit tightly focused behind, his snare snapping and crackling viciously.

But more important than any one facet of the K-3’s phono performance was the overall picture, which held together seamlessly and effortlessly from top to bottom. Whatever overall character the circuit imparted to the music, whatever flaws the design held, were so effortlessly balanced and well concealed that I can’t tell you what they might have been. (But when I switched to a tube preamp costing over three times as much, I immediately heard an overall, though surprisingly subtle, improvement. You’ll read about it in that review.)

The bottom line: During the almost half a year I had the K-3 in my system, it revealed the character of the recordings I threw at it more than it did its own. Belafonte at Carnegie Hall sounded completely different tonally and spatially from Nat King Cole’s fabulous Live at the Sands or Sinatra’s equally brilliantly-sounding At the Sands. Bright-sounding recordings sounded bright, dull ones sounded dull, and rich ones — like Classic’s reissue of the Living Stereo Pictures at an Exhibition — sounded full, sweet, and dynamic. The K-3 excelled at reproducing every genre of music. It didn’t sound etched, thin, bleached, or warm in the midbass. It didn’t sound sluggish or overly “zippy.” Except in comparison to other accomplished products that perform the same vanishing act using other, equally effective tricks, the K-3 simply didn’t “sound.”

Compared to my reference Audible Illusions Modulus 3A, the Ayre K-3 was slightly less liquid and bloomy in the midrange, but it resolved low-level detail better — probably due to its ultra-low noise floor. The K-3’s phono stage clearly bettered the 3A’s somewhat lean and lackluster deep-bass performance, but it costs $2000 more, so that’s hardly surprising.

Conclusion

Has designer Charlie Hansen succeeded in creating a preamp offering “80 to 90%” of the K-1’s superb performance for about two-thirds the price? I never heard the K-1, so I can’t say for certain, but I’d lay odds that he has. I kept the K-3 in my system for half a year and never tired of listening to it — or, should I say, through it. The K-3 delivered the music with a rich tonal and harmonic complexity, dynamic integrity, and an overall ease that always satisfied and never left me wanting more.
"A Mobile Fidelity release is like a great painting. On repeated listenings, the subtle nuances begin to take you in, and you are hooked."

— Andy Goldenberg, contributor
THE TRACKING ANGLE

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Bryston B-60R integrated amplifier

The Anti—High End.

That's who I felt like with this amplifier, and it felt all right. Good, even. Let me 'spplain.

You've been to the shows, you've read the 'zines, you've visited your local hi-fi salon — which means that you've seen the BIG SYSTEMS. Big speakers. Big amps. Big turntables even, fer crissakes. You know what you want, what you would have if you could. It's enough to give a guy (but probably not a gal, as gals seem to be more sensible about these things) System ENVY. Size does matter.

Contrast the big-boxes-and-lots-of-'em picture of audio nirvana with this get-up: CD player/integrated amp/speakers. A minimal setup, to be sure, with each part on the smallish side as well! Not an imposing system; not the kind that makes a statement before you even turn it on. The heart of this modest rig, and easily the most acceptably member of the group, was the Bryston B-60R integrated amp. The interior decorator inside me was thrilled, but what about my roommate, the music lover/audiohound? Would he find sonic salvation in such a simple setup? Could the two of them peacefully coexist?

There once was an integrated from Bryston...

As I was saying, the Bryston B-60R presents a tidy little package reminiscent of the classic British integrated amps. The "R" is for Remote, which controls volume and provides muting — unavailable without the remote — and adds $300 to the price.² That's a pretty expensive remote, when you consider you can buy an entire surround-sound receiver with multifunction remote for $300. But the B-60R is, in true high-end fashion, a hefty chunk of machined aluminum instead of injection-molded plastic, and the Brystonians tell me that the motor drive for the volume control wasn't cheap, either — after all, it's gotta be good for 20 years. Unless you're a total hair-shirt audiophile, you'll want the remote; remote controls are good, even if all they let you change is the volume.

The back panel has rows of left- and right-channel RCA jacks for the four line-level inputs, a tape loop, and pre-out/power-in (a handy feature that allows the B-60R to be used to feed a Dolby Pro-Logic surround-sound processor). The five-way speaker terminals that flank the RCAs are a little different from most. Instead of fitting a nut-driver, there are slots in the head that allow you to tighten it with a coin. That's just what this country needs — a good five-cent binding-post wrench. What's more, the coin-drive method's limited torque-ability helps prevent overtightening.

Last but not least on our back-panel tour, there is an IEC jack for power.

Frontside and center are three knobs: Selector, Balance, and Volume. A tape-monitor switch and headphone jack may be found on the left; remote receiver, power LED, and power switch on the right. And that's it.

All the signal circuitry is fully discrete and takes the dual-mono thing to

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1 Oh, all right. I had a turntable and phono stage, too, but they were kinda off to the side. Uh, yeah, there also were other amps and whathnot strewn about for comparison purposes. Okay, okay, so those NHT 2.5's are pretty big, but the Joseph Audio RM-7A Signatures are mighty pantsy, so just give it a rest, would ya?

2 Sam Tellig raved about the remoteless B-60 in his May '97 "Sam's Space" column (Vol.20 No.5). —JA
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an unusual level; two separate power supplies, each with its own custom toroidal transformer. If you're familiar with the Bryston family, the B-60R is basically their BP-20 preamp and 2B amp conveniently put together in one handy (and I say small?) package. As one would expect from a company that offers a 20-year warranty, the build quality is outstanding.

The following is a report on the second B-60R to come my way. The first one, while seemingly fine in all other regards, produced a thump on turn-on; not a major, speaker-threatening BOOM, but a low, muffled thud. I mentioned this to James Tanner at Bryston, who said that shouldn't happen. In short order he sent me a new, thumpless replacement.

**Bryston B-60R**

Let's listen in, shall we?

Over the past several months, I've been listening mostly — and quite happily — to tube electronics. Then along came the little B-60R, looking so small, so... puny — especially compared to those hulking, glowing tube amps and preamps. How could that little box, which never even got very warm, ever match up? And what could I expect sonically, since my ears had 1kHz squarewave input, a fine result with a fast risetime and only a slight rounding of the waveform's leading edge. The Bryston's 1kHz squarewave response, not shown, is near textbook quality.

Fig. 3 shows the B-60R's crosstalk, a good, though not exceptional result. The slight inconsistency between the channels is unlikely to have audible consequences. The increase at higher frequencies is typical of most two- (or more) channel components, and is generally due to capacitive coupling between channels.

The THD+noise percentage vs. frequency results in Fig. 4 are outstanding, and typical of Bryston amplifiers I have measured in the past. It is also typically difficult to get a readable THD waveform from this manufacturer's products at low power, and the B-60R was no different. Fig. 5 shows the THD+noise output waveform of the Bryston with a 1kHz input and a high 40W level into a 4 ohm load. There is a hint of third-order harmonic dominance plus some higher-order harmonics, but noise is the principal component even at this high output level. (The distortion waveform into 8 ohms was even harder to find, and into 2 ohms the amplifier would shut down at the levels required to get a usable result before the waveform could be captured. No harm resulted from these shutdowns; the Bryston resumed operation.
The Missing Link

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right there — or did it put them here? My notes say “sweet and detailed”—two words you don’t always put together but wish you could. Even when all three virtuosos were furiously sawing away together, there was no sense of confusion; each line was well delineated. The presentation via the JoLida integrated was similar but somewhat softened: the bass wasn’t quite as powerful or well controlled, the focus all around was slightly softer, and the overall soundstage presentation was less forward.

The Squirrel Nut Zepp’s "Hot (Mammoth MR 0137-2, C10)" has seen a lot of play hereabouts, and their nouveau "le jazz hot" was run through this setup as well. The Bryston offered more bite, more brassy tone on the trumpet, and the aforementioned firmer grip on the bass. The soundstaging with both the JoLida and Bryston was good, the main difference here being (again) a matter of perspective: the Bryston gave a more up-front look, while the JoLida was more mid-hall. Reading the above, you’d probably think the Bryston had the edge in rhythmic pace. You’d be right, but it wasn’t that big a difference; for my money, both amps did an excellent job of keeping the beat.

Lou Reed’s "Perfect Day" (from Transformer, RCA AFL-1-4807, LP) is a beautiful happy/sad ballad that is also a fine example of mid-70’s state-of-the-art pop production, with 3-1/2 placement of flat, cut-out singers and instruments floating in a multitracked space. It’s also a little dry, which the Bryston played back to perfection, but without edge or glare. "Hangin’ Round" is a full-on rush that brings a whole new dimension to the concept of “pace.” I’m happy to report that the Bryston got me all twitchy during that cut. And yes, that’s a good thing.

I was, I’d readily admit, captivated by the intense detail the Bryston was able to bring forth. On Cannonball Adderley, et al’s rendition of "Autumn Leaves" from Somethin’ Else (Blue Note ST-46338, reissue LP), I was able to easily follow Hank Jones’s comping way back in the mix, behind Art Blakey’s and Sam Jones’s rhythms and Cannonball’s and Miles’s solos. But this detail didn’t come at the expense of sound or beauty. The vinyl reissue of the Patitgorsky/Munch/BSO reading of the Dvorak Cello Concerto (RCA/Classic Records LSC-2490) gave me the Irish Coffee Effect: I was energized by the speed of the bow’s attack on the strings, then eased by the cello’s warm but mournful tone, echoed by a distant flute. “Gawd, that’s beautiful,” said my notes. “Well put, notes,” I replied. “May I quote you?”

Oh, yes, there is a headphone jack. Plug in, and the speakers are muted. (An indicator LED on the front panel turns red so you’ll know for sure.) Using my good old’ Grado SR-60s, the sound from the phone jack was very reminiscent of the sound from the speakers—clean and quick but not strident, with excellent bass.

So what was the downside? you ask. Power? For me, no; for the kind of listening I do, which can get loud but not mind-numbingly so, the Bryston offered plenty of power. Any frequency-spectrum aberrations? No, it was completely clean up and down the scale. Hardness? No, not at all, though it was a little forward in perspective — which is neither a good nor a bad thing, it just is, and at most is a matter of taste. And it did offer incredible detail without being unnatural.

So was the Bryston B-60R perfect? There was one very small thing — something you don’t often find at this end of the price spectrum. It’s that almost indescribable something that the absolute best systems (to my taste) have, something that more often than not comes in glass bottles. No, I don’t mean intoxicating beverages, but what pours out of vacuum tubes — the ability to impart a sense of dimension to the instruments and voices that transforms them from flat images to living, breathing entities on the soundstage. The JoLida and Anthem amps gave me some of that — the cut-out figures were well shaded, you might say — while the Bryston offered slightly less. Still, because of the detail the Bryston could produce — its stunning ability to expose every nuance and do so without being in my face — I almost forgot to notice.

So tell me what you want — really.

It’s music, right? The audio system is merely a means to that end, but a necessary means, an important one. Right? Right. That’s why you’re reading Stereophile, and why you’d consider spending as much on a sound system as you would on your car, maybe more. My system, with the Bryston B-60R integrated amplifier at its center, certainly costs more than some used cars, so it passes that limus test.

I can tell by the way you’re fidgeting that you’re still worried about impressing the neighbors. Well, don’t — they’ll be impressed by the sound you’re able to conjure out of such a small, unobtrusive rig, whether they’re audiophiles or not.

Finally, what about the price? Those pesky neighbors (or significant others) may raise their eyebrows at $1795 for such a small box, but you’ll know that you’ve got a true high-end component — a pair of them, actually — in that diminutive enclosure.

Anti-high end? Not me. But I am into stealth high end, and the Bryston B-60R is all of that. Highly recommended.
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According to PSB designer Paul Barton, the Stratus Bronze is a refined and updated version of the well-received Century 1000i. He felt that he'd added enough improvements to promote it into the company's premium Stratus series. The overall construction is similar to the other speakers in the series, but with lower-cost materials where appropriate.

The tweeter is an aluminum-dome type, apparently the same as used in PSB's other Stratus models. The 6.5" woofers have cones made of coated felt, with what look like coated-fabric dustcaps. Unusually, the woofers have plastic baskets. Nevertheless, these appear to be well designed for strength. Press-on connectors are used for signal connection. The woofers are attached with six screws instead of four, and were very well tightened when they arrived. The tweeter screws were not, so those got some vigorous yet careful torqueing. The crossover is attached to the rear of

**Description:** "2½-way" floorstanding dynamic loudspeaker. Drive-units: one 1" (25mm) aluminum-dome tweeter, two 6½" (165mm) treated-felt woofers. Crossovers: 2kHz, 24dB/octave; 500Hz, 18dB/octave. Frequency response: 41Hz to 21kHz, ±3dB. Sensitivity: 90dB/2.83V/m. Nominal and minimum impedance: 4 ohms. Recommended maximum power: 200W.

**Dimensions:** 36.75" (934mm) H by 9" (229mm) W by 12.75" (324mm) D. Weight: 39 lbs (17.6kg) each.

**Finishes:** black ash or dark cherry vinyl.

**Serial numbers of units reviewed:** 01050-701000/1.

**Price:** $1100/pair. Warranty: 5 years.

**Approximate number of dealers:** 250.

**Manufacturer:** PSB Speakers, The Lenbrook Group, 633 Granite Court, Pickering, Ontario L1W 3K1, Canada. Tel: (888) 772-0000. Fax: (905) 831-6936. Web site: www.psbspeakers.com

**Sound**

The PSB Stratus Bronzes were broken in for over 50 hours with louder-than-usual music. Because the floorstanding

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**PSB Stratus Bronze loudspeaker**
Bronze is of very similar conceptual design to my B&W 804, I initially placed the PSBs in the same locations. The hours spent measuring and calculating to minimize common-bass modes for these locations were worth it. They proved very beneficial for the Bronze right from the start.

The whole system sounded well balanced frequency-wise (otherwise too) — without changing cables or anything! The Bronzes were not as detailed as the twice-the-price 804s they replaced, but they didn't lag too far behind. The soundstaging seemed quite good, even though I had not experimented with speaker position yet. No doubt about this, this going to be an easy review to write. I was tempted by the initial sound to do something quite rare and take an "if it ain't broke don't fix it" attitude. But reviewers are supposed to poke and prod, so I did.

Noting that the Bronze tended to slightly soften and smooth everything, I tested it with some serious rhythm-happy music. On went Soundgarden's Superunknown, from '94 (A&M 31454 0198 2) — the first of a long string of rock albums whose sound balance matched synergistically with the speakers. The slightly scratchy nature of the top octaves was not nearly as noticeable, yet all of the music was. The bass was deep and solid. Vocals came across clearly and dramatically. The pulse of the drums was impressive, particularly on "Fresh Tendrils," which sounded more interesting than ever. The leading edges of beats were rounded over so slightly, but part of this was due to my not yet having decided on the best listening axis.

The house rocked even harder with The Cult's The Manor Sessions (Beggars' Banquet BBP 1, CD). Again, the PSB's silky presentation ameliorated a slightly nasty treble and top octave on this recording. Where did it go? I don't know, but good riddance. Ian Astbury's singing was clear as a bell. Billy Duffy's fleeting guitar riffs were easy to follow as well. The most impressive things, though, were the low, growling bass guitar line and the big thump of the kickdrum.

After some experimentation, it became clear that the best vertical axis to listen on was right on the tweeter axis, which is a low 29° from the floor even when the spikes are used. After lowering the rear spikes and raising the front ones as much as was feasible, I still had to slouch down in my low chair to get exactly on the tweeter axis. C'est la guerre. Slouching down is easy — you just pretend that you're too damn cool to sit up straight. I was only about 6' from the speakers, so it will be easier if you sit farther away. If you're not slouch, you could buy some longer front spikes (or just not install the rear ones).

As for toe-in, pointing the Bronzes directly at me made the top octave a little too hot. Then again, pointing them too much away (almost straight toward the wall behind me) sacrificed too much treble detail. A compromise between the two was the best, with the speakers' inner sidewalls slightly visible from the listening seat.

Measurements

As MK describes, the Stratus Bronze plays loud with only a handful of amplifier watts. I estimated its B-weighted sensitivity to be 89dB/2.83V/m, which is above average. Its impedance, however, is relatively low. Fig.1 reveals that the magnitude drops below 6 ohms over much of the midrange and bass, but the electrical phase angle is relatively benign over most of the band. The port tuning is indicated by the "saddle" in the magnitude curve around 30Hz, implying good low-frequency extension.

The small wrinkle in the traces at 26kHz is due to the metal-dome tweeter's primary resonance — this will not be audible. The wrinkle just below 300Hz, however, is due to some kind of enclosure resonance, either of one or more panels or of the speaker's internal airspace. Fig.2, a cumulative spectral-decay or waterfall plot calculated from the output of a simple accelerometer fastened to the Bronze's sidewall 8" from the top, reveals a reasonably strong panel resonance at 273Hz. This could be found on all the enclosure surfaces, with an equally strong mode present on the rear panel at 300Hz. This panel also "pumped" slightly at the port tuning frequency. I would have expected the modes around 300Hz to slightly obscure clarity in the lower mids; however, MK noted nothing amiss in this region.

Fig.3 shows (from left to right) the outputs of the port, woofers, and tweeter. The port appears to cover a wider bandpass than normal. It also has a midrange peak in its output at 700Hz, this coincident with a small suckout in the woofer's output. The woofers' response features the expected null at the port tuning frequency with a slight excess of energy in the bottom two octaves of its passband, the region in which both drive-units are operating. The crossover to the tweeter appears to operate around 2kHz, with symmetrical, 18dB/octave filter slopes.

![Fig.1](image1.jpg)  
Fig.1 PSB Stratus Bronze, electrical impedance (solid) and phase (dashed) (2 ohms/vertical div.).

![Fig.2](image2.jpg)  
Fig.2 PSB Stratus Bronze, cumulative spectral-decay plot of accelerometer output fastened to cabinet sidewall 8" from the top. (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz.)
I also tried to find better speaker positions, but no luck. Neither closer to the back wall nor farther away offered a good balance of strengths as the original (B&W) positions. The "universa1 front-ported dynamic speaker optimum locations" for my 25' by 11'4" room are as follows: 43" to back wall and 103" to side wall for the left speaker, 36" to back wall and 115" to side wall for the right. Note that one of the long walls serves as the back wall, and the measurement goes to the vertical line defined by the centers of the woofers (approximately the same location as the port). Disc 3 of Prince's Emancipation (NPG 8 54982 2) was chock full of passion and groove, as usual. It really got to me. The speaker's somewhat timid pace and rhythmic intensity noted before were partly alleviated by listening on the tweeter axis, but not totally. This is a fine distinction; for the most part, the PSB was spreadin' the funk real good. It disappointed a tiny bit only in comparison with the TDL T-Line 3 (reviewed in March '98) and the B&W 804, both of which cost about twice as much as the Bronze. Overall, pace, timing, and rhythm were excellent for such an affordable floorstander.

Phat Trax Vol.6 (Rhino R2 72587) just blows me away every time I put it on. Every instrument on every single song of this old-school funk compilation fell into place through the Stratus Bronze. Bass guitar lines in particular showed incredible articulation and wonderful weight. On track 12, "Glide" by Pleasure, the bass player had me feeling very inadequate—as an electric bass player, that is. I don't really do "slapping and

**Associated Equipment**

- **CD transport:** Rotel RDD-980.
- **Jitter box:** Sonic Frontiers Ultra-Jitterbug with BNC out.
- **D/A processor:** The Parts Connection Assemblage DAC-2 with Parts Upgrade Kit.
- **Integrated amplifier:** home-constructed Stmina SE MOSFET (Nelson Pass-designed Zen and Bride of Zen in one chassis).
- **Loudspeakers:** B&W 804.
- **Cables:** Speaker Cables: 3' Goertz MI 2 biwire, no termination. Interconnects: TARA RSC Prime (new).
- **Digital interconnects:** TARA RSC Digital 75 (BNC), Illuminati DV-30 (BNC), Sound & Video Digiflex Gold I.
- **AC line conditioning:** Audio-Prism Foundation III, home-built isolation transformer box.
- **Room treatment:** ASC Alpha Wedge panels, tapestries.
- **Accessories:** Audio-Prism CD Stoplight and Isobearings, RoomTunes JustaRack, Soundcoat chassis-damping tape.

— Muse Kastanovich

**How these individual responses add up on the tweeter axis at 50° is shown in**

![Fig.3](image-url)  
**Fig.3** PSB Stratus Bronze, acoustic crossover on tweeter axis at 50°, corrected for microphone response, with the nearfield woofer and port responses plotted below 300Hz and 1kHz, respectively.

![Fig.4](image-url)  
**Fig.4** PSB Stratus Bronze, anechoic response on tweeter axis at 50° without grille, averaged across 50° horizontal window and corrected for microphone response, with complex sum of the nearfield woofer and port responses plotted below 300Hz.

![Fig.5](image-url)  
**Fig.5** PSB Stratus Bronze, horizontal response family at 50°, normalized to response on tweeter axis, from back to front: differences in response 90°-5° off-axis; reference response; differences in response 5°-90° off-axis.
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0035 . . . . Hawkins: Good Old Broadway
0036 . Bill Evans: At Shelly's Manne Hole
0037 . . . . Carney Lundy: Old Devil Moon (new)
0038 . . . . Sarah Vaughan: How Long Has This Been Going On?
0039 . . . . Johnny Griffin: Little Giant
0040 . . . . Zoot Sims: Quintet, There (new)
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0045 . . . . . . . Erma Watts: Long Road Home (new)
0046 . . . . . . . Miles Davis: Bag's Groove
0047 . . . . . . . Miles Davis Quintet: Walkin' (new)
0048 . . . . . . . Kenny Dorham: Quiet Kenny (new)
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Johnny Cash: Unchained, American Recordings
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Sam Cooke: At the Copa
The Cure: Gallore
Bob Dylan: Time out of Mind/Blonde on Blonde*
Enya: Watermark*
Marvin Gaye: Midnight Love
Isaac Hayes: Hot Buttered Soul/Shaft*
Hoone and the Bloodbath: Cracked Rear View

Michael Jackson: History
The Jayhawks: Tomorrow the Green Glass Kraftwerk: Kraftwerk*
Madonna: Ray of Light*
Alana Morrisette: Jagged Little Pill*
Paul McCartney: Flaming Pie/Standing Stone*
Oasis: Be Here Now*
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You've probably seen the recent reviews! Grado's new series features wood/oil resulting in a very musical sound with Grado's characteristic deep, tight bass. This cartridge has a fuller sound than most others at the price, and it is a perfect choice for those with solid state electronics or anyone who wants the Grado "hautef sound." High rated output of 4.5 mV. This cartridge is in very short supply, so please call to reserve one! Retail $300.

Other Grado models in stock as well, including the grant killer Reference, highly recommended in The Absolute Sound issue 112 Retail $1200.

KATE SCHROCK: SHUNYATA

* consider it an addendum to my R2D4 recommendations ... a fantastic recording...* - Jonathan Scull, Stereophile, April 1998

From the opening bars of "Madman" to the haunting closing on the album's final track, "To Be Human," Kate Schrock demonstrates the power of pure songwriting. Her lyrical boundaries cover all bases and the recording (mastered at Bob Ludwig's Gateway Mastering) is superb - so much so that Ludwig has included four of Schrock's tunes on a forthcoming DVD sampler. Shunyata is a fresh take on the recent folk-rock phenomenon among women, and it deserves to be heard and appreciated. Kaelkend 929 ('92), $14.99.

CHESKY LPS, CONT'D

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RC10. . . . Prokoviev: tt, Kije, Reiner/CSO
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RC41. . . . Rach: Piano Co. 1/4, Wald
RC42. . . . Stravinsky: Petrouchka, Dance/RPO
RC53. . . . Boult: Concert Favorites, LPO
RC71. . . . Hollywood Screen Classics
RC83. . . . 0 Magnus Mysterium: Westminster
RC88. . . . Berioz: Fantasque, Freccia/RPO
RC94. . . . Sokolovsky: Swan Lake, Kremenetz
RC105. . . . Beethoven: Sym 6, Reiner/CSO
RC110. . . . Offenbach: Galate Par, Fedler/BPO

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popping” in my own playing, but even if I did, I don’t think I could ever be as good as this guy.

“Yes, but what about the midrange?” Glad you asked. Leontyne Price’s angelic voice was mostly right on the money on her Arias from… (the blue album, RCA 68883-2). Revealing in her control and expression, I still noticed that the frequencies were not quite perfectly balanced, but suspected it was the fault of the 1960 recording. Sure enough, replacing it with Paula Cole’s This Fire (Imago/Warner Bros. 46424-2) proved the Bronze to be superbly smooth through the midrange. Paula’s voice appeared very realistically from this HCDi disc, her entire range was even, and her timbre was almost touchably human. There was only a hint of excess sibilance in the treble, but that’s nitpicking.

So far, the PSBs’ soundstaging had been impressive, if understandably not quite the equal of my memory of the TDL T-Line 3s. To really examine this quality in detail, it’s best to use a purist-miked recording of acoustic music. There is no indication whether or not the BBC Singers’ 70th Anniversary Celebration (BBC Music Magazine, Vol.3 No.1) is purist-miked, but its overall quality leaves little to be desired. These speakers threw quite a convincing soundstage, with individual voices sometimes discernible (the group is a moderately sized choir). The stage was not as wide or as deep as I’m accustomed to, but it came close. The pinpoint precision of the images was not as good as with the B&W 804s in particular. Hall size and overall image believability did not disappoint, however.

**Shining finish**

How dare this poseur stand among the real-hardwood-veneered, carbon-fiber/Kevlar/metal-composite-coned, separate-crossover-chambered, silver-wired, expensive speaker masterpieces? Well, it dares, and with your eyes closed you could very well fail to notice its connoisseur’s rank—or even with your eyes open, for that matter; this PSB is one fine-looking, affordable speaker. Sure, on close inspection you’ll find an awful lot of plastic used in its construction, but who cares when you can jam out to any kind of music for $1100/pair?

Want to know another way these speakers can save you money? Their high sensitivity (90dB) means you can get by with a less powerful amplifier. My Stamiina amps chp at less than 20W, and they were able to play as loudly as I wanted with the Stratus Bronzes. I could go on and on…..

With good to excellent performance in just about every specific area you can think of, the Stratus Bronze is a bona fide bargain. Music lovers who want plenty of bass need look no further. Rock’n’roll fans especially should carefully consider its virtues before choosing another. Actually, those with small listening rooms might find it to have too much bass—consider yourself warned. You might opt for a monitor with better imaging, but you’re unlikely to find a speaker at this price that surpasses the Bronze in any other department.

**Measurements**

Imaging precision, in my experience. The plot of dispersion in the vertical plane (fig.6) implies that the speaker’s balance doesn’t change much as long as the listener sits with his or her ears between the cabinet top and the lower woofer axis. This is quite a low-listening height; as MK recommends, if you have to sit close to the speaker, it would be worthwhile experimenting with tilting back the speaker a little.

In the time domain, the step response (fig.7) implies that both tweeter and woofers are connected in inverted acoustic polarity. The associated waterfall plot (fig.8) is superbly clean throughout the upper midrange and treble, implying excellent presentation of recorded detail.

---

**Fig.7** PSB Stratus Bronze, step response on tweeter axis at 50° (5ms time window, 30kHz bandwidth).

**Fig.8** PSB Stratus Bronze, cumulative spectral-decay plot at 50° (0.15ms risetime).
From *The Audio Catechism*:

**Q:** What is a subwoofer?

**A:** A large, ugly device that must be placed in the most inconvenient location in the listening room—for instance, in front of the only door.

**Q:** What is the purpose of the subwoofer?

**A:** To produce prodigious amounts of low-frequency sound and to glorify its owner, who can rest safe in the knowledge that his is the biggest.

Ah, but it doesn't have to be that way. At the same time that home theater has made "subwoofer" a household word, many high-end companies have also discovered that a deep, tuneful bottom end can serve as the solid foundation for the cathedral of music.

REL is such a company. Their $8000 Studio II is a no-holds-barred unit that they call a "sub-bass system." Far from billing it as an add-on for speakers that lack bass extension, REL boldly states that *any* system will derive increased impact and solidity from the addition of a Studio II—even denizens of Stereophile's "Class A—Full Range Loudspeakers" category in "Recommended Components."

**The real is only the bass...**

The Studio II is reasonably handsome ("for a subwoofer," my wife sniffs). It's fairly sizeable at 23 ¼" by 21 ¾" by 14 ½", but its black ash side panels, dark glass top, and stubby cylindrical brass legs make it look as much like furniture as a subwoofer's going to get.

The Studio II is designed to be placed against a wall, and the side of the woofer that goes against the wall is all business. Inputs and controls are arrayed across the utility panel: a phase-reversal switch; three control knobs (Coarse, Fine, and Gain); two RCA line-level inputs; two "professional-type" twist-lock connectors (High Level, which accepts speaker level, and High Level Balanced); a line-level three-pin XLR (600 ohms); a power switch; and an IEC mains receptacle. This arrangement gives the Studio II an unusually broad range of connection options and control.

The Studio II employs two heavy-duty 10" drivers in what REL refers to as an "Acoustic Resistive Matrix" (ARM) loading scheme. The manufacturer claims that ARM offers lower distortion and improved transient performance. The driver's back wave is loaded by a cavity that is vented "in a controlled way" (according to REL) into a smaller cavity, which then vents again into an even smaller one and, eventually, exits out the port. Even this explanation is somewhat simplified—there is yet another cavity, this one "for special control purposes."

Although ARM loading is complex—not to mention difficult to construct—REL feels it offers superior performance to conventional reflex loading, since the driver is said to "see" a smaller enclosure at higher bass frequencies. REL likens this to the advantage offered by a five-speed gearbox over a three-speed.

---

**Description:** Powered "sub-bass system" with adjustable high-pass filter; DC-coupled, 300W RMS MOSFET amplifier, and "Acoustic Resistive Matrix" (ARM) drive-unit loading. Input connections: one XLR, one speaker level, two RCA. Gain control range: 80dB. Input impedance: 100k ohms (high level), 10k ohms (XLR, RCA), 600 ohms (balanced XLR). Phase adjustable. Drive-units: two 10" (250mm) long-throw cast-chassis woofers. Enclosure resonant frequency: 20Hz. Enclosure volume: 72 liters. Frequency range: 14-120Hz (lowest frequency is both room- and system-dependent; upper frequency is user-adjustable).

**Power output:** 400W peak.

**Dimensions:** 23 ¼" (685mm) W by 21 ¾" (620mm) H by 14 ½" (520mm) D. Weight: 194 lbs (88kg) net, 275 lbs (125kg) crated on pallet.

**Serial number of unit reviewed:** 7816.

**Price:** $8000. Approximate number of dealers: 48.

**Manufacturer:** REL Acoustics Ltd., North Road, Bridgend Industrial Estate, Bridgend, Mid-Glamorgan CF31 3TP, Wales, UK. Tel: (44) 1656-768777. Fax: (44) 1656-766093. US distributor: Sumiko, 2431 Fifth Street, Berkeley, CA 94710. Tel: (510) 843-4500. Fax: (510) 843-7120.
The 300W internal amplifier is DC-coupled, using triple-parallel MOSFET output devices. The line-level and filter stages are fully regulated to ensure isolation from the power amp. The crossover filter stages are Sallen and Key two-pole (12dB/octave) types, and the filter capacitors are 1% tolerance, nitrogen-filled polypropylene types. Quite a contrast from the cheap 'n' cheerful op-amp board stuck in many subwoofers as an afterthought!

Sumiko recommends that the subwoofer be connected to the main speakers' amplifier by way of its speaker-level inputs — this leaves your main speakers running full-range. It is fair to point out that using the REL does not therefore offer one of the main advantages of adding a subwoofer to a system: relieving the satellites of the stress of being asked to reproduce deep bass information. In addition, having three acoustic sources reproducing low bass in the room might make setup more problematic than usual. Why use this strategy, therefore? Sumiko's John Hunter explained: "When you derive the signal from the amplifier that drives the speakers, you tend to preserve the sonic signature of that amp — so the sound from the Studio II will better match that of the

**REL Setup Made Simple**

Since Sumiko and the REL's manual offer different recommendations for setting up the Studio II, I asked Sumiko's Stirling Trayle to explain his recommended setup procedure — WP.

To begin the setup process, choose a piece of music that has a repetitive bass line that is quite low in frequency. We recommend the soundtrack to Sneakers (Columbia CK 53146) because it has a repetitive bass drum throughout, which gives you a lot of time to move the woofer around — but, more important, it was recorded in a large venue and therefore has a deep and large-scale bass signature.

**Phase Orientation:** After plugging the REL in and connecting it, set the bass control's Coarse setting to position 2 and raise the Gain control to the 9:00 position. Start your setup cut and go to the corner where the REL has been placed. Trying to ignore all other aspects of the music, listen to the bass drum and the effect the drum has on the listening room. Switch back and forth between the two phase settings (Normal and Reverse). Whichever sounds louder is correct — this means the woofer is acting in concert with the main speakers, adding bass, not canceling it.

**Room Orientation:** Try orienting the woofer with the front wall (behind the main speakers) or turned 90° — with the connection panel facing the side wall. The orientation that yields the most bass is, again, the correct one.

**REL Placement:** Start with the REL as far into the corner as possible, then slowly move the woofer on a diagonal out from the corner, trying to keep it equidistant from the walls. Listen for the point at which the woofer exhibits increased output and the lowest bass. Somewhere between several inches and several feet from the corner, the woofer will 'unlock' — at this point the speaker is working with the room to provide the most efficient pressurization and the lowest possible frequency response.

**Crossover settings:** With the speaker properly sited and the phase set correctly, you can begin to tune the crossover. Working with both Coarse and Fine controls — and the Gain still set at 9:00 — you are looking for the point at which the woofer begins to intrude on the primary speakers. Each detente on the Coarse dial is equal to four on the Fine control. (With both dials set to 1, the crossover frequency is 25Hz; with both set to 4, it's 100Hz.) When you've reached the point where the woofer begins to interfere with the main speaker, you can subtly adjust both crossover setting and gain to reach a seamless integration of the two. This is the time-consuming part.

Gain must be adjusted in conjunction with crossover changes. In general, choosing a lower crossover point necessitates more gain; selecting a higher crossover setting calls for less gain. Many audiophiles tend to set the crossover point too high and the gain too low, for fear of overwhelming the main speakers with bass — this results in a loss of bass depth and dynamics. The proper crossover point will increase overall dynamics, extend the bass frequencies, and improve soundstaging. — Stirling Trayle
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main speakers." As I switched amplifiers in and out of the system, the sound did change, reflecting their differing characters. This was a subtle effect, certainly not day-and-night, but it went a long way toward making the system coherent. When you consider the Studio II's staggering price tag, it will probably be used in fairly sophisticated systems—the sort where tiny nuances become more pronounced.

You can also drive the REL with a line-level signal, which I tried just to see how it worked. As you'd expect, it worked fine, but I decided to stick with the importer's recommendations, seeing as how Sumiko has set up a lot more of these than I have. I had no complaints using the speaker-level umbilical.

But it is the bass
Setting the REL up—actually, properly setting up any top-notch subwoofer—is fairly complicated. Everybody "knows" that deep bass is nondirectional, but that doesn't mean you can just set a woofer up anywhere in a room and get it to integrate with your primary speakers and produce deep, nonspecific bass.

How come? Well, it's the room, not the woofer, that causes all the problems. All rooms have antinodes that can cause bass to boom, and nodes or nulls that can sap the bass energy completely. This means that you must find the right place for the woofer, then you must carefully experiment with phase, gain, and the high-pass filter. This can take weeks of experimentation and listening. And the better the system, the more precisely the subwoofer must be dialed in.

Sumiko has devised a method for setting up REL woofers that is rather different from the instructions given in the owner's manual. The manual says to stick the woofer between the primary speakers and start the tuning-in process from there. This makes for a visually balanced system, but I've never lived in a room where such symmetry resulted in coherent top-to-bottom response.

Sumiko finds that corner placement works in the greatest number of systems. Pressurizing the room from the corner at frequencies below 50Hz provides more linear and uniform low-frequency response, they claim. It's possible to find good locations other than the corner, but nodal response problems tend to make this more complicated. (See Stirling Trayle's sidebar, "REL Setup Made Simple.") Just my luck, I couldn't use corner placement in my room, so I had to experiment extensively before settling in to a location that was adequate, if not ideal—in my room, this was the right sidewall, about 3½' from the kiva-style fireplace that made a corner location impossible. In extremely difficult situations, Sumiko suggests that two smaller subwoofers may work better than a single larger one.

Bass is the place
Intellectually, I realize that you can obtain deep bass from a well-designed woofer system featuring smallish drivers. However, time and again during my extended audition, I found myself saying, "All this from two 10" drivers?" The reality of deep, deep, taut bass kept overriding my logic circuits. The Studio II really delivered the LF goods.

But man-oh-man did it take some fiddling to get it to do so without boominess or doubling. First off, it took two visits from Sumiko's Stirling Trayle to find a good woofer location; then it took several weeks of minor adjustments to the Gain and Coarse and Fine bass controls to lock it in—a process that had to be repeated every time I changed speakers. Sumiko spends a lot of time training its dealers to set up its gear, so if

**Associated Equipment**

**LP playback:** Linn LP12, Naim Armageddon Power Supply, Naim ARO tonearm, van den Hul Frog phonocartridge; LP12/Lingo/Cirkus/Ittok/Arkiv.

**CD playback:** Audio Research CD2, Mark Levinson No.39, Meridian 508-24, Naim CD 3.5.

**Phono preamplifiers:** Acous-Tech, Conrad-Johnson Premier Fifteen, Linn Linto, Naim Prefix.

**Power amplifiers:** Accuphase M2000, Audio Research VT200, Cary CAD805C, Krell FPB 600.

**Loudspeakers:** B&W DM 302, B&W Silver Signature, Dynaudio Contour 3.3, EgglestonWorks Anda, Polk RT5, ProAc Response One SC.

**Cables:** Kimber KCAG, WireWorld Gold Eclipse III interconnects; Kimber Black Pearl, WireWorld Gold Eclipse III speaker cables.

**Accessories:** Audio Power Industries Power Wedge 112, Magro Stereo Display Stand.

**Sound treatment:** ASC Tube Traps, Studio Traps, Bass Traps; RPG Abirbors; osophagistic feline. — Wes Phillips
you do buy an REL, especially one as expensive as a Studio II, you should expect your dealer to deliver, uncrate, and set it up for you—not to mention follow up after you’ve fine-tuned the system. This may not be rocket science, but it ain’t all that simple either.

My first attempt at setting up the Studio II was fun but flawed. Using Eggleson Works Andras as the primary speakers, I put the REL along the wall behind the loudspeakers (the front wall), as close to the corner as my fireplace would let me. This also happened to be within a bass-reinforcing mode;

Paradoxically, I found the REL worked best with bigger, fuller-range speaker systems.

This is not to say that it didn’t offer improvements to small monitors.

try as I might, I never quite got a seamless blend between the Andras and the Studio II. The system boomed at about 30Hz. I did considerably extend the bass capabilities of the system and managed to rediscover just how good many of my organ-recital discs sounded. However, that boominess eventually overcame my fascination with the increased extension, and I knew it was time to have the REL take a hike to a different wall.

That made all the difference in the world. After a day spent with Stirling, as well as countless hours of obsessive-compulsive tweaking, I was amazed at what a difference the Studio II made in the system—no matter what speaker I was using. Paradoxically, I found the REL worked best with bigger, fuller-range speaker systems such as the Eggleson and the Alon Circe, rather than with smaller speakers such as the B&W John Bowers Silver Signature, ProAc Response One SC, or even really tiny ones such as the B&W DM 302 or the Polk RT5. The woofer didn’t do as good a job compensating for missing bass as it did reinforcing and extending deep bass on reasonably full-range loudspeakers.

This is not to say that it didn’t offer improvements to small monitors. Of course, it took even more fiddling to blend the Studio II’s output into the tiny ones—the higher the REL had to go, the tougher the task became. You’d expect the subwoofer to add deep bass to speakers with rolled-off LF output, and it did—the combination of the Silver Signatures and the Studio II was particularly beguiling, even though I don’t normally feel that the B&W’s sound at all anemic. What did startle me was how much more open they sounded with the subwoofer in the system—and how much better they imaged. Both of these categories rank among the Silver Signatures’ glory, so this was stop the press—level news. This improvement was particularly noticeable, of course, on discs that had already impressed me with their openness and imaging. Take, for example, one of the three February 1998 “Recordings of the Month,” Sacred Steel Guitars, Vol. 2 — The Campbell Brothers Featuring Katie Jackson: Pass Me Not (Arhoolie CD461). It was recorded live and does a fantastic job of putting you in the middle of a very spirited celebration of faith. Adding the Studio II to the equation allowed me to hear how much presence and impact the kickdrum had—something that most stereos never get right. But the sounds were also live, more in the air, and I was even more conscious of the room in which the service was being celebrated.

The Romantic Organ (Epiphany EP-4) is a recital by Kent Trittie on the huge Mantler organ in the Church of St. Ignatius Loyola in New York City. If ever there was a recording designed to torture a subwoofer, this is it—73 minutes of Franck, Widor, Bruckner, Liszt, Mendelssohn, and Brahms. Some of the pedal tones literally shook the house: window frames threatened to pop out from the room pressurization, and I felt, rather than heard, the 16Hz C. Hoo-hoy.

But the clarity and airiness of the oboe and trumpet stops was also tremendously increased—they seemed to float in the air just beyond the plain of the speakers. And the sense of an instrument in a huge space, the chapel itself, was far greater with the REL in the system.

Combining the Studio II with a full-range speaker such as the Andras just heightened the effect. The Andras did a superb job of re-creating the Mantler organ all by themselves, but in concert with the REL, the soundstage was bigger, more solid, and startlingly—more delicate. More solid and more delicate simultaneously! Yes—the bottom end got solid and massive, as you’d expect, but this freed the rest of the spectrum to exist as tones lighter than air, which is, after all, what they are. As things opened up, they freed up. And
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**Baby got back**
The REL Studio II has forced me to reexamine my concept of what a subwoofer does. In a world where "main speakers," in some cases, don't even venture below 100Hz, the term "subwoofer" has been corrupted to the point where it means "lower-midrange driver with limited bass capacity."

This does not describe the Studio II — it truly lives up to its billing as a sub-bass system. And it seems to do so with speakers that I thought needed little or no bass reinforcement, as well as with those that benefit from an extra half (or even whole) octave of bottom-end.

But it does more than that. It also makes your primary speakers possess even more of those magical qualities you bought them for: more sinness, more sense of space, more magic.

Those qualities don't come cheap — $8000 is as much as a Class A speaker system like the B&W Silver Signature costs. When writing a review, I always hesitate to put my wallet in the reader's pocket; I try to describe what I heard and let the reader draw his or her own conclusions concerning value. On the one hand, the REL Studio II made a huge difference in the performance of every combination of components I added it to. On the other hand, none of the systems sounded bad without it.

But in a world where speaker cables can cost $15,000, can I really squawk about a well-designed, meticulously built product such as the Studio II — even if it is an $8000 subwoofer?

In a world where speaker cables can cost $15,000, can I really squawk about a well-designed, meticulously built product such as the Studio II — even if it is an $8000 subwoofer?
New York Magazine “BEST BET”

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In high-end audio, no matter how well-designed a product or how good the reviews, chances are the manufacturer will eventually introduce a "new, improved" version. And you can be pretty sure that this Mk.II/Series 2/Signature model will be more expensive.

Not the Carver Lightstar 2.0. The original Lightstar Reference (which I reviewed in May 1995, Vol.18 No.5) sold for $3995 and seemed good value at that price. Its successor, the subject of the present review, is not only much less expensive ($2795), but is claimed to have been improved sonically and technically. (The two don't always go together)

Technology: The Lightstar Reference and the Lightstar 2.0 differ in ways external and internal. The Reference had a "wraparound" case and a platform base; very stylish, but expensive to manufacture. The 2.0 is still an attractive-looking amplifier, but the case is more conventionally constructed. The Reference had two separate illuminated power meters; in the 2.0, these have been combined into a single two-channel meter. (And I still wish they had a switch to turn off the meter's illumination.)

The Reference's two power cords and two power switches have been replaced by one of each, reflecting a change from dual-mono to stereo design. The back panel of the 2.0 sports switches allowing selection of balanced XLR or unbalanced RCA inputs; the Reference had these inputs but they were in parallel, so they could not be used at the same time. Like the Reference, the 2.0 has two sets of high-quality binding posts, but their location on the back panel has been changed, placing them closer to the output circuit boards (a good thing). The 2.0's modular internal construction eliminates the cumbersome (and technically less desirable) wiring harnesses. To accommodate use of the amplifier in multi-room remote-control systems, the 2.0 is supplied with an RC-5 connector. Weight is down, from 72 to 48 lbs.

Perhaps the most important aspect of the Lightstar's redesign is the near doubling of the tracking power supply's switching speed. This apparently results in an improvement of the amplifier's squarewave performance and reduces the need for filtering in the signal path. Also, there has been a tweaking of the limiter circuitry, which now waits longer before springing into action. The Reference's two EI transformers have been replaced by a single heavy-duty toroidal transformer (sourced from Plitron, supplier to a number of high-end audio manufacturers). The 2.0's substantial internal heatsinks provide for cooler running. Specified power output remains unchanged at 300W into 8 ohms, 600W into 4 ohms, and 1200W into 2 ohms.

Sound: In my review of the Lightstar Reference, I praised its effortless dynamics, tinnial accuracy, and generally easy-on-the-ears quality, but described it as erring a bit on the soft side, lacking some overall transparency, and having bass that was not ideally tight. Now I'm not saying that, on reading my criticisms, the Carver design team immediately rushed back to the lab to address these concerns, but the sonic differences between the Reference and the 2.0 involved exactly the areas of performance that I had described as problematic. In contrast to the Reference (I was able to obtain a sample for comparison), the 2.0 evinced significantly greater transparency, with highs more open and extended. This was particularly noticeable on complex orchestral and choral material. The big choral finale of Ragtime (Songs from Ragtime, BMG 80001-2 — the recording that should have been the 1998 Grammy winner in

Associated Equipment

Analog source: Linn LP12, Lingo, Ittok, AudioQuest AQ-7000sX.


Preamplifiers: Convergent Audio Technology SL-1 Signature Mk.III, Balanced Audio Technology VK-5i.


Cables: TARA Labs The Two interconnects, Decade power and speaker cables.

Accessories: Chang CLS-9600 ISO power-line conditioner (digital source only), Shakti stone placed on the DTI Pro32, Original Cable Jackets on the power cables, and a Bright Star Little Rock atop the CD transport. —Robert Deutsch

Follow-Up

Robert Deutsch

Carver Lightstar 2.0 power amplifier

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the cast-album category, not the revival Chicago) was less congested through the 2.0, with individual voices more distinct within the mix. Among the amplifiers of my recent acquaintance, the Jeff Rowland Design Group Model 2/BPS-2 has even more of a see-through

In every sonic parameter that I examined, the Lightstar 2.0 was superior to its predecessor.

quality, but this comes at a price ($8400 the last time I checked).

The Lightstar 2.0 was superior to the Lightstar Reference at the bottom end as well. Bass drums and bass guitars reproduced through the 2.0 were tighter and better controlled, with cleaner fundamentals. It's not the best bass I've heard from an amplifier—the Bryson 7B-ST holds that honor—but it's close. Dynamics were already among the Reference's strengths; with the 2.0, this aspect of performance has been enhanced further, both the Dunlavy SC-IV speakers and the Hales Revelation Threes sounding less compressed at the top of the volume range. The Lightstar 2.0 also did a fine job of communicating dynamic shadings—like the way the guitar swells in volume, then back off during the intro to Simon and Garfunkel's "The Only Living Boy in New York" (in the superbly rendered boxed set Old Friends, Columbia/Legacy C3K 64780).

Conclusion: Some automobile manufacturers try to meet their competition by introducing new models with lower sticker prices than the previous year's models. The trick they often use is known as de-contenting: making previously standard features options, and using cheaper materials in manufacturing. The resulting car, while less expensive, is inferior to the previous year's model.

Any fears that Carver might have followed a similar route in the revision of the Lightstar Reference are groundless: In every sonic parameter that I examined, the Lightstar 2.0 was superior to its predecessor. An extremely powerful amplifier, it handles difficult loads with aplomb, and the sound has a delicacy that's rare among high-powered amplifiers. Innovative in design, and bucking the modern trend of ever-increasing prices, the Lightstar 2.0 is an old-fashioned bargain.

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The Supreme has appeared twice as an Amplification Component of the Year Runner-Up: 1994 and 1996. It is currently rated Class B on the Recommended Components List. Stereophile Reviewers Speak about HeadRoom Home Headphone Stuff: About the HeadRoom Audio Image Processor: "From disc to disc I always found the processed signal on improvement, even where the effect on the imaging was vanishingly slight. But the true worth of the HeadRoom circuit will be revealed with extended listening. I don't want to underestimate its importance by stressing the subtle nature of the change. It's a cumulative benefit, reducing listening fatigue by a substantial margin. In fact, I suspect that subtlety is one of the most reliable indicators of the correctness of the processing...I could listen for hours after hour, with noticeably less effort." Wes Phillips, Vol. 18 No. 1, Jan. 1995. About the Sennheiser 880: "Ultra-smooth, ultra-detailed open-back dynamic headphones with full, extended low frequencies... JP's dynamic headphone reference." Recommended Components List, Class 'B': Vol. 19 No. 10, Oct 1996. About the Max: "Articulate—that's the one word that best describes Max. Oh, there are others: fast, rich, complex—and paradoxically simple as well... Ultimately, however, I must keep returning to that least definable of qualities, but the one that most inhabits my love for Max: the coherent articulation of the essence of music... The headphone listener today does not look for choices when it comes to headphone amps... I'd have to say the HeadRoom Max is the one to beat... I want one!" Wes Phillips, Vol. 20 No. 2, Feb. 1997.

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For those who always said that swing would never die, no matter how distant a memory big bands had become, get your gloatin’ shoes on, ‘cause your hour of “I told you so” has arrived. Swing is back.

How swing was resurrected is something of a mystery. One prevalent theory in the unsettled world of today’s music business is that the market has now fractured into a lot of mini-epicenters. Instead of a few big hits, there will now be a greater number of smaller hits from smaller (i.e., less expensive to make) records. Along with this is the notion that many of these creative nexuses will have nothing to do with the traditional Anglo-American creative axis. In other words, hits are going to come from other countries and other styles of music than just the blues/rock/pop heritage of Britain and the States. Selena and, now, Andrea Bocelli are prime examples in support of this theory.

To split hairs even further, this “many worlds within one universe” approach will also take hold in Anglo-American music. In some ways, it already has. One of the more unexpected tangents to emerge is the return of a version of swing music inflected by jump blues and, in some cases, guitar rock (if you can imagine that). Although it’s been bubbling under the surface of the mainstream music industry for years, neo-swing has recently made the transition to major labels, thanks to two groups: the Cherry Poppin’ Daddies, who signed with Universal (formerly MCA) and whose first disc is called Zoot Suit Riot, and Big Bad Voodoo Daddy, a swing act out of LA that for the past several years has been building a fan base via a steady gig at Hollywood’s Brown Derby. One Derby scenester, actor Jon Favreau, asked Voodoo Daddy if they’d consider appearing in Swingin’, a film he was working on. Although they didn’t completely steal the show, the band’s live performance was one of the highlights of this amusing cultish film.

Swingers is also what brought the group to the attention of the majors. The band’s self-titled Coolsville/EMI debut was released in March, and so far, according to leader Scotty Morris, it’s selling—several cuts have even made it onto radio in more than a few markets. Even more significant, as of this writing, Zoot Suit Riot had risen to #41 in Billboard’s benchmark Top 200 album chart, and Big Bad Voodoo Daddy was holding down #82. Not bad for a genre whose death knell was sounded at least 40 years ago.

One of the weirder aspects of this sudden interest in swing is that this new generation of players come not from a jazz or even a blues background, but, in the case of BBVD leader Morris, the church of SoCal punk band Black Flag. “I was a member of the Oxnard punk scene,” Morris says from a road stop “somewhere in Missouri.” “I played guitar in bands like False Confession, Ill Repute, Dr. No.”

Morris can’t really explain how he moved from sweaty, mosh-happy punk clubs and Henry Rollins’ bellowing to “Minnie the Moocher” and the clothes-conscious, uptown swing scene—except to say that he fell in love with the showmanship of Cab Calloway and the energy of Louis Armstrong. “When Louis was at a party, you know shit was getting broken.”

Morris started his fledgling big band in 1989, and it grew from three to five pieces in the first couple of years. Dance steps, a spinning upright bass, see-saw horns, and other visual elements were always part of the mix. In those days, Morris knew his chosen path was definitely uncool. Still, he persevered, and, in an echo of bandleaders past, searched for the “sound.”

“That’s the stubborn punk-rock side of me. I knew I was going to be trashed by critics, but I kept thinking that if I could turn a whole new generation onto Cab Calloway, then it was worth it. In many ways, this whole experience has been a tip of the hat to the great swing-band leaders.”

In 1996 Morris added three more players, bringing the band to its current total of eight: guitar, drums, upright bass, piano, trumpet, alto/tenor/bari sax, baritone sax, and trombone. The sound is now very reminiscent of Louis Jordan’s Tympany Five ensemble. Except for a cover of “Minnie the Moocher” and “The Boogie Bumper,” a tune written collectively by the band, Morris wrote the new album’s 10 remaining tracks.

The charismatic singer’s explanation for the music’s sudden resurgence sounds like the kind of thing Glenn Miller might have said before his plane went down over the Channel: “With this music you can sit in the crowd, have a drink with your date, and watch, because it is a show. Or you can get out on the dance floor and have a ball. There’s an element of entertainment and an element of participation, and this music is a great marriage of both.”

Morris is aware that, at the moment, he and the raft of other neo-swing bands—Mighty Blue Kings, Indigo Swing, Royal Crown Revue—are considered something of a novelty. Does this particular mini-epicenter have legs, or will it fade as fast as it’s risen?

“It’s up to the bands. Right now, we’re getting lots of press. And so far there’s a lot of class in the acts that are out there. If the quality of the music stays up, I can’t imagine this going away. I give people, our audience, more credit than that.”

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The Grateful Dead: Dick's Picks

The Grateful Dead never played by the rules of the mainstream music business, in fact, from its earliest inception, the band treated the industry as its enemy. The Dead bypassed traditional avenues of distribution and promotion of its music, identifying its audience and dealing with it directly.

Yet despite their aversion to corporate rock, it's a mistake to see this band as some idealized haven of 1960s-style anti-commercialism. The great irony of this band is that The Grateful Dead are now an ongoing, multi-million-dollar economic juggernaut that, if anything, has picked up merchandising momentum since disbanding in 1995. Jerry Garcia ties, of all things, are a common sight on Wall Street as the millennium approaches. Garcia also rivals Jimi Hendrix for posthumous album releases. Before long, Garcia will be represented on more records put out after his death than he made during his life.

On the other hand, the band and its fans were sneered at by fashion-conscious tastemakers as far back as the mid-1970s, when platform shoes and disco accessories were suddenly musts, and the phrase “Nice shirt” was on its way to becoming a Madison Avenue archetype, currently appropriated in the Dockers “Nice pants” campaign. Rock critics have always felt comfortable dismissing the Dead as a dimwitted reflection of the dysfunctional acid casualties who congregate in the parking lots outside their shows.

Far from being spaced-out noodlers, however, this is one of the few bands in rock history whose innovations were built on improvisation. The variations from show to show, and even from set to set, brought on plenty of self-indulgent moments that fed the naysayers’ arguments, but also produced music of incandescent brilliance.

The Dead are not an easy read. The group never paid much attention to surfaces and styles, choosing instead to focus exclusively on the content of the music—which ranged from jug band and pre-rock blues roots to avant-garde sonic experiments and the celebratory R&B-inspired jams that inflated its fan base. And the constant recombinant evolution of songwriting and performance in the long, strange trip that ended with lead guitarist Jerry Garcia's death in 1995 has now assumed an afterlife as the surviving members of the band hit the road under the name of The Other Ones.

The Grateful Dead never accurately captured its abilities in the studio; the band produced several fine studio recordings, but none of them approaches the epochal live concert recording Live/Dead (Warner Bros. 1830-2), which approximated the transformational experience that occurred at their best live performances. Subsequent live releases had their moments, but none measured up to Live/Dead’s symphonic progression of “Dark Star”/“St. Stephen”/“The Eleven”/“Turn On Your Love Light.”

As opposed to the standard rock show, which is repeated identically night after night right down to the light cues, the Grateful Dead forced risk into the mix, a strategy that created unpredictable flash points mixed in with the duds. As a result, Grateful Dead music has always existed in its best form on the homemade tapes recorded by audience members.

In 1991 the band released One from the Vault (GDCD 40132), the first in what was then loosely described as “the vault tapes.” The group was still on the road, and the idea was to give tape-trading fans a high-quality recording. (The ticket hot-line number is even listed on the sleeve.) The vault tapes series was taken over by archivist Dick Latvala in a series of "official bootlegs" under the comprehensive title of Dick's Picks. The series has survived the band and is still going strong with 10 releases, and a spate of related live projects, including Hundred Year Hall (Arista/GDCD 140202), Dozin' at the Knick (Arista/GDCD 4025), and Fullout from the Phil Zone (Arista/GDCD 4052).

The difference between the vault tapes and Dick's Picks is the quality of the original tape recording. The vault tapes are multitracked professional recordings, as are Hundred Year Hall and Dozin'. Dick's Picks come from board tapes often keyed to the sound balance of the room rather than to playback, and range from real tape to cassettes. Some of the earlier
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Stereophile, July 1998
recordings in the series have been taken from two-track masters. Various measures have been taken to upgrade the sound quality. Some of the analog tapes from the 1970s suffered deterioration that caused the magnetic oxide to separate from the mylar backing. Those tapes were “baked” to reinstate the bond, leading the producers to state that “occasional weirdness” occurs on them. Volumes One, Two, Three, and Five of Dick’s Picks are particularly affected. Volume Eight features an acoustic set recorded in stereo, and electric sets in mono.

In a not-too-surprising development, the various Dick’s Picks sets have not been released in chronological order. Volume Eight, for example, was recorded in 1970, while Volume Three comes from a 1977 show. The other live sets discussed here are similarly scattered across time. In an effort to make sense of this jumble, I’ll deal with everything here chronologically.

The earliest live Dead to be discussed here is on Fallout from the Phil Zone, a collection of outstanding individual performances hand-selected by bassist Phil Lesh from the band’s vaults. As you might expect, Fallout is the most interesting of the reissues, since the tracks were assembled by a band member for their intrinsic musical value. The version of “Dancing in the Streets” from an April 12, 1970 San Francisco show that opens this set captures the band at its improvisational best on a jazz-influenced modal jam — or, as Lesh describes it, “a vehicle for stretching’ out and jammin’ hard-Coltrane-style on two chords.”

From there we go to a stark, eerie, early version of “New Speedway Boogie” from 1970, shortly after the horrific day at Altamont Speedway that inspired it: “got no signs or dividing lines / and very few rules to guide.”

Lesh’s descriptions of this early work offer some particularly enlightening insights into the band’s music. The nearly 20-minute-long rough-and-tumble of “Viola Lee Blues” is identified as an “accelerando, influenced by the North Indian music that we were listening to a lot at the time.” Lesh is particularly brilliant on this track.

Pigpen is in excellent form on “Easy Wind,” from a May 15, 1970 New York show, delivering the self-prophecy “if you live five years you’re gonna bust your back.” This track also features a wicked Garcia solo. The rare, never-before-commercially-released “Moon’s Children,” from a show on January 2, 1970, and an ecstatic “Hard to Handle” from an August 6, 1971 Hollywood audience tape complete disc 1.

Aside from a 31-minute version of “In the Midnight Hour” from 1967, disc 2 concentrates on more recent material, beginning with an inspired version of “The Music Never Stopped” from July 17, 1989, a challenging and rewarding piece delivered in all its glory here. And Garcia’s folk side, also beautifully represented in Shady Grove, the outstanding posthumous release with David Grisman (Acoustic Disc ACD 21), is heard to good effect on a version of “Jack-A-Roe” from an August 17, 1977 show in Tuscaloosa, Alabama.

After the most recent track — a 1995 version of Bob Dylan’s “Visions of Johanna” featuring a Garcia solo taped shortly before his death and described by Lesh as “utterly poigniant” — the set ends with Lesh’s own “Box of Rain.” For an overview of the band’s musical character, Fallout is probably the most essential of all these albums.

Two from the Vault (GDCD 40162) covers more early Dead, from 1968, starting with a strutting, focused “Good Morning Little Schoolgirl” and a remarkably precise, pointillist “Dark Star” elevated by Pigpen’s organ colorations into a stately “St. Stephen,” Garcia’s final solo kicking it into a sublime “Eleven” with wicked interlacing of Garcia and Pigpen, Garcia then wrenching it down into the slow blues of “Death Don’t Have No Mercy in This Land.”

The second CD opens with a rollicking “That’s It for the Other One” that offers cascades of guitaristic magnificence, accompanied superbly into “New Potato Caboose,” which rides an incredible Lesh solo like some Bach fugue transmuted through Motown before the handoff to Garcia, who develops the exposition into a trance music state, lines whirling dervishlike to the conclusion. The quality of these recordings is extraordinary.

Two from the Vault is ultimately a tribute to the days of Pigpen (aka Ron McKernan) fronting the Dead. He was gone so quickly from the mix in the long view that it may be hard for some to understand that many Dead fans from the late ’60s and the very early ’70s never felt the same about the group after his death.

When Pigpen was an active member of the band, the Grateful Dead was at its peak of anarchic prescience. He was a true loose cannon, the only singer in the band’s history whose next move was impossible to predict. He had a lumbering economy of motion, but when he threw his punch, the whole building fell it. Though the band always enjoyed a kind of telepathic communication with the audience, Pigpen engaged the crowd viscerally. Listen to the way he single solos individuals in the audience during “Too Hard to Handle” from Fallout.

Fortunately, a wealth of Pigpen-era madness is available. Fillmore East 2/11/69 (GDCD 4054) includes material from the historic shows in which the Dead opened for Janis Joplin and Big Brother and the Holding Company. Pigpen opens “Good Morning Little Schoolgirl” with a fine harmonica intro and first solo, indicating the major role he had in what was clearly still more of a blues band than anything else. Garcia plays tag with the melodic line, wrests it away, then lays out for ‘Pen to continue...
his harp solo.

Piper's gruff, barking vocal style bit and chewed the lines he sang without regard to melodic niceties, an approach that works well on such raw-edged blues as "Schoolgirl," the boasting "King Bee," and the set-closing cover of Bobby Bland's "Turn On Your Love Light," which became Pippen's calling card. On material that called for a sweeter touch, like the cover of Otis Redding's cover of the Beatles' "Hey Jude," presented this night as the first-set encore, the clams littered the landscape.

"Join' That Rag" from the first set, and the set-opening "Dupree's Diamond Blues" from round two, demonstrate the Dead's heritage as a jug band. Garcia's understated ballad "Mountains of the Moon" sets a contemplative tone far different from the raucous hoo-ha of the first set. The exquisite architecture of Garcia's introduction to "Dark Star" sets the ship in motion again on the flashing voyage that leads inexorably into "St. Stephen," "The Eleven," "Drums," "Caution (Do Not Stop on Tracks)," and "Feedback" before finishing with the a cappella spiritual "We Did You Goodnight." The band showed two different faces in these two sets. It was the second face that would become its trademark.

As venues go, the Fillmore East was uniquely suited to the Dead's strengths, with a policy that encouraged late shows to finish at dawn and a mixing board specifically designed for rock performances. Dick's Picks Volume Four (GIDC 4023) documents another historic Fillmore East stand, Friday the 13th into Valentine's Day, 1970. By now, the group's often ragged, anarchic approach had been focused to a burnished professionalism, especially on vocal harmonies. This new attitude would carry over into the recording made just after this concert, Workingman's Dead.

These shows were additionally enhanced by the presence of the Allman Brothers as the warm-up group. The Allmans' white-hot playing from this stand is documented on the Dick's Picks-related release, Allman Brothers Band, Fillmore East, 2/70 (GIDC 4063).

After FM DJ Zacherle's ghoulish introduction comes a tight rendition of "Casey Jones," followed by old favorite "Dancing in the Streets" and a percolating medley of "China Cat Sunflower" and "I Know You Rider." The band then kicks back for the introspective "High Time," shifts up a gear into "Dire Wolf," then sails skyward in the dizzying buildup from "Dark Star" into "The Other One," "Drums," and "Love Light," with Weir flashing the chords that would later underpin "Franklin's Tower" toward the end.

A lot was happening in 1970, and though Dick's Picks Volume Eight (GIDC 4028) comes less than three months later, it could have been a lifetime. The student mobilization against the Viet Nam war had shut down campuses all

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**How Dick Picks: A Conversation with Dick Latvala**

Dick Latvala is the curator of the Grateful Dead tape archives. Latvala predicts that his "Dick's Picks" mail-order-only series has enough quality product to sustain at least five releases a year for the next 25 years.

**John Swenson:** The obvious question is, how did you get involved in all this?

**Dick Latvala:** From the beginning, I was a witness of it: the Trips Festival at Longshoreman's Hall in San Francisco was my first experience. I never met anybody inside the scene until 1979, and I wasn't hired until 1985.

I was a collector. I had a couple of shows I taped off the radio and I met a couple of people who talked about having tapes of other shows, and I thought "Man, live tapes, wow!" It became my life — just searching out those who made the best recordings.

It was right in the '74 period that the technology started supporting live recording. That's when Sony came out with that portable 152 model that was the first decent portable cassette deck, and that's when tapes started sounding much better. That's about when I got into it.

I first met someone in '79, after a show in Red Rocks, and went on to meet more people, and by '85 people knew how to get in touch with me. One night I just happened to be sitting next to Phil Lesh, and I had some good tapes and said, "Phil, this is primal Dead."

"Primal Dead," he replied. "What the hell is primal Dead?"

So I said, "Just sit down and listen." He ended up listening for at least two hours to these cassettes. During this couple of hours I kept saying, "I hope somebody is taking care of your tapes." I never thought I would be in this position, but the next day I got the job. I ended up being a gofer during the Built to Last and In the Dark sessions. Bear [Owensley Stanley] started all the recording. He helped finance the equipment at the very beginning. I give him all the power for the practice of recording all of this stuff, even the Acid Test, which nobody had any thought of being worthy of recording. The band pretty much thought that way about their live shows. They didn't put value on it, like us out there consuming the music do.

**Swenson:** What distinguishes Dick's Picks from other live Grateful Dead recordings?

**Latvala:** Dick's Picks are limited to two-track final-mix recordings, whether done on DAT or 7" or 10" reels.

The multitrack stuff, that's what Phil and John Cutler do — mix down a multitrack recording. All the Europe '72 recordings are multitracked. We've released one of them (Hundred Year Hall), and there could be at least four or five more. They don't have a lot of multitracks in the vault, so eventually they're going to get it down to those periods when they were deliberately recording shows with a live record in mind.

On Europe '72 there was some incredible music played, but they weren't looking for the jamming through the whole show, they were looking for certain new songs, and that's what's on the record. A-B Europe '72 and Hundred Year Hall for the sound quality. It's like one has a thick velvet curtain over it and the other is in-your-face electric. They came away from that tour thinking the recordings were poor, so they overdubbed live vocals and stuff. It's unfathomable to me how they make their decisions about what's good and what's not. It doesn't correspond to my standards, and it certainly doesn't correspond to those of other Deadheads, which explains the success of Dick's Picks.

**Swenson:** How did the whole archive project get under way?
over the country, and this show took place during a moment when everyone was partying as if it were their last day on earth. The energy of the crowd is a decided factor in this show, from the acoustic first set featuring members of the New Riders of the Purple Sage, to Garcia's slight-of-hand on "Dancing in the Streets." Dick's Picks Volume Two (GDCD 4019) is a stunning piece of music recorded on Halloween of 1971 in Columbus, Ohio. The event marks a key transition point for the band, a time when Pigpen was forced by illness to take time off from the stage. For pianist Keith Godchaux, Pigpen's replacement, it was only the 10th show. The band is also using only Bill Kreutzman on drums, owing to Mickey Hart's hiatus of several years during the early 1970s. With only one drummer, the polyrhythmic intricacies of the arrangements are reduced, but the pulse is more vertical than horizontal, making the sound punchier in some sections.

What we experience here is more than 50 minutes of uninterrupted music, beginning with a "Dark Star" so deep and meditative it achieves a spooky resonance. The bell-like tone of Garcia's guitar tolls ominously, but once he sings the solemn verse it's off into a game of cosmic tag, with an absolutely possessed Lesh urging Garcia on in what was obviously an "A" night. His solo predicts both "Eyes of the World" and the as-yet-unwritten disco hit "The Hustle." A space jam breaks into a joyous "Sugar Magnolia" that leaves the crowd screaming its approval as Garcia sneaks into the melodic theme signaling the beginning of "St. Stephen," also developed at a deliberate march and building inexorably through the solo passage between verses. Kreutzman's drums kick in immediately after the secondary verse and the band rages off into "Not Fade Away," building through an exultant Garcia solo into "Goin' Down the Road Feeling Bad" before returning to the "NFA" theme.

Hundred Year Hall (GDCD 40202) is a useful companion to the live Europe '72 (Warner Bros. 2668-2), offering the ebullience and flow of a full show's music from the historic European tour that had previously been viewed only in the snapshot format of the "ice-cream cone" album. This is the last we see of Pigpen in this series, and Keith's wife Donna Jean Godchaux has joined the band. The music is powerful, but it's clear why it wasn't released before when you hear the vocal gaffes on "Truckin'." This is nevertheless an album that fans of the Dead's live magic will want to have.

The Dead are back in the States as of Dick's Picks Volume One (GDCD 40182), two discs that document an exciting Tampa, Florida show on December 19, 1973. The set opens with a beautiful version of "Here Comes Sunshine," hits highlights with "Big River," "Weather

Latvala: It was a long process. The first effort of releasing live stuff from the vault came with Dan Healy's project. He did the first volume, from the Great American Music Hall show. Everyone had great tapes of that. It was considered one of the best recordings they ever did.

Then Healy went to the '68 stuff for Vol.2. By Vol.3 he put up an idea to release a show from Portchester, 1971. It was the first show they didn't have Mickey Hart. He played up until 2/18/71, then didn't play again until 10/20/74.

Philixed it, and Healy never got back into it. All through this he would not listen to the two-track stuff—he thought the quality was bad—but it was being bootlegged all over the place. I didn't have the courage to go to one of the board meetings and say, "You guys are fucking up." Then, in 1993, they decided to go with Dick's Picks.

The tapes were not valued very much throughout all these 30 years. Many have been lost. I know for a fact Garcia and Weir pretty much wouldn't have minded if the vault blew up a couple of years ago. After Garcia died, I don't think anybody's having a problem about making money on these releases, but there wasn't a general consensus back then that any of the material was worth releasing.

I asked Garcia once about it. He said, "I would never have anything to do with it because any time I hear that stuff, all I hear is what I was trying to do."

Breakthroughs occur every time we do a Dick's Picks. Sometimes it's a whole show, sometimes its the best of a run—one CD, two CDs, three CDs. We haven't broken into four CDs, but that will be very shortly. Using a cassette as a master source, that was a breakthrough. That's all we had of that show. The digital tape was not there. That was Hartford, 10/14/83.

Swenson: What technology was used in recording over the years?

Latvala: Historically, the live stuff starts with 7" reels. The first ones of those in any consistent fashion come at the beginning of 1969. In '68 there's hardly anything; even worse for '67 and '66. Tapers have more from '66 and '67 than the Dead's vault base. Digital started in '83. DAT started in late '87, when the technology broke.

Swenson: The 1980s have pretty much been overlooked in the series. Is that because the performances aren't as good?

Latvala: My prejudices are toward the early years—'72 and '73 for me are the two most prolific years—that's when so much change took place. When you think of what Garcia was also doing at the time with Merle Saunders, '73 has to be the year.

Really, my year was '68, '69. That's why I got into collecting tapes—I wanted to find out if those shows were as good as I remembered them. 2/27/69 to 3/2/69...I heard the tapes and they were just electrifying, screaming, you don't have to take acid to go to that place. In those days they were out there; as they grew older, I think they grew into something more manageable. That doesn't mean I'm not going to release '80s shows. I'm always listening to '80s shows on my own, trying to find out what would be possible.

In our vault, a lot of tapes are missing, and a lot of them are from '80 to '82, just before digital. From '83 on there's likely to be something, but in some cases the tape has no band feed, just audience. On the spring '87 tour, a very powerful tour, it's all missing because Dan Healy never returned 'em. Some literally fell off the back of the equipment truck. With any luck, some fan has those tapes. I know those tapes will surface someday. Like, the whole second half of 1970 is missing...
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Dick's Picks Volume Seven (GDCD 4027) collects the best material from the Dead's three-show stand at London's Alexandra Palace in September, 1974. The three-CD set kicks off with a splendid version of "Scarlet Begonias" and winds it way through fierce extended jams on such warhorses as "Playing in the Band," "Truckin'," "Wharf Rat," "Not Fade Away," "Dark Star," and "Morning Dew."

One from the Vault (GDCD 40132) records live celebration of the completion of the Blues for Allah studio album in August 1975, and the beginning of Grateful Dead Records. Mickey Hart has rejoined the group, re-establishing in all its glory the rumbling majesty of the two-drummer sound. The band is exceptionally together on this set, and a well-rested Garcia is in top form. Listen to the way he works the elegant, languid lines of "Crazy Fingers" into the exciting lead-in to "Drums."

On Dick's Picks Volume Three (GDCD 4021), from Penbroke Pines, Florida on May 22, 1977, the Dead were trying out material that would appear on the Terrapin Station album. It's obvious from Garcia's playful opening take on the Italian folk song "Funiculi Funicula" that the band was in aggressive form this night. Garcia is all over this set, driving a spirited "The Music Never Stopped" with furious chorus after chorus. A more sedate rendition of "Sugar Ale" nevertheless features clusters of fat-toned notes in a Garcia solo that seems to coax Weir out of his pattern until the two dance to a wild conclusion. This is followed by a medley of "Lazy Lightning" into "Supplication," with another terrific Garcia solo supplying the bridge.

The next indication that this was a special night came on a tightly focused "Dancing in the Street," with a vocal arrangement enhanced by Donna Jean Godchaux and a spongy, phased solo from Garcia that anticipates some of the textures he achieved with his MIDI work more than a decade later. A brief splice in mid-flight, probably due to the fact that the direct-to-two-track machine ran out of tape, doesn't interfere with the logic of the solo.

Set two kicks off with a burning "Samson and Delilah" before striking a more contemplative mode with Donna's "Sunrise." Then it's off to the races as the band churns nonstop through "Estimated Prophet," "Eyes of the World," "Terrapin Station," and "Morning Dew." The Dead never sounded better.

Apparantly inspired by multiple viewings of Close Encounters of the Third Kind earlier that week, the band was on a telepathic high in Dick's Picks Volume Ten (GDCD 4030), recorded December 29 and 30, 1977 at Winterland. The first CD offers a prime example of the band's ability to work miracles on its subtler material, with strong performances of "Jack Straw," "Loser," "Tennessee Jed," and a "Sugar Ale" that shows Garcia revving up for the high-octane soloists just ahead.

Set two opens with an ecstatic combo of "Bertha" into one of the hottest ver-
sions of “Good Lovin’” ever cut by the Dead. “Playing in the Band” then frames a mini-suite that travels through “China Cat Sunflower,” “I Know You Rider,” “China Doll,” “Drums,” and “Not Fade Away.” The third CD includes another sequence, from 12/30, combining “Estimated Prophet” with “Eyes of the World,” “St. Stephen,” and “Sugar Magnolia.”

Dick’s Picks Volume Five (GDCD 4024) features a full show recorded December 26, 1979 at the Oakland Auditorium Arena, the Dead’s new home after Winterland closed. This set also showcases new keyboardist Brent Mydland. The holiday crowd was well primed for fun and the band took its time pushing things to the limit, opening the first set with a relaxed “Cold Rain and Snow,” the slow blues of Weir’s reading of “C.C. Rider,” and an easygoing version of Garcia’s “Dire Wolf.” Mydland, still the new guy in the band in his first year of service, is way up in the mix with his soulful keyboard work and tart backing vocals.

The band stays on simmer the rest of the way through set one, easing from “Brown-Eyed Woman” and the medley of “Alabama Getaway” and “Promised Land,” which reinforces a debt to Chuck Berry that Weir never fully repaid until touring with Berry’s keyboardist Johnny Johnson and Ratdog on the first Furthur tour.

What occurred during set two this night is the stuff of Grateful Dead legend, which is why the empirical proof offered by the Dick’s Picks series is so important to whatever place the Dead have in music history. It’s obvious from the first notes of “Uncle John’s Band” that this is going to be a set for the ages. Garcia’s opening solo peals with the spine-tingling awe of the Christchurch bells heralding their holiday greetings in Dublin. By the second solo the whole band is flying, with Garcia’s poetic lines providing a unifying element to the lace. Lesh slices through with a descending bass run that seems to mathematically reduce the jam into the stop-time reggae hesitation beat of “Estimated Prophet.” You can hear how excited this music is making Weir by the forcefulness of his vocal.

Garcia turns the impossibly beautiful chorus melody into an improvisation reminiscent of John Coltrane’s soprano sax solos. Garcia’s next solo leads into the jam section, then “He’s Gone,” “The Other One,” and a wild “Drums” sequence that spills onto disc 3, which is filled with another jam of “Not Fade Away,” “Brokedown Palace,” “Around and Around,” “Johnny B. Goode,” “Shakedown Street,” and “Uncle John’s Band.”

The eventful 1980s, which saw Garcia nearly expire only to return for the epochal in the Dark (Arista 8452) and the historic collaboration with Bob Dylan, are as yet uncovered by this series. The next stop is two shows right on top of each other from March 1990, Terrapin Station and Dozin’ at the Knick.

Not to be confused with the studio album of the same name, Terrapin Station (GDCD 4055) launched the fundraising project that the Grateful Dead organization hopes will help create a permanent Dead museum somewhere in California. It’s a complete document of a show from Capital Centre on March 15, 1990, right down to the pausing between songs. Beautifully packaged, this exquisitely recorded, numbered, limited-edition release is designed to be a collectable. But the second set of the evening is really what makes Terrapin Station a keeper. The band was swinging for the fences from the first pitch, a smoking “China Cat Sunflower.” Mydland did a fine job doubling and playing off Garcia’s lines, and the band soared into “I Know You Rider,” followed by Weir strutting his stuff on “Samson and Delilah.”

Then comes the main course—14 minutes of “Terrapin Station” followed by “Mock Turtle Jam,” “Drums,” “And,” and finally, “Space.” This section shows how far the band had come since its earliest days, achieving the same musical freedom through discipline, technical skill, and the harnessing of technology that they once arrived at through the energy of youthful anarchy. These sections are highlighted by Hart’s work on The Beams, a science-fiction–like percussion instrument, and Garcia’s alchemical use of synthesizers to make his guitar sound like saxophones, violins, and as-yet-unidentified instruments.

Mydland follows with the tragically beautiful lullaby, “I Will Take You Home,” but the biggest surprise comes next: an unbelievably great “Wharf Rat,” with Garcia totally in the zone, playing his finest solo of the night.

Dozin’ at the Knick (GDCD 4025) is more of the same, with “Terrapin Station” surrounded by a set list including “Hell in a Bucket,” “When I Paint My Masterpiece,” “Playing in the Band,” “Uncle John’s Band,” “The Wheel,” “All Along the Watchtower,” and “Goin’ Down the Road Feeling Bad.”

Dick’s Picks Volume Nine (GDCD 4029) is the final piece of the chronological puzzle: the band’s first performance after Mydland’s death, with Vince Welnick and Bruce Hornsby lending a hand. This is one of the more memorable Madison Square Garden shows (September 16, 1990). “Hell in a Bucket” is a great opener, and highlights include “Deal,” “Iko, Iko,” and the extended jam of “He’s Gone,” “No MSG Jam,” “Drums,” “Space,” “Standing on the Moon,” “Lunatic Preserve,” “I Need a Miracle,” and “Morning Dew.”

This ongoing series presents a musical vision that’s closely related to that of some of the keenest improvisers of the 20th century. It’s no accident that Ornette Coleman, David Murray, and a number of other jazz musicians continue to find collaborative depth in this material. Garcia stands with the giants of improvisational music, an assertion that is born out repeatedly on these discs. Most rock critics missed the boat on Garcia, but as long as Dick’s Picks are around, the music offers its own best defense.
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brilliant views, sound solutions
B orn in a moving taxi cab (at least that's his story), famed for his greasy, growing vaudevil- lian piano-player performances, and now an actor who can tattoo the fly-scarfing Renfield in Dracula with eerie memorability, the many facets of Tom Waits can be summed up in one rare appellation: genius.

Of course, I'd put William Faulk- ner in that same category, which doesn't do a damned thing for his readability. Waits is similarly difficult, and getting more so, a fact that explains why he's so adored by music aficionados and so unknown or forgotten among the general populace. Add to that the facts that he hasn't toured in a long time and is notoriously reclusive (the Beautiful Maladies' press release ends with "And no, he isn't doing interviews") and you have the pieces of a puzzle that add up to the preeminent cult artist in all of popular music — so much so that interest in him has grown, despite the fact that he's basically taken the last five years off from music.

This best-of album — his first release since 1993's Black Rider, the soundtrack to Waits's collaboration with director Robert Wilson and writer William Burroughs — was selected by Waits himself, and is his last album for Island. Unfortunately, everything here has been previously released. While it could have included more cuts from Rain Dogs and Swordfishtrombones, it's hard to argue with Waits of any kind. If you're willing to ride along with his aesthetic roller coaster, his artistic vision is so strong, so individualistic, that any Waits is consequential Waits.

For starters, there's his songwriting, which has grown increasingly austere as the years have passed. Basically a pop songwriter who took as his models Stephen Foster and George Gershwin (among others), Waits can also write gospel ("Jesus Will Be Here Soon") and wildman percus- sive rants (most of the rest of Bone Machine). While the majority opinion holds that Waits's finest songs can still be found on his early, Elektra albums ("Ol' 55," "The Heart of Saturday Night," "Jersey Girl," "Saving All My Love for You," to name just a few), a good argument can also be made for the more angular songs on his twin masterpieces for Island, Swordfishtrombones and Rain Dogs, represented here by four and five cuts, respectively. Tunes like "Downtown Train" (perhaps the last great "straight" Waits tune), "Jockey Full of Bourbon" — even "16 Shells from a Thirty-Ought Six" — are Waits at his bad-boy beatnik best. Lyrically, Waits's tongue-twisting street poetry has always been laced with pungent epigrams like the Erasmus quote "in the land of the blind a one-eyed man is king" (from "Singapore"), or such telling images as "shiny black ravens on chimney smoke lane" (from "November").

Then there's his wretched, wounded, all-hell-and-trouble voice, which here goes from a tough-guy narration mode on "Hang On St. Christopher" or "Franks Wild Years" to a Weimar cabaret barker in "The Black Rider" and a whispery falsetto on "Temptation" to a malignant croak on "Earth Died Screaming." Despite all that, Waits has also always been a magically sad if phlegmy balladeer, as he proves here in "Johnsburg, IL" and "Good Old World Waits."

Finally there's his skill as an arranger, which is another part of his talent that has grown more and more impenetrable. After the first two Island albums, Waits decided to forgo all efforts at accessibility, taking his music further out into reckless whom and complete and utter clanging. Asked to describe the music on Swordfishtrombones, Waits grinned that it was "junkyard orchestral deviation."

From then on, the accent has been on "junkyard" — the music has grown increasingly noisy, at times assaultively so. The arrangements have enhanced the mystery, featuring bare-bones instrumentation; banging or metal scraping against metal percussion; odd, hollow, tubular-bell bonking, and, in the case of "November" from Black Rider, a spooky, thereminlike saw. Listening to Bone Machine songs like "Earth Died Screaming" (or the absent "Murder in the Red Barn") can be an unsettling experience, the music so drenched in noisirr emotions and style, like the soundtrack to a black-and-white nightmare that's alternately set in the back of a seedy, conspiratorial Southeast Asian bar or the cavernous expanse of some grim, rust-belt rolling mill.

Some of what's here — particularly the two live cuts, "Strange Weather" and "Cold, Cold Ground" — is start- lingly well recorded, with the bass deep and solid and Waits's often howling vocals sounding natural and suitably jagged. Overall, the recording quality varies from great to merely good.

Two questions: When will someone (Rhino?) license all his material and come out with a comprehensive Waits boxed set? And when (and where) will the new album he's rumored to be working on finally appear?

— Robert Baird
Catherine Robbin, mezzo-soprano; Jean-Paul Fouchecourt, tenor; Gilles Cachemaille, bass-baritone; Monteverdi Choir & Orchestre Révolutionnaire et Romantique, John Eliot Gardiner

Performance *****
Sonnics ****

Hector Berlioz didn’t always get it right the first time. The seemingly seamless Symphonie Fantastique was tinkered with for years before publication, and Romeo et Juliette, his so-called “dramatic symphony after Shakespeare’s tragedy,” experienced a particularly radical metamorphosis between 1839 and 1846. Here, John Eliot Gardiner presents two versions at opposite ends of the creative process—the beginning and the end—with the help of Oliver Knussen, who orchestrated the second prologue, cut from the later version.

One could easily write a musicological dissertation on the differences and what they mean. Berlioz seems not to have focused and improved the older ideas—as one so often finds in Beethoven’s creative process—but fundamentally changed what sort of a musical animal Romeo et Juliette would be. Though there’s much music in common between the two versions, the earlier one is like scenes from an incomplete opera. There are more scenes that function simply to advance the story as straightforwardly as possible. The most obvious example is the first choral prologue, which is more plainly spoken in the first version, but in the second is full of thematic foreshadowings of what is to come, musically and dramatically. Thus, the second version is more of a symphonic hybrid, better knit together with thematic cross-references. That doesn’t necessarily mean it’s better. The first version has a greater narrative simplicity, which is also commendable.

The inclusion of such previously unheard material puts the recording in a class by itself, and the use of authentic instruments makes the set unique on another level. There’s much to discover in the orchestral textures, such as the penetrating brass suggesting the gravity of the lovers’ tragedy. On a purely serious level, the soloists are excellent. Tenor Fouchecourt sounds like the kind of ultra-light French tenor who died out in the decade or so following World War II. Robbin gives a touching intimacy to her songlike strophes describing the lovers’ rapture. And after hearing Wagnerians sing the role of Friar Lawrence, the lighter-voiced Cachemaille is a relief and a pleasure.

—David Patrick Stearns

LOU HARRISON

A Portrait

With: Symphony ("Last Symphony"), Elegy to the Memory of Colin Simmons, Solstice (excerpts), Concerto in Slendro, Double Music (collaboration with John Cage)

Al Jarreau, vocalist; Timothy Day, flute; William Banovets, oboe; Maria Bachmann, violin; California Symphony Orchestra, Barry Jekowsky


Performance *****
Sonnics *****/2

Assembled in celebration of his 80th birthday (he turned 81 on May 14), Lou Harrison: A Portrait captures a variety of the sonic landscapes produced by this venerable American original.

Born in Oregon and raised in northern California, Harrison was a student of Henry Cowell (who encouraged his trysts with microtonal music and ethnic styles from around the world) and Arnold Schoenberg, a friend of John Cage and Virgil Thomson, and a frequent collaborator with Merce Cunningham and other important choreographers and dancers. His work as a critic included stints with the New York Herald Tribune and New Music Quarterly. He also taught at Mills College, Reed College, Black Mountain College, and San Jose State.

Harrison is the father of the American gamelan movement, and it is from Asia and the eastern islands that his greatest musical inspiration comes. Yet, as this disc of orchestral works attests, he was no mere imitator. Rather, he was able to adapt certain traits and weld them to his own distinct interpretation of the American spirit. And while many of his generation found their voice in discord, atonality, and pulseless rhythmic schemes, melody and rhythm are primary attributes of Harrison’s mature style.

In the excerpts from Solstice, for example, one hears such eastern elements as the unison treatment of solo line and accompaniment, a flair for songlike melodies, and a preference for such metallic percussion as might occur in a gamelan orchestra. But along with those attributes comes a very American style of orchestration expressed in rich string beds and the Coplandesque, penetrating sound of trumpet solos. In Movement 8, one hears as well allusions to Stravinsky and other, cloudier, modern western harmonies.

The Concerto in Slendro also reflects eastern influences. The name refers to the tuning of the Indonesian gamelan. The orchestration heavily emphasizes percussive elements—tuned metallics, untuned drums and cymbals, and piano. Yet for all those gamelan-like coloristic elements, the treatment of the melodic line, both by the solo violin and the orchestra, seems closer to Japanese or Chinese modalts. Its opening movement is an angular, vibrant dance, played with incisive, accented spirit by violinist Maria Bachmann. Its slow middle movement features sparse percussive clacks and pings and sustained single-note piano tones under Bachmann’s lyrical, vibrato-soaked melody. It is timeless, lovely, and pan-Asian in character. Concerto in Slendro ends with another robust, playful dance in bold accents and gleaming colors.

The 1995 version of his Symphony 4, which Harrison calls his “Last Symphony,” is soft and wistful in its woodwinds and tuned percussion opening, unfolding to a more lushly romantic landscape akin to film music. Still, the Eastern elements persist, even if they’re more of a background flavor here than a dominant taste. Jazz vocalist Al Jarreau proves a surprisingly subtle interpreter of Symphony 4’s spoken and sung texts, which are a witty treatment of three Native American Coyote stories. His range, perfection of pitch, and elastic application of vocal color give the simple song lines texture and interest commensurate with the words.

One is impressed throughout this recording both with the unity and quality of the playing, and by the clarity and balance with which this complex sonic palette has been reproduced.

—Daniel Buckley
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MAHLER

Symphony 5

Riccardo Chailly, Royal Concertgebouw Orchestra
Performance ***
Sonics **

Daniele Gatti, Royal Philharmonic Orchestra
Performance ***
Sonics **

Here are two Mahler Fifths from the younger generation of today's conductors, entering a field crowded with definitive performances.

Riccardo Chailly has held his leadership post with the RCO for a decade, and has cultivated a successful career as a guest conductor and recording artist, yet he gets a chilly reception from many seasoned concertgoers, record collectors, and critics. The RCO embodies powerful links to Mahler that date back to the earliest decades of this century, and Chailly seems content to stay out of the way and let the RCO be itself. This performance may not explore any new ground or reveal hitherto unrealized insights, and it is by no means subtle. Nor does it display much of the finesse that Bernard Haitink brought to his Philips recording with this orchestra some 25 years ago. Yet it is an exhilarating performance of disarming honesty that would receive my heartiest endorsement were it not for the sound.

One would think, in this day and age, that a major record company would do its utmost to make an honest recording in such a hallowed acoustic site. Unfortunately, any natural warmth and nurturing resonance are subsumed in a wash of unflattering reflections that sound more as if they come from surfaces of concrete and Plexiglas, rather than the graciously shaped surfaces of burnished wood and masonry that make the Concertgebouw the pride of its resident musicians and the envy of visiting orchestras. This recording may sound impressive on appliance-store stereos, but it can only cause frustration and disappointment to those with quality systems.

Still in his mid-30s, Daniele Gatti is in the midst of a highly successful career; he has been music director of the Royal Philharmonic since 1996, has recently taken the same post with Teatro Communale di Bologna, and continues to be a highly-sought-after guest conductor. His problem with Mahler 5 is the opposite of Chailly's: Gatti has far too many ideas, more than a single performance or recording of this piece can possibly contain. He has at his disposal one of the great London orchestras, which will deliver to the highest possible standards whatever is demanded of them. One cannot help but be swept away by the sheer virtuosity of the playing, especially in the high-velocity passages, which Gatti takes at unprecedented tempos. It's obvious that he adores the work. Unfortunately, he loves it — and overinterprets it — to death. One can hear it in the very opening bars: the most rhythmically and musically complicated rendition of this stark and dramatic trumpet solo ever recorded. And to what end?

For a striking example of musical sensibility in this piece, try the Adagietto alone, as recorded live by Bernstein/NYP during the Burial Mass for Robert F. Kennedy at St. Patrick's Cathedral on June 8, 1968, and recently reissued by Sony with LB's NYP Mahler 2. Obviously, tragic circumstances of such magnitude rarely occur with studio recordings, or most performances. Nevertheless, listen to the hushed simplicity and deeply felt sentiment of the Bernstein performance as an example of genuine feeling, as opposed to pseudo-inspiration. All this said, Gatti is very good at getting the results he wants. Hopefully, as he continues to develop, he will acquire wisdom and taste.

Conifer is touting something they call EDR, for Extended Dynamic Range. Recorded in Henry Wood Hall, this Mahler 5 sounds as though it was recorded in a school band room. In addition to acoustic claustrophobia, the lack of bass will cause subwoofers everywhere to ask the musical question, "Why was I born, why I am I living?"

When it comes to Mahler's Fifth, there are many options. Among others, there are two each by Bernstein, Solti, Haitink, and Abbado, as well as recordings by Karajan, Kubahik, and Neumann — and the great-granddaddy of them all, the 1947 Walter/NYPO. Maestro Gatti, try it again in 10 years. RCO, get Edo de Waart. You engineers, get some ears.

— Richard Schneider

BIAGIO MARINI

Curioso & Moderne Inventioni

Romanesca: Andrew Manze, Caroline Balding, violin; Jan Schlapp, viola; David Watkin, cello; Nigel North, harpsichord, organ
Performance **** 1/2
Sonics ****

Think of Stockhausen, Boulez, Berio — you probably would never think of Biagio Marini in the same moment, but in 17th-century

One of the world's finest Baroque violinists, Andrew Manze, turns his considerable gifts toward the music of the obscure Biagio Marini.

Stereophile, July 1998
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Stereophile, July 1998
Conventional wisdom has it that the struggle lay mostly in the orchestration. Gardiner says that authentic instruments take care of that potential problem. His bigger breakthrough is in dealing with Schumann's melodic ideas, which often don't seem to have the muscle to carry a symphony. Gardiner partly solves that problem with tempo instants. But more important are the subtlest he finds that focus and intensify the sense of symphonic argument in these works. In an effective device Schumann no doubt learned from Schubert, a familiar chord or idea reappears with a single inner voice changed, bringing a given passage into a whole new expressive terrain.

If unheard, though, such passages can seem like mere sequential repetition. Thus, passages that previously seemed tedious in Symphony 2 now seem to be pursuing an idea to its conclusion. The first movement of the "Spring" symphony is remarkable: What often seemed like a lot of tedious musical business now emerges with bustling exuberance. Gardiner also achieves a Schumann sound that rings true at every turn. The revelations are most often in the brass and wind — heard to best advantage in the expansive "Rhenish" symphony — with sounds less brilliant than conventional instruments but more tangy and textured. Every given bar has a particularly greater range of colors. Particularly impressive are Gardiner's horns, which run like racehorses both in the "Rhenish" and the Konzertstück. The latter, after its arresting opening, proves to be an inconsequential piece.

Though Symphony 4 is often hailed for its cyclic form, Gardiner suggests that the composer's original thoughts on the piece — composed 10 years before the version that's most often used — are in many ways better. Gardiner gives the earlier version more of a Mendelssohnian treatment, with a smaller sound and fleet tempos, and by tempering the wide variety of dynamics we're used to hearing. The musical material seems so much more at home here, even if certain recomposed transitional passages are better in the later version. Even the fourth movement, in its shorter original form, seems preferable to the more rigorously worked-out revision. Though Gardiner's more romantic conception for this later version has steeper crags, it's more reined-in than what's usually heard from conventional conductors.

As much as Gardiner has nearly fused music to death in the past, he has left few exterior fingerprints on these Schumann works, preferring to use his considerable intelligence and resourcefulness to make them work as cogent symphonic entities as they never have before.

— David Patrick Stearns

**Rock**

**Go-Go and Gumbo, Satchmo'n'Soul**


Performance *** Sonics ****

Rarely will you find a band name and an album title that capture what's going on as well as these two do. Sousaphonist Pete Ostle's DC-based brass band can't quite decide if they're a bopp-jazz group set on updating tunes like Freddie Hubbard's "Little Sunflower," or a funky, Rebirth Brass Band-styled New Orleans street tribe. If you appreciate adventure (which I do), then this disc's stylistic reach is its greatest strength. And on this mostly-covers set they do nail several tunes, best of all the spicy, funky-as-hell "Alligator Boogaloo."

The downside of a disc of covers — not to mention a band that wants to reach — is that the temptation to bite off more than you can chew usually proves too great. In this case, attempting two uncoiverable funk classics back to back, The Meters' "Hey Pocky Way" and George Clinton's "Standing on the Verge," is trying too hard — a point made clear when the Clinton jam falls flat. And then there's the overlong "San Pedro," a percussion-only, Cuban-flavored cut that's weighed down by the wobbly amateur vocals of Nelson Rodriguez and Rob White.

Despite these missteps, Ostle's ensemble wins points for trying. Although there are moments when the hall resonates in strange ways and limits the dynamic range, the sound on this disc is spacious, with a solid low end.

— Robert Baird
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Stereophile, July 1998
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herance of "Can't Get Out of Bed," the Northern Beat ditty "Here Comes a Soul Saver," Tim Burgess — the Ur- Liam Gallagher with his hips, lips, and anorak — is a dreamy, creamy vocalist, and the band (keyboardist Rob Collins, his guitarist brother Mark, bassist Martin Blunt, and drummer Jon Brookes) snakily shifts from anthemic swinging to utterly hypnotic '60s trips that practically demand a light show (notably the instrumental "Sproston Green," represented here in a vocal version). It's always been '60s greats — the Stones, the Doors, and the Small Faces, for starters — that the Charlatons evoke on first blush.

But the band operates on a whole other level beyond great pop tunes and an impeccable sonic lineage. A rock band in the era of dance culture, they're internalized the energy and experiments of their time, be it the early, bouncy rhythms of Manchester or the block-rockin' beats of electronics. The Charlatans first worked with the Chemical Brothers in 1994 (the "Patrol" remix appears here); among the band's other collaborators are Richard March of Bentley Rhythm Ace, and Steve Hillage — who is, no foolin', a big ambient techno guy now.

By 1996's Tellin' Stories, the Charlatans had reached new aesthetic heights. Sadly, this peak came just when Rob Collins, the group's heart, died in a car accident. The band has soldiered on; the album was his legacy, and it's represented here by two tracks that are perfectly microcosmic when it comes to All That Is Charlatans. "One to Another" is a breathless collision of ominous piano pulses, industrial breakbeats (courtesy of the Chems), multicolored guitar lines, and ragged "Street Fighting Man" garage vibes. "North Country Boy" is a wistful half-ballad, the poppiest Beatles song Bob Dylan never wrote, yet it draws overt links to hip-hop (not that they haven't always been there) in the way Burgess spits out his oddly phrased, too-many-words-per-beat lyrics.

Cutting-edge but never trendy, the Charlatans are groovy, poppy, trippy, folksy, and techno-savvy — all the basic ingredients for a band of the '90s. At the bottom, they're all about the bottom. The eight-year output represented by "Melting Pot" is best described by the bally, bittersweet statement the band issued after Collins' death: "We are rock." Salute them.

— Jason Cohen

THE CHARLATANS UK

Melting Pot


Performance ****

Sonicss ****

Britain's band of the '90s? It ain't the Spice Girls. Even Oasis would likely yield to its Mancunian brothers the Charlatans (Charlatans UK in the States, if Dan Hicks is reading this). Melting Pot, your basic contract-breaking hits-plus-oddities collection, makes a strong case for a band that was initially considered one of "Madchester"'s lesser lights. "Just another Stone Roses knock-off," people thought. "The psychedelic organ thing was done better by the Inspiral Carpets," conventional wisdom declared. "Eh, their only good tune [the 1990 radio hit 'The Only One I Know'] was a Deep Purple ripoff," cynics scoffed.

Flash forward to present day. The Roses wilted, the most famous Carpet is their ex-roadie Noel Gallagher, and "Hush!" was recently covered straight up by Kula Shaker. The Charlies, meanwhile, have shaped a body of work — extraordinary enough in the ever-changing world of Britpop — that has been both classicist and progressive, the band honoring a hallmark set of influences while evolving and improving with time.

They're also a friggin' jukebox. In England the Charlatans have released 17 singles, launching three albums to the top of the charts. One can take that at face value and be amply rewarded with a cavalcade of movers, shakers, and sing-alongs: the monster bass/Hammond funkadelia of "Weirdo," the giddy exu-

Record Reviews

ERIC CLAPTON

Pilgrim


Performance ***

Sonsics ****

Eric Clapton has spent most of his career living down the reputation he received for what he does best, which is play the guitar. While his talent has never been in question, his sense of who he is as expressed in his music leaves plenty of loose ends. Let's face it: If it hadn't been for his astonishing guitar playing, Clapton would never have gotten a second look as a singer of sentimental ballads. Yet his greatest success has come when he's put down the guitar and agreed to play the role of traditional pop crooner. While Pilgrim might have made a superb Elton John album, it's a disappointment to anyone who has thrilled to Clapton's musical virtuosity on "Crossroads" or "After Midnight."

Naturally, Pilgrim — which, aside from two tracks, has virtually no guitar on it — is a big hit. This is a record calculated to battle Puff Daddy and the Titanic soundtrack for fins de millénaires airspace. The carefully crafted electronic programs are designed with the cold precision of a Swiss watch, and a spoken-word sequence is tacked onto the last song like some time-capsule watermark.

The blues? Oh yes, Clapton makes his donation with a cover of "Going Down Slow" delivered with all the conviction of a politician's denial. This is a song that contains one of the single greatest lines in blues history: "I've had my fun if I don't get well no more." In the hands of S. Louis Jimmy or Muddy Waters, the line sums up a lifetime of deeply felt experience, a sense of won-
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drous accomplishment, wise resignation, and, most of all, self-knowledge. Clapton sings it like a bored dowager engaging in cocktail-party banter.

Not that Clapton doesn't suffer. His much-ballyhooed angst suffuses "My Father's Eyes"; his well-documented search for meaning is all over the title track. And this year's victim love song, "You Were There," is sure to summon the crying towels from here to eternity.

To be sure, Clapton sounds positively dripping with agony as he painfully whispers his way through most of this album. The only people suffering more are those who have to wait until track 10 to hear the guitar licks they might well have had reason to expect on an album by Eric Clapton.

My CD changer tracked immediately from this record to Roy Rogers playing "Down Here in the Real Big Empty," the opening song on his new album, Pleasure and Pain. It came on like an ocean breeze after a smothering summer day, offering another illustration of how honest music beats the celebrity blues anytime, anywhere.

—John Swenson

**JOE ELY**

**Twistin' in the Wind**


Performance: ***1/2

Sonics: ***1/2

How does the song go? "To every season, turn, turn, turn..."

Hard as it is to believe, Joe Ely, the man who opened for the Clash in the late 70s, the self-proclaimed "Lord of the Highway," the man who put the question "Would You Settle for Love?" to a rockin' beat, has grown mellow. But hey, as Mick Jagger once said (I loosely paraphrase), "I don't want to be doing this [rocking, that is] when I'm 40" — or was it 50?

Either way, Joe Ely seems to have said adios to his old rockin' persona, the one that fed off a string of Austin's hottest young rock players (David Grissom, Ian Moore) and embraced the folky, spicy border-music mode, complete with flamenco imagery, that he first rolled out on 1995's Letter to Laredo. Fortunately, Twistin' in the Wind does occasionally pick up the pace; tunes like "Up on the Ridge" and "Behind the Bamboo Shade" (an old tune, first recorded in 1988 on Dig All Night) do achieve an edge and a whiff of the old urgency, though it takes a while. But in general, if you're looking for rockin' material, give it up — that Joe is gone or in the closet.

Speaking of closets, while he may not be rocking as hard, Ely hasn't lost his, shall we say, original sense of humor. On first listen, the tune "Nacho Mama" sounds like a throwaway that the Taco Bell chihuahua will soon be mouthing. But after several listens (and a peek at the printed lyrics) it's clear that this is a tune about cowboys in drag, to whom the disgusted cantina waitresses are saying "I'm Na'cho mama!" The addition of a boys' choir on the last chorus completes this slyly perverse ditty.

While he'll always be adept at silly songs like "Nacho Mama" or "Sister Soak the Beans" (in which a hungry Texas boy heads home for enchiladas), it's not humor that Joe Ely is spending most of his time on these days. Now, in place of turning up the guitars and tearing the roofs off honky-tonks, Ely is concentrating on two things: songwriting and, especially, singing. Having penned 10 of this disc's 12 cuts by himself (and the other two in collaboration with Kimmie Rhodes and Jo Carol Pierce), Ely further embroiders a familiar songwriting formula in "A Little Like Love" (a slower rewrite of the "Settle for Love" melody/thought line) and the title tune, in which he assumes his most cherished songwriting persona: the hardened loner bleeding regret from a self-inflicted shot to the heart. A tune like "Gulf Coast Blues" explores all new ground as Ely tries his pipes at being torchy.

Throughout, the songs are more carefully crafted than in the past. Details like the chain-gang chant that opens "You're Workin' for the Man," or the Lloyd Maines dobro behind "Sister Soak the Beans," obviously took a lot of thought. Best of all, Ely's vocals have never been better. Another thing that's changed about his records is the sound quality: in the old days, it was less than pristine. But Twistin' in the Wind, alive and crystalline with lots of bass response and a vast stage, is the best-sounding disc he's ever made.

Throughout most of Twistin', Ely band stalwarts like drummer Davis McClary, guitarist Jesse Taylor, and steel guitarist Lloyd Maines anchor a group of players that includes accordionist Joel Guzman and gangly flamenco guitarist doofus Teye. While this disc lacks a typical Ely showstopper like "Are You Listening Lucky?" or his imitable cover of Jimmie Dale Gilmore's "Dallas," I found that this rich collection got better with every listen. Although I'll buy into the folkie, La Frontera musical aura that Ely is obviously committed to constructing, I still have to wonder if we've seen the last of the man whose next-to-last tour was titled Love and Danger...and the Party Never Ends.

—Robert Baird

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WE’RE IN THE BELL ATLANTIC YELLOW PAGES
DON WALSER

Down at the Sky-Vue Drive-In

Performance ****
Sonics *****

There's a reason why country singer Don Walser is known as the "Pavarotti of the Plains," Walser's sonorous tenor is a wonder, especially when you consider that it's still in prime form despite the singer's age and health—he's in his mid-60s and tips the scales at well over 300 lbs. Walser is a larger-than-life figure in more ways than one.

He's also a terrific example of how dreams do come true in America. He started playing in bands when he was still in his teens, but mostly laid his music career aside until he retired from his day job as an accountant with the Texas National Guard. Having grown up listening to the Grand Ole Opry and watching singing-cowboy movies, Walser remains determined to keep the music of his youth alive. He's fond of saying that the music he plays is "Top 40—40 years ago." He covers songs by the likes of Jimmie Rodgers, Hank Williams, and the Sons of the Pioneers, mixing in his own original tunes, which stand up to the comparison. His music's most distinctive feature, though, is Walser's astonishing yodel—pretty much a lost art these days, but if anyone can bring it back into vogue, it's this ol' cowboy. Walser is a stickler for authenticity, and it is this attribute, perhaps, that has made him a hero in the alternative-music community of Austin, Texas, where he counts among his fans members of the Butthole Surfers.

On Down at the Sky-Vue Drive-In, Walser works his magic over the course of a dozen tunes, from such tears-in-your-beer standards as Hank Locklin's "Please Help Me I'm Falling" and Hank Snow's "Fool Such as I" to the quaintly politically incorrect (yet undeniably swinging) reading of Cindy Walker's "Cherokee Maiden." Walser revives the fervor of automobile enthusiasts of the '50s with his own "Hot Rod Mercury," and travels south of the border in "Rambon," a heartbreaking tale of a marvelous Mexican singer the world would never discover. On tunes like "Marie" and "In My Dear Old Southern Home," Walser's Pure Texas Band provides perfect Texas-swing accompaniment. The recording was produced with loving care by Asleep at the Wheel's Ray Benson; if you close your eyes, you can almost imagine that the Texas Playboys are back in the saddle again.

The album's standout track, though, is a jaw-dropping version of the old Slim Whitman tune "Rose Marie," which Walser performs with the Kronos Quartet. As the strings swoop and swerve in the background, Walser's vocal soars high above, breaking into a gorgeous falsetto that most men half Walser's age couldn't match.

Pavarotti of the Plains indeed. If this Texas troubadour takes learning Italian as his next challenge, Luciano, look to your laurels.

—Daniel Durchholz

When it comes to energy, there's enough juice here to light up all of central Tennessee. The band's calling card, a driving, at times almost frantic version of Dylan's "Absolutely Sweet Marie," is here ripped out with all the requisite fury. The problem, though, is the sound: it's muggy, undefined, and, well, really bad. Most audience tape bootlegs sound better than this. If this is a deliberate attempt to get lo-fi, then I apologize, but that doesn't change the fact that a little more fidelity would have sharpened this band's already legendary edges. Buy it for the electricity, hate it for the sound.

—RB

GASTR DEL SOL: Camoufleur

Drag City DC133CD (CD) 1998. Jim O'Rourke, David Grubbs, and Markus Popp, prods and engs. DDD. TT: 34:11
Performance ****
Sonics HHHHH

Gastr Del Sol, the constantly evolving collaboration of Chicago rock experimentalists Jim O'Rourke and David Grubbs, has always been a wild exploration full of excellent sonics, surprising acoustic/electric pairings, weird tonalities, tape manipulations galore. In one case, the result has even been a work for chamber orchestra. Here on this seven-song EP—reportedly O'Rourke's swan song—they would gothyp with an uncharacteristically melodic flourish. "Each Dream is an Example" has a floating, Beach Boys-like chorus line (that goes "Corps as Corpse as Corpse As..."), "Bauchredner" is pop and the instrumental "Black Horse" is almost...well, lovely. Along the way, a violin, cornet, trombone, steel drum, French horn, and clarinet all contribute. A sweet farewell.

JAZZ

CHARLIE HADEN & CHRIS ANDERSON

None but the Lonely Heart

Performance ****
Sonics ****

Some records are familiar the first time you hear them—they seem to insinuate themselves into the spaces in your soul, as though returning to a place that had been haunted by their absence. None but the Lonely Heart is one of those records. It is a dialog between two masterful musicians: Charlie Haden, perhaps the most respected acoustic bassist on the planet, and Chris Anderson, a pianist best...
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Stereophile, July 1998
known as a teacher, but whose grasp of harmony is profound.

Piano and bass would seem an unlikely combination, but neither of these musicians plays by everyday rules. Haden has never been a conventional bass-player—rather than play the changes, he tends to build harmonic underpinnings out of tunes and phrases suggested by the structure of each song. Anderson is one of the most contemplative pianists I have ever heard—each chord and phrase carries the weight of thought, and there is never a wasted note. Together, their music is full of surprises as they wander down familiar paths, discovering new vistas around every turn. This is truly a record of discovery.

Anderson is a delight. He hears things differently—even jazz staples that have received thousands of interpretations seem fresh when he plays them. As he and Haden negotiate "The Night We Called It a Day," the tune loses any sense of the cloying sentimentality that has accrued from the thousands of lounge interpretations we've heard; what's left is the clean, powerful harmonic framework that has made the song endure. Not that Haden and Anderson can't strut some serious jellyroll; Anderson's original "CC Blues" is worthy of any Kansas City piano professor, and when he chimes in after the solo bass opening, they get as down'n'greasy as any rib-joint house band.

The sound, as you'd expect from a label run by a high-end equipment manufacturer (Naim), is outstanding. Haden's bass sounds massive, with a deep earthiness that will tax the resolution of even Class A loudspeakers. The piano sound is no less incredible: the inner voicings of Anderson's chords are presented with clarity and detail. The recording was made in Cami Hall in New York, and the sense of real instruments in a large space is almost palpable. Some people may actually wish for a little less detail—you can hear Haden breathing, and the occasional fingerboard noise—but I just took these as badges of authenticity.

None but the Lonely Heart is one of those rare recordings in which profound music is presented in flawless sound. Find it. Buy it. Cherish it.

— Wes Phillips

BRAD MEHLDAU

Art of the Trio, Vol.2: Live at the Village Vanguard

Brad Mehldau, piano; Larry Grenadier, bass; Jorge Rossy, drums
TT: 73:02
Performance **** 1/2
Sonic ****

The jazz heart of the prodigiously talented Brad Mehldau, now 28, is one of a forward-looking experimenter who lets his musical mind wander where it will. This proclivity for free expression wasn't so evident on his first two Warner Bros. albums, including the first-rate Art of the Trio, Vol.1, but it certainly is now.

"It's All Right with Me" opens this decidedly challenging CD. It's a typical selection: with neither Grenadier nor Rossy stating any steady rhythm or meter, Mehldau dances over the harmonic framework, issuing intricate, rapid squirts of melody—some clattering, others abstract or technical. All this is done by pithy statements that provide space. The number doesn't swing in the usual sense of the word; nor does anything else on the recording.

Most of "Young And Foolish" isn't so abstruse, but a lengthy unaccompanied section borders on self-indulgence, as does a quasi-fugue section that comes toward the end of "Moon River." "Monk's Dream" has some juicy moments—particularly a busy-fingered essay at the end (Mehldau's pianistic command is astonishing)—as does "Countdown."

You'll keep hearing from Mehldau. He's one of those artists who, in striving for individuality, does things in a manner that's fresh and modern, if not always readily appealing. This kind of playing—some of it is certainly high art, some decidedly not—is very demanding, and Mehldau and his ilk deserve an extra effort from the listener so that their stuff can be understood and appreciated.

But sometimes enough is enough. Alas, an open-minded though mainstream-rooted listener like myself will toss in the towel and head for the equally high but less esoteric musings of Tommy Flanagan, Kenny Barron, or Charlie Parker. A more forward-leaning aficionado would gobble it up.

The CD offers a clarity of sound, instrumental precision, and that sizzling ambiance one expects from a live recording.

— Zan Stewart

MONK, MILES, DEX

The Live Legacy

THelonious Monk: Live at the It Club—Complete

Thelonious Monk, piano; Charlie Rouse, tenor sax; Larry Gales, bass; Ben Riley, drums
Teo Macero, prod. ADD? TT: 2:33:40
Performance *****
Sonic ****

Miles Davis: At Carnegie Hall: The Complete Concert

Miles Davis, trumpet; Hank Mobley, tenor sax; Wynton Kelly, piano; Paul Chambers, bass; Jimmy Cobb, drums; 21-piece orchestra dir. by Gil Evans
Teo Macero, prod. ADD? TT: 86:29
Performance ****
Sonic ****

DEXTER Gordon: Live at Carnegie Hall

Dexter Gordon, Johnny Griffin, tenor sax; George Cables, piano; Rufus Reid, bass; Eddie Gladden, drums
Michael Cuscuna, prod.; Tom Antson, eng. ADD? TT: 76:46
Performance ****
Sonic ****

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Sterophile, July 1998
forms, correctly sequenced, completed with previously unreleased material, elucidated with new, authoritative liner notes by Bob Blumenthal, and remastered with 20-bit Super Bit Mapping.

When Monk’s Live at The It Club was posthumously released in 1982, 18 years after it had been taped in a long-defunct Los Angeles jazz dive, it was widely regarded as a major find. Now, with the release of this “Live and Legendary” two-CD set, the compromises in the original LP become apparent. Every track had been severely edited, and three tunes had been omitted (“Teo,” “Bright Mississippi,” and “Just You, Just Me”). In the new edition, nine sets over three nights are intact and complete.

And what nights they were. Most discussions of Monk dwell on his idiosyncrasies—his quirky harmonic logic, asymmetrical accents, and astringent timbres. But the core of his genius was his command of tempo. When a Monk quartet is on—and they were on at The It Club—the lift and momentum are ecstatic. Monk's chords clang and hang in the air like cosmic questions, and Charlie Rouse (one of the most underrated tenors in history) catapults over the breaks in Monk’s lines as if he’s riding a pogo stick. There are 19 tracks, including many items from the basic Monk repertoire (a ferocious “Rhythm-a-ning”; a titling, headlong “Blue Monk”; a hard double-time “Round Midnight”). There are also three standards, utterly transformed when filtered through the Monk sensibility. “I'm Getting Sentimental Over You” has a piano solo for the permanent archives, otherworldly in its chiming, stabbling dissonance.

This set contains the best documentation available anywhere of Thelonious Monk under actual working conditions. The sound quality — thanks to the remixing and re-equalization by Mark Wilder of Sony Studios — returns us to the hubbub of a faraway place in time as the energy from the bandstand engulfs the boisterous, sweaty crowd.

Miles Davis’ concert at Carnegie Hall in May 1961 fully deserves the “legendary” designation. It was Davis’ first appearance on a New York concert stage, and his first public performance with the Gil Evans Orchestra. The sold-out event was a benefit for the African Research Foundation, and was disrupted by political protests from a group of African nationalists. It has been suggested that it was anger over the pickets that drove Davis to such heights of trumpet fire on this night. The seven numbers with his working quintet are incandescent in their inspired aggression, and the four pieces with the large ensemble are even more remarkable.

Arguably Davis’ single most important recorded work is Sketches of Spain, the monumental collaboration with Evans released in 1960. The centerpiece of that album, Joaquin Rodrigo’s Concierto de Aranjuez, had required many studio hours of recording and editing. It was a bold decision by Davis and Evans to attempt this challenging work in a live setting, and it is moving to hear the piece come together. The band breathes “like one big guitar” (as Miles once described Evans’ arrangement), and the trumpet improvisations come from the deepest resources of Davis’ humanity.

The discographical history of Miles Davis at Carnegie Hall has been problematic. The music was released in edited form, in “rechanneled stereo,” in two albums separated by 25 years. Now at last this historic occasion is available in one place, correctly sequenced, the dubbed applause gone. The digitally remastered monophonic sound is not perfect (the tape often can’t hold Miles’s trumpet crescendos), but it is good enough to cut through the years.

The Dexter Gordon album, from a 1978 Carnegie Hall appearance by Gordon’s working quartet of the time, suffers somewhat by its proximity to the above two masterpieces. Only two of the five performances here had ever seen the light of day. “Blues Up and Down” and “Cheesecake,” on which Johnny Griffin joins to make a two-tenor front line, were issued on a long-out-of-print album called Great Encounters. The three newly available tracks are a hard-charging “Secret Love,” “The End of a Love Affair” (with fountains of ideas and funny Gordonesque quotes flying by), and a lingering 17-minute recitation of “More Than You Know.”

The sonic quality is 17 years newer, and the rhythm section of George Cables, Rufus Reid, and Eddie Gladden is the tightest Gordon ever found. But after Miles Davis’ confrontation with eternity and Monk’s existential defiance, Dexter Gordon’s tenor sax sounds too intentional, merely brilliant.

Columbia/Legacy is a reissue program that fulfills the company’s obligation to history.

—Thomas Conrad

shorties

MARK TURNER: Mark Turner

Mark Turner, Joshua Redman, tenor sax; Edward Simon, piano; Christopher Thomas, bass; Brian Blade, drums


On this album, recorded originally for the Dutch Criss Cross label, to which he was signed at the time, Mark Turner sounds more mainstream and less overtly modernist than he does today. Here his Coltranesque Marsh/Rollins influences show him heading toward individuality, swinging hard and delivering burls of ear-pleasing notes — be it on Tristano’s “327 East 32nd Street,” Trane’s “26-2,” or the Vernon Duke evergreen, “Autumn in New York.” The two-tenor pairings with Redman are winners; Simon, Thomas, and Blade cook throughout.

—Zan Stewart
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Editor:

About 10 years ago, I was digging through my nearly complete collection of vintage *Stereophile* magazines and I came across a very early version of "Recommended Components." This was J. Gordon Holt-era *Stereophile*, I think it was 1969. In this little pocket-sized issue, Mr. Holt describes his top reference system: Thorens TD124 turntable, SME 3012 arm, Marantz 7c preamp and Model 9 power amplifiers, and, believe it or not, Altec A7 Voice of the Theater loudspeakers! Guess what? While I was reading, I was listening to music on almost the exact same system.

Sounds unbelievable? Well, here it is 30 years later and horns are again turning up in serious, reference-quality hi-fi rigs and being reviewed in *Stereophile*. The acoustic-suspension, sealed-box, small-speaker/big-amplifier era is beginning to look as if it has run its course, and we can cross the millennial threshold with the magic of small amps and horns inspiring a new, perhaps more romantic and listener-friendly audio technology.

Equally amazing is the fact that Altec still makes a version of the A7, the original Quad ESL is back, and Marantz is again manufacturing the 7c and Model 9 amplification. What does this all mean? Mr. Colloms’ review in the June 1998 issue of *Stereophile* begs the questions: Where did the horn and exotic tube technologies go, and why are they coming back?

The euphoria and promise of transistor engineering, and the tidal wave of marketing opportunity it rode, swept away the tiny tube amps and the big, efficient speakers. Initially, transistors promised a future of small, lightweight, cool-running, and very high-powered audio amplifiers. We were told that with these new small but potent amps we could drive much smaller, lighter-weight loudspeakers that could still make low bass tones. Transistor amps and acoustic-suspension speakers pledged (and almost delivered) a more user-friendly, more house-beautiful, more family-oriented music playback system. But — and here is the real comedy — the last time I looked, quality transistor amplifiers and loudspeakers that could make real low bass were anything but small, light, cool-running, or user-friendly. In a nutshell, this is where exotic tubes and horn loudspeakers went, and why they are back.

In the early 1970s, almost every householder and every college dorm room had a quality hi-fi. Nowadays, the majority of music lovers have a boombox or compact system. Today, only the dedicated "audiophile" has an above-average music playback system, and their numbers are shrinking fast. Why? I believe the number of quality home systems has shrunk because high-quality hi-fi has become unmanageable. This very same unmanageability has made it extremely difficult for even the most dedicated audiophile to assemble an extraordinary system.

The new era we are entering is about simple, elegant, engaging, and user-friendly music playback. The Avantgarde horns and the tiny amplifiers they require represent a new type of audio that is about intensity of sensation. This review of a radical plastic horn by no less than Martin Colloms signifies the less-is-more "new dawn" of audio. Try to imagine little triode amps driving graceful, highly efficient loudspeakers delivering highly saturated orchestral colors in a more "tactile" presentation, with "effortless dynamics" and a more "natural attack." No other loudspeaker technology can trace the musical waveform with lower distortion or a more "breathtaking dynamic range." At this moment in time, only an uncored, highly efficient horn loudspeaker can change the direction of high-end audio.

I might be a crazy romantic fool, but I believe that Mr. Colloms' review is just the kind of high-school, official recognition that a radical but thoroughly engineered breakthrough product needs to help change the course of history. I and my associates at Avantgarde, Holger Fromme and Matthijs Ruff, would like to thank Mr. Colloms and the editorial staff of *Stereophile* very heartily for the opportunity to present the DUO system in such a distinguished forum.

Herbert E. Reichter

Audio Note

Simon Yorke Designs Series 7

Editor:

I would first like to thank Michael Fremer for his thorough review/evaluation of the Simon Yorke Designs Series 7 Precision Analogue Disc Transcription System in June. I have often envied Michael for having at his disposal so much "reference" equipment for review. But on the other hand, after speaking with Michael several times regarding the Series 7 'table and the Vibraplane, this is work! An enormous amount of energy and affection was lavished on the review of this product. It was most gratifying that Michael decided to buy Simon's 'table and use it as his "new" reference.

Thank you also, Michael, for noticing the slight anisotripping flaw. All Yorkes shipped after February 1998 have been corrected; owners of earlier 7's may contact SOS for the two-minute retrofittable "fix." Sounds of Silence may now be contacted at (603) 888-5104 (voice) or (603) 888-2773 (fax). Or visit our web site at www.soundsofsilence.com.

I believe music is the love and soul of mankind, and that Simon is now the conductor to that end. Conduct on, Simon.

Finally, I'd like to quote Jackie Robin-son, who once said, "A life is not important except in the impact it has on other lives." Simon, you forever have changed many lives. Let the music play on.

Happy listening.

Steven Klein

President, Sounds of Silence

NAD 118

Editor:

Kal Rubinon's review enthusiastically addresses the many possibilities now available to the serious music listener through the use of digital signal processing. The NAD 118 is our admission that the purist's approach to recording and playback is an ideal that is seldom realized in the real world of commercial recordings.

Unlike many of the "sonic Band-Aids" of the past, such as analog equalizers and dynamic compressors, with the 118 NAD has used the best of today's technologies to create an extremely useful tool set that is easy to use and almost impossible to misuse. Even the most extreme settings yield a result that can still be described as musical.

Although Kal mentions that the DSP engine is always in the signal path, it is actually possible to bypass the Volume and Balance control algorithms to obtain unity gain. By also choosing not to re-dither the digital source, the signal will enter and leave the DSP unaltered. The instruction manual describes how this can be done. On the other hand, the noise shaping and redithering that is almost universally employed in CD mastering today, and is included in the 118, can actually improve the sound of many early compact discs that were mastered without the benefit of noise shaping.

Very little is said of the 118's integrated DAC. With the 118, NAD's goal was to
design a DEX that neither added to nor subtracted from the original signal source. The acid test for the NAD 118 (or any A/D/C/DAC) is to connect it to a very high-quality analog source. Use a high-quality passive preamp that is also connected to the same source on one input and the 118 on another with the passive preamp connected to the power amp and speakers. After carefully matching levels, it is then possible to compare the 118 directly to the original source. Such a test would have revealed the neutrality of the NAD 118. It doesn't change the character of the original signal; no mean feat for an all-digital product, in our opinion.

Greg Siden
NAD Electronics of America

Z-Systems rdp-1
Editor:

Profound thanks are due Dr. Kal Rubinson for his thorough and extremely complimentary review of our rdp-1 reference digital preamplifier. Kal clearly feels that audiophiles deserve tone controls and we couldn't agree more. That's why we developed the rdp-1 with our unique Transparent Tone Control™ algorithms. Kal and countless rdp-1 users have come to realize that the rdp-1 can reap extraordinary sonic dividends: users can make recordings sound exactly the way they want them to sound. The product can certainly be used to tailor in-room speaker response, but controlling spectral balance is what it does best. After all, the rdp-1 can trace its lineage directly to our line of professional disc-mastering equalizers, which have been used to prepare many of the disks that audiophiles have come to know and love—including several Stereophile “Recordings of the Month.”

We share Kal's sentiment that the time has come for digital signal processing (DSP) to find its way into the High End. Mid-fi and home theater (and virtually every other segment of the consumer electronics market, for that matter) have benefited from advances in DSP; high-end audio deserves the same benefits. We have given the high-end listener unprecedented flexibility and control without forcing him/her to deviate from the minimalist philosophy. In fact, the rdp-1 allows the all-digital listener to eliminate a potential source of coloration and noise from the playback chain: the analog preamplifier.

Most of all, we are delighted that Kal approached the evaluation of the rdp-1 with an open mind, without any preconceived notions of what digital can or can't do. We frequently face critics who say, for example, "you can't build a digital-domain volume control" without first having a listen. Kal listened for a long, long time and then he passed judgment. That he liked what he heard is all the more rewarding. Thank you, Kal, for giving the rdp-1 the thorough evaluation it deserves. And one more thing: We made the controls less jumpy many months ago. They now work whether your touch is light or heavy.

Dr. Glenn Zelniker
Z-Systems Audio Laboratories

Bryston B-60R
Editor:

Bryston wishes to thank Lonnie Brownell for the thorough and thoughtful review of the B-60R. It was obvious he enjoyed his listening sessions with the B-60R, and for many of the very reasons Stuart Taylor designed this special product. Bryston believes that high-end sound is rooted in the quest for accuracy above all else, and accuracy requires only intelligent engineering and a fine sense of detail in the designer. It doesn't need monstrous size, and it shouldn't take a second mortgage to obtain. Bryston believes that there should be only one level of quality in audio equipment: the best possible. To do true justice to the emotion in the musical composition (and isn't that why we love this avocation?), nothing less will do.

Obviously, the B-60R is not going to suffice for all systems. Large rooms and high power aspirations will necessarily require larger amplifiers, like the 4B ST or even 7B STs. But Bryston believes one should never have to sacrifice listening pleasure for convenience.

Christopher W. Russell
VP/Engineering, Bryston Ltd.

Stereophile, July 1998
Ayre K-3
Editor:
Many manner.
the review comprehensive accuracy, equipment, mind have provide ment.
"among inparing stages itself component tests heard by the Ayre: musical perceptive."

Accuracy, equipment, mind have provide ment. As Michael's review confirms, we have met our goals on all three counts:

Value — As Michael noted, the Ayre K-3 is not a "budget" preamp; however, it does provide performance far beyond its price class. He observed that switching to another preamp costing over $15,000 resulted in "a surprisingly subtle improvement," and declared the K-3's $1000 phono option "among the finest I've ever heard," comparing it favorably with stand-alone phono stages costing $5500 and $6800.

Accuracy — A line-stage is one of the few pieces of audio equipment that lends itself easily to a bypass test, one of the best tests of musical accuracy. As Michael heard greater differences when substituting power cords on the digital source component than when inserting the K-3 into the signal path, the preamplifier must be editorializing very little indeed.

Musical Enjoyment — This is the raison d'être for any piece of audio equipment, the bottom line by which all components must be judged. Michael says, "I loved it; when you hear it, I bet you will too." We couldn't have said it better ourselves!

Charles Hansen
Ayre Acoustics

Ultech UCD-100
Editor:
I would like to thank Brian Damkroger and the entire staff of Stereophile for the wonderful review of the Ultech UCD-100. It is pleasing to read of his enthusiasm for our CD player.

Ultimate Technology's commitment to HDCD is obvious, having produced our first two products around this technology. Mr. Damkroger's review confirms that proper decoding of HDCD-encoded discs is an immense sonic revelation. However, it is equally exciting to note his observations while playing his non-HDCD-encoded discs with the UCD-100. I am sure that the combination of the dual 20-bit Burr-Brown DACs and the Pacific Microsonics PMD-100 chip's digital filtration capabilities are contributing factors to the UCD-100's musical sound quality on "standard" CDs.

Russell Lowe
Ultimate Technology
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The Final Word
Larry Archibald

Those of you who read it on our website will have had a preview of the latest news from Santa Fe: Stereophile, Stereophile Guide to Home Theater, and HI-FI '98 (and its successors) have been sold, as of June 1, to Petersen Publishing, a Los Angeles-based company specializing in enthusiast magazines.

Just over 16 years ago, in Vol.5 No.1, J. Gordon Holt penned an editorial titled "A Change of Everything," announcing my purchase of Stereophile from him. Some things didn't change — Stereophile's commitment to telling it like it is, our reliance on the primacy of what is heard rather than what is measured, our freedom from advertiser influence — but many things have changed since early 1982.

The most immediate change was one of frequency. Gordon came out with issues at a rate of 2.3/year over his 20 years as publisher and editor; I felt that more frequent publishing was the avenue to success. In addition, I thought that Stereophile needed many voices, rather than the one to four voices that JGH corralled together.

Although this seemed a noncontroversial policy at the time, it did provoke consternation among some subscribers. JGH had the original vision for a magazine that told the truth about hi-fi equipment, and lots of people wanted his vision and no other. My vision, though, was of a magazine that covered all the bases — if something important was happening, or being said, in the world of sound reproduction, you could read about it in Stereophile.

I made some progress toward that goal in the first few years, but was hampered both by my own insufficiencies and by a simple lack of personnel. That changed in May 1986 with a life-of-the-magazine-altering addition: John Atkinson, formerly editor of the British magazine Hi-Fi News & Record Reviews, joined Stereophile, first as "international editor," then as editor.

The fact that it was John and I who — as Stereophile, Inc.'s sole shareholders — made the sale referenced above tells you something about John's importance to the organization. An even better measure is the growth and change that have taken place since Vol.9 No.5 (August 1986): far more products reviewed, far more features, far more (and more up-to-date) news, far more (and better) product reviewers, far more interesting and authoritative music coverage — and, helping us to print all of the aforementioned, far more advertising.

JA jump-started Stereophile from an amateur, albeit successful, underground rag into the true big leagues. When Ken Nelson, our advertising representative since 1984, suggested doing a hi-fi show just like the one JA had been involved in starting at HFN/RR (and which still survives as the Headrow Kamada Show), John said "Yeah!" Our Show got going in Santa Monica in 1987, and graduated to a trade-plus-consumer event with HI-FI '96 at the Waldorf=Astoria in New York.

1994 saw the launch of Stereophile Guide to Home Theater, edited by Lawrence B. Johnson and penned mostly by Stereophile's in-house home-theater maven, Tom Norton. In 1995 we were lucky enough to be able to attract Larry Ullman as SGHT editor, and in 1997 Jeannie Kane, formerly with Car Audio & Electronics, took over as the most dynamic publisher I've ever worked with (or witnessed!). With their changes to SGHT in January of this year — a conversion to over-full size and a 10x publishing schedule — Larry and Jeannie have taken the home-theater publishing world by storm.

In December 1997 our web-site editor Jon Iverson launched Stereophile, Inc.'s latest market-expanding ventures: one web site each for Stereophile, SGHT, and HI-FI '98. (Check in at www.stereophile.com to access them all.) The universal wisdom in publishing is to be careful of web sites because they consume huge amounts of money, and a bad one injures your brand more than it helps. The web sites that Jon (with John A., Scott W., Barry W., Ralph J., and Richard L.) has put up have made modest amounts of money since day one, found lots of new subscribers, and done our brands a world of good.

So Gordon was right: A huge amount of change followed my acquisition of Stereophile. But whatever negative and positive credit I get for that — and undoubtedly I deserve some of each — it's far too much. There have been so many people making key contributions over the years that it's impossible to list them all, but here are a few: everyone highlighted above; Tom Gillett, who by that name conceived of and wrote all the direct-mail efforts through which we've reached so many of you, and who, under the name Sam Tellig, has been our most popular writer since 1983; Laura LoVecchio, who, together with Ken Nelson, has represented all our ventures so effectively to the manufacturing and retailing communities; Gretchen Grogan, Stereophile's assistant publisher; Wes Phillips, Stereophile's best equipment-reports editor ever; Maura Riceland, the director of HI-FI '98; Ralph Johnson, Stereophile's show director in '92 and '93 and our president for the last two years; Natalie Brown Baca, the best art director I've ever known; Robert Baird, our dynamic music editor; Debbie Starr, our very capable managing editor; and untold others.

Does this mean that a "change of everything" is about to happen all over again? Yes and no.

Yes, in that my role at Stereophile will change: my day-to-day in-house roles of working with ad reps, analyzing finances, hiring and firing, and all the rest, will go away. My title will remain "publisher," and my public role of attending shows, visiting manufacturers and retailers, and knowing enough about the industry to write this column, will remain. With luck, I might even review a hi-fi product!

No, in that virtually all of the people mentioned above — JA primary among them — will continue in roles unchanged from what they now are. No, in that all our ventures will keep striving mightily to deliver the information about the industries we're part of to you, the readers we love.

But Yes, in that magazines (and shows and web sites) are defined, as you can see above, by how purposefully and fittingly they change. We will continue to change — as successfully as we know how. Thanks for 16 sensational years! You're the best readers in the world.
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