

# stereophile

JULY 1997

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## EQUIPMENT REPORTS

Audio-Technica  
van den Hul  
Reference Line  
Mission  
Shure  
Rotel  
EAR  
Rowland

Sam Tellig listens to  
**Martin-Logan & Platinum**

Leading the 24/96  
digital revolution:  
**dCS's Elgar DAC**

Michael Fremer on  
**Phono Cartridge Set-Up**



Classic Records'  
**Kind of Blue**

Randy Newman • Jackie Terrasson





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The performance of integrated amplifiers is compromised for all-in-one convenience. Integrated amplifiers are not equipped with the heavy-duty, high current, high voltage power supplies available in the best separate power and preamplifiers. First of all, there just isn't enough space. More importantly, there are technical limitations. In an integrated amplifier, such supplies would generate unacceptable levels of heat and hum. And the high signal levels found in the power output stages create a source of noise, crosstalk, and preamplifier instability. Obviously, heat and noise-generating elements shouldn't be operating in close proximity to the preamplifier circuits. However, this is exactly where such elements, scaled down-to be sure, are found in integrated amplifiers.

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## Barry Willis

**D**ear High-End Dealer: I want to tell you about the one that got away. Diane X is a perky, health-conscious, tennis-playing woman of 52. She lives in a huge house nestled into three acres of wooded hillside. Her home is notable for its architectural excellence and meticulous craftsmanship, for its lovely antiques and rare artwork. A four-year-old but showroom-new luxury sport/utility vehicle sits unused in her garage: she prefers the Lexus. She also loves to sing: Diane is the president of her local Choral Music Society.

Until recently she was the loyal wife of a successful orthodontist, but after two children and 30 years of marriage, certain irreconcilable differences led to divorce. The fallout: Diane got the house, the cars, and a substantial portion of their assets. Dr. X got a trophy girlfriend, a high-performance sports car, a swinging bachelor pad, and visitation rights.

Despite the trappings of privilege and the exceedingly high quality of almost everything in her life, the one thing that was always missing in Diane's home, other than enduring love, was *music*. (One of the irreconcilable differences: She loves music. Dr. X hates it.) Prior to her divorce, the sole source of music at home was a boombox on her kitchen's marble countertop. This shortcoming was the first thing the newly liberated Diane set about correcting.

Something she had always wanted and had never owned was a great stereo, and she went after it. She didn't come to visit you, though. Neither did she stop to see your competitor down the street. No, Diane went instead to the local outlet of a national mass-market discount chain, where she was befriended by salesman Spif Schmoozer. Spif soon became her in-house technology consultant and audio guru. She trusts Spif's advice so much that she now asks his opinion on everything from movie recommendations to stock purchases.

What Diane needed, Spif decided, was a surround-sound A/V receiver (with lots of buttons!), matching CD changer, Hi-Fi Stereo VCR, and 32" television with picture-in-picture. To this he added a top-of-set center-channel speaker, a pair of minuscule satellites ("Just tuck them away anywhere"), and a self-powered one-note subwoofer-in-a-shoebox; surround effects

to be handled by a small pair of decidedly cheesy but very-high-profit in-walls. Total expenditure: a few grand, comfortably within her price range.

She next engaged the services of a local A/V installation company, who for a similar price ran wires through her walls and made the whole system fit nicely into an old English armoire. Neither Spif nor the installers bothered to tell her that the

### The one essential effect Diane's system lacks is MUSICAL TRUTH.

room she had chosen, opening onto her swimming pool and glassed-in on three sides, was less than acoustically ideal. "No problem," Spif told her, "because with surround-sound the music just seems to come from everywhere."

Diane, in her innocence, was actually pretty happy with her new system. The action films her teenage son likes to watch are rendered with a lot of punch, and Frederica von Stade doesn't sound too strident when heard from the nearby kitchen. It's a step up from the boombox. But does it satisfy when you sit down and really listen?

You know the answer to that one. Her system sounds like hammered shit. The highs are edgy enough to drive rats away, the mids are squashed, recessed, and grainy, and the little shoebox sub makes a whistling sound as it thumps. Don't even ask about "imaging"—there is none. There is, however, a wide variety of surround effects to choose from, including SPORTS, whatever that means, and STADIUM. Stadium. What other acoustic nightmare might have been programmed into her system? Why not STEEL MILL, BRICK FACTORY, or BATTLEFIELD?

The one essential effect Diane's system lacks is MUSICAL TRUTH. She might have found it in any combination of products from your store. Anything you sell—*anything*—would have been better for her than what she bought. For the amount she spent on mass-market schlock she might have assembled a system that would provide years of intense musical satisfaction. Had you been a patient teacher, you could have taught her how high-end audio en-

ables a listener to "see into" a performance, how it enables a deeper connection between the musician and the music lover. With her passion for music, Diane would have been an eager student.

To her credit, she tried to get advice about a subject she knew nothing about. Her former husband, the music-hater, was no help; nor were her friends at the racquet club, who all looked at her blankly when she asked about music systems. Her colleagues at the Choral Society were also a surprising disappointment. (And I couldn't help her because I met her after the fact, and didn't have the heart to tell her she'd wasted her money.) So she went to the only place she knew and swallowed whole the advice of the first person who showed an interest in helping her.

Diane didn't come to you because *you're* invisible. She didn't know you exist. She still doesn't. Neither do the millions of others with her level of disposable income and her love for music. But they should. And they could, if you'd stop carping about your competitors, gossiping about the industry, sweating bad reviews in the audio press, and playing speaker-wire-of-the-month with your little handful of repeat customers.

So what if you don't have the resources of an international conglomerate? So what if you don't have the advertising budget of Spif Schmoozer's corporate overlord? So what if you can't afford saturation advertising, or a two-page spread in the Sunday paper? There's still a lot you can do.

Stop thinking about commerce for a second. Try "education" instead. If you want to reach people like Diane, you're going to have to be an educator and proselytizer. You're going to have to go after music lovers with missionary zeal. Promote seminars, arrange demonstrations for music clubs, sponsor musical performances, make friends with your local newspaper's music critic and technology pundit. Don't just sit and wait for music lovers to find you. Go after them where they are. You don't have much choice.

Or maybe you do. Remember, Diane X is the president of a Choral Music Society, and she spent years listening to a cheap boombox in her kitchen. If you can't put two and two together from that, there's probably room for you on Spif Schmoozer's sales floor.

Sincerely,  
A Friend



# You Need More Than Just Cable.

Any cable can transmit electrical signals from one video or audio component to another, or from amplifiers to speakers. But, for a great viewing or listening experience, with sharper, more lifelike pictures and richer, more musical sound, you need more than just cable. Ordinary video and audio cables, even "high-end" types, can alter critical signal timings and phase relationships, irreversibly degrading picture and sound quality.

That's why MIT's founder literally invented high-performance interconnects and speaker cables, creating a new category of components called Interfaces. MIT's fundamental patents in high-performance cable design mean that only MIT can bring you Interfaces scientifically designed to eliminate the non-linearities and distortions caused by other, ordinary cables, no matter how expensive they may be.

If you watch and listen for the subtleties of picture and sound quality that are the hallmarks of great viewing and listening experiences, you need MIT's Home Theater Terminator System Interfaces. The hard science behind MIT's remarkably affordable Interfaces reveals the full potential of your high performance home theater system. Until you use MIT Interfaces, you'll never know just how good your system can be.

## Patented MIT Terminator Network

MIT's patented Terminator Networks are the heart of MIT's performance superiority. They enable MIT's Home Theater Terminator System interconnects and speaker cables to deliver sharper, clearer, more lifelike pictures and to provide better bass, clearer midrange and smoother treble sound, with enhanced sonic focus, imaging, and soundstaging.

MIT's fundamental technology patents are your assurance that only MIT interconnects and speaker cables can transmit all of the picture and sound quality that your video and audio program sources and system components are able to deliver.

## iconn™ interchangeable connector system

MIT's exclusive iconn system for speaker cable connections is so innovative, it has a patent pending, and every Home Theater Terminator System speaker cable has it. Thanks to iconn's five interchangeable connector types, you'll always have the right connector to fit the terminals on your amplifier and your speakers. iconn's gold-plated connectors ensure ultra-low contact resistance and corrosion-free connections for best sound quality.

## New RCA connector

MIT's Home Theater Terminator System Interconnects feature new high-performance RCA-type connectors. These precision, gold-plated connectors feature bifurcated center-contact pins and multi-contact shield connections for unimpeachable signal integrity. They properly match the cable for highly efficient energy transfer and outstanding picture and sound quality.

With MIT Home Theater Terminator System Interfaces starting at just \$29.99 (MITerminator 6, not shown), MIT's remarkably affordable Terminator technology can improve the performance any system.

**More Than Just Cable!™**

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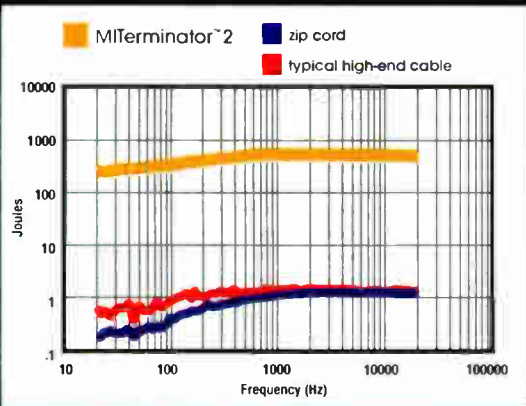
**MIT**



## Superior Final Energy Component

Cables transmit most of the audio signal energy passing through them directly to the next component or to the speakers. They also briefly store and then release small amounts of energy that have huge effects on sound quality. MIT calls this stored and released energy the Final Energy Component. As shown in this representative plot of speaker cables (which are normalized to 1 Joule for clarity), the Final Energy Component in ordinary 12-gauge "zip cord" and a typical high-end cable is non-linear — it changes value with signal frequency. This nonlinearity inevitably causes distortion and the loss of both tonality and image integrity.

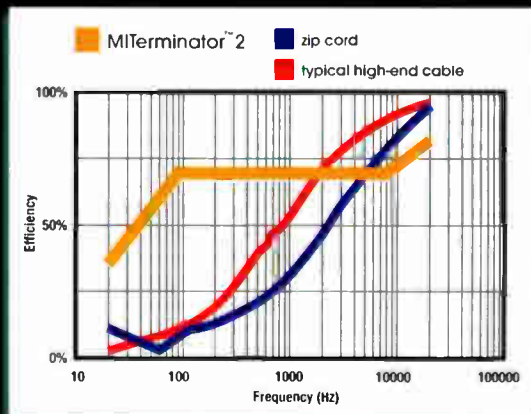
MIT discovered that increasing the Final Energy Component of cables already having outstanding electrical characteristics dramatically improves their overall signal quality. By employing the patented MIT Terminator Networks to store and release energy at the correct levels and times, nonlinearities are greatly reduced or eliminated. This superior Final Energy Component is a major factor in the superb signal quality of Home Theater Terminator System Interfaces.



## Superior Efficiency

MIT quantifies how well cables maintain correct phase relationships between audio signals' voltages and currents as Efficiency. When cables maintain perfect phase relationships, all of the signals' Final Energy Component transfers to the next component or to the speaker with 100% efficiency. Ordinary cables' nonlinearities make them much less efficient at low frequencies than at high frequencies, as shown for "zip cord" and for an ordinary high-end speaker cable. The sonic results are noise, distortion, loss of image quality, and excessively "bright" treble sound.

As you can see from the plot, MIT's patented Terminator Networks give the Home Theater Terminator System Interfaces a huge advantage over ordinary cables, raising low-frequency efficiency and "flattening" the overall curve. This means that MIT Interfaces deliver far more accurate picture and sound quality, with lower noise than ordinary cables can. Although the plot shows speaker cables, the results also apply to audio interconnects.



## Superior Imaging

Three-dimensional graphics of a typical listening room represent the sonic image quality produced by three different speaker cables. The blue, red and yellow areas indicate the image size, while the musical notes represents the quality of image focus.

The blue area produced by ordinary 12-gauge cable is tiny, indicating a small overall image, and the blurry note indicates that the image is unfocused and poorly defined. The result is a constricted, unconvincing image lacking breadth, depth and life.

The red area produced by a typical "high-end" cable is larger, but is still too small to create a convincing, lifelike soundstage. The blurry note indicates poor image focus within the larger, but still small image area. The result is a somewhat larger image that only makes the lack of focus and definition more obvious and disappointing.

The yellow area produced by the MITerminator 2 is convincingly large, with the breadth and depth to create a lifelike soundstage. The sharp, clear note indicates solid image definition and focus throughout the audio spectrum. The superior Final Energy Component and Efficiency provided by MIT's Home Theater Terminator System technology deliver natural, tightly focused and solid images that preserve the integrity of the sonic event. Only MIT's patented Terminator technology can achieve this level of performance in your system.



**Experience the improvements of MIT's Home Theater Terminator System Interfaces in your system!**

Most MIT retailers offer a risk-free home trial program. Call 916-888-0394 for the location of your nearest MIT dealer.



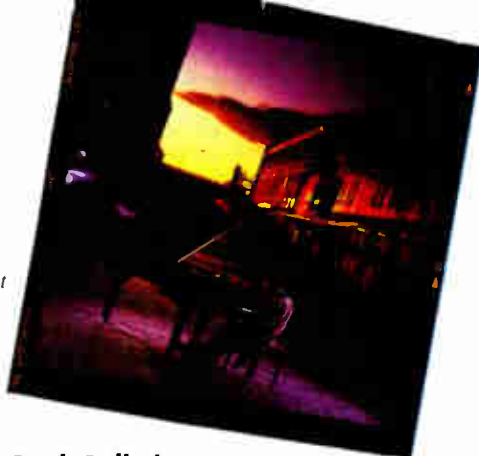
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The Cary Single-Ended line was inspired by the famous 300B triode vacuum tube of the 30's. The 300B tube is considered by tube aficionados, on a world-wide basis, to be the finest audio tube ever designed.

The Cary Single-Ended Class A Triode Amplifiers have the high-end audio community in a state of complete reappraisal of what hi-fi truly is. We took classical circuits of the golden years of audio and combined these designs and techniques with the components and advances of the 90's.

A Cary Single-Ended Amplifier should be considered as an extension of a true musical instrument — not some "auditory hi-fi spectacular, unemotional and ear-bleeding apparatus"!

A Cary Class A Triode is an amplifier you "feel". An amplifier that delivers "goose-bumps" and "raised hair" as you transcend into the dream of live music in your home.

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.

**CARY**  
*Audio Design*

# "The Servo-15 Rules!"

*-Andrew Marshall, Audio Ideas Guide*

**"The Servo-15 will do things that no other subwoofer I've heard will, especially play very loud and clean at the lowest frequencies...extraordinary deep bass output...prodigious and extended...for clean bass to lower than you can hear and louder than you can stand, the Servo-15 rules."**

*-Andrew Marshall, Audio Ideas Guide*



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## The best?

Editor:

I continue to enjoy *Stereophile*; it remains the best magazine of its kind. Keep up the good work.

Gregory A. Franklin  
Rochester, NY

## Perhaps not

Editor:

The April *Stereophile* was a joke, wasn't it? 308 pages and nothing to read.

"You have to listen like the folks do."

Maron Horonzak  
Stoutsville, MO

## Changes

Editor:

As I have watched *Stereophile* grow over the years, it looks better and is easier to read. Its readership has grown a great deal. It seems obvious that *Stereophile* is now a big business, and that all the rewards for getting to that level are in the mix. Examples of this are your ability to make your own recordings, to attract talented employees, and to attract lots of companies' advertising dollars. You even have your own trade shows.

However, just as the magazine has changed, my reason for reading *Stereophile* has changed. It used to be a little magazine that I would read all the way through the minute I received it in the mail. That "little" magazine had personality, and seemed as if it was a secret that only a few people knew about. Maybe that was not a recipe for growth, but I looked forward to reading it more than any other magazine.

Now I find myself reading your "Recommended Components" section just to see if my next purchase will hold a little more value. Moreover, the fact is, I have found it easier to sell a product when it is a *Stereophile* recommended component. When I let my ears and my heart win me over to a component that has received little or no press from you, I often find myself with a multipurpose boat anchor when I want to sell it.

To listen to Martin DeWulf of *Bound for Sound*, *Stereophile* really only reviews products they get advertising from. To listen to Michael Fremer, who responded to DeWulf's thesis in *Positive Feedback*, *Stereophile* has no hidden agenda, and is

interested only in fighting the good fight for its readership. That's why I find it interesting that, in the last few issues, *Stereophile* has been explaining *how* it chooses the products it reviews. Wes Phillips, Larry Archibald, and even Cary's Dennis Had (in "Manufacturers' Comments") have written about the policies, rules, or integrity of *Stereophile's* choices and conclusions for reviews [Vol.19 No.10, p.3, Vol.20 No.1, pp.285 & 306].

Why do you feel the need to defend your choices? I don't feel you have "a hidden agenda," but it appears you do have a need to justify your choices with rules and policies... You run the risk of becoming just like the mainstream audio press. Here is a list of *their* rules:

- *Rule Number One:* In any situation of conflict, a reviewer must act so as to maximally benefit the magazine's bottom line.
- *Rule Number Two:* In any product review, the product must be reviewed based on the contribution the manufacturer makes to the magazine's bottom line.
- *Rule Number Three:* Any time a reviewer gets personally involved with a product or person, whether positively or negatively, to a degree that they can't follow rules one and two, they should refuse to take any more loaners they never have to return or pay for, free dinners, or payola from those companies. Or at least if they do, keep it secret.
- *Rule Number Four:* If an honest review costs you a friendship, get new friends

with more advertising dollars than your old ones.

As you can see, with just a few word changes to *its* rules, *Stereophile* could become just like the mainstream audio press. For *Stereophile* to have any value at all, it must express the opinions of the reviewers without pulling any punches. But as *Stereophile* grows, will it become more like the mainstream audio press, which might as well be a brochure for the manufacturers whose products they choose to review? Some might say you already have because of the frequency of reviews for brands like Audio Research, Krell, Mark Levinson, and Conrad-Johnson.

The message:

- *The Vital Rule:* Remember your past. *Stereophile* was started by a person who has a passion for audio gear and music. It had personality then. It had a soul. Many of the companies that find their way into your "Recommended Components" list started as hobbyists who built in their garages at home. These people also have a passion for gear and music. Where would they be now if your rules and policies had applied to them? If you lose sight of your past, it won't matter how expensive the gear you review is. You will have become just like any other cookie-cutter rag out there.

I subscribe to many other high-end publications now, and look forward to reading them with much the same pleasure I used to get from *Stereophile*. Will *Stereophile* keep its soul? I hope so. If not, I have more choices than ever before. As long as *Stereophile* keeps its beginnings in sight, I will continue to subscribe.

Matt Santa Maria  
Richmond, VA

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Interesting points, Mr. Santa Maria. I believe that *Stereophile* has remained true both to its roots and to the spirit of the High End, but I will continue to endeavor to keep it on the right track. Regarding the recent discussions in our pages about how our reviews are organized and how we choose what components to review, these are subjects that do appear to be widely misunderstood, or even misrepresented, by other parties. We felt it appropriate to shine some light on this area. And we must have rules. We only have the space to publish reviews of between 120 and 150 components in any 12

SONY

*Individual Reactions  
May Vary*

Some people appreciate the difference  
between compact disc players.  
So do we. Audition the critically acclaimed  
Sony CDP-XA7ES.



issues, meaning that we must have some criteria for deciding which components are reviewed and which aren't. As long as those rules are fair and are not applied arbitrarily, then I feel Stereophile will best serve both its readers and the high-end audio industry.

—JA

## Audiophiles vs music lovers

Editor:

"It is sad to think that the measure of an audio product is merely its ability to place you in the performer's lap so you don't miss a single drop of spit. A good loudspeaker must convey so much more. It should communicate the emotion, the tone, and the textures of the instruments or voices that produced the musical event. It should envelop you and move you. That is what a true audiophile searches for. And that is what the \*\*\*\* does so admirably well."

I recently wrote this in a product newsletter that we sent to our North American dealers. It was in response to a review written in an audio magazine about one of the products we distribute. The reviewer's contention was that an audiophile would require a different type of product than a music lover. He stated that an audiophile—particularly an American audiophile—wants to hear more than just the music. He felt that products that emphasize or even exaggerate recording artifacts such as violin bowing, breathing, etc., are better. He admitted that the loudspeakers in question did not obscure these details, they simply did not highlight them. Therefore, it was thumbs down.

Are audiophiles and music lovers that different? Is the detail of a recording more important than the music? Perhaps a savvy record producer can record a CD/LP with nothing but detail. Skip the music—it only obscures the detail.

Ian McArthur

Product Manager, Audio Plus Services  
keynote@pathcom.com

## Situations

Editor:

*Situation One:* On a Saturday afternoon in May 1979, in a hi-fi salon north of Detroit, on my way to pick up my Linn Sondek, I passed through a listening room where a group was paying close attention to a recording. I said, "That's the best piano recording I've ever heard," was told it was direct-to-disc, and passed on through to the pick-up counter.

Passing through the same room on the way back, I was not nearly as impressed with the sound. "I liked the other side better," I said. Surprise, confusion, and some hostility. It turns out that it was the same side of the same record. The differ-

ence was that the distributor had just treated it with one of those fluids designed to protect the record without changing the sound, and everyone in the room had agreed that they heard absolutely no difference in sound.

*Situation Two:* There was (and may still be) a radio program called (if memory serves) *First Hearing*. A panel of musicians, critics, and such would listen to recorded music, deliver their critiques, and then be told who the performers were. In one broadcast they listened to a movement from the Prokofiev Symphony 5 and agreed, without exception, that whatever orchestra was playing, it was a "Great!" orchestra. Upon learning it was the St. Louis Symphony playing, they—without a moment's hesitation—affirmed their opinion that it was a "pretty good" orchestra they had just heard.

*Situations Three and Four:* Twice (once at a hi-fi show, once in a private home) I have entered a room in which "experts" were extolling the virtues of the Klipschorns to which they were listening, blissfully unaware, until I drew it to their attention, that one of the tweeters was not working.

*Situation Five:* Enrico Caruso was idolized. At the Met, his every performance of every number was met with thunderous applause. One performance, he came on in disguise and sang in place of the scheduled performer. He was coolly received.

*Situation Six:* A dealer in the Rockville, Maryland area—intent on proving the superiority of the LP to the CD—set up a rigorously fair A/B comparison. In a blind test, I chose the CD over the LP every time... which, I am convinced, would never have happened had I known which was which, because I would have leaned over backward to be fair and honest.

People tend to hear what they expect to hear. There are some advantages to blind testing.

Paul A. Alter  
Hyattsville, MD

## Counterproductive?

Editor:

Perhaps magazine print and readers' time can be saved if Michael Fremer used the abbreviation "BVII"—"But Vinyl Is Better." His articles do state some deficiencies exhibited by records, but then comes the inevitable "BVII." Isn't it possible for information concerning vinyl to be transmitted to readers on its own merit without the incessant, childlike demeaning of CD? This is counterproductive and boring.

Harvey Fleischman  
Boynton Beach, FL

## Not!

Editor:

Even though Michael Fremer does a superb job of letting people know that analog is still the champ when it comes to musical reproduction, sometimes I get the nagging suspicion that not enough people are listening to his sage advice.

Well, *listen up!* I love the vinyl/analog medium so much that, after work, I spend two hours tracking down the stuff. Man, do I find some treasures. Just tonight I went out and found Miles Davis' classic *Kind of Blue* LP (original six-eye) for, get this, 30 bucks! The CD of this recording is very good, but the good old vinyl blows it away in every audiophile department you can think of.

John Martin  
Lpspins@aol.com

## Mikey's dreaded seedees

Editor:

Just a note to say thank you for having Michael Fremer on your staff to share his passion for analog. I have been reading his columns and reviews for several years. Initially, I thought, "this guy must be nuts and/or the magazine has hired him just to humor the few remaining analog holdovers out there." His review in the December issue of the Rega Planar 3 turntable did me in. I decided that, for under \$1000, I'd just see if this guy was for real, and if there was any truth to what he has been preaching.

You know the rest of the story. After having my dealer set up the turntable with a Blue Point Special cartridge, I was blown away. I simply could not believe the difference. There was nothing subtle about it. And I was comparing an entry-level analog front-end to \$4000 worth of digital gear. An A/B test put the nails in the coffin of digital for me.

Now, every time I listen to my CDs—unfortunately I must, since I have only a few LPs—I can't help but think about what parts of the music I am missing... I now understand Michael's term of "the dreaded seedees."

Don Bush (new analog fan)  
Moreland, GA

## Mikey needs a sabbatical

Editor:

Michael, Michael... You file obituaries? ["Analog Corner," April '97, p.57.] (JA—Mikey needs a sabbatical... bad!) Tell you what. Heaven forbid that when the Good Lord decides to bring you home to that Big Pressing Plant in the sky, I'll be sure to file your obituary in its own CD jewelcase.

And if I'm having a *really* bad day, I



just might fold it over many times, into a cassette box. *Lyman G. DeLiquori, Sr.*  
*Lyman\_MS@msn.com*

### That's it!

Editor:

That's it! I'm goin' vinyl!! CDs be gone!!! I've been looking for a reason for some time now. This is the last straw! Having to fold an obituary for inclusion with a recording ("Analog Corner," April '97, p.57) is simply more than I can take. Many thanks to Michael Fremer for bringing this outrage to my attention.

*Mark Kaminski*  
*Portland, OR*  
*markamin@msn.com*

### Grow up, Michael

Editor:

Is he getting better or is he still an asshole? The answer depends on whether you're an optimist or a pessimist. As Michael Fremer's "Analog Corner" (April '97) had only one negative remark disparaging CDs—*ie*, "stupid" jewel boxes—I'll opt for the latter. Grow up, Michael.

*Harvey Fleischman*  
*Boynton Beach, FL*

### Please lay off Michael already

Editor:

My favorite parts of *Stereophile* are Wes Phillips' "Quarter Notes" and Michael Fremer's "Analog Corner." Please, *every-one*, lay off Michael Fremer already. If you are so deaf that you can't hear the vast superiority of analog vinyl, I feel very, very, very sorry for you. Michael, quit apologizing to these tone-deaf digital lovers!!!

And Michael, you listen to way too many CDs. I understand that, as a reviewer, you can't avoid them, so I recommend 90% LPs and 10% CDs. Always follow a CD with an LP so you can clear your mind of those nasty dig-its. Also, Michael, please spend more time discussing *all* the new audiophile vinyl LPs and vinyl news. I would also like more interviews with the people who make all these wonderful LPs.

*Teresa Goodwin*  
*Reno, NV*

### Get rid of Robert

Editor:

I am very disappointed with *Stereophile*'s new Music Editor, Robert Baird.

I am an avid [classical music] collector. Robert's articles are cheap, and he has brought down the high quality of the magazine's music section.

*Stephen Sweigart*  
*Cherry Hill, NJ*

### Keep Jonathan Scull...

Editor:

Keep Jonathan Scull!!

Anyone who loves the new Patti Smith album *Gone Again* (May '97, p.169) should be rewarded for good taste! The man knows good sound!

Also, thanks for the great coverage of the Kinks in May. John Swenson is cool!

*Leland A. Beaman*  
*Vacaville, CA*

### ...and John Swenson

Editor:

The May 1997 issue was excellent, as usual. I especially enjoyed John Swenson's article on the Kinks. Mr. Swenson and your readers should know that *Face to Face* is not "simply impossible to come by." It is available on CD as Castle Classics CLACD158, with the same cuts as the Reprise LP. I obtained my copy from Collectors' Choice Music at (800) 923-1122.

*Robert J. DeJonge*  
*Cromwell, CT*  
*RJD1@aol.com*

### Truly interest-grabbing

Editor:

The April *Stereophile* had a spark of what truly was interest-grabbing. In addition to the traditional fare of equipment minutiae were insightful articles about Buck Owens and John Adams that focused on music, its creation, and its reproduction. While most equipment remains product-cycle driven and limited in duration, ideas and opinions (especially about music!) are always earned, usually with an enormous amount of dedication, practice, artistic sense, and some luck.

In the final heretical analysis, I would rather read more articles on the motives, personalities, and opinions behind music creation and reproduction, and less of the critique of the results.

*Mark Lundgren*  
*West Bloomfield, MI*

### No one killed classical music?

Editor:

In running Kyle Gann's "Who Killed Classical Music?" (May '97, p.110), *Stereophile* perpetuates an ill wind that blows no discernible good. Gann has been doing battle with aspects of "classical" music for some while now in the pages of the *Village Voice*, whence this detective-fiction sendup first appeared. (For my insert notes to *The Winds*, Charles Wuorinen's New World Records CD, I used one of Gann's columns as the basis for an interview with Wuorinen, whose aesthetic Gann trashed.) Somewhat less assaulatively, music writers of the *New*

*York Times* have also been keening over the grand dame's powdered and perfumed cadaver.

I read recently (can't remember where) of a Hollywood mogul who, marveling at Gertrude Stein's celebrity, asked her for her secret. Her reply: "Small audiences." Indeed, yes. Art music's top-heavy apparatus, which exists for an increasingly distracted middle-class audience, is in danger of toppling—or, if not of actual physical collapse, of an ultimately self-eradicating fudging of objectives. As once rock-solid assumptions crumble, funding more and more deflects toward the multicultural bazaar. (Western art music has always sought patronage, from the church and aristocracy onward.) A string quartet by a composer I've been trying to promote, Lucia Dligoszewski, lost out—entirely predictably—to Wynton Marsalis, music's Pulitzer having become about as important a measure of merit as *Good Housekeeping's* seal of approval. Or a Grammy.

Perhaps it's time, in this country especially, to abandon what shreds remain of art music's propagation as an exercise in altruism. Perhaps by its very nature, art music is elitist. (The word has never made me wince. But then, I'm neither a Marxist intellectual nor under the influence. My only connection to academia is a diploma it'd take me half an hour to locate.)

Rather than accentuate the negative or mess with Mister In-Between—for example, John Adams, as determined a popularizer as exists, lamented in the April issue with unintentional gallows humor the fate of that which he has helped eviscerate—maybe we should be looking for promising developments. Has anyone noticed, for example, a thriving hybrid art form resembling small-ensemble jazz and modernist art music? I offer in evidence three discs it's been my pleasure to write about recently. *By the Law of Music* (hatART CD 6200) features the American composer-pianist Matthew Shipp's "String" Trio (the quotation marks are Shipp's), with Mat Manieri, violin, and William Parker, cello; Music & Arts CD 958, *Saturn Cycle*, features the longstanding trio of Georg Graewe, piano, Ernst Reijesger, cello, and Gerry Hemingway, percussion; the last, *Thirteen Ways* (GM Records CD 3033) offers Hemingway again, with Fred Hersch, piano, and Michael Moore, reeds.

I commend these recordings for their shared transcendence of shopworn hipness as well as for their vibrant and

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sophisticated energies. Further salutes to enlivening activity could fill a book and would, of course, include art music straight up—which, despite the purport of Gann's burlesque, is alive if not in hardy good health.

Mike Silverton  
Brooklyn, NY

### What we have is good enough?

Editor:

Robert Harley's "As We See It" in May brought forward a sad testament to the marketing power vested in a few large organizations. The article quotes Nobuyuki Idei, President and COO of Sony, as saying, "I don't think there's a need for a new audio format."

Back when Tom Watson introduced the "mainframe" to the world, he commented he could not ever see the need for more than 14 such computers worldwide. Fortunately, his mind was changed.

It is sad when either the Peter Principle or the Dilbert Marketing Strategy is found in the likes of an individual with so much influence within any single industry. The leadership of Sony is giving up, saying what we have is good enough. Once any of us is totally satisfied, stagnation occurs and forward progress is lost. How long until all vision is lost at Sony?

Dennis Erskine  
Erskine@aol.com

### No point in anything better?

Editor:

*Stereophile* constantly debates topics like LP vs CD. Some people think CDs sound better, while others like the sound of LPs. I love to listen to both, and I can see each side of the argument. Each medium has the potential for superb sound quality.

The next great debate seems to be what will be the standard for a higher-fidelity consumer medium made possible by DVD. It could have 24-bit words sampled at 96kHz, or multiple channels of CD-quality sound. I fail to see the point. Why is any new medium necessary when the potential of existing media goes largely untapped?

Like anyone else who reads *Stereophile*, I am a bit of a nut when it comes to music reproduction. Naturally, I want the best recordings available to me, but when I look through my collection of CDs and LPs, I notice about 90% of them sound like crap. If the recording industry could give me releases that were consistently up to the standards of the better CDs, I would be a happy consumer.

I foresee audiophiles going to the record store and picking up a 24-

bit/96kHz recording that sounds bad—this after having spent a couple of thousand on a new high-end DVD player. Granted, there are few audiophile record labels that would exploit the potential of DVD, and I'm sure their recordings would sound stunning. But they would be a small minority of available recordings.

High-quality audio DVDs have almost nothing to offer the mainstream audio-only consumer. Granted, the high storage capacity is great for computer and movie purposes. However, the average person who buys a shelf system from Sears is not going to hear the difference between a CD and a [high-quality audio-only] DVD. This makes an audio DVD a dangerous venture because the high-end community [by itself] is too small to support the changeover from CD.

I wish I could get excited about a new and better audio format. But I think the recording industry [getting its quality act together] is a necessary precursor for DVD to be successful as an audio-only medium.

Aaron Schen  
West Lafayette, IN  
schen@tools.ecn.purdue.edu

### Wrongheaded marketing?

Editor:

I find it interesting that, according to what I have read in several publications, DVD is going to save the consumer electronics industry while ignoring the audiophile community. No one yet has answered the inevitable question: What does the salesperson in the consumer electronics store say when asked, "What button do I press to record the soaps?" The average consumer wants cheap, simple, and recordable. The audiophile will face any danger, even his wife, in his quest for audio nirvana. No amount of money is too great for the serious audiophile. Maybe the makers of DVD are ignoring the wrong group.

Paul LaNoue  
New Orleans, LA  
NOFireman@aol.com

### Spreading shrill hyperbole

Editor:

I'm a fairly new entrant to the enthralling and impoverishing world of high-end audio, and I've been an avid reader of *Stereophile* and other magazines for over a year now. Of late, I've noticed an increasing tendency among your reviewers to spread shrill hyperbole about the impact of computers, DVD, etc. on the future of high-end audio, which spans the spectrum from "mildly overblown" to "guess the lobotomy didn't go as well as

planned, eh?"

You guys may be great at hearing a couple of gnats mating during the cannon-fire in the *1812 Overture*, but boy, you cannot rationally discuss the impact of changing technology on high-end audio to save your lives. Let's take the impact of advances in computer-based sound on high-end audio. You have had at least two articles discussing this over the course of the past few months, implying the doom of high-end audio if the evil designs of Obergruppenführer Bill Gates were to come to pass. Please!

First of all, it is highly doubtful whether the PC will indeed supplant the audio rack as the preferred mode of listening to music. Second, and more important, you seem to forget that the high-end audio community is pretty much a niche market. Even if the mainstream market were to decide to listen to music from a flat panel attached to the toilet seat, as long as the high-end crowd insists on CD players that need blue lasers and correctly oriented carpets to sound their best, nothing will change. There will continue to be high-end products simply because this niche will remain unchanged.

Vandit Kalia  
vkalia@seas.upenn.edu

### Rediscovering the passion

Editor:

George Reisch's "Undercurrents" column in May '97 (p.67) about the Internet reflects a view of learning that is much like mine. In 1963 I caught the music bug bad. I became interested in anything and everything about folk music. The music scene was about to explode with the Beatles leading the British Invasion, but I was more interested in other singers and songwriters. Albums often had wonderful, detailed liner notes telling where the artist got the song, whether from a writer or another singer or a book.

My knowledge of music began there, in the days long before the Web. A song would catch my attention and I would read the liner notes. I discovered a host of new singer/songwriters from Dylan to Ochs, Andersen to Paxton. And each of them pointed me toward their influences: Guthrie, Houston, and Seeger. And so on. This was the university course on music. How else would you learn? There were no courses that would guide you through the knowledge.

Today, I frequently listen with some spiritual web that magically connects one song to another. You don't really program a listening session—it's much more spontaneous than that. It's quite emotional. I've gone into my listening

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room with a drink in hand and begun with a piece that was calling me, and each piece would point to another. The connections might be the writer. Or the topic. Or perhaps a well-played dobro that pointed to another nifty lick that appears on some obscure album that only you and the artist own. Or perhaps there is an emotional linkage. I've spent more than a couple of evenings listening to every sad, cry-in-my-beer, my-baby-done-left-town song I had. Or every angry topical song. Or every hot guitar flatpicker, starting with Doc Watson and moving through each of his musical progeny. Or...

Computers and the Internet are addicting. But isn't it great when you rediscover your passion? I can be away from music for just so long, then the passion returns and I feel the need to dive back in.

And get lost in the musical web.

Paul Malkoski  
Aurora, CO  
pmalkos@intelect.com

## The best-sounding CD?

Editor:

I recently received *Stereophile's* Sonata CD (STPH008-2), and must say it is just the best-sounding CD I have ever heard. Congratulations to all concerned. Now I look forward to receiving the Sonata LP (on order today) and attempting to compare the sound of the LP with the CD for myself...

As a final comment, let me offer a quote from Compton MacKenzie, from one of his editorials for *The Gramophone* (November 1925),<sup>1</sup> regarding the introduction of electrical recording:

"The exaggeration of sibilants by the new method is abominable, and there is often a harshness which recalls some of the worst excesses of the past. The recording of massed strings is atrocious from an impressionistic standpoint."

He sounds like some of the contemporary commentators discussing CDs!

Matthew L. Stephens  
Albuquerque, NM

## Not!

Editor:

Regarding your Sonata CD (Robert Silverman performing Liszt), I feel that the "documentary" approach you adopted in making this recording was seriously flawed. Specifically, the environment. The hall chosen failed to keep pace with, or get out of the way of, the music.

The venue was (to my ears) totally overwhelmed by and unforgiving of even the moderately dynamic passages. The louder moments were difficult for me to listen to comfortably. My loudspeakers voiced a constant rumble of low-frequency resonance and pressure throughout the program. I assume that was the "low-end bloom"? Every commanding note struck was instantly seized by "heavy" air, pace was lost, and all sorts of extraneous sounds from the hall and the piano itself were excited.

Am I the only one? Why were the conditions in that church allowed to collaborate with and effectively insult the music? Perhaps "assault" is the word. The sounds that did manage to penetrate the rumble clanged around the pews and the crosses and... oh Lord!

I truly can appreciate the talent brought to bear on the project, but the music on the disc was hopelessly earthbound. I wanted soooo bad to spin the disc and hear those huge notes shoot up like brilliant, clear shafts of crystal! But no... it was an exercise, an archaeological dig. What happened to the Art, the Vision, the sound? It was up to you to create it. I didn't want to be bouncing around the creaky floorboards of New Mexico. I wanted to be transported to somewhere not on any map.

I'm presently listening to the Tomasz Stanko Quartet's *Matka Joanna* CD [ECM 78118-21154-2]. Someone actually put an ear to the music and created art.

If the New Mexico church was actually sought out for whatever reasons, then the trucks carrying the acres of Tube Traps and mountains of furniture blankets must have missed the turn.

What you successfully documented was an amazing musician playing incredibly dynamic, powerful music on a huge Steinway piano in a noisy little church. I'm afraid the Sonata CD really helps to make a case for controlled, close miking with ambience by Lexicon.

Mark Gatewood  
Neskowin, OR

## Cutting up

Editor:

I read with great interest the "Cutting Up" article in March about the production of *Stereophile's* Sonata LP. The reason stated for producing the LP was specifically to see which medium reproduced the sound of the 20-bit master tape most faithfully.

I was amazed to learn that Michael Fremer can tell which medium does this the best without even listening to the master tape. He says, "I haven't

heard the 20-bit recording played at full strength..." Talk about great ears. Talk about a gigantic load of horse fertilizer. Fremer hasn't listened to the master tape to see if the LP captures the sound of the master... nevertheless, he can tell the LP sounds better than the CD?

Fremer has apparently stumbled upon an entirely new kind of "blind" listening test—it's totally bogus, and it saves time, too. Attaboy, Michael!

John Arrington  
JArrington@aol.com

Glad you enjoyed Sonata, Mr. Stephens, but sorry you were not impressed, Mr. Gatewood. Yes, there is some low-frequency background noise (mainly distant traffic) present on the disc, but at better than 55dB down from peak level, I had assumed it would not present audible problems. I wonder if Mr. Gatewood's system is balanced to be on the generous side at low frequencies. But the church we recorded in does have, I feel, a delicious, supportive acoustic for the piano. In fact, we recorded our most recent recording there: Rhapsody—Hyperion Knight performing works by George Gershwin. (See the article in the June '97 *Stereophile*.)

With respect to Mr. Arrington's letter, while we were interested in seeing which sounded closer to the 20-bit master, LP or CD, the prime reason for releasing the LP was to spread the word about Robert Silverman's goosebump-raising performance of one of my favorite works for the piano. Regarding Michael Fremer's comments, it is possible to make absolute judgments with reference to the master; specifically, how each medium compares to the listener's experience of the real thing. In Michael's opinion, the LP wins hands-down when considered in this light. And when it came to A/B comparisons with the master, Larry Archibald's, Wes Phillips', and my observations on the differences were included in the March article.

If anyone would like to hear these recordings for themselves, see the advertisement elsewhere in this issue for details on how to order.

—JA

## What is high end?

Editor:

In Larry Archibald's "Final Word" in May (Vol.20 No.5, p.242), LA quoted Jerry Kalov, who stated that "Manufacturers need to find a way to make plenty of products that consumers want, and distribution will take care of itself." LA commented that this was "not a high-end view," and I wholeheartedly agree. It is not a high-end view, nor should it be.

What is high end? Some things are obvious, among which is sheer brute-force sound quality. Another less obvious aspect of the High End is one of values.

<sup>1</sup> As reprinted in Roland Gelatt's *The Fabulous Phonograph*, J.B. Lippincott, New York, 1954.



It may seem to some to be frivolous and self-indulgent to be spending large amounts of cash on audio equipment, when equipment with a decent percentage of the quality is available at a fraction of the cost at the Wiz, Circuit City, or whatever. But when we pay for a high-end component, we are not merely receiving (hopefully) a better box. When I paid \$2k for my Thiel speakers, I was also paying enough cash so as to provide a decent standard of living for a group of master craftsmen, who, I would assume, love what they do, but who must certainly take deep pride in what they do. Sure, I could have gone to Stereos "Я" Us and bought some cheap thing (maybe good or maybe bad) mass-produced in some low-wage, miserable assembly line in the Phillipines or wherever, saved myself a bundle, and have been reasonably happy with the sound quality. But to do so would have made the demand for skilled craftsmen that much smaller.

Don't get me wrong—this is not a US protectionist stance *per se*. (When a US company makes garbage, I try not to buy it!) But in a US that prizes quantity over quality—imagine a huge cornucopia, but filled with Styrofoam-tasting "perfect" fruit and vegetables—smallness, care, and attention to detail are not often prized. (However, this may be slowly changing—witness the microbrewery revolution.)

Therefore, instead of finding ways to grind out more product (vertical growth), as Kalov suggests, perhaps individual high-end manufacturers need to find new ways to get the word out about the value of this hobby. (And if you think the word is out, just grab someone off the street at random and watch their response when you inform them that the US makes some of the best audio equipment in the world!) If successful, the result might be horizontal growth—an increasing number of small, local manufacturers, each pushing their particular innovation as far as it can go, while living a lifestyle that is much better than a subsistence wage.

G. Emory Anderson  
Forest Hills, NY  
ganderso@notes.cc.bellcore.com

### Gadzooks!

Editor:

Let me get this straight: J. Gordon Holt listens to music on a regular basis through his multichannel Home Theater rig? No accounting for taste, I suppose, but please do not delude the unwashed into buying into your suspect philosophy. Me? Video through a dedicated Home

Theater, and music through a system dedicated and optimized only for music. Compromise brings out the worst of both worlds. Egad! Zounds! Gadzooks!

John F. Vomacka  
Vancouver, WA

### Don't drop the Quad!

Editor:

Issue after issue, *Stereophile's* writers used to be hardly able to write a review without mentioning the Quad ESL-63 as a benchmark against which to compare other loudspeakers. Even CDs and LPs were listened to through the Quads, and lavish praise was given the speakers. However, newcomers to the high-fidelity scene who have been reading *Stereophile* for less than a year would not even know what an ESL-63 is.

Why? Because *Stereophile* has dropped this world-class speaker like a hot potato from "Recommended Components." Why? The reason given was that *Stereophile* does not review or recommend components that do not have proper representation in the US.

I am somewhat at a loss to understand this policy. *Stereophile's* readership is not limited to the US. You even have an overseas operation—ironically based in the UK, the home of Quads! How parochial can you get! As somebody said, "The worm in the apple thinks that the apple is the world."

But don't cancel my subscription! I haven't lost all hope! Burjini J. Kotwall  
(proud owner of Quads)  
Sydney, Australia.

*After a hiatus following the takeover of Quad by the Verity Group, the ESL-63 is once again available in the US. We have requested review samples and, provided our Follow-Up coverage is positive, the speakers will be reinstated in "Recommended Components."* —JA

### Bring back Home Theater coverage

Editor:

After anxiously waiting several months for the April '97 *Stereophile* to be published, I was extremely disappointed to find that dedicated Home Theater products were no longer included in "Recommended Components."

You stated that your Home Theater recommendations were published in the Spring 1997 issue of *Stereophile Guide to Home Theater*... Unfortunately, I have yet to find a single copy of SGHT in any book store or magazine rack... [I understand] that you now plan to publish SGHT 10 times per year instead of quarterly, which is a terrific step in the right direction. This field is

changing very quickly, and semi-audiophile types like myself need information from experts as we attempt to find a satisfactory balance between music and Home Theater.

I'd like you to reconsider your decision not to include Home Theater products in *Stereophile's* "Recommended Components." Surely the cost of the few extra pages in your magazine is minimal. At the same time, it will serve to expose the true audiophile to the ever-improving world of digital, which ultimately will benefit us all in our never-ending search for accurate reproduction of sound, be it music or Home Theater.

Dan Zehler  
Wiscasset, ME

### The real deal?

Editor:

Why does *Stereophile* keep reviewing the same companies over and over? Mirage has a new speaker out, the OM-6. It won't take you long before you review that one, I guess. But I have been waiting three years to see a review of a Definitive Technology speaker; their BP2000 is a hands-down best buy at \$2998/pair. There is nothing that comes close...

Is there some kind of feud going on with Definitive's Sandy Gross because he does not advertise in *Stereophile*? This is sure the way it looks to me and my audio club. You say you are fair, but when you refuse to review this company, you are hurting a lot of people who cannot afford a \$6k-\$10k speaker, but who could swing \$3k to get the performance of a \$10k design. You want people to experience high-end sound, don't you? Well, this is the real deal.

By the way, don't you think it's time to put out *Stereophile Guide to Home Theater* six or eight or 12 times a year? Four is not nearly enough, with DVD, Dolby Digital, and DTS coming out.

Gary Seymour  
Crystal Lake, IL

*No feud, Mr. Seymour, just a lack of attention. And in light of your enthusiasm for the Definitive Technology BP2000, perhaps we should organize a review. Stereophile Guide to Home Theater will indeed be published 10 times a year, starting with the January 1998 issue. Which explains why dedicated Home Theater products will no longer be reviewed in Stereophile or appear in its "Recommended Components"—sorry, Mr. Zehler. However, you can obtain back issues of SGHT by calling (800) 358-6274. And yes, Tom Norton is indeed working on a review of the Mirage OM-6.* —JA

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Tom Miiller, *The Audio Adventure*, Vol. 2, Issue 11

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Mark Block, *The Audiophile Voice*, Vol. 2, Issue 1

## RB980BX Power Amplifier

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Thomas J. Norton, *Stereophile*, Volume 15, No. 11

## RCD970BX Compact Disc Player

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Ultra High Fidelity Magazine, Volume 44

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## Putting the record straight

Editor:

Fair is fair. In the May issue of *Stereophile* (p.11), you printed the least intemperate version of a letter...in which, among other things, I criticized what I called your "tube/analog" house sound and slammed the Sonic Frontiers SF10-2 Mk.II D/A processor and, by association, Robert Harley.

I am writing partly to tip my hat to both Sonic Frontiers and Mr. Harley, but also to put into evidence an example of what I suspect is a not uncommon experience. How a component sounds can change from one hearing to another, depending on subtle changes of various kinds in one's life and environment—and on what other equipment one hears in the interim. Your aural expectations can change behind your back. (Is this why your reviewers, who admittedly have the luxury that we prospective buyers do not, audition equipment over a long period of time?)

Since I first heard the SF10-2 Mk.II, I have moved from Andover to Worcester—into smaller quarters—had a son born, turned 58, and heard, among other things, Krell's KPS-20i/I. And now the SF10-2 sounds wonderful. It

makes me smile, occasionally takes my breath away—even in the next room. It hasn't quite the arresting resolution of the Krell SBP-64X that it replaced; and it can't compete with the KPS-20i/I on the bottom. But now, for some reason, neither of these deficiencies seems to matter.

The Sonic Frontiers does things through the midrange that neither Krell can approach. It dares to sound beautiful. Music does sometimes sound beautiful. I respect the SBP-64X for its impact, and I greatly admire the KPS-20i/I for its magnificent objectivity; but beauty is not a word I would associate with either of these machines. Beauty, it turns out, can make an absence of impact and deep bass matter less. "Get the midrange right"? I do not understand this, any more than all of the tubaholics on your staff do or, for that matter, the Sonic Frontiers people do. But I am humbled.

Fair is fair.

Robert Neill  
Worcester, MA

## Not yet

Editor:

Does *Stereophile* have a Web page?

Ron Walkowiak  
ronval@wt.net

Not yet. But maybe soon.

—JA

## What, when?

Editor:

I was wondering if *Stereophile* has some sort of annual index that lists all of the articles and product reviews that were published in your fine magazine.

Ellen Tunstall

72740.520@Compuserve.com

We publish an annual index to articles and reviews every January. In addition, a complete index is available on disc as a series of ASCII text files—see the advertisement in this issue's "AudioMart" section. (An index to record reviews and music features published in *Stereophile* is also available.) You can obtain back issues of *Stereophile* by calling (800) 358-6274. The cost is \$7 each (1994 onward) plus \$2 S&H. The company that provides our back-issue service also offers a fax service for individual articles. This is necessarily expensive, however, at \$20 per article.

—JA

## You can leave your hat on

Editor:

I have found the stereo to sound much better if you take off your hat.

Randy Meenach  
Astoria, OR

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## I N D U S T R Y   U P D A T E

### UNITED KINGDOM

#### Paul Messenger

Vinyl junkies should have good reason to join in EMI's centenary celebrations. But more relevant to most *Stereophile* readers than the exhibitions and concerts being held in Britain this year is EMI's decision to reissue a collection of 20 classic pop/rock albums, direct-metal-mastered and pressed on top-quality 180gm virgin vinyl.

The UK retail price is expected to be £17.50 (\$28), and the collection is based on many of the biggest sellers of the '70s from the EMI and Virgin labels. It also includes a number of more eclectic items, from Frank Sinatra to Nigel Kennedy. No serious record collector will find anyone else's list anywhere near acceptable (my complaint: why the mediocre *Beck-Ola* rather than the classic *Truth?*), but there's definitely a lot more wheat than chaff here:

Syd Barrett, *The Madcap Laughs*; The Beach Boys, *Pet Sounds*; Jeff Beck, *Beck-Ola*; David Bowie, *Ziggy Stardust & the Spiders from Mars*; Kate Bush, *The Kick Inside*; Crowded House, *Woodface*; Peter Gabriel, *So*; Genesis, *Selling England by the Pound*; Iron Maiden, *Number of the Beast*; Jethro Tull, *Stand Up*; Nigel Kennedy/Vivaldi, *The Four Seasons*; John Lennon, *Rock and Roll*; Freddie Mercury, *The Freddie Mercury Album*; Mike Oldfield, *Tubular Bells*; Pink Floyd, *The Dark Side of the Moon*; Queen, *A Night at the Opera*; Roxy Music, *For Your Pleasure*; Sex Pistols, *Never Mind the Bollocks*; Frank Sinatra, *Songs for Swingin' Lovers*; and Talk Talk, *The Colour of Spring*.

### UNITED STATES

#### Jon Iverson

This is probably way old news (decomposed, even) for computer people, but if you've been living the audio good life of late you may have missed an interesting announcement from Creative Labs, the folks who brought the PC world into the gaming biz with their Sound Blaster cards. People have wondered what CL was going to do next now that sound-card sales have died down. No more guessing: On April 3, Creative Labs announced their first DVD player for PCs. This DVD drive supports all known DVD formats to date, and even has a digital output to hook directly into a Dolby Digital decoder. But the surprising part is the price: \$499.

What's the catch? First off, there's no way to directly connect this DVD drive to a typical consumer TV, as it sports only a VGA output at this time. But according to Jon Hazelwood from Creative Labs, you can either get a converter to create an NTSC feed or use the NTSC output available on some computers. Jon said he liked watching movies on the computer screen while waiting for downloads...

When asked if this drive will support future DVD audio standards, Creative hedged its bets by saying that there is a chance that the digital-out could send the datastream to an outboard converter, but that they will announce a hardware and/or software upgrade path once the standards dust has settled. If the new standards go to 24 bits or more (!), new

hardware is certainly involved. They openly suggest, however, that they want these players used in CE setups starting today. Their DVD white paper gets all dewy-eyed describing the wonders of DVD-equipped computers in the family entertainment den.

### UNITED STATES

#### Barry Willis

The HDTV fix is in: on April 3, the Federal Communications Commission announced that it would "lend" a second channel to the 1600 television broadcasters in the United States, with the understanding that after the eventual changeover to digital, the broadcasters would voluntarily return their present analog licenses, to be auctioned off by the government to other industries. The decision came in a unanimous vote by FCC commissioners after a yearlong debate as to how best to usher in the new era of High Definition Television (HDTV). The second channel will be dedicated to transmitting in the new digital format. The multi-billion dollar question: Who will pay for it all?

As the plan now stands, broadcasters in several of the nation's largest markets are expected to be broadcasting in the new format by December 1998, only 18 months from now. TV stations in the top 30 markets are expected to go digital by the end of the following year. Failure to do so could cause a broadcaster to lose his digital license. Some will undoubtedly not meet the deadline.

The stepped-up schedule (the origi-

## C A L E N D A R

Dealers promoting manufacturer and designer seminars should fax (do not call) Debbie Starr the when, where, and who at (505) 983-6327, at least eight weeks before the month of the event—ie, if you're putting on something in September 1997, you should get the information to Debbie no later than July 1. Mark the fax cover sheet "For the attention of Debbie Starr—Dealer Bulletin Board." Promoters of hi-fi shows and audio societies promoting manufacturer visits should also fax Debbie the details as soon as possible.

### CALIFORNIA

**Century Stereo** (620 S. Bascom Avenue, San Jose) is hosting a series of evening seminars and light suppers on a variety of audiophile topics. For reservations, call (408) 998-7474 or visit their Website, [WWW.centurystereo.com](http://WWW.centurystereo.com). Topics include:

- Wednesday, June 25, 7:30pm: Representatives from **a/d/s/** will discuss "Car Audio Speakers and Amplifiers."
- Friday, July 11, 7:30pm: Represent-

atives from **Alpine** will discuss "Mobile Navigation Systems."

- Wednesday, July 30, 7:30pm: Representatives from **McIntosh Laboratories** will discuss "Ultimate Car Audio Systems."

### GEORGIA

- Sunday, June 22, 2–5:30pm: **The Atlanta Audio Society** is hosting a joint seminar featuring Kevin Hayes and Kevin Carter of **Valve Amplification**

# C a n   y o u h a n d l e **E** m i n o r ?

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nal transition period from analog to HDTV was originally projected at 15 years) assumes that broadcasters can procure the necessary funding for new studio equipment and transmission towers. It also assumes that they will be able to get municipal approval for the construction of those towers, not an easy prospect in some communities.

Costs of making the changeover can be easily covered by huge corporations, but smaller, cash-strapped broadcasters, who in many cases are already limping along with antiquated equipment, may be sunk by the new expenditures. In an April 14 piece in the *Chicago Tribune*, media writer Tim Jones examined the situation at WIFR TV, a CBS affiliate operated by Benedek Broadcasting Corporation in Rockford, Illinois. WIFR serves a community of about 168,000 television households. Jones quotes Keith Bland, Benedek's senior VP for Planning and Technical Operations, on the expected costs involved: about \$2 million to \$2.5 million per station. The estimate includes \$150,000 to \$475,000 for a transmitter, \$410,000 for digital switchers, \$80,000 for small monitors used in control and production rooms, \$30,000–\$40,000 for new large monitors, High-Definition studio cameras at \$140,000 each, and about \$300,000 for terminals and other gear. During the transition, all this digital equipment must be interfaced to the existing analog system and run in parallel with it. Lack of space may force the construction of new studios: add that to the estimate.

The requirement is being imposed on broadcasters by the government with the assumption that there will be enough HDTV-equipped households to justify the expense. There is no guarantee, of course, that consumers will go for the new format in large numbers. (A couple of early surveys showed that most people will settle for a set-top con-

verter box, expected to sell for a couple of hundred bucks. Other surveys have yielded conflicting results, with as many as 80% of those surveyed saying they would buy a High-Definition TV.) In fact, from the broadcasters' business perspective, even if most of a station's reachable households were HDTV-ready, there isn't anything about HDTV per se that makes it any more desirable than the present analog system. For them,

**From the broadcasters' business perspective, there isn't anything about HDTV per se that makes it any more desirable than the present analog system.**

digital is a "pure cost," in the words of Keith Bland. "We've got to find ways to make money off this," he told Jones, "because there's not one dime to be made from broadcasting digitally."

Jones also casts doubt on the benefits to viewers: "What will... the more than 1500 other television stations have?" he asks. "A clearer picture and better sound attached to *Seinfeld*, and perhaps a more realistic portrayal of the ubiquitous house fire on the local television news. That's not likely to cause much of a bump in the prime-time ratings."

Ultimately, digital television may not do much to change viewers' habits; if it doesn't, it won't change advertisers' spending habits either. Net effect for broadcasters: a huge increase in expenses without a corresponding increase in revenues.

And now the bad news for consumers: Although the whole big pro-

duction of HDTV is supposedly about its benefit to consumers, High Definition is exactly what they are unlikely to get most of the time, because HDTV at its clearest uses almost all of a broadcaster's available bandwidth. Except for certain pay-per-view major sports events and blockbuster movies, it will be too expensive for broadcasters to run true HDTV. Part of the answer to the financial puzzle for them lies in the fact that "standard digital transmission," the type most broadcasters will use most of the time, occupies less of the available bandwidth than either HDTV or its analog equivalent. Unused bandwidth can be leased out to other broadcasters, such as local radio stations, or used for the delivery of other information services. The "multicasting" of "added services" is going to be the broadcasters' way to recover from the burdens being imposed on them by the new system.

The story doesn't end there. A big reason for the FCC's stepped-up timetable is the federal government's stated intention to balance the budget by the year 2002. One scheme for fulfilling this impossible dream is to pay down the deficit through the auction of broadcasting bandwidth now occupied by analog television. The Clinton administration's budget projection includes an anticipated \$15 billion from an advance auction that same year.

But so far, auctions have yielded far less than expected. *Wall Street Journal* reporter Bryan Gruley mentioned that the FCC's recent wireless auction generated only \$13.6 million, as compared to a projected \$1.8 billion. In the past three years, bids to use the broadcasting spectrum have totaled almost \$23 billion, according to Gruley, but only about \$10.5 billion has actually been collected. Some companies who bid successfully have found themselves overextended and unable to make payments.

## C A L E N D A R

**Company** and Kevin Hosp of **Verity Audio**. They will discuss and conduct demonstrations of the latest VAC tube amplification products and the Verity Parsifal loudspeaker at the Hellenic Center, 2124 Cheshire Bridge Road, Atlanta. For information, call Chuck Bruce at (404) 876-5659. Internet: [chucksaudio@mindspring.com](mailto:chucksaudio@mindspring.com) or home page [www.mindspring.com/~chucksaudio](http://www.mindspring.com/~chucksaudio).

● Sunday, July 13, 2–5:30pm: *The*

*Atlanta Audio Society* and *Electronic Home Consultants* are hosting the **Home Theater and Cinema Expo** at ADAC, West 349 Peachtree Hills Avenue, Suite A7, Atlanta. The Expo will feature three complete home-theater systems to meet a variety of budgets and applications, with A/V components by **Runco**, **Faroudja**, **Lexicon**, **Meridian**, **Stewart Filmscreen**, and others. Meridian VP Ross Keim will demo DVD players coupled with DSP

5000 and 6000 digital audio surround systems, while cinema scholars Sam Patton and Dr. Gary Lemco will discuss milestone films, producers, and directors, and present a field report from the set of "Midnight in the Garden of Good and Evil," currently filming in Savannah. For information, call Chuck Bruce at (404) 876-5659. Internet: [chucksaudio@mindspring.com](mailto:chucksaudio@mindspring.com) or home page [www.mindspring.com/~chucksaudio](http://www.mindspring.com/~chucksaudio).

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Pocket Communications Inc. of Washington, DC was one such company. After bidding \$1.4 billion for 43 licenses for a new type of wireless phone system, Pocket went belly-up and filed for bankruptcy protection.

Although television broadcasters are vaguely committed to returning their analog licenses "some day," there is no fixed schedule for when they must do so, or a binding legal requirement. FCC chairman Reed Hundt favors a new law that would establish a date by which the licenses must be relinquished. Senate Commerce Chairman John McCain (R-AZ) is considering the proposal. Broadcasters may balk at returning the licenses if digital television doesn't fly in a big way, or if they discover that they need the bandwidth for other services to cover increased operating costs. Furthermore, the law of supply and demand is fully at work with the availability of bandwidth. The more of it that becomes available, the less valuable it becomes. The Congressional Budget Office estimates that an auction of the analog spectrum would net the government only about a third of the Clinton administration's hoped-for \$15 billion. There is even some chance that such an auction may never happen. That's foresight and planning at the highest level of government.

## UNITED STATES

### Wes Phillips

Hales Design Group has announced that Casey McKee, former National Sales Manager for Audiophile Systems and erstwhile US Distributor of Exposure products, has been appointed Sales and Marketing Manager for North America. (Tel: (512) 502-8221 Fax: (512) 418-1504). The company has also announced its new Revelation Series of affordable loudspeakers, as well as the Concept One speaker. For details,

access Hales' Web site: <http://www.halesdesigngroup.com>.

## UNITED STATES

### John Atkinson

John Marks Records now has a Web page: <http://www.jmrcds.com>. And so does loudspeaker manufacturer Thiel Audio: <http://www.thielaudio.com>. Thiel has discontinued that long-term resident of *Stereophile's* "Recommended Components" listing, the CS5i, partially due to troubles finding a supplier for the material used for the front baffle, which was not concrete like the CS7 and CS6, but instead was a composite using marble.

## UNITED KINGDOM

### Paul Messenger

Despite ample availability from indigenous manufacturers like Meridian, QED, and Linn (plus KEF and B&W on the speaker front), Britain has been exceedingly slow to pick up on the American Custom Install trend.

The gear's been available here in Britain for more than a decade—I myself carried out a multiroom A/V installation for a wealthy boss some 12 years ago. It proved an invaluable learning experience at the time, but not the harbinger of a new and rapidly growing market sector I'd anticipated. Meanwhile, Custom Install and the closely related Home Theater markets have been the main growth engines for US consumer electronics.

Several factors have contributed to Britain's tardiness. The majority of homes have solid walls, which leaves in-wall speakers confined to ceilings (good for surround sound) or the occasional partition. There's less disposable income. And the UK housing market has been flatter than a tortilla for the past eight years.

Now the housing market is showing signs of recovery, a new government is

adding some consumer optimism, and US-based trade body CEDIA International (Custom Electronic Design & Installation Association) has been lending a helping hand to its fledgling UK branch to try to add the vital sparks of training and confidence needed to kick-start the UK scene.

In April, at a posh hotel near London, CEDIA UK held its second—but first solo—exhibition/symposium, EXPO-UK '97, for trade visitors only. With over 200 high-quality delegates paying substantial fees, all involved seemed very pleased with the results. A fairly small affair, the exhibition more than made up for any lack of quantity with exceptionally high-quality demonstrations (especially on the video projection side), and helped focus attention on the all-important seminar program. Education would seem to be the key ingredient needed to give dealers the confidence to take on the complexities of the multimedia future.

## UNITED STATES

### Jonathan Scull

The New York audio grapevine is like a corkscrew winding its way through the heart of the high-end community. I'd heard early rumors that a 25-year veteran of the Audio Wars—Innovative Audio, at 77 Clinton Street in Brooklyn Heights—was opening a new store in midtown Manhattan.

Memory synapses flickering, I found an old folder with 1988 sales receipts from Innovative for a demo Conrad-Johnson PV-5, a Linn K-9 cartridge, and some Monster Cable. I remembered being very impressed with how they'd schlepped individual speakers and amplifiers into their listening room for auditioning.

The new store is in the Architects and Design Building, at 150 E. 58th Street between Lexington and Third Avenues,

## C A L E N D A R

### ILLINOIS

● Saturday, June 28, 11am–6pm: **Holm Audio** (450 Ogden Avenue, Lisle) is hosting Brian Tucker of **Pro Audio Ltd.**, who will showcase the new Pink Triangle Tarentella turntable and their new digital products along with **Wilson Benesch's** latest carbon-fiber isolation equipment stands and analog products. **Ensemble's** latest cables and accessories will also be featured. For more information, call (630) 663-1298 or fax

(630) 663-1198.

● Saturday to Sunday, July 19 and 20, 11am–4pm: **Holm Audio** (450 Ogden Avenue, Lisle) is celebrating their fifth anniversary with special guests Luke Manley of **Vacuum Tube Logic**, Jeff Joseph of **Joseph Audio**, and Ted Denney of **Synergistic Research Cables** and special prices on the three companies' products. For more information, call (630) 663-1298 or fax (630) 663-1198.

● Saturday, July 19, 6pm: **Holm Audio** (450 Ogden Avenue, Lisle) is hosting Scott Novak of **Synergistic Research** for a demonstration of how to use Synergistic's system-dependent cable technology to match cables for your system. Seating is limited; call (630) 663-1298 for details.

### MARYLAND

● Friday, July 11, 7pm: **Silver Screen & Sound** (8832 Orchard Tree Lane,



# Coming Soon To a Price Range Near You

## **Miles** *Theta Digital's first Compact Disc Player*



Theta Digital, the company that pioneered separate component digital to analog converters and transports, is bringing out its first compact disc player, Miles.

Miles' digital to analogue conversion uses Theta's famous programming on a high powered computer, and is offered with a choice of either single ended or fully differential balanced output.

Miles offers an analog volume control similar to Casablanca's, excellent power supplies, Theta's proprietary jitter reduction technology, and truly superb sound.

Pearl is Theta's lowest cost transport to date, yet offers much familiar Theta technology. Based on the Pioneer Stable Table, it incorporates jitter reduction circuitry, and multiple high quality power supplies.

## **Pearl** *Theta's new Transport*



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only a block away from Bloomingdales (oy *vay!*). Kathleen felt the new Innovative was beautifully finished, with a modern, minimalist touch. For seating and cabinetry, owner Elliot Fishkin networked with such furniture designers as Pace, Dakota Jackson, and others located right there in the A&D Building. "We wanted to create an almost living-room-like reality," he said.

I asked Elliot how it was all screwed together. In fact, the five listening rooms were built like recording studios. Elliot: "We started with a product incorporating cubes of a compliant but stiff plastic material that's woven into a blanket of fiberglass of a certain specification. That's laid down on the concrete slab of the building, followed by layers of MDF, plasterboard, and plywood, all glued and screwed together in a particular way.

"Then we raised walls studded with 18-gauge steel—you can't cut it with a crimper, you've gotta saw it! We drop the ceiling on top of that, using three layers of sheetrock for the interior walls. So our listening rooms sit like little islands above the foundation. Low-velocity air conditioning and custom dimmer lighting finish it off."

I recalled that Kathleen had described the store as "feminine-friendly."

"Yes," said Elliot. "Our customers—both men and women—can have great sound or home theater in a lovely, 'soft' environment. In that sense, the feminine qualities of nurturing and comfort figure into our presentation. I'm getting in touch with my feminine side, you can say!"

"Are you the dealer who's going to bring women into the High End, Elliot?" I asked.

"With our choice of fabrics, furnishings, and design, I think we already do," he calmly replied.

When I asked about the gorgeous 6' Steinway that sits in his store, Elliot told me about Faust Harrison Pianos. "Mrs.

Faust and her husband are world-renowned for restoring Steinways. This one's a 1933 model; it's attached to a disc player mechanism, so I'm able to demonstrate how a piano actually sounds in my store."

**Innovative was a Linn shop back in '88, and it's a Linn shop now. Covering the waterfront, it also sells Rotel, Arcam, B&O, Spectral, Balanced Audio Technology, VAC, Audible Illusions, and Creek. Speakers are from Wilson, Thiel, Linn, and Definitive Technology.**

Innovative was a Linn shop back in '88, and it's a Linn shop now. I never caught Sondek fever, but many have succumbed to its charms over the years. "There is a certain camaraderie among Linn practitioners," avers Elliot. He also offers Benz and Linn cartridges.

Digital-wise, Elliot carries lines from Wadia and Spectral as well as the Linn Karik and Numerik. Covering the waterfront, he also sells Rotel, Arcam, and even B&O.

Electronics include Linn (of course), Spectral, Balanced Audio Technology, VAC, Audible Illusions, Rotel, Arcam, and Creek. Speakers are from Wilson, Thiel, Linn, and Definitive Technology.

"Jonathan, we need the support of the public who appreciate—hopefully—what we're trying to do, and that's to establish a level of service that is

truly exemplary. Not in competition with other stores, but against a standard of what good service really means."

Well, you heard it here first, folks! You can contact Innovative at (718) 596-0888 in Brooklyn, or (212) 619-6400 in Manhattan. You'll also find them on the Web at <http://www.innovaudio.com>.

## **UNITED KINGDOM** **Paul Messenger**

The two potential protagonists in the battle to develop and commercialize nonpiston flat-panel speakers have (wisely) decided that cooperation is likely to be more productive than rivalry and conflict. They have announced a cross-licensing agreement covering the intellectual property.

NXT (New Transducers Ltd., part of the British Verity Group) announced and demonstrated its distributed-mode panel transducers in September 1996 (*Stereophile*, Vol.19 No.12, pp.33-34). It soon became apparent that NCTI (Noise Cancellation Technologies Inc., a NASDAQ-quoted US company) was working in a similar area, having previously demonstrated a "headliner transducer" for automotive applications at the beginning of 1996, and subsequently gone on to develop a piezoelectric "Flat Panel Transducer"™ (*Stereophile*, Vol.20 No., pp.31-33), alongside active wave-management (AWM) techniques for noise-reduction applications.

The strength of the link is reinforced by a \$3 million prepaid royalty/license fee from NXT to NCTI, providing the latter with capital to accelerate development. Each company has also granted the other significant share options (pending shareholder approval). That the news should be good for all parties was reflected by a significant post-agreement rise in Verity plc share price on the London markets.

## **C A L E N D A R**

Towson) is hosting Rafael Rodriguez of **Synergistic Research** for a demonstration of how to use Synergistic's system-dependent cable technology to match cables for your system. Seating is limited; call (410) 296-0202 for details.

### **MICHIGAN**

● Wednesday, July 23, 7pm: **Accutronics** (324 S. State Street, Ann Arbor) is hosting Scott Novak of **Synergistic**

**Research** for a demonstration of how to use Synergistic's system-dependent cable technology to match cables for your system. Seating is limited; call (313) 741-4444 for details.

● Thursday, July 24, 7pm: **Stereo Center/Front Row** (2065 S. Linden Road, Flint) is hosting Scott Novak of **Synergistic Research** for a demonstration of how to use Synergistic's system-dependent cable technology to match cables for your system. Seating is

limited; call (810) 732-2220 for details.

### **NEW YORK**

● Each month: For information on the monthly meetings of the **Musical audiophile Society**, **The Audiophile Society**, and the **Gotham Audio Society**, call David Nemzer at (718) 237-1094.

### **NORTH CAROLINA**

● Thursday, July 17, 6-7pm and 7:15-8:15pm; **Audio Advice** (6701-101



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**UNITED STATES****Barry Willis**

The computer industry has made its first open challenge to television broadcasters and the consumer electronics industry. At the end of April, Compaq Computer Corporation introduced the first "PC Theater," a \$5000 large-screen TV combined with a full-featured computer. Compaq's new offering is a transitional product leading toward what the computer industry hopes will be a unified future: High-Definition Television fully integrated with personal computers and online interactivity. As such, its 36" screen lacks the 16:9 feature-film standard aspect ratio specified for HDTV, but it does have a built-in line doubler. A separate computer unit contains converter circuitry to change the display from NTSC interlaced scanning to progressive scanning. The unit starts up in TV mode and a button on the remote control brings up a Windows menu for computing use. Thomson is the builder of the picture tube.

Compaq, Intel, and Microsoft, among others in the computer industry, have hopes that the PC theater will help them break the 35% market penetration they now hold in North America. That figure has remained fairly constant for the past several years despite the media's hysteria over all things digital. The television, by contrast, can be found in almost every household: less than 3% are without one.

The computer industry insisted from the beginning of high-level talks about technical specifications for the new TV format that it use progressive rather than interlaced scanning. Progressive, the type used for computer displays, is believed by computer people to be better for data, graphics, and animation, while interlaced is considered by the broadcast industry to be better for films, sports, and live-action news coverage.

The debate was never fully resolved, even when the Federal Communications Commission announced in late December that all the technical differences had been ironed out. When the FCC announced on April 3 the issuance of digital broadcasting licenses to all the broadcasters in the US, essentially ushering in the new era of HDTV, the scanning-standard question was still open

**Compaq introduced the first "PC Theater," a \$5000 large-screen TV combined with a full-featured computer and a built-in line doubler.**

for "market forces to decide." It's likely that universally compatible television sets/computer monitors will need to be equipped for both types, a requirement the computer industry fought hard against. Nevertheless, inboard HDTV receivers soon will be standard equipment on top-end computers.

Compaq has realistically low expectations for the retail success of its first hybrid—initially it will be offered for sale only in areas with an exceptionally high proportion of computer-industry workers: Seattle, Denver, Dallas-Ft. Worth, Houston, the San Francisco Bay Area, and Washington, DC. Compaq VP Laurie Frick told the *New York Times*' Joel Brinkley that the PC theater was being introduced to get its dealers primed for next year, when the first digital televisions are expected to go on sale. She said the next generation of PC Theaters would feature wide screens, and admitted, "...frankly I think there may be people who decide to wait."

**UNITED STATES****Jon Iverson**

Intel had sent me a copy of their "Audio '98 Roadmap" which contained the usual computer audio stuff for playing games, adding sound to Windows programs, and so forth. And then, right in the middle of p.7, it said: "DVD-ROM drives and audiophile PC to CE [Consumer Electronics] connections"! What followed was a section devoted to multi-channel DVI formats and, more interestingly, "audiophile" 48 or 96kHz, 20- or 24-bit audio, multichannel." It went on to talk about the USB and IEEE 1394 protocols, which offer bidirectional multi-channel data exchange between computers and consumer electronics devices.

I talked to Russ Hampsten, who has the curious title of "Platform Ingredients Marketing" at Intel. First off, Russ is very interested in the quality of sound in consumer electronics products. Like a lot of obsessed audio tweaks, he designed and built many of his own audio components while growing up, and hasn't been able to shake the audio bug since.

Russ feels that, as digital becomes the dominant format for audio in the home, having a computer involved in the system is inevitable. "I don't see a computer replacing an analog receiver or pre-amp, since those products can switch and process analog signals much more cost-effectively." He went on to state that, when connecting to the analog world, "computers would probably peak out at 48kHz/20-bit audio at the input/output jacks for cost reasons." But, he points out, "As more consumer electronics equipment provides digital signals along with '1394 connectors, a computer is the perfect device to handle all of the switching and processing functions."

Back to 96kHz/24-bit audio. According to Russ, "whatever the format firms up to be, we want to have all possibilities supported." Something like a

**C A L E N D A R**

Glenwood Avenue, Raleigh) and **Lexicon** will present a seminar by Buzz Goddard, who will discuss the Lexicon DC1 home-theater processor, introduce the new DTS processing for the DC1, and describe future Lexicon products. There will be two seatings, but seating is limited, so call Audio Advice at (919) 881-2005 to RSVP.

**OHIO**

• Tuesday, July 29: **Progressive Audio**


(1764 North High Street, Columbus) will present an evening with David A. Wilson, founder of **Wilson Audio Specialties**, recording engineer, and designer of the WAMM, X-1 Grand SLAMM, WATT/PUPPY 5i, System II WITT, and CUB speakers. Seating is limited; please call (614) 299-0565 for times and to make reservations.

• Tuesday, August 12: **Progressive Audio** (1764 North High Street, Columbus) will present an evening

with Dan D'Agostino, CEO and Chief Designer for **Krell Industries**, manufacturer of Full Power Balanced amplifiers, preamplifiers, digital components, and the Audio/Video Standard. Seating is limited; please call (614) 299-0565 for times and to make reservations.

**OREGON**

• Thursday, July 24, 7pm: **The Audio Gallery** (16318 SW Bryant Road, Lake Oswego) will host the West Coast



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are still a little uncomfortable  
with that word.**

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FireWire connection between a computer and a DVD player would be required to take advantage of this capability; when asked when this might start happening, Russ suggested that "by 1998 it will show up, one way or another. Both the hardware and the OS have to support the standards."

In the final analysis, Intel has decided that scalability allowing high-resolution audio capability must start being designed into computers (whose life cycles are typically shorter than those of CE products) *how* to encompass *all* potential consumers for future audio systems. Included in the Audio '98 Roadmap document are provisions to ensure that future computers behave like present CE equipment: instant turn on/off, rock-steady reliability (okay, so this doesn't apply to tweak audio stuff), and easy setup and use. The Roadmap also notes that S/PDIF connectors are on CE equipment now, and that USB or IEEE 1394 will be soon. But alas, to date I have detected no public endorsements of '1394 from high-end audio companies, save for some Harman, Sony, and Yamaha announcements. But Russ tells me that he has been in touch with a few shy high-end people who are testing the waters.

## UNITED STATES

**Jon Iverson**

It's been an interesting month for FireWire. First, Apple Computer announced the first OS (operating system) to support FireWire. Not a big surprise here, since Apple originated the Fire Wire technology a few years back. Then the company announced a software extension called the FireWire 1.0 API to allow software developers to start adding FireWire capability to their programs. The customer currently needs to put a card in one of their PCI slots to connect to FireWire devices and

run MAC OS version 7.6 or later. The initial use for this technology is aimed at the video editing and professional printing biz, where high bandwidth is a must, but the chart shows CE audio coming on board late in 1998.

**If things work out,  
FireWire will be the hard-  
wired hose that allows  
Microsoft and others  
to pump high-end digital  
entertainment to the  
masses by the turn  
of the century.**

One day later, Microsoft followed Apple's announcement with one of their own. Draft specifications for hardware manufacturers have been created to speed up the creation of devices compliant with IEEE 1394. Microsoft has cozied up with several CE companies to make sure that everyone is in sync on this one.

Several more companies have started giving late-'97/early-'98 dates for '1394- and USB-enabled devices for everything from printers and computers to DVD players and video cameras. If things work out, FireWire will be the hard-wired hose that allows Microsoft and others to pump high-end digital entertainment to the masses by the turn of the century.

Panic now and avoid the rush.

## UNITED STATES

**Barry Willis**

Do you have a closet full of used cables? Many longtime audiophiles do—cables, perhaps more than any other part of

high-end audio, are fashion items with little resale value once their moment in the sun has passed. As they move up the performance ladder, hobbyists who frequently change cables have been dismayed to discover that their "passive components" are almost as valuable as their old socks and used underwear.

On March 27, Transparent Audio announced a program intended to protect its customers' investments. Transparent will guarantee the trade-in value of its cables at the "Super" level and above for owners who wish to up-grade. The program is similar to the "one year full-price trade-in when moving up" offers sometimes made by dealers in loudspeakers and amplifiers, but this one has no time limit.

Here's how it works: If you own a 1-meter pair of Super interconnects (\$475 retail) and wish to upgrade to the 1m Ultra (\$895 retail), you can do so for \$595 and your old interconnects. In other words, your Super cables are worth \$300 toward the purchase of the Ultra. An 8' pair of Super speaker cables (\$1200) will be worth \$900 on the upgrade path to an 8' pair of the \$2300 Ultra: \$1400 plus the Supers. Transparent's new trade-in policy, which will be administered by its dealers, amounts to a nice sort of price support for its customers, at least when trading up: the Super interconnects retain a bit over 63% of their original value; the Super cables, 75%. The policy also applies to customers who wish to move up to the Reference level.

Audiophiles are unlikely to get that kind of return in the used-equipment market, where prices for active components begin at approximately half of retail, and cable prices can be as low as 20% of original retail. Transparent Audio President Karen Sumner commented: "Customers who are ready to invest in a cable on the performance

## C A L E N D A R

debut of the new *Avalon Acoustics* Arcus speaker. Avalon's Lucien Pichette will be on hand to discuss the product's design technology. Seating is limited; call (503) 699-8888 to make reservations.

### PENNSYLVANIA

● Saturday, July 12, 12pm: **David Lewis Audio** (8010 Bustleton Avenue, Philadelphia) is hosting Rafael Rodriguez of **Synergistic Research** for a demonstration of how to use Syn-

ergistic's system-dependent cable technology to match cables for your system. Seating is limited; call (215) 725-4080 for details.

**Soundex** (1100 Easton Road, Willow Grove) is hosting a series of seminars at their new state-of-the-art facility. Topics are listed below; call (215) 659-8815 for times and to make reservations.

● Wednesday, July 2: Bob Altenbern of **California Audio Labs** will be on

hand to answer questions. No reservations required.

● Wednesday, July 9: Ian Paisley and Jason Baumann of **Mirage Research & Development** will discuss furthering technologies from bipolar to omni-polar sound dispersion. No reservations required.

● Friday, July 11: John Beyer of **B&K** and Spencer Kalker and Brayton Bobinson of **CWD** will discuss current product lines. No reservation required.



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Recommended Components, Wes Phillips  
Stereophile, Vol. 20, No. 4, April 1997



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So it's your choice. You can settle for some of the music, some of the time, at the whim of some second-rate cables that add their own distortions, or you can enjoy all of the music all of the time, pure and clean, through our Artus Hyper-Balanced interconnects. Wes Phillips has recommended them. When you try them in your own system, you will too. Call us for details on our in-home evaluation program.



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level of Super are usually pretty serious about their high-fidelity systems and plan to make the pursuit of musical perfection a lifetime hobby. Our goal in developing the upgrade program was to preserve as much of our customers' original investment in Transparent Cable as possible while providing them with options for their future upgrade plans."

She added: "We believe that high-performance audio products should have lasting value." Amen to that. See your Transparent Audio dealer for details.

## UNITED KINGDOM

Paul Messenger

The specialist hi-fi industry sometimes seems almost too eager to reinvent its past and resurrect its roots, so it's refreshing to encounter a genuine innovation in an exceedingly basic component: the humble power-supply capacitor.

Dennis Morecroft—designer of small but highly respected and long-established specialist amplifier brand DNM—has tackled the capacitor before. He introduced "slit-foil" technology some years ago to help improve the audio performance of power supplies, a development that has proved popular with a number of audiophile-oriented manufacturers despite costing some 25% more than "standard" capacitors.

The new T-Network Capacitor (TNC) goes another major step forward in the quest for improved capacitor performance. It's taken some four years to develop, and costs about four times the price of a conventional "slit-foil" equivalent due to the considerable hand assembly required during manufacture, and a complete change in the production and test methods. The good news is that its average performance is claimed to be at least eight times better than that of standard capacitors.

The big difference between the TNC and a conventional electrolytic

capacitor is that it's a four- rather than two-terminal device. The input and the output paths are separated by making the connections at opposite ends of the electrolytic plate. Logic alone suggests that this should reduce any voltage-modulation effects between the current flowing into the capacitor from the mains/transformer and the current demanded by the amplifier and load.

## The new T-Network Capacitor (TNC) goes another major step forward in the quest for improved capacitor performance.

The manufacturer describes measurements of a 10,000 $\mu$ F/50V TNC cap against a conventional but otherwise identical unit; these show a basic 4dB improvement in attenuation below 28kHz, rising to an 11dB improvement at all frequencies above 75kHz.

First production samples are just beginning to appear, and are being fitted to first samples of the new—and long-awaited—multilayer DNM power amplifier. The devices themselves are manufactured by BHC Aerovox Ltd. of Weymouth, England, UK. (Tel: 44 1305-782871. Fax: 44 1305-760670.)

## UNITED STATES

Barry Willis

Let's get interactive! What began with a bang is ending with a whimper: Time Warner has decided to pull the plug on the Full Service Network, its interactive-television experiment in Orlando, Florida. The service enables about 4000

customers to do a little online shopping, order movies, and play games with other subscribers. Implemented in December 1994 with a huge publicity effort, the system was hyped as the next great leap forward in the continuing convergence of telecommunications.

Full Service was Time Warner's power play in what it expected would be an exploding interactive industry. Each subscriber was equipped with a set-top box costing thousands of dollars and "ten times more powerful than a 486 computer." The network was originally projected to go nationwide, despite the millions of dollars in start-up costs in Orlando alone. TW declined to quote a figure more accurate than "tens of millions," but industry analysts put the price tag at around \$700 million. Yankee Group senior analyst John Aronson described Full Service as "a cash drain" for its parent company. "I'm sure they regret drawing so much attention to it," he told the *Wall Street Journal*. "Full Service Network will go down in history as a very expensive technological whiz-bang that never really did much, other than provide Time Warner with some marketing data." Full Service computers will be replaced at the end of the year with ordinary cable converter boxes.

Tele-TV, the interactive service begun by the triumvirate of Pacific Telesis, Bell Atlantic, and Nynex Corporation, is also circling the drain. Chairman Howard Stringer, former CBS president, announced his departure April 7 for a newly created position with the entertainment division of Sony Corporation of America. On the same date, Tele-TV announced that it was laying off half of its staff of 200. In a characteristic understatement, the *New York Times* said the enterprise "never successfully entered the television programming market." Other reports pegged the cost of the abortive venture at around

## C A L E N D A R

● Wednesday, July 16: Al Filippelli and Michael Manousselis of **Dynaudio** will demonstrate their Arbiter DC powered monoblock amplifiers and preamp and their complete line of home audio loudspeakers. Call to make reservations.

● Friday, July 18: Chris Johnson and Chris Jensen of **Sonic Frontiers** will present **Sonic Frontiers** and **Anthem** products and a surprise prototype. Marv Southcott of **Fanfare FM** will also be on hand to discuss tuner technology of today

and tomorrow. Call to make reservations.

● Wednesday, July 23: Karen Sumner and Doug Blackwell of **Transparent Audio** will present their new upgrade program on Super, Ultra, and Reference cables. In addition, Bill Eggleston and Peter McGrath of **EgglestonWorks** will demonstrate their speakers with four-channel 20-bit masters. Call for reservations.

● Friday, July 25: **Krell's** Dan D'Agostino, Dean Roumanis, Michael

McKiegan and Ray Hutchins will join **B&W's** Chris Browder for a spectacular presentation. Call for reservations.

● Wednesday, July 30: Mark Glaser, Dave Nauber, and Dana Carlson of **Mark Levinson** will discuss new digital-standard technologies. Call for reservations.

## VIRGINIA

● Thursday, July 10, 7pm: **Deja Vu Audio** (1361 Chain Bridge Road,

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\$300 million. Nynex and Bell Atlantic will recover some of their lost capital by slashing 10,000 jobs, including 3000 executive positions, in a proposed \$23 billion merger which won US Justice Department approval April 24 after a nine-month antitrust investigation.

Not-unrelated item: WebTV's three top dogs—Bruce Leak, Phillip Goldman, and Stephen Perlman, all formerly with Apple Computer—stand to make a cool \$64 million each from its recent \$425 million sale to Microsoft Corp., a sale that went through despite WebTV \$29.4 million loss since its inception in June 1995. Most of that (\$26.1 million) was lost in the last three quarters of 1996. As of April 1, WebTV had attracted only 56,000 subscribers. Is the buy a stupid maneuver by Microsoft? Not necessarily. If the world does go wildly interactive, as computer executives proclaim it will, then the software giant could make a further bundle by licensing WebTV technology to manufacturers of High-Definition Televisions (see above). Key word: "could."

Let's do the numbers. Between them, Time Warner and Tele-TV spent a whopping *one billion* dollars on what turned out to be nothing more than marketing studies. That's a lot of  *gelt*  to discover that ordering movies and pizzas is about as interactive as the average citizen cares to get. Anyone listening out there? Bill Gates? Andy Grove? You awake? Hello...?

More than a Web page, less than a concert. Interactive antics in audioland: some companies simply refuse to take "no" for an answer. Music industry giants Sony Corp. and BMG Entertainment North America are trying to revive the multimedia CD—a product whose time never came—by going online with "enhanced CDs." The enhancements consist of links to World Wide Web sites embedded in Sony mul-

timedia CDs; BMG will use America Online to add the multimedia content to its offerings. Among the available features: photos and video clips of the performers, biographical and gossip items of same, reprints of old concert and album reviews, schedules of concert tours, release dates for new music, lyrics of the song in play.

Sony's "Connected" will use Shock-wave software to mate audio with video. BMG's interactive products—the first was Wu-Tang Clan's *Wu-Tang Forever* in June—will include 50 free hours of America Online for new subscribers. New recordings will include the necessary software; older recordings will be retro-engineered for interactive multimedia effects. The hope is that doing so will jump-start back-catalog sales.

Fact: Most cybernuts have CD-ROM players in their computers. Question: How many have decent audio systems hooked up to them? Guess: Not many. Question: How many care? You got it.

## UNITED STATES David Sokol

Laura Nyro's sweet, soulful, spiritual songs bridged the gap between folky eccentricity and mainstream pop in the late 1960s and early 1970s. She died, much too young, on April 8 of ovarian cancer in her Danbury, Connecticut home. She was 49.

Born Laura Nigro on October 18, 1947 in the Bronx, of Italian and Jewish parents, Nyro first drew musical inspiration from the streets of the city, moved early on by the street-corner singing of acappella doo-wop groups. As a teenager, she absorbed the sounds of jazz greats Miles Davis and John Coltrane as well as the popular soul and folk/protest music of the time.

It wasn't long after graduating from New York's High School of Music and Art in 1965 that she recorded her first

album, for Verve Folkways. *More than a New Discovery* (later reissued on Columbia as *The First Songs*), though rich in sparkling melodies and hip, poetic lyrics, sold poorly at first, but proved to be a treasure trove of material that would later become hugely popular when recorded by the 5th Dimension ("Wedding Bell Blues," "Blowin' Away"), Barbra Streisand ("Stoney End"), and Blood, Sweat and Tears ("And When I Die").

In March 1968, Columbia released the classic *Eli and the Thirteenth Confession*, the first of nine Nyro albums spanning 25 years. *Eli* contains the original version of "Eli's Coming," a top 10 hit for Three Dog Night in 1969, as well as "Stoned Soul Picnic" and "Sweet Blindness," both big hits for the 5th Dimension. But unlike the radio-friendly covers of her songs that scaled the upper reaches of the charts, Nyro's own versions were emotionally piercing, freewheeling, and complex.

Her compelling recordings and concerts attracted fierce, cult-status loyalty, but far more people knew her compositions (at one point in 1969, three of her songs were simultaneously in the Top 10 of the *Billboard* charts) than knew her name. As a performer, she often performed alone in the early days; her powerful but vulnerable presence behind the piano was captivating and breathtaking as she allowed herself to become engulfed by her music.

Other standout recordings include *New York Tendrberry* (1969), *Gonna Take a Miracle* (1971), and *Mother's Spiritual* (1984), all on Columbia. *Gonna Take a Miracle* was a real departure. A collection of rhythm and blues cover songs recorded with Patti LaBelle, it contains the classic "Up on the Roof," the only single by Nyro ever to chart for her—which is ironic, since she didn't write it. *Laura Nyro Live at the Bottom Line* was released on Cypress Records in 1989.

## C A L E N D A R

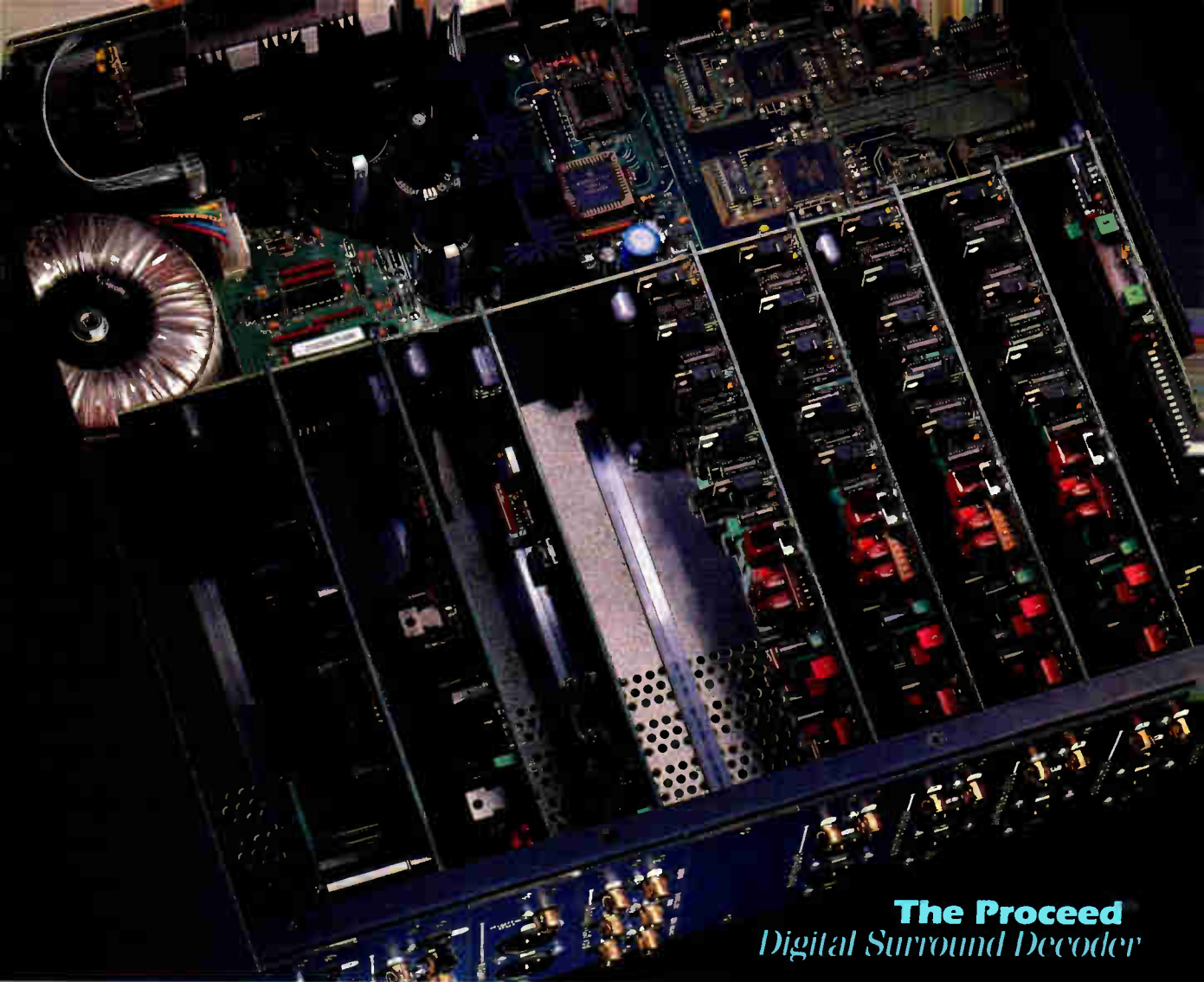
McLean) is hosting Rafael Rodriguez of **Synergistic Research** for a demonstration of how to use Synergistic's system-dependent cable technology to match cables for your system. Seating is limited; call (703) 734-9391 for details.

### WASHINGTON

● Friday, August 15, 7–9pm: **Definitive Audio** (14405 NE 20th Street, Bellevue) will host Robert Harley of

**Stereophile** for an "Introduction to Home Theater" seminar and question-and-answer session on music reproduction and home theater. Bob will sign copies of his new book, *Home Theater for Everyone: A Practical Guide to Today's Home Entertainment Systems* as well as *The Complete Guide to High-End Audio*. Call Definitive Audio at (206) 746-3188 for information or to make a reservation.

● Saturday, August 16, 7–9pm: **Nuts About Hi-Fi** (10100 Silverdale Way, Silverdale) will host Robert Harley of **Stereophile** for an "Introduction to Home Theater" seminar, question-and-answer session, and book signing. (See previous description.) Call Nuts About Hi-Fi at (360) 698-1348 for information or to make a reservation.



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now and well into the future.

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A donation to support AIDS research will be made for every name added to our mailing list.H A Harman International Company



In the works for over a year, a tribute album, *Time and Love: The Music of Laura Nyro*, has recently been released, featuring an all-star cast of women including Phoebe Snow, Jill Sobule, Rosanne Cash, Suzanne Vega, the Roches, and Holly Cole singing Nyro classics. They're lovingly rendered, but Nyro's own versions—as can be heard on the new Columbia/Legacy anthology *Stoned Soul Picnic: The Best of Laura Nyro*—are better.

## UNITED KINGDOM

### Paul Messenger

Following the considerable success of its Beatles *Live at the BBC* compilation on EMI—which has netted the Corporation \$1 million in the 18 months since its release—and the end of a previous agreement with another record label, the BBC is planning to search out, negotiate, and release some of the other extraordinary musical jewels that have been carefully preserved in its longstanding and capacious Third Programme (now Radio 3) archives.

Some of the recordings date back more than 50 years, and include such treats as Yehudi Menuhin's first-ever broadcast (the Brahms Violin Concerto with Boult), Jacqueline du Pré's Elgar Cello Concerto under Sir Malcolm Sargent, Callas performing Bellini's *La Sonnambula*, and recordings featuring von Karajan, Stravinsky, Toscanini, and Rubinstein.

The first releases are anticipated during 1997, and are expected to feature Benjamin Britten performing at Aldeburgh. John Willan, director of BBC Worldwide Music, doesn't underestimate the complexities of negotiating the various rights, but is bubbling with enthusiasm about an archive that, given the BBC's excellent engineering tradition, should have great appeal for the audio purist.

## UNITED STATES

### Barry Willis

Televisions and computers are getting cozier day by day. WavePhore, Inc. of Phoenix won patent approval April 23 for its WaveTop data-broadcasting "push technology." The technique embeds digital signals for the distribution of text information, software, and video games in the Vertical Blanking Interval of ordinary television broadcasts. (The VBI is the time between video fields when beam current to a picture tube is cut off.) The Public Broadcasting Service's 264 member stations have signed on for WavePhore's technology: delivering information to almost all television households in

the US from a single server computer. WavePhore claims a transmission rate 40 times faster than ordinary modems.

The technique is "transparent" in that it does not affect the operation of the television or the stability of its picture. It also bypasses Internet servers, avoids log-jammed telephone lines, and makes elegant use of a broadcasting network already in place. Exploiting a natural resource, as it were. Computer manufacturers (notably Compaq Corp.) have purchased licenses from WavePhore to include its receiver

**PBS's 264 member stations have signed on for WavePhore's technology: delivering information to almost all television households in the US from a single server computer.**

circuitry in new products, as have several makers of add-on cards. (Technophile bonus question: Wasn't this technique proposed in engineering publications more than 20 years ago?)

According to a news release, WavePhore's system is likely to become standard equipment on new computers. Intel Corporation was sufficiently impressed to buy a half-million shares of WavePhore stock, valued at \$4 million. A quarter-page advertisement by WavePhore in the February 13 *Wall Street Journal* emphasized that both the operating software and the service would be offered free, meaning that, just as in traditional commercial broadcasting, costs for its use would be carried by advertisers.

## UNITED STATES

### Barry Willis

CD Radio, Inc., one of the winning bidders in a Federal Communications Commission license auction, began construction April 30 of a satellite-to-car broadcasting system. The system is being engineered and produced in conjunction with Loral Space & Communications Ltd. A Loral subsidiary, Loral's Space Systems, will build two digital broadcasting satellites to be launched in 1999. Loral has an option to build a third satellite. The satellites will provide Digital Auto Radio

Service, or DARS, to truckers and motorists for a monthly fee.

CD Radio of Washington, DC bid \$83.3 million for its license; competitor American Mobile Radio of Reston, Virginia bid \$89.9 million for another. The two companies were the survivors in a two-day round of late-May bidding that forced Seattle's Digital Satellite Broadcasting Corporation and New York's Primosphere L.P. to drop out of the competition. CD Radio first requested its license from the FCC back in 1990.

DARS, offering "CD-quality audio," will be receivable by vehicles equipped with small surface-mounted disc antennas and special radios, the latter expected to retail at about \$150 more than ordinary AM/FM units. The service is expected to cost subscribers \$5 to \$10 per month. CD Radio announced that it intends to spend \$500 million to launch the service, which it claims will offer a variety of "largely commercial-free" music and news programming. (Could we see the numbers, please? This undertaking seems a mighty big leap of faith without advertising revenue.) The company estimates two years until its system is operational. American Mobile Radio estimates three years before its system is completed. There was no mention in any of several news releases as to whether the two systems would be compatible.

## NETHERLANDS/SWITZERLAND/ CZECH REPUBLIC

### Peter van Willenswaard

Early in March, Riccardo Kron of KR Enterprises, accompanied by his wife, Eunice, visited the Netherlands to show a power amp said to use a totally new (in audio, that is) output device called the "Vacuum Transistor." The amplifier had only just been finished; this was the first time Mr. Kron had taken it on a trip abroad. The meeting took place in the listening room of Dutch magazine *Audio&Techniek* with only four people present (I was one of them), including the representative of Dutch distributor Analogue Audio Products, who was also hearing the amp for the first time.

KR Enterprise is the continuation of the company formerly known as VAIC. If you read your *Stereophiles* of earlier this year, you'll remember that Mr. Vaic left/was forced to leave the company in 1996, and has subsequently been hired by Audio Note UK to produce tubes for them. The two companies are not exactly on speaking terms, to say the least. Remaining director Kron decided to drop the VAIC name and found KR Enterprise. KRE continues to produce



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the existing range of 300B-type output tubes (like the VV302B, VV32B, and VV52B; improvements on earlier types like the VV301B, etc.) that then carried the VAIC brand name. Problems that occurred in some earlier VAIC VV tubes are said to have been cured by much more stringent quality control of both raw materials and production.

The new Vacuum Transistor device is said to be a descendant of a device developed by the Russian military for use as a servo motor driver in Russian cruise missiles. It is well known that the Russian military continued using vacuum electronic devices in their defense equipment because, unlike solid-state devices, they can recover from the high-density electromagnetic pulses that follow nuclear explosions.

Mr. Kron refused to give clear answers to any technical questions about the device; this despite his assertion that the device had been patented, and our objection that a patent means protection. Nor was he prepared to show any measurements, or give precise operating voltages or currents. Such an approach makes life sore for a journalist, and for a while I thought I'd drop the subject. But what I heard the amplifier do was pretty thrilling. It could be that Mr. Kron has nothing. If so, we'll find out before long; someone somewhere is going to take the amplifier apart and/or measure its innards.

Back to the Vacuum Transistor. Mr. Kron told us it was contained in a very thick glass tube (he indicated some tubes 100–112mm long) surrounded by a black metal body that serves as a heatsink. It is capable of very high peak currents—11A. No other vacuum device of this size that I know of comes anywhere close to this value, though solid-state power devices attain such a figure easily. (This is probably why the name "Vacuum Transistor" was chosen.)

The amplification process takes place in the vacuum inside the glass tube (our suggestion that it uses a heater was not met with direct denial). As for bias and operating voltages, Mr. Kron disclosed only that the device's input had to be driven with several hundreds of volts. Though this is probably a peak-to-peak figure, even so, it would imply a very low mu device and a tough job for the driver stage. Optimum operating temperature is said to be 60°C, which I later confirmed by touching a running amplifier. The device can easily be replaced, if necessary.

Because of the enormous current capability, the amplifier is equipped

with active protection circuitry that permanently monitors the current drawn from the power supply; the absence of such circuitry would mean that, in case of malfunction, the output device would fry the output transformer and/or the power supply. The amplifier as a whole is without overall feedback, and is capable of delivering several tens of watts into the load connected.

## The new Vacuum Transistor device descends from one developed by the Russian military.

There was about an hour's time to audition the amp, which had been warming up during our conversation. For comparison purposes there were a 6C33-based amp that I was reasonably familiar with, and a VV32B amp from KR Enterprise that Mr. Kron had brought along. Neither of these fully attained the level of sound quality of the better 300B amps of my experience.

But the Vacuum Transistor amp blew both away, and by a wide margin. The sound was big (but not heavy), powerful, and dynamic, with lots of low-level information; voices hung completely detached in space. Most important of all, the sound was incredibly real, and to an extent I've rarely heard before. I had only one criticism: The highs were a bit on the cool (*ie*, analytical) side.

If I get the chance to hear this amp again, I certainly won't miss the opportunity. But the uneasy feeling remains that I don't know *what* I was listening to.

### UNITED KINGDOM Paul Messenger

What is it about green and its influence on the CD-reading capabilities of a red laser? Roksan isn't sure yet (and isn't saying too much, as a patent application is pending), but has just introduced the Caspian CD player, which features a Sanyo three-beam sled disc drive that has been substantially modified by fitting a green LED to the laser head. This is arranged so that it doesn't shine directly onto the laser receptors, but rather illuminates the area of the disc the laser is scanning.

The result—somewhat to the surprise of other golden-eared researchers down at Verity's V-Labs research center (Roksan is now part of the Verity Group)—is a small but nonetheless obvious and sig-

nificant improvement in sound quality. According to Roksan designer Touraj Moghaddam, "The soundstage was wider, deeper, and instruments were better defined. The music also seemed to 'flow' with the rhythm much better, making it more enjoyable."

Caspian's final production specification was only arrived at after considerable experimentation, to ensure that the effect was both real and optical in nature (in one prototype the LED was powered by a separate battery supply), and to determine the optimum wavelength and intensity for best results.

Just what mechanisms are at work remains speculative. Touraj reckons that the green light is in some way "complementary" to the red laser, and that the local green lighting serves to sharpen the edges of the pits read by the red. Then again, something akin to "optical dither" might be at work.

There are precedents. Krell's KPS-20i (introduced more than three years ago) uses no fewer than 26 green LEDs to floodlight the entire disc-drive compartment. The company has made no attempt to explain or justify this approach, but did once hold a demonstration with a modified sample that showed that switching off the LEDs was detrimental to the sound quality.

More recently (see *Stereophile*, Vol.19 No.12, p.55), French high-end specialist YBA introduced a range of CD players that use an LED-on-the-sled approach somewhat similar to Roksan's. Being French (*Vive la différence!*), Yves-Bernard André opted to illuminate the disc with a blue LED, and impishly christened it the Blue Laser.

At least those who somehow no longer get around to using CD Stoplight on every new CD purchase can now go for a Roksan Caspian, at what should be a rather-more-affordable-than-Krell price. (Roksan: Tel: 44 1480-433777. Fax: 44 1480-431767.)

### UNITED STATES Jon Iverson

The choking point preventing quality audio/video from getting into your PC from afar has always been those measly little phone lines. The cable companies have been promising higher-bandwidth cable modems for the last couple of years, but their thunder has been stolen by DSS and Internet services such as DirecPC.

And now Adaptec, in conjunction with Microsoft (who are they *not* working with?) and DirecTV, announces a screaming 30-megabits-per-second



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satellite-to-PC entertainment/Net access service using a special Adaptec DSS receiver card, the ABA-1010. This card will be an option in select systems from IBM and Gateway 2000 later this year. The service is projected to cost \$30/month and should feature all types of multimedia broadcasts, from "high-resolution" movies to data-enriched TV and software downloads. Also included will be an Internet account, with users uploading data and sending control messages and e-mails to the system from a conventional modem hooked up to their PCs.

The new PCs endowed with the satellite receiver cards are expected to have huge 3-5GB hard drives to store data offline for quick retrieval. No set-top boxes, just an audio/video PC and your TV. You select what you want, and when it comes around, the card grabs the info and stores it on the hard disk for real-time or later use. The perfect medium for high-end audio downloads? Could be, but video and "multimedia magazines" are going to hog this system for a while. The cards are expected to cost around \$400, and hook up to your 18" satellite dish via coax.

Also of note: Adaptec, traditionally known for I/O, connectivity, and net-

work products, is a highly visible supporter and supplier of technology "solutions" for FireWire-enabled devices.

If I were to dream a little, I'd set up an all-audio satellite service and sell folks

**If I were to dream a little,  
I'd set up an all-audio  
satellite service and sell  
folks the Adaptec cards  
and a DVD recorder with a  
one-time download fee.**

the Adaptec cards and a DVD recorder with a one-time download fee (maybe two or three bucks) per 60-minute recording captured off the system. In fact, since I was making so much money from selling downloads of recordings with virtually no costs per unit (or VUCs: Virtual Unit Costs), I'd give everyone the hardware free just to make it easy. The user would choose whether they wanted the data in CD-quality form, or high-resolution full-bandwidth heaven... then I woke up.

## GERMANY/SLOVAKIA

**Peter van Willenswaard**

More news about Czechoslovakian tube manufacturers. At the 1997 European AES Convention, held in Munich in March, a new brand of tubes was introduced: JJ Electronic. The tubes come from a Tesla factory, Slovakian branch. Head Engineer Jurco Jamona took over Tesla's tube production there, and the tubes will carry his initials from now on (the new logo comprises the initials JJ below and above a sine-wave period). The name of Tesla for tubes seems herewith discontinued.

A representative of JJ Electronic, Austrian-based Peter Hilbich, showed several samples of the new tubes, but emphasized that there will be no internal changes; production will continue to be held to the old Tesla standards. Red or blue glass bulbs have now become possible options for some types, though.

The JJ line of tubes is somewhat limited for the moment: EL34, E34L, 6L6GC, KT88, EL84, ECC83, E83CC (gold pins optional). The ECC88 (6DJ8) is not in production, which is a pity; the Tesla '88s were remarkably low in noise and microphony, in my experience. A 300B and an EF806S are said to be in preparation. **S**



SIGNET SL256



SIGNET SL252

ANDREW WONG, *THE STAR*, OCT. 1996

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LEVEL IT OFFERS..." BELIEVE**

**"THE IMAGE HOW GOOD THE  
AND SOUND STAGE SOUND WAS..."  
WERE SO VAST WE COULDN'T  
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WES PHILLIPS, *STEREOPHILE  
MAGAZINE*, AUG. 1995

DOMINIQUE POUPART, *SON HI FI*, JULY/AUG. 1996

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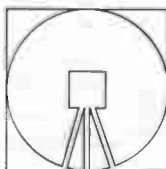


## **Aragon 8008x3** **The only amplifier rated Class A** **by the Stereophile Guide To Home Theater**

The following is Thomas J. Norton's quote from the Spring 1997 issue Vol. 3 No. 1 explaining why the Aragon is the only amplifier to achieve the Class A rating.

"Calling it 'an open window on the source,' TJN found this three-channel version of the 'terrific' two channel 8008 to be a superb performer on both music and movies. 'At the bottom end,' he said, 'you will look long and hard to find an amplifier that

better the Aragon.' As for the midrange, 'it had a convincing clarity, with a slightly laid back quality and an excellent sense of depth. There was no glare or edginess; the sound was neither veiled nor closed in.' Finally, TJN found the 'top end transparent and finely detailed. Resolution is excellent; there is a sense of seeing into the soundstage that is not bettered by any multichannel amplifier in my experience.'"



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## Sam Tellig

"Can we have these?" Such was my wife Marina's reaction to the Martin-Logan Aeries *i* loudspeakers<sup>1</sup> as soon as I'd set them up in the living room. I had to agree: they do look elegant, especially with black side panels—almost like Japanese screens. The speakers stand nearly 5' high (55½"), and 10½" wide by 12½" deep. Small footprint.

"Of course," Marina hastened to add, "that's if you think the speakers sound good."

"What do you think?"

"I think they sound as good as they look."

No question about it. Martin-Logan speakers appeal powerfully to the Russian soul—as witnessed by the fact that so many are now sold in the Motherland.

That night, Slava and Elena visited.

"Vat do zhees speakers cost?" Slava inquired in his thick Muscovite accent.

"Roughly two thousand a pair."

I played the Shostakovich Symphony 5 with Slava Rostropovich conducting the National Symphony Orchestra (Teldec 112226).

"Verry gud. Vere do I buy zhees speakers?"

Slava doesn't act quite that quickly, and Elena is not sure where to place the speakers in their living room, but I think they'll buy a pair. So might Lev and Sopha, and Mark and Natasha. And perhaps even Radislav, Marina's ex-husband.

On changing wives: "I had a drrream," Marina said to me the other morning.

"So what else is new?"

"Radislav came over to veezit and saw your seestem. He said to you, 'I must have zhees speakers. I will geeve you whatever you want.'"

"I already have his former wife," I said.

Marina ignored my comment. "He would die if he saw and heard those Martin-Logan speakers. He is leestening to a mini-seestem. Radislav always has to have the best."

"Not any more. He's got a new wife now: Myshka." (*Myshka* means little mouse.)

I paused.

"Changing wives is like changing interconnects or speaker cables. You don't necessarily upgrade."

"What's that supposed to mean?"

Marina was now wide awake. I was feverishly recording the conversation—and the dream.

"You're not going to put this stuff in your column—are you?"

I laughed my evil laugh.

"Radislav reads *Stereophile*!" Marina cried in panic. "*Plochoi!*" Bad boy!

I told Gayle Sanders of Martin-Logan about Marina's reaction to the Aeries *i*... and Radislav's, too.

"We're selling a lot of speakers in Russia," Gayle told me.

The speakers are popular in France as well, from what I see by the ads in French hi-fi magazines. I should point out that the Aeries *i* retails for around \$4000 in France—thanks, in part, to France's killer 21% VAT. And in Britain, a pair of Aeries *i* speakers will set you back £2300 (about \$3750).

In the US, you get a bargain—\$1995 for the basic speaker with black oak rails, single-wire. Light oak trim, please fork over \$100 more. Bi-wire, gotcha for another \$100. I'm not sure the oak trim is worth a C-note—the black is fine. But bi-wire is probably worth the money because you'll have the option to bi-amp, if you like. You may want to.

See-through sound: On top, you have the electrostatic panels—those see-through screens. Talk about transparency—you can see through the sound. Underneath, there's an 8" sealed-enclosure woofer. If you know the original Aeries, the Aeries *i* has the same dimensions, but the cabinet has been redesigned, streamlined as all get-out. This is one of the most visually elegant loudspeakers in the world.

The original Aeries sounded so transparent that in the June 1993 *Stereophile*,<sup>2</sup> I proclaimed it something of a steal. The new Aeries *i* is even more of a steal. Martin-Logan has substantially improved the speaker, but has not raised the



Martin-Logan Aeries *i* loudspeaker

price. The bass driver is new. Designer Gayle Sanders says it offers better power handling and achieves a better blend with the electrostatic panel. Yes, it does. The crossover has also been revised.

This is a neat trick: combining an inherently fast electrostatic panel with an inherently slow—well, *almost* inherently—cone bass driver. It's the reason why most subwoofers work so poorly in most high-definition systems: The bass just muddies things up. Not here—unless you position the speaker so as to overexcite room boundaries. (Not too close to corners, please!)

There are some other changes from the original Aeries, too. The crossover frequency is now set at 450Hz instead of 500Hz. Now, virtually *all* of the

<sup>1</sup> The Aeries *i* costs from \$1995/pair. Martin-Logan Ltd., 2001 Delaware St., Lawrence, KS 66044. Tel: (913) 749-0133. Fax: (913) 749-5320.

<sup>2</sup> Vol.16 No.6, p.75. JA's full review, including measurements, appeared in October 1993, Vol.16 No.10, p.222.



# 508.20

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\*Sam Tellig, Stereophile – October 1996 Recommended Components

midrange is handled by the electrostatic panel. However, sensitivity is reduced—down to 88dB/W/m from 89dB. Impedance is down a tad also—now nominally given as 5 ohms, dropping to no more than 1.7 ohms. The impedance of the original Aeries—Aeries “1” as opposed to Aeries *i*, I suppose—didn’t dip below 2 ohms.

No big deal, you say?

Well, the new Aeries, although improved, is more difficult to drive. I can attest to that. An amp that might have marginally driven it before—like the Conrad-Johnson MV55—might not be suitable now. The superbly written instruction manual recommends 80–200W per channel. That’s more or less right, but a good 60Wpc integrated like the Bryston B60 might do the job just fine.

When I auditioned the original Aeries, I thought that Martin-Logan couldn’t have done better for the price. I was wrong. They *have* done better—considerably better—with the Aeries *i*.

The bass is deeper, tighter, even more tuneful—now extended down to 40Hz or so. No need for a subwoofer, probably. It might add more boom than bloom to the sound. Moreover, the Aeries woofer is even better integrated with the electrostatic panel than before—that is, if your amp can get it up.

I found that the Conrad-Johnson MV55 had a tough time driving the new Aeries. Two MV55 amplifiers would have probably done the trick—one amp for the panels, the other for the bass. With only one MV55, the bass performance was compromised—it turned mainly sluggish, and some of the superb extension was lost.<sup>3</sup>

So much for the bottom—it’s the top where the improvements are most notable. The original Aeries could sound a little rolled on top—almost dull. The new Aeries has more top-end extension, more sparkle. That’s not all. Off-axis listening is better. Of course, it’s better to deposit one’s *derrière* in the sweet spot, but that’s true of almost all loudspeakers.

In the past, I’ve criticized speaker manufacturers for not making their models easier to drive. But an electrostatic/cone speaker hybrid is a special case. You can’t expect that such a speaker will present an easy amplifier load. All in all, I think Martin-Logan is to be commended for making the Aeries *i* as

easy to drive as it is. This speaker, while fairly demanding, is *not* a current hog.

While a 25Wpc Musical Fidelity A2 was not quite up to the job (hardly surprising), a 50Wpc Musical Fidelity A220 was. So was a Bryston B60 integrated, which is driving the pair of Aeries *i*s in my living room now. Does the Bryston run out of power? Sure it does. But the Aeries *i* isn’t a speaker that’s meant to be played very loud.

### When I auditioned the original Aeries, I thought that Martin-Logan couldn’t have done better for the price. I was wrong.

There’s only so much volume—as Wes Phillips uses the term, meaning to fill a room with sound—that you can get out of this relatively small speaker, especially in larger rooms.

Keep in mind that a 60Wpc tube amp will probably put about the same 60Wpc into 4 ohms that it does into 8 ohms—but the 60Wpc Bryston solid-state integrated is said to put out 100Wpc into 4 ohms. This is likely the reason why the Bryston B-60 could drive the Aeries *i*s with a reasonable sense of ease and why the tubed Conrad-Johnson MV55 could not.

Those who listen in small rooms—particularly those who live in apartments—may find that the Martin-Logan Aeries *i* is a godsend. Big speakers tend to overload and overwhelm small rooms, both sonically and visually. The Aeries *i* won’t.

A person with a relatively small listening room could put together a truly high-end system on the cheap: two grand and change for the Aeries *i*, \$1500 for the basic Bryston B-60 integrated without remote control, \$1550 for a Micromega Stage 6 CD player. Well, five grand is not so cheap, but when you hear the sound of these components—exactly the system that’s playing in my living room right now—you’ll know you’ve got a bargain.

Plus, the Aeries *i* is elegant. Your nonaudiophile friends will ooh and aah over it, as will your audiophile cronies. And they, too, will immediately hear that the sound is as transparent as the look: see-through, hear-through.

Those who have big rooms and who want big sound will best be served by

other, larger, more expensive Martin-Logan hybrids, such as the SL3 or the reQuest. My own living room measures 17’ by 27’, with low 7½’ ceilings. This is just about the Aeries *i*’s room-size limit, I’d say. If my room were any larger, the speakers would be too small.

Placement of speakers in the room is relatively fussy, I found. You want to bring them at least 3’ out from the rear wall to get a spacious image—I settled on 5’. If I positioned the speakers more or less equidistant from the rear and side walls, I got boomy bass—no surprise. I ended up with the speakers not quite 3’ in from the side walls.

You also need to play with toe-in. I was able to get a superb soundstage. But I was also able to compromise the soundstaging with poor speaker placement. Be prepared to experiment. Thoughtfully, Martin-Logan has supplied rounded floor supports that you can thread into the bottom of each speaker in lieu of spikes until the speakers are exactly where you want them.

The sound has the virtues traditionally associated with electrostatics: openness, speed, freedom from coloration. Remarkably, these qualities are preserved below 450Hz, where the sealed-box bass enclosure takes over. The downside is that the Aeries *i* is now slightly more difficult to drive than before. And the speakers will probably not fill a large room with big sound.

Sorry. In hi-fi, you just can’t have everything.

Also, speaker cables. I find that with electrostatics—Quads as well as Martin-Logans—I prefer solid-core speaker cables. They sound...well, less wiry. Kimber power cords also helped smooth out the sound.<sup>4</sup>

“Zhees speakers, zhey are Amerriican?” Slava wanted to know.

“Da,” I replied. “About as American as you can get—made in Lawrence, Kansas.”

I’ll have these speakers around for a while. Before I could buy them for the living room, Marina did.

#### Platinum Audio Studio 1

Phil Jones of Platinum Audio, Ltd. is looking to the Far East these days. His slogan? “LOUDSPEAKERS FOR THE WORLD.” When I chatted with him recently, he was preparing several container-loads of speakers for shipment to China, and himself for a voyage to Shanghai. I guess the Chinese, being

3 Some folks suggest a combination of heaven and hell: heaven (tubes) on top, hell (solid-state) down below, where it belongs. I’m not so sure.

4 The speakers must be plugged into the electrical mains to energize the electrostatic panels.



B-60

"Bravo, Bryston! A landmark...a reference...a triumph...a steal!" *Stereophile, May 1997*  
*Sam Tellig*

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*B-60 Integrated Amplifier*

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**BRYSTON**



capitalists now, would like to keep up with the Joneses.

Phil was a founder of Acoustic Energy, in England, and designed such legendary speakers as the AE-1 (still in production). In 1990 Phil established Platinum Audio in Bedford, New Hampshire.<sup>5</sup>

The \$995/pair Studio 1 looks like a less expensive version of the Platinum Audio Solo, which now retails for \$1695/pair.<sup>6</sup> The dimensions of the two speakers are identical—14" high by 8" wide by 13" deep—as are their shapes. Even their weights are almost the same: 23 lbs for each Studio 1 vs 28 lbs for each Solo. Add \$269.95 for substantial (and handsome) 25"-high stands, which should be filled with sand or lead shot.

When you pick up one of the Studio 1s, you realize just how solid this speaker is. When I asked Phil what was so heavy, he cited things like heavy inductor coils on the crossover, a heavy magnet on the woofer, the 1"-thick MDF cabinet, and the die-cast aluminum back plate. The speaker is sturdy! Once, I accidentally knocked one of them off a stand (not the Platinum Audio stand, to which the speaker can be bolted—a good idea) and onto the carpet. I picked up the speaker, expecting the worst, but there was no damage at all—not a scratch or even a dent.

The phone just rang.

"This is a courtesy call from Sears. We're having a sale on vinyl siding and a representative will be in your neighborhood."

"Wow! That's a coincidence."

"Would you be interested in an estimate, sir?"

"Vinyl siding? You've got to be kidding!" My former brother-in-law bought vinyl siding. He also bought—speakers!

Two minutes later Phil told me that he put vinyl siding on the sides of the Studio 1; real wood veneer costs a lot more. It's one of the reasons the Studio 1 sells for \$700 less than the Solo 1.

"It's hard to sell vinyl in Asia," Phil told me.

"Hard to sell vinyl here in Connecticut, too," I told Phil.

But that's being unfair. You'll never know this speaker is vinyl-clad unless you look up close and feel. The dark walnut wood-grain look is pretty convincing. The grille cover is a metal mesh



Platinum Audio Studio 1 loudspeaker (on left)

that you can pry off, if you're careful. But there's no need. I found no sonic improvement with the grilles removed.

Originally the Studio was priced at \$1295/pair, and at that price they sat on my shelf—much as they perhaps sat on dealer's shelves. No, the speaker wasn't a bad buy, but it wasn't a category-killer the way it is now. Other speaker manufacturers, especially those who've been aggressively raising prices, must love this. Along comes Jones and cuts prices. But this is the way capitalism is supposed to work. Henry Ford kept cutting the price of his Model T until enough people started buying it.

"We put our necks on the block and went for volume," said Phil.

Phil designed the entire speaker—drivers too. The 5¼" polypropylene-cone woofer is formed in one piece with a butyl rubber surround. "There's no dustcap," said Phil. "That gets you away from glue joints and gives a rigid structure for the voice-coil relative to the cone." The 1½"-diameter voice-coil is made of 99.9999% pure copper.

"The tweeter is basically the same as the tweeter in the Solo," Phil continued. "We use a one-piece dome and wind the voice-coil onto it. And we use a butyl rubber surround, as we do on the woofer. That helps flatten out the

response because you don't get any reflections back from the surround.

"Again, because of the one-piece construction, we've eliminated the glue joint in the voice-coil former. When I was manufacturing tweeters in England, I found that it was hard to get consistency above 12kHz with a glue joint. Eliminating that glue joint helps give us a very good top-end response."

"Is that the only secret?" I asked.

"Well, there's more. The dome is quite thick, and that makes it more opaque to any reflected sound from off the back of the dome. This helps give you a transparent top end without any of that ghosting of the reflected wave coming off the pole piece and propagating through the dome. The result is a harmonic purity, a lack of smearing. You can hear it especially with instruments like triangles and cymbals."

Indeed, I can. The term I use is "crystalline clarity." The Platinum Audio Studio 1 has the kind of clarity that you might expect from a speaker selling for \$2000/pair or more. That's one of the reasons it's such a remarkable speaker.

The Studio 1 is a standout performer in other ways as well.

At 14" high it's a little bigger than some minimonitors. It's got more bottom end, too. Phil said he tuned the

<sup>5</sup> Platinum Audio, Ltd., 10 Commerce Park N. Unit 12, Bedford, NH 03110-6905. Tel: (603) 647-7586. Fax: (603) 647-7290.

<sup>6</sup> The Solo was favorably reviewed by JA in November 1995, Vol.18 No.11, p.108



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ports—two rear-firing ports built into the cast-aluminum back plate—at 48Hz. The speaker has a fairly hefty bass output down to about 50Hz. Many small monitors start rolling off fast below 80Hz; with the Studio 1, there's a firm foundation under the music.

Tiny little triode amps need not apply, however. Phil recommends a minimum of 75Wpc.

## The Platinum Audio Studio

**I can kick serious butt.  
There's a wonderful sense  
of timing and pacing to go  
along with all that crisp,  
clean, articulate detail.**

"I love big, powerful amps!" Phil told me, the same day he took delivery of a new Krell Full Power Balanced 600 dual-mono amp. "Boy, do these wake up any speaker! Talk about bass response and control—the amp just yanks the speaker around the way it wants to."

Surprise, surprise, however. The 50Wpc (perhaps) Cary 805C single-ended triode monoblocks had no problem driving the Studio 1s in my listening room—it's a wonderful combination, except for the last ounce of control in the bass. Similarly, the Bryston B60 did a credible job—again, with some slight loss of extension and punch in the bass. A good combination unless you have a big room and/or like to play your music at "live" levels.

Nominal impedance is 8 ohms and, says Phil, doesn't drop much below 6 ohms. The crossover frequency is 2.5kHz. Sensitivity is given as 86dB/W/m.

"Don't pay much attention to that sensitivity spec," Phil hastened to add. "The trick, with some speakers, is to go for [overstated] efficiency. But the impedance may drop to something like 3 ohms because of the woofer's low-resistance voice-coil. I don't believe in doing that. I go for a fairly benign impedance so the speaker is not current-hungry and a major drain on an amplifier."

The Bryston B-60—60Wpc into 8 ohms—did a credible job with these speakers. The 45Wpc tubed Conrad-Johnson MV55 strained a bit, however. The midrange and treble were glorious, but the bass suffered—losing some impact, extension, and speed. The tube

vs solid-state tradeoffs are quite apparent with this speaker.

The clarity is exceptional. This speaker has a clarity that reminds me of the electrostatic Martin-Logan Aeries. What's more, the clarity of the tweeter is not compromised by any muddiness or lack of speed from the 5" mid-range/bass driver.

Considering the remarkable clarity from top to bottom, it's not surprising that the soundstaging is outstanding—provided you take care with positioning the speakers. The Studio 1 imaged almost as well in my listening room as the ProAc Tablette 50 Signatures, which are soundstage champs. Imaging was ultra-precise and stable, while the soundstage extended beyond the sides of the two speakers and deep into the room.

The chamber-music aficionado may prefer the sweeter sound of a monitor equipped with a soft-dome tweeter, such as the ProAc Tablette 50 Signature; ultimately, I'd probably gravitate in that direction myself. But the jazz buff or rock fan will probably lean more toward the sound of the Studio 1. The speaker can kick serious butt. There's a wonderful sense of timing and pacing to go along with all that crisp, clean, articulate detail.

Capitalist shark: Marina agrees. She likes the speakers too.

The other morning she awakened early. "I had a dr-r-r-cam," she said.

"Again?"

"Zhees time I d-r-reamed I saw Lenin's statue."

I ran downstairs to the kitchen to help prepare breakfast and turned on the stereo in the adjoining listening room. I pulled out my Melodiya LP of the Soviet National Anthem played by the Red Army Band and cranked up the volume.

"How does it sound?"

"Very r-r-real," Marina said. "Just like in Brezhnev's time. These must be good speakers."

She paused.

"Now will you turn it off?"

I laughed my evil laugh, bounced up the short half-flight of stairs to the listening room, and changed the record. Minutes later, Marina marched through the kitchen on her way to work. I played the "Internationale" and started singing the words in French.

"You write, I work," Marina said. "Okkula capitalismo!" she exclaimed as she closed the door to the garage.

Marina had just called me "Capitalist shark!"

## "Best Sound At Show"

At the Los Angeles  
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No audio equipment in history has achieved the legendary status of the Marantz vacuum-tube electronics. So timeless are the sonic and aesthetic attributes of this classic trio that, almost four decades after their introduction, pristine examples are still eagerly sought by committed music lovers and audiophiles alike.

Fortunately for those remorseful souls who parted company with their beloved originals, Marantz proudly announces the reintroduction of the Marantz Classics. The Model 7 preamplifier, Model 8B stereo and Model 9 monaural power amplifiers sound as remarkable today as when they first defined the state of the art during the Golden Age of Stereo.

These recreations are true to the originals in every way. In many instances, parts like transformers and meters have been sourced from the very suppliers who furnished them over a generation ago. Faceplates, knobs and switches are identical, and even the Marantz logo has been restored for absolute accuracy. All wiring is point to point; no circuit boards have been substituted for the sake of convenience or cost. Only genuine safety improvements, like detachable IEC power cords, standard fuses, and contemporary speaker terminals in place of archaic output taps, differentiate these modern units from their predecessors.

Ultimately, these jewel-like components could have you listening to music from a whole new perspective, while providing the kind of satisfaction that comes from possessing a timeless classic.

So instead of kicking yourself, you can sit back and enjoy the company of a long-lost friend.



**marantz**



## A N A L O G C O R N E R

Michael Fremer

**H**ere's a great garage-sale find: a series of 7" 33 $\frac{1}{3}$  rpm records sent by a drug company to doctors during the late '50s. Knowing that many doctors back then were classical-music aficionados, the company would put a licensed excerpt from labels like Vanguard and Westminster on one side, and on the other a medical lecture extolling the virtues of the drug it was pushing. My favorite: John Philip Sousa's "The Thunderer" paired with "The Treatment of Some Gastro-Intestinal Disturbances."

Flash! The record biz's savior has been announced, and you're reading it here first. According to some statistics, the prerecorded music industry saw sales drop a precipitous 30% last year.<sup>1</sup> Why? Well, there are many reasons why CD and cassette sales dropped and why vinyl was the only format to show an increase, but the industry, noting the trends, has decided what needs to be done to increase sales this year.

And the winning solution? "Bring back the cassette!" I kid you not. A group within the record industry has decided that emphasizing expensive CDs and downplaying inexpensive cassettes have driven away a large portion of the market who cannot afford CDs. So a newly formed organization called the Audio Cassette Coalition has been formed to "revitalize" the cassette market.

Never mind that vinyl is the only format to actually grow last year, despite the industry's decade-long campaign to kill it. "Some see [the cassette] as nostalgia, while others see it as a smart way to address more than 30% of the music-buying public that is not being served." So says an article in *Replication News*, a publication serving the mastering and duplication side of the industry.

Not being served? Last time I looked, cassettes were all over the place—at every store. People just aren't buying them. Records are impossible to find,

but people *are* buying them. "Nostalgia"? Yes, let's go back to those wonderful days of prerecorded cassettes. Remember the sumptuous packaging? The steel-jaw hinged cases? The sturdy cassette shells packed with high-quality tape? The great cassette sound? I know I don't.

**The prerecorded music industry saw sales drop a precipitous 30% last year. The industry's solution? "Bring back the cassette!"**

The same issue of *Replication News* contained an informative article by one Dave Moyssiadis, an engineer who is very disturbed about the vinyl resurgence. For those reading his column who haven't heard vinyl, Mr. Moyssiadis gives them a taste by telling them to compress a piece of plastic shopping bag in one hand and let the bag decompress while they play a \$150 CD player. As the disc plays, turn the treble "down so that it is almost all the way down by the end of the CD, all the while kneading the plastic." Mr. Moyssiadis also "doubts that many consumers will notice the difference between 16-bit and 24-bit, and 44.1 and 96[kHz sampling]." I can't notice the difference between Moyssiadis and a [insert your own analogy here].

Actually, his column is a good sign. Only when people are genuinely threatened do they resort to this level of disinformation and outright distortion. Clearly, the vinyl resurgence is disturbing to the guy. Have a nice day, Dave! By the way, through his editor at *Replication News*, I've invited him over for a listen and some serious "A/B"-ing. I doubt he'll take me up on it. For some people, the truth is too painful.

### Staying dead

So we're turning in late at night last weekend and I flip on the television to Time-Life's "Disco Years" (or whatever

it was called) infomercial. They're showing all these great mid-'70s discotheque clips (you can almost hear the off-camera sound of razor blades scraping mirrors), and the announcer says something like, "You remember those great dance tunes on your old vinyl records, don't you?" With that, he plops the arm of a Technics SL-1600 disco table onto a record and this totally manufactured sound comes out: everything's rolled-off above, say, 3k, and they've artificially inseminated the mix with pops, clicks, scratches, and what sounds like a snowplow dragging on cement at a ridiculously high level.

"Now, here's that same music on CD!" And it's perfect sound forever—of course! So annoying, so deceptive—the last thing an analog geek wants to experience before sack time, but there it was. The only way I could sleep was to resolve to do something about the outrageous first thing Monday morning.

I called Time-Life Music headquarters and tracked down an executive in charge, who shall remain nameless. I left him a very nice voice-mail message: "Hi, this is Michael Fremer. I write for *Stereophile* magazine and I edit a magazine called *The Tracking Angle* and I'd like to talk to you about the Time-Life disco infomercial I saw on television last weekend blah blah blah."

A few days later I get a phone call from the guy: "Hi, Michael? This is [deleted]. Got your message. I was really surprised to hear from you! I read your column in *Stereophile* and I also get *The Tracking Angle*. I'm an analog listener. I've got a Rega Planar 3/Blue Point combo! I don't go for CDs myself."

"Well then how can you run such a deceptive ad? At least put a disclaimer at the bottom saying that the sound demo is simulated!" I was jumping out of my skin.

"Well, you know, the ad isn't aimed at you; it's meant for Joe Sixpack in Chattanooga who's got a plastic turntable and whose records *do* sound like that."

Normally I wouldn't accept such an answer, but the guy flattered me. Flatter me and I'll follow you anywhere.

<sup>1</sup> According to the RIAA's official figures, the sales of prerecorded music in 1996 were only slightly different from those in 1995, which itself had been a record year. However, according to articles that have appeared in *Musician*, the *Washington Post*, and the *New York Times*, among other places, the record industry is in a world of hurt right now. Certainly, record retailers are having a very hard time of it.

—JA

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## Groovy CDs

Last week I visited Warner/Elektra/Asylum's LP/CD/DVD pressing plant in Olyphant, Pennsylvania with mastering engineer Greg Calbi (a zillion great credits) and record producer Craig Street (Cassandra Wilson, Holly Cole, the new k.d. lang album, etc.). Never have two and half hours in a car gone by so quickly or been such fun. I could spend a whole column on the car-ride conversation and the plant visit (maybe I will in the future). The tour of the facility was fascinating and informative, and if you think "bits is bits" and CDs are inherently "perfect" sonic duplicates of the original digital master tape as long as the numbers are all there, you really don't know what you're talking about. Do yourself a favor and talk to the folks doing this every day. You'll learn something.

One of WEA's optical engineers showed us how glass mastering works and, using electron-microscope images, what "pits" and "land" surfaces on CDs look like. He also showed us a new mastering technique being used by Nimbus that WEA is interested in, in which the spiral of pits tracked by the laser is connected by—*are you ready?*—a *groove*. This makes it easier for the laser to track the spiral, and translates into better sound.

I figure next they'll fit the laser with a tiny stylus that'll track the groove better. Then they'll widen the groove and include some modulations for the stylus to follow that will smooth out the transition from land to pits. Then they'll widen the groove and make the stylus bigger. Then they'll get rid of the pits and just stick with the modulations in the groove. Then they'll get rid of the laser...

## Chesky RCA vinyl: last call

Chesky Records began the RCA vinyl reissue business years before Classic Records got into the act. They didn't have the rights to the original covers, but, like Classic, they did use the original master tapes. Many were mastered by Tim de Paravicini using an all-tube cutting system. Some audiophiles prefer the warmth of the Chesky RCA issues to the clarity and detail of the Classic versions. Though this is neither the time nor the place to enter into that debate, Chesky's licensing agreement expires at the end of the year. This is last call on the Cheskys.

There are *limited quantities* available of these 10 titles: *Scheherazade* (Reiner/CSO, Chesky RC4); *Pines of Rome/Fountains of Rome* (Reiner/CSO, Chesky RC5); *An American in Paris/Rhapsody in*

*Blue* (Wild/Fiedler/BPO, Chesky RC8); *Spain* (Reiner/CSO, Chesky RC9); *Lieutenant Kije/Song of the Nightingale* (Reiner/CSO, Chesky RC10); *The Reiner Sound* (Reiner/CSO, Chesky RC11); *Daphne et Chloé* (Munch/BSO, Chesky RC15); *The Power of the Orchestra* (Leibowitz/RPO, Chesky RC30); *Pastoral* (Reiner/CSO, Chesky RC109); *Gaîté Parisienne* (Fiedler/BPO, Chesky RC110).

The records are available at many audio stores, or directly from Chesky for \$24.98 each by mail. Call (800) 331-1437. In New York, call 586-7537. I suggest getting at least one so you can compare it to the Classic reissue and decide for yourself which sounds "better," "more like the original," etc.

## The psychology, physiology, and mechanics of cartridge alignment

If you've got a turntable and you've relied on your dealer or a friend to do your setup, you're living with your hands tied behind your back. Knowing how to align a cartridge is a necessity for any analog-loving audio geek, and it doesn't have to be difficult or traumatic unless you choose to make it so.

If you're a jerk, setting up a cartridge can be problematic, so stop being a jerk. Today "jerk" is an all-purpose derogatory term, but originally it described someone who "jerked" abruptly from one movement to the next. Let's say you're trying to install a cartridge and you've got your hands full. The phone rings, or someone knocks at your door. If you "jerk" in response, you'll probably lunch the cantilever. Don't be distracted!

Or let's say you're trying to get the nut on the end of the screw and it falls off onto the floor and you "jerk" to grab it. Same result: lunched cantilever. When doing an install, it's best to be in a relaxed state of mind when you start, and to not let outside stimuli or that inner negative voice (usually an imaginary parent looking over your shoulder and calling you a useless klutz) cause you to "jerk." If you keep your eye on the prize and don't worry about making a mistake, you won't "jerk," and you won't ruin your cartridge.

Let's do an install. Keep in mind that there are many ways of doing this, some more fanatical than others—and some larded with mystical bullshit. I'm not as obsessed as some, and yet I get what I think are very good results. Start with a clear head. Don't drink, smoke, or even eat right before you attempt to install a cartridge. Don't do it wearing a long-sleeved shirt with floppy cuffs that will end up catching on something. Wear a

T-shirt. Don't do it when you're pissed off about something or at someone. Don't do it when you're distracted or short-tempered. For me that means a narrow window of opportunity, but I wait for it before starting.

Installing a cartridge is like cooking in a wok—you want to have all of the ingredients in front of you and well organized before you heat up the oil.

Installing a cartridge is like cooking in a wok—you want to have all of the ingredients in front of you and well organized before you heat up the oil. Otherwise you, your food, or both will get burned. If you can move your turntable, put it on an empty table in a well-lit room, preferably one without plush wall-to-wall carpeting.

Have the following close by: a stylus-pressure gauge; a cartridge alignment tool; a few small rubber or wooden wedges; a good pair of tweezers or small, high-quality, *flat-blade* needle-nose pliers; a small slotted screwdriver or a hex wrench (if you're using hex-head cartridge screws); *high-quality*, nonmagnetic cartridge screws (and nuts if necessary); a high-quality magnifying glass; a small flashlight and/or a goosenecked Little Lite™; and a bubble level.

The Shure pressure gauge is reasonably accurate, and it's a bargain at under 20 bucks. Which alignment gauge should you use? Many cartridges and all of today's finer arms come with an alignment tool of some sort—everything from a piece of paper to a laser-etched piece of glass. DB Systems makes a good one, there's MoFi's Geo Disc, and, if you're on a budget, Lyle Cartridges makes an easy-to-use plastic one that's reasonably accurate. Townshend Audio has been threatening to produce one for the past two years—they keep calling me about it but it never arrives. Perhaps it'll be available by the time you read this.

With the stylus guard attached (or with the stylus removed, if you're mounting a moving-magnet cartridge) and the arm locked in the armrest, use the tweezers or small flat-blade needle-nose pliers to slide the arm's wire clips onto the cartridge pins: Red is right "hot," green is right ground, white is left

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"hot," blue is left ground. I find it much easier to connect the wires *before* attaching the cartridge to the arm. Dress the wires neatly so they're not crossing over each other on their way to the pins. Never use your fingers to do this, and don't squeeze the ends of the clips with the tweezers or pliers or you may deform the opening.

Unfortunately, pin/clip size hasn't been standardized, so you may run into problems right at step one. If the clips fit too loosely over the pins or slide right off, you're going to have to squeeze them ever so slightly to make them fit snugly. Go easy! If you flatten one out, try using a round toothpick to open it back up. Ditto if the clip won't fit over the pin to begin with. Don't try forcing the clip. In fact, don't try forcing *anything* during the entire setup procedure.

Once you've got the clips secured to the pins, it's time to mount the cartridge to the arm (unless you've got a removable headshell or a Graham arm). If your cartridge body contains threaded holes, life is sweet, both because it makes the job much easier and because you obviously can afford a high-priced transducer—none of the inexpensive cartridges offers such luxury.

Make sure the screws you've chosen are long enough to go through both the headshell and the cartridge-body flanges, and that the ends stick out far enough for the nuts to grab, but not so far that the screws go below the cartridge body. On some cartridge designs like Grados and Audio-Technicas, which have short flanges, this won't be a problem; what *will* be is maneuvering the nut in position next to the body. It's tricky and frustrating, and the nut will probably fall and disappear under a chair. Don't jerk when it falls!

How I do this: I insert the screw in the headshell and then through the cartridge flange. Holding the cartridge up against the shell with one hand, I put the nut on the tip of the other hand's index finger and push it against the bottom of the flange. I then use that hand's thumb to clamp the whole thing together, which frees the first hand to grab the small screwdriver I've left close by. Then I turn the screw while pushing on the nut with my index finger. That usually causes the nut to grab and begin to thread. Tighten only as far as needed to prevent the cartridge from sliding forward and back. The other screw will be much easier to thread.

Next, slide the cartridge forward and back until it's about midway in the headshell slots. If it's a MM cartridge, replace the stylus assembly. Before you proceed,

remove hairy and rubber mats so the stylus will see a smooth surface. Use the small rubber or wooden wedges to prevent the platter from spinning.

If you're using a Rega arm or one of the others that has a built-in gauge, set it to zero and move the counterweight forward or back until the arm just floats. Now set the tracking force to the midpoint of its recommended setting range. If your arm doesn't have a gauge, back off the counterweight until the arm

**Get in the habit of  
being extra-cautious at  
all times and you'll never  
lunch a stylus.**

floats, then move the counterweight forward until the arm just drops. Now use your gauge to set the VTF (vertical tracking force). Using the Shure fulcrum gauge is pretty much self-explanatory—just make sure the stylus is in the gauge's groove, and be careful when you first lower the stylus in case you've got the pressure set too high. Use the cueing lever; if the gauge drops like a stone, raise the lever quickly and back off the weight a bit.

Each time you do this, return the arm to the rest and secure it. Don't try to hold it over the gauge while twisting the counterweight. Get in the habit of being extra-cautious at all times and you'll never lunch a stylus. Keep your eyes on the prize! Never look away for something else while your fingers are in close proximity to the stylus. That's why all tools and accessories should be within your peripheral vision while you're doing the install.

Once you've gotten the fulcrum to balance at the correct weight, you're ready to adjust the "overhang" with your gauge of choice. The overhang refers to how far past the center of the spindle the stylus extends in its arc across the record, referenced to a straight line drawn from the spindle to the record's outer edge. Records are cut on a straight line. Pivoted arms describe an arc. When the overhang is set correctly, the stylus intersects the straight line in two places perfectly tangential (*ie*, a straight line front to back) to the grooves.

If you're using the Geo Disc, or any other gauge that references the arm's pivot point, remember that it's only as accurate as your ability to line up the pivot point. Aim carefully!

One of the most useful, easy-to-use, and inexpensive gauges is the one Lyle

Cartridges sells. It features a mirrored surface and a hole for the spindle. Whichever gauge you use, the principles and procedures are pretty much the same; if you're using something other than the Lyle gauge, you'll have to extrapolate.

All of these devices feature a grid or grids with a dimple or circle representing the spot where the stylus should sit. The Lyle and other similar gauges have two such grids and center points. When the overhang is correct, the stylus will be centered in both circles, and the cantilever's zenith will line up with the grid's front-to-back lines, thus ensuring the cantilever's tangency to the grooves at those two points.

After placing the gauge over the spindle, start at the outer grid and gently lower the arm onto the grid. Carefully maneuver the stylus tip as close as possible to the center circle. It will rest in front of or behind the circle. This is where a Littlelite or small flashlight and a good magnifying glass are crucial. Work slowly and carefully, lifting the arm and moving it back to the armrest before sliding the cartridge forward or back.

This is where how tightly you've snugged down the cartridge is critical:

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too tight and you can't move it, too loose and it won't hold its place, just right and you can move it *and* it will hold its place. Then move it back to the gauge and check your progress. Yes, it's frustratingly slow and tedious, but you must be patient. Don't take shortcuts here or get annoyed!

When you get the stylus into the magic spot, you're still not finished. Standing dead-on straight in front of the cartridge so you can't see either side of the body, look to see that the cantilever is precisely parallel to the hashmarks running in the direction of the grooves and actually blocks the single line intersecting the stylus tip. If it's angled one way or the other, carefully rotate the cartridge body on its zenith axis (around a vertical line drawn through its center) until you achieve tangency with the line. Don't "wish" it correct—make it so! When you rotate the body you may accidentally upset the overhang. Be sure both overhang and zenith are precisely correct in the first set of hash marks before moving on to the second.

Repeat the procedure with the second set of marks; if you're lucky you won't have to change a thing, but most likely you'll have to shift things a bit until you achieve perfection in both grids. Lock the arm in the rest and use

the tweezers or pliers to hold the nut while you tighten both screws. How tight? Tight, but not so tight that you deform the cartridge body. Let's say snug. Very snug.

**While it's critical to do all of this precisely and carefully, in the words of a well-known turntable manufacturer, don't make yourself crazy!**

Now adjust your tracking force to the top end of the manufacturer's recommended range. Then go back and recheck the overhang and zenith. Why? The cartridge may have moved when you were tightening the screws, and if you had to increase VTF you've deflected the stylus slightly forward.

If the stylus is not exactly where it belongs and the zenith is not precisely correct, do it again. Then recheck the VTF. When you're certain everything is where it belongs, you're almost done.

All that's left to set are VTA (vertical

tracking angle), azimuth, anti-skating, and damping—if you can adjust those on your tonearm. And you should fine-tune the VTF by ear within the recommended parameters. I'll go over these parameters next month and describe what you should be hearing if everything is correct, but meanwhile, please remember: While it's critical to do all of this precisely and carefully, in the words of a well-known turntable manufacturer, don't make yourself crazy!

There are audiophiles who change VTA for every record, every pressing, every record label, pressing plant, etc. I'm sorry, but life is too short, and there's too much music to listen to, to obsess like that. I'm pretty particular, and I don't do any of those things. Once I've dialed things in, I leave them alone. I adjust VTA for 180gm records but I have no problem playing thinner ones—they sound fine. If you want to go tweaking VTA for every record, enjoy yourself. Once you've "locked in" a cartridge, you'll know when you haven't—I promise!

There are many variations on this theme—and I'm sure I'll be hearing about them from readers who may be more tweaky than I am, or who have some different ideas on setup procedures. I'll be happy to pass them along. **S**

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the fact that we have seldom encountered such a knowledgeable fellow as the writer who recently acclaimed our Contour 1.3 (shown here

with our musing company raccoon, Knudsen) in a review in the leading American HiFi magazine. And partly because our copywriter is still suffering from yesterday's 85' "La Tache" (enjoyed in front of his Confidence 3, Rubinstein

performing), and couldn't possibly find better words of praise anyway. What amazed the abovementioned critic most in listening to our small monitor, he writes, was that he should be so amazed. Right, we say: Sadly, people still just aren't prepared for the near absence of coloration

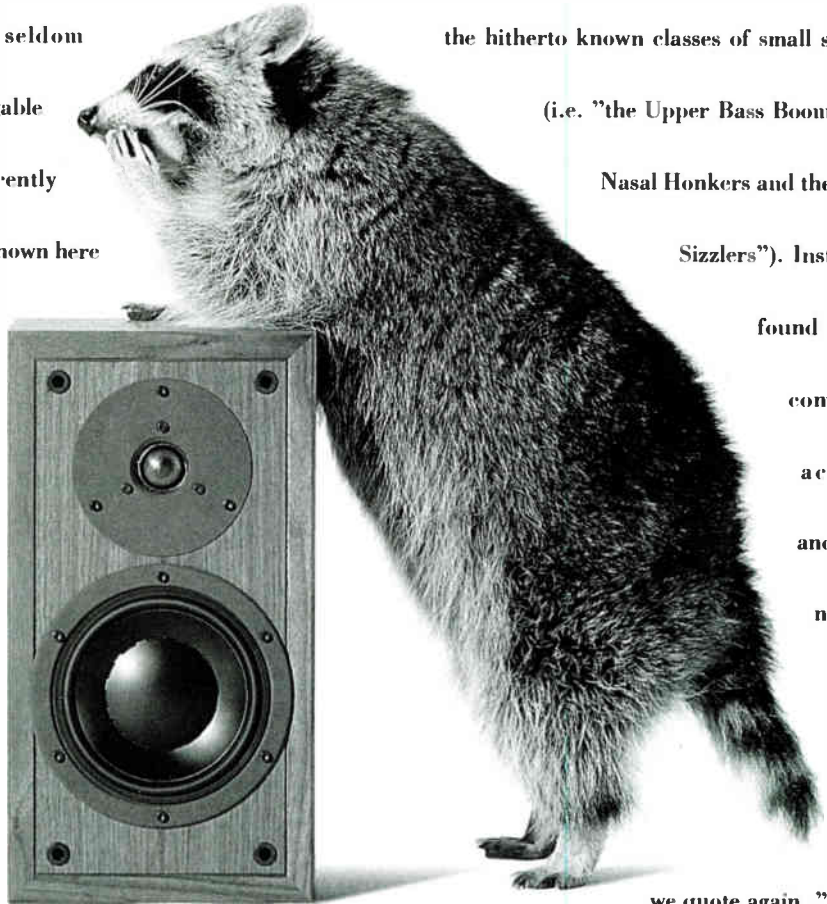
in a speaker. Nor for a manufacturer wisely refraining from bumping up the upper bass in psychological compensation. In months of eager listening, our reviewer then ruled that the Contour 1.3 does not belong to one of

the hitherto known classes of small speakers (i.e. "the Upper Bass Boomers, the Nasal Honkers and the Greasy Sizzlers"). Instead, he

found it to be completely accurate and totally natural. While, and here

we quote again, "imaging

like a bastard!" Up to the point where a lesser audiophile "could miss the beauty of this baby." To prevent this, call us for your free personal copy of our "Book of Truth" at (847) 288 1767 or fax us at (847) 288 1853. You may, of course, even visit your nearest true dealer. Enough said.



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## U N D E R C U R R E N T S

George Reisch

**S**uppose you've put aside some cash for a new preamp. You survey the field and zero in on the Musical Ecstasy 1000 and the Sonic Nirvana Special. Both got good reviews in all the magazines, they look great, and each will set you back about the same number of mortgage payments. So you visit your dealer and camp out for a weekend or two. You listen, you think, you walk around the store, you listen some more, you recalculate your tax return. You listen some more. Finally, you have a winner. "I want that one," you tell your dealer; "the Sonic Nirvana."

A week later the new issue of *Stereophile* arrives, its cover boldly announcing that biannual ritual, "Recommended Components." Naturally, you wonder how your new preamp fared in the new rankings. Class B? Maybe even Class A? ("It cost enough!") You tear the plastic off the magazine, pull out those (#&\*#!) subscription cards, and thumb through to the section on preamps. There it is — "Sonic Nirvana Special" — down in the corner of the page. "What!? Deleted? Are they crazy? They must be oxygen-deprived up there in Santa Fe!"

But it gets worse: What do they think of the Musical Ecstasy? "It can't be recommended if the Sonic Nirvana isn't," you think. "In the store, the Musical Ecstasy just wasn't as transparent. And it wasn't nearly as quiet." You scan the page and spot the words that cut like knives:

### PREAMPLIFIERS

**A**

**Musical Ecstasy 1000:** The preamp to beat. Sets new standards of transparency, said WP. (MC demurs.) The quietest preamp we've ever not heard. Trounces the Sonic Nirvana Special, no longer recommended because it sounds like [beep beep beep beep...

...beep beep beep—] What a relief! The alarm is going off. It was all just a bad dream.

Why do we care so much about "Recommended Components"? It's meant to be only a guide, a selective snapshot of the hardware industry's better efforts. Everyone knows that. Still, we take it to be much more. That's why John Atkinson routinely fends off angry readers with this

emphatic disclaimer: "Deletion of a component from this list does not invalidate a buying decision you have made."

"Sure, sure," we agree. "Just don't delete any of my recommended components."

The ratings game is not unique to audio. For years now, *U.S. News & World Report* and a few other magazines have been publishing rankings of the nation's colleges and universities. This business can get pretty controversial, not least because academic rivalries can be so intense.

### Ratings matter because many people believe they do.

Years ago, when I was a graduate student at a major midwestern university (I'll call it University "C"), I gave a lecture at a similar university nearby (University "N"). Both are fine institutions, but everyone knows that UC has the intellectual edge: It has more Nobel prize winners; it has more students and faculty with abnormally large skulls; and if you hear the word "sports" at UC, phrases like "bizarre sociological phenomenon" are not far behind. Eggheads, through and through.

Well, the day I drove up to UN, my host escorted me across the quads through the middle of a pep rally. The students were yelling and blowing horns and making a commotion like ordinary

18-year-olds overdosing on hormones. I didn't think twice about it. But my host soon revealed that the UC vs UN intellectual rivalry was alive and well. "This sort of thing," he commented, "is really very odd." These students, he explained, are normally just as studious and serious about their intellectual development as they are at UC. I almost asked, "So they got those tans in the library?" but wisely kept my mouth shut.

About two years later, the tables turned. Out of the blue, and for the first time ever, *U.S. News & World Report* ranked UN above UC. And it wasn't ranked higher on scales like "amount of beer consumed per undergraduate" or "number of Camaros in student parking lots." It was higher in the final ranking of overall quality and reputation. The local media buzzed with headlines like "UN finally steals the show" and "Is UC slipping?" For the academic set, this was almost scandalous. You would have thought Adcom had trounced Goldmund.

It's hard to say who gets more worked up about their rankings, audiophiles or academics. One thing is for sure: when the rankings are published, too many people come down with St. Hubbins' Syndrome — named after the leader of Spinal Tap who boasted, "I believe virtually everything I read, and I think that is what makes me a more selective human than someone who doesn't believe anything."

Academics know better. They know that the best biology department, for example, could be at a college with a miserable chemistry department. Yet differences like this are lost when whole institutions are ranked. Other scales are just plain ambiguous. How can you measure the quality of life in a large city (UC) against the quality of life in a suburb (UN)? Is breathing cleaner air more or less desirable than being next door to some great bookstores? Any individual will have a preference, but rankings are supposed to offer some objective, true-for-me-and-you



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■ Gershwin composed the *Three Preludes* for solo piano. Joe Cea arranged them for orchestra, taking his cue from Gershwin, who said: "The rhythms of American popular music are more or less brittle; they should be made to snap, and at times to crackle." In these performances, they do!

■ The program continues with *Four Songs* arranged by Earl Wild, and *Five Songs*, arranged by Joe Cea and Hyperion Knight. All for solo piano. These include some of the standards Hyperion Knight has performed to great acclaim at the Rainbow Room in Rockefeller Center, New York City — such as "Fascinatin' Rhythm," "The Man I Love," "Someone to Watch Over Me," and "They Can't Take That Away From Me."

■ The program concludes with the *Porgy and Bess Fantasy*, composed by Earl Wild. Truly a Gershwin extravaganza!

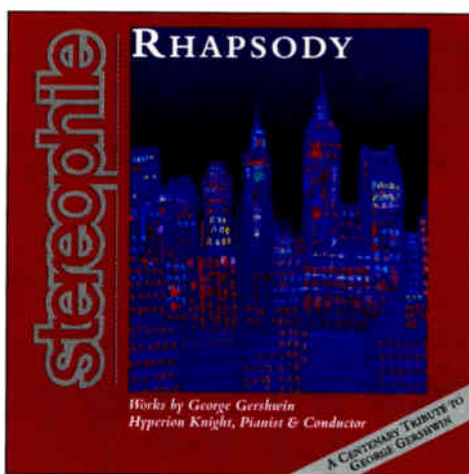
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measurements. But they don't, and most academics know it. They'll insist that the questionnaires, polls, and interviews that go into these rankings don't say much about what's really true. When the news broke that UN's star had risen, the university president even announced that he was "not all that fond of the whole ratings game in higher education." (But I'm sure he was grinning from ear to ear.)

In some ways, of course, the ratings game really does matter. Even though ratings don't give a true and objective assessment of the quality of institutions, they matter because many people believe they do. As a result, they can powerfully shape public perceptions and behavior. Now I'm working at yet another school touched by scandal. Its law school suddenly dropped in the rankings from (so-called) "second tier" to "third tier." What happened? It turned out that *U.S. News & World Report* made a computational error: The school should have retained its second-tier ranking. Unfortunately, 225,000 copies of the magazine with the flawed survey results were printed and distributed at the worst time possible: just after the school had sent out its acceptance letters. No doubt some prospective students opened their letters ("Hooray! I got in!") only to be disappointed when they opened the magazine ("Aw, but now it's only a third-tier school..."). Of course, the school didn't drop in quality overnight. But if many prospective students believe it did, or even if they think other people believe it did, they might choose to enroll elsewhere. Ask any financial officer at a college—rankings matter.

A Linn dealer told me a few years back that once the LP12 (in its Circus/Trampolin/high-wire/flaming-hoop version) made it into *Stereophile's* Class A, the real circus began. Demand went way up when audiophiles realized they could buy a Class A 'table at a Class B price. No doubt the rankings climb was due to the new version of the 'table and its improved sonics. But suppose that *Stereophile* had made a mistake, as did *U.S. News*. Suppose that the LP12 had not been modified, and that it was accidentally ranked as a Class A turntable. I'm speculating here, but I bet that the effect would have been similar. Sales would have gone up, as if the high priests in Santa Fe had really transformed some Class B water into Class A wine.

Because "Recommended Components" is so powerful, it's handy if you happen to be selling used equipment that's been recommended. Does the following conversation sound familiar?

[ring ring] "Hello. Yes, I still have the transport. Oh, you've never heard of the company? Well, it's a small company in North Dakota and they only make 10 or so of these a year. No, it's never been reviewed or recommended by any of the major audio mags, so far as I know. Not many people know about this gem—but let me tell you, they should, because it sounds just gre... Hello? Hello?"

It's much easier to say, "It's a great transport, and a bunch of folks at *Stereophile* think so too! Look at 'Recommended Components' and call me back if you want to come over and hear it." It works.

If you're buying used equipment, sometimes reviews and rankings are all you have to go on. Hearing a component is one thing; carefully audition-

### **"Recommended Components" isn't a taste-maker, it's a taste-reflector.**

ing it is another. True stories: I once checked out an integrated amp while a bratty three-year-old crawled all over me and the listening chair. ("Don't mind her," said one of those isn't-my-child-just-an-angel? parents.) Then there was the guy who covered the walls and ceiling of his studio apartment with packing foam and egg cartons—the DEIDE approach, evidently. My favorite misadventure on the audio front, however, was looking at a pair of Martin-Logan Monoliths (yes, the big ones). After driving for more than an hour, I found them set up in the dining nook (not room, *nook*) of a small condo, powered by a mid-fi receiver (the seller's mega-amp was broken). If I leaned down under the dining table, I could hear the woofers; if I sat upright, I could hear the electrostatic panels. "They sure are big," I said.

In situations like this, if I hear at least some potential in a component, and if it's been highly rated by reviewers who seem to have their ears on straight, then I'll take a chance and bring it home. (I passed on the Monoliths—they were a bit big for my dining nook.) Besides, if the component has been recommended, it'll be easier to sell if it doesn't work well for me.

Still, none of these factors fully explains how "Recommended Components" can cause St. Hubbins' Syndrome. If you're a regular reader of *Stereophile*, you're no enemy of subjective reviewing. And if that's true, then you know that reasonable

people can disagree over what's hot and what's not in audio. Besides, issues like room-dependence and system-dependence are getting more and more press in these pages. So there's even less reason to be upset if a reviewer or editor thinks that your major purchase (when auditioned in their room and their system) is a major mistake. But the syndrome remains. If I plunked down a year or two's savings on the Sonic Nirvana and then saw it panned, I admit, I'd be disappointed.

Maybe it's just fashion. As my history teacher long ago announced, "If Jackie Kennedy were to stick a fork in her nose, half the women in America would do it too." Maybe John Atkinson, Wes Phillips, and the rest of the crew are taste-makers, as Jackie Kennedy used to be. If so, owning a nonrecommended component would be like wearing a blue polyester leisure suit to a reception at GQ HQ.

Nah...that's not the logic or spirit behind "Recommended Components." It's not a taste-maker, it's a taste-reflector. Most of us suppose that if the editors prefer the Musical Ecstasy to the Sonic Nirvana, then a lot of other audiophiles—perhaps all of them—would come to the same conclusion if they were doing the reviewing. If the same goes for all the other components that make the grade, then "Recommended Components" seems to reflect a consensus about what's good and what's great. If so, that's the key to the puzzle: "Recommended Components" is powerful because consensus is a strange and powerful psychological thing.

In the 1950s, psychologists learned just how powerful consensus can be. One famous experiment speaks for itself. Imagine that you've been recruited to participate in a study of visual perception. Your neighbor is a psychologist studying how people see things; she asks you to come to her lab, look at a few charts, and answer a few questions. There'll be a number of other subjects involved, and the whole thing will take 25 minutes. No big deal.

So you find yourself and seven or eight strangers seated around a conference table, at the end of which are two large, clearly visible charts. One has a square on it and the other has three shapes—a circle, a square, and a triangle labeled "1," "2," and "3," respectively. The experimenter asks you to decide on your own which of the three figures is the same as the one in the first chart. She asks each of the subjects in turn to answer "1," "2," or "3." (You're seated next to last—that's important.) As they respond, she records their answers in a notebook.

The questions are easy. Everyone is getting them right and everyone appears



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Front Panel Controls	AC Power, Input Selector, Gain Adjust
Rear Panel Connectors	4 stereo inputs, Recorder out, Line out
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Size W x D x H	15.25 x 10.75 x 8" (38 x 27 x 20 cm)
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to have pretty good vision. After four or five of these simple trials, however, the tests are slightly different. This time, the charts display vertical lines. On the first chart, the line is about 8" long. On the second, there are three lines, labeled (again) "1," "2," and "3," that are about 6", 8", and 10" long, respectively. Which line, you are asked, is the same length as the single line? It's obvious that the answer is line 2. But the first guy answers "1," the second guy answers "1," the third guy answers "1," the fourth guy answers "1," and so on. Now it's your turn.

What do you say? No one is giggling or otherwise letting on that something's up; no one is squinting, leaning forward, or having any trouble seeing the lines. Everyone is as bored and as matter-of-fact as they were before. These people, you would likely conclude, honestly believe that the correct answer is "1"—but it's not.

Truth is, these strangers are not strangers to each other, only to you. You are the real subject of the experiment. They are confederates, organized and coached in advance by the psychologist to answer some of the questions incorrectly. In some trials (like this one) they would answer incorrectly and uniformly. They would create, that is, the illusion of a strong (and false) consensus view. In other trials, one or two of them would answer

correctly and thereby dilute the consensus to varying degrees. The result was surprising: Many people were quick to go along with the majority, despite the evidence of their senses. Three-quarters of the 123 subjects in this study answered incorrectly at least once in the course of the experiment. Presumably, on these occasions, they either trusted other peoples' eyes better than their own, or else they simply lied. Only one quarter of them answered correctly all the time, regardless of how the rest of the "subjects" answered.

What do these results mean? The author of this study believed that most of us fear being outsiders, oddballs, or dissenters in social situations. As a result, we strive to avoid appearing like one—even if we have to lie to do it. I doubt that's all there is to the story, but the experiment gives one plausible reason why "Recommended Components" is so powerful: if it represents the consensus view, and if most audiophiles think the Musical Ecstasy is the preamp to beat, then your purchase of the Sonic Nirvana makes you a dissident, an oddball, or some sort of loner on the audiophile cityscape. ("Brother, can you spare an interconnect?") Sitting atop your equipment rack, the Sonic Nirvana would be like a neon sign blinking the

awful, embarrassing truth out onto the dark, rainy streets: "George could have bought the world's best preamp, but he didn't—he bought *this*. What a loser!"

If I'm right, the irony is pretty thick. High-end audio is all *about* dissent from the mainstream. As a whole, we disagree with most audio engineers that "bits is bits"; we disagree with the music industry that digital audio has been a huge improvement over analog; and we resolutely deny that everything one needs to know about a component is captured by a handful of bench measurements. This list could go on. Our strange beliefs, moreover, don't go unnoticed. Most lo-fi audio buffs think we're either a bunch of technophobes ("LPs? Why do you want LPs?") or some sort of pseudoscientific cult with wacky ideas about how cables and stands and tweaks affect a system's sound. As Al Fasoldt so gracefully implies every time his column, "The Common Sense Audiophile," appears in *Fanfare*, the wider world of audio thinks that we're missing something upstairs. So unless you've recently converted to *Stereo Review*, you're already immune to St. Hubbins' Syndrome. So what if the Musical Ecstasy is rated Class A? If your choice sounded better when you auditioned it, it probably still does. **S**



DAVID LANDER REMINDS US THAT  
WITHOUT PIANO TECHNICIANS,  
WE WOULD HAVE NO GREAT  
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“**B**ravo, Maestro”—so Leonard Bernstein lauded Alexander Ostrovsky in a 1986 letter to the consummate piano technician. The Hungarian pianist György Sándor called Ostrovsky “a master and artist of the piano in the real sense of the word.” Samuel Sanders, accompanist to many of today’s most accomplished virtuosos, agreed that Ostrovsky is “a great master.”

Many other classical music notables—including Franz Rupp (accompanist to Fritz Kreisler and Marian Anderson), pianist Earl Wild, and composer-pianist John Corigliano—have praised Ostrovsky for his singular way

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with pianos. He "has transformed my Steinway totally," noted Richard Goode in testimonial. In addition to his chores for classical artists, Ostrovsky has rebuilt John Lennon's famous white Hamburg Steinway, worked on films by Spike Lee and Woody Allen, and even served a reigning monarch.

The appropriate term for Ostrovsky's calling is "piano technician," not "piano tuner"—but in his work Ostrovsky goes well beyond any conventional definition of either word. "When I play," commented Bernstein, whose Baldwins and Bösendorfers Ostrovsky maintained from 1984 to the time the great pianist, conductor, and composer died, "I

can sense the love you have put into your work—the deep love of music itself."

Both an indelible passion for music and a rare understanding of the piano seem to have been bred into Ostrovsky. His grandfather, Raphael Ilych Ostrovsky, was a piano technician and a major restorer of pianos and other instruments in St. Petersburg, Russia. Alex still uses some of his grandfather's tools.

Ostrovsky's father, Benjamin, followed in his own father's footsteps; his mother, Eugenia Ostrovsky (a distant cousin of her husband, with the same surname), graduated from conservatory as a pianist, musicologist, and choral conductor.



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"Bravo, Maestro" — Leonard Bernstein lauding piano technician Alexander Ostrovsky.

One of Alex's uncles, Arkady Ostrovsky, was a famous composer of popular songs in postwar Russia. Another uncle, Jacob, left Russia around the time of the 1917 revolution, established a piano showroom in midtown Manhattan, and eventually became the first Yamaha dealer in the United States. Many other members of the Ostrovsky family also had music-related occupations.

After spending most of World War II with his mother and distant relatives in Kuybyshev (a city on the Volga also known as Samara), young Alex developed bronchial asthma. Fearing

Union. Departure from the USSR also meant leaving behind everything that wouldn't fit into three suitcases; Ostrovsky gave two valuable pianos—a Bechstein and a Bluthner, both dating from the 1930s and both restored by him—to a friend before setting out for parts unknown in 1979, at the age of 42.

"I came, as all Russian Jews, through Vienna and Italy," Ostrovsky recounts in his heavily accented English, noting that he worked his way along as a concert tuner. In Italy, he tuned for a touring Israeli pianist who was so impressed with his talents that he offered the refugee a job at the Tel Aviv music school he directed. "I was ready to accept," Ostrovsky says, but his future was ultimately decided by his 16-year-old son, Lev, who wanted to go to America. At the music school for gifted children where Lev had studied piano, his teacher had urged him to continue with Nadia Raisenberg at Juilliard. After the family settled in New York, Lev did indeed study with Raisenberg.

He later Anglicized his name to Leo, and now lives in San Francisco, pursuing a career as a performer and composer.

As for Alex's own career, he remarks that "I am a piano tuner, and I am a piano technician," but is quick to add that his approach to his craft goes beyond tuning, voicing, and even rebuilding pianos. "Put it this way: I'm a piano doctor."

Tuning, Ostrovsky explains, involves adjusting A above middle C—so-called "concert A"—to the proper pitch (equivalent to a frequency of 440Hz), then making sure an instrument's other notes sound in correct relationship to it. The "voicing" of pianos, a task that can be done by the most accomplished tuners, involves the regulation of tone rather than pitch. Voicing assures that all notes have the same characteristic timbre, says Ostrovsky. He goes on to explain that, while both tuning and voicing directly affect the sound of a piano, adjusting its action—*ie*, the keyboard and its most closely related parts—varies the instrument's response to touch. Adjusting a piano's action generally requires a technician's skills, while rebuilding the same instrument is beyond the capabilities of all but a few such

## Playing the piano is conversation between you and the instrument. You expect to get something back.

that ill health would prevent him from completing his education, his father and grandfather "taught me their trade," Ostrovsky recalls. Simultaneously, he studied piano with his mother and at a Leningrad music school. However, his family's fears for his health proved groundless; Ostrovsky graduated from music college, then went on to earn a master's degree in performance in 1962. As well as working as a technician at the Leningrad Conservatory, where his father had been chief piano technician for many years, he held a teaching post in the same music school where he had been a student.

An agreement between Nixon and Brezhnev eventually made it possible for Ostrovsky to leave behind the totalitarianism of his homeland. For a Russian Jew, however, applying for an exit visa was no perfunctory matter. Though getting permission to leave remained uncertain, as soon as Ostrovsky put his name on the list he immediately lost both his teaching and servicing positions. Ultimately he had to bribe an official, promising his country house to the man on the condition that he, his wife Eugenia (Ostrovskys seem to have a penchant for marrying people with names already in the family), and their son were allowed out of the Soviet



specialists. Ostrovsky, who learned restoration at his grandfather's elbow, is one of them.

More important, Alexander Ostrovsky is himself a pianist, and one who knows how to listen—not only to the piano, but to the dialog between instrument and performer. "Playing the piano is conversation between you and the instrument," he asserts with characteristic animation. "You expect to get something back." Selecting pianos, he maintains, "is the same as choosing our friends. How interesting are they for us to talk to? If somebody is boring, we don't want to be bothered. It's absolutely the same with the piano. If the sound is boring, we don't want to be bothered."

"Our musical progress depends on what the piano gives us," Ostrovsky asserts. "If the sound of the piano is boring, children don't want to study. World-famous pianists tell me quite often that a good piano teaches you. It shows you so

## Selecting pianos is the same as choosing our friends. If somebody is boring, we don't want to be bothered.

much that you start to develop ideas." An instrument's individuality and its bearing on a performer's musical abilities and artistic goals, Ostrovsky insists, can result in a relationship so intense that it has led such virtuosos as Vladimir Horowitz, Eugene Istinin, and Maurizio Pollini to take specific pianos along with them on tour.

Franz Rupp used to tell a revealing story about his piano: During a 1935 salon performance in a Berlin home, the great accompanist recounted to the technician and others, "I fell in love with the piano and said it would be mine." The Hamburg Steinway that Ostrovsky later rebuilt for Rupp did become his, but only after he married its owner, a musicologist who had purchased the instrument for her friend Josef Hofmann to play. (That legendary performer was the father

of J. Anton Hofmann, a co-founder of loudspeaker manufacturer Acoustic Research and the H in KLH.)

The personalities of fine pianos differ in a number of ways, according to Ostrovsky: "The sound of the piano represents the culture of the country where it's built." He notes that Asian pianos tend to emphasize the same high frequencies heard in the folk music of that part of the world. European pianos, he has found, tend to be "melodic and lyrical," while American pianos reflect their nation's love of sheer size. "American pianos have a lot of power. They're dynamic," he says.

An intimacy with pianos that few people share leads Ostrovsky to trace other important differences to the instruments' sounding boards: "The sounding board is the soul of the piano. It amplifies sound and gives a piano its tone quality." Yes, he concedes, the sounding board of every piano is made of spruce, and yes, all grand pianos are shaped similarly—but this does not preclude differences. "Wood is alive," Ostrovsky insists, a nearly mystical glint in his blue eyes. "We cannot copy the trees."

Ostrovsky sees himself as both a matchmaker and a man involved in a chess game. Because "every piano has its own personality," and because "we are different" from one another, matching an artist to a piano—for the home, the concert hall, or the recording studio—is an important and frequent assignment for him. Often, he notes, an artist in need of a piano for a particular performance or recording tells him that he wants the same instrument he has heard someone else play at a concert or on a recording. Ostrovsky always urges the client to meet him at the concert department of the piano maker of choice so that they can audition several instruments together. There, when the artist plays the piano for which he or she has expressed a preference, it rarely sounds the same.

"Different artists have different hands," Ostrovsky explains simply, adding that he and the performer will then go on to other pianos before selecting one with which the



Alexander Ostrovsky  
performing in the  
USSR in 1965.

## IN MEMORY OF JIM ANDEEN

President of Hoffman's Audio/Video who passed away on March 15, 1997.  
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player is comfortable, and that the technician knows he can satisfactorily adjust.

The "chess game" involves improving the conversation between pianist and piano by altering the instrument's voice. As their testimonials prove, Ostrovsky's clients are frequently surprised and delighted by the extent of his changes; before entrusting their pianos to him, most hadn't known how dramatic these transformations could be.

In working his magic, Ostrovsky takes four elements into account, the two most important of which are the piano and the player. However, since the acoustic traits of the performance space in which the piano is to be used will affect the resultant sound, he considers these characteristics as well. When preparing a piano for a concert or recording session,

**Asian pianos tend to emphasize the same high frequencies heard in the folk music of that part of the world. European pianos tend to be melodic and lyrical, while American pianos have a lot of dynamic power.**

the technician also considers composers' temperaments. Scarlatti, who wrote for the harpsichord, requires a light sound with a "silver" tone, Ostrovsky says, while Mozart demands "clarity," "precision," and "articulation." Rachmaninoff, whose music has "more meat," cries out for a fuller, extremely dynamic response from a concert grand.

Some of the many mechanical procedures Ostrovsky uses to vary a piano's sonic character are more important than others, but a principal technique is changing the distance between hammers and strings. The farther the hammers travel before reaching the strings, the more momentum they gather along the way. This translates to greater striking power, which in turn increases the sonic energy driven toward the sounding board, which then reflects and amplifies it. While Rachmaninoff's orchestral sound indicates a long hammer throw, Scarlatti's delicacy leads the piano doctor to prescribe the opposite.

Another ingredient of Alex Ostrovsky's alchemy involves the sounding board itself, which, he contends, "is never involved a hundred percent. One part of the sounding board is in focus, another part is off focus." He adds that changing the "focal point" of the board's sound is often crucial to changing a piano's tonal character, its color.

By shifting the position of a piano's action, he varies "the striking point"—the place where the hammer hits the string: "The hammer strikes a different part of the string. In this way, we direct the sound to a different part of the sounding board. The sound of the piano is dramatically different because different wood is involved." When asked to what point an instrument's action must be moved to effect a desired change, Ostrovsky replies that there is no formula: "Every piano tells you what it needs."

Satisfying a living, breathing artist can be more difficult than preparing a piano for the music of an absent composer, in part because a pianist may not understand or be able to articulate the changes required to improve an instrument's performance. "Sometimes an artist tells me, 'Oh, I need the treble brighter,'" says Ostrovsky, who comprehends that the

treble is bright enough but that "it cannot compete with the bass, with its power, its speaking response. So I give the treble more power, and the artist says, 'Yes, that's exactly what I want.' You have to use your own judgment."

Ostrovsky's experience as a performer has done much to inform his judgment: "Because I'm a musician, I hear, musically, what the artist wants." He also gains considerable insight just from watching a pianist play and analyzing the "communication" between artist and instrument. Attending rehearsal sessions allows him to hear "how sound projects" in a way that performers on their benches cannot.

Leonard Bernstein not only had Ostrovsky come to rehearsals but, after the technician had been serving him for a while, made a point of being around while work was being done on his pianos. He would generally relax in the next room, listening as Ostrovsky molded an instrument's sound. But Bernstein never described in words what sonic results he expected. In the absence of specific instructions, Ostrovsky reveals, he prepared Bernstein's pianos for maximum orchestral color. When asked what led him to take this course of action, his answer is simple: "I listened to his Mahler."

Preparing a piano for a recording often involves creating multiple personalities. This was the case when György Sándor was recording transcriptions by his teacher, Béla Bartók, from both organ and harpsichord. For the organ segments, which were recorded first, Ostrovsky adjusted the piano for power and wide dynamic range, and all went well. But when Sándor and his team unexpectedly found themselves with an hour of recording time at the end of a day and went on to the harpsichord transcriptions, the sound was overbearing. As the engineer began moving microphones, Ostrovsky intervened and asked for time to make some adjustments. After he moved the hammers closer to the strings, thereby weakening their blows, the same piano that had just convincingly emulated the king of instruments now performed with a delicacy more suited to music written for a polite, plucked-string instrument.

For two-piano performances or recordings, Ostrovsky prefers coupling instruments with somewhat different personalities—albeit the same family name—to increase orchestral color. In his view, combining more similar instruments adds nothing but volume. But when pianos from different makers are paired, the technician faces a formidable task indeed—as Ostrovsky faced at a 1988 Carnegie Hall concert in which Leonard Bernstein and James Levine, the former on a Baldwin and the latter on an American Steinway, played Mozart's Sonata in D for Two Pianos, K.448. On this occasion, Ostrovsky had to preserve the pianos' personalities while "matching their speaking response so that they wouldn't be strangers." In less poetic terms, he explains, he had to balance the instruments' dynamic range so that one would not dominate as well as adjust for compatible timbre.

It's a long way from St. Petersburg to Manhattan, but in cultural terms the distance from Carnegie Hall to the streets of Spike Lee's Brooklyn is even greater. Yet Ostrovsky has also worked on the pianos used for the soundtracks of three Spike Lee films. It seems that, when the moviemaker inquired about piano technicians among his musician friends, Ostrovsky's name kept coming up. More recently, Ostrovsky worked for four days on the set of a Woody Allen film, still unreleased as this was written.



Ostrovsky marvels at the cards he's been dealt since leaving his homeland, middle-aged and all but empty-handed: First Bernstein, American classical music's reigning king; then the two wild cards of Spike Lee and Woody Allen; and, most amazing to him, a real-life Queen.

Early in 1994, an official at the British Embassy called Ostrovsky to ask if he'd be able to take care of Her Majesty, Queen Elizabeth II. "The cruise ship," Ostrovsky replied, thinking he meant the *QE II*. "Oh no, Mr. Ostrovsky," the caller said. "Her Majesty's Yacht, the *Britannia*."

There are two pianos aboard H.M.Y. *Britannia*, which, when the Queen is aboard, is operated by a crew of nearly 300. One, an upright by the well-known English company Broadwood, had fallen from a stage during a storm in Bermuda; Ostrovsky ultimately rebuilt it. The other, a Welmar concert grand, the product of a relatively obscure firm, had to be adjusted for a diplomatic reception. This was scheduled for the same day as Ostrovsky's first visit, which also happened to coincide with a blizzard.

Ostrovsky had obtained security clearance for himself and an associate, but on the appointed day his fellow technician was snowed in at his suburban home. No taxis were running, so, along with his wife and as many spare parts as they could carry, Ostrovsky took a limousine to Midtown Manhattan's West Side, where the 412' *Britannia* was docked. Since Eugenia Ostrovsky lacked clearance, Alex was preceding her up the gangplank toward the vessel when an officer whispered discreetly, "Ladies first, Sir." As Eugenia, then Ostrovsky, stepped onto the *Britannia*, a uniformed contingent saluted them.

Ostrovsky had never before set eyes on a Welmar. When he looked inside, the action's wooden rails told him it was not a modern instrument. (Once he had the serial number, he was able to do some research and found the instrument had actually been built in 1954, the same year the *Britannia* was completed, probably as a custom order for the ship.) The rails had warped in the salt air, and Ostrovsky used the morning and his restoration expertise to correct the problem. He

**Ostrovsky prepared Bernstein's pianos  
for maximum orchestral color.  
When asked why, his answer is  
simple: "I listened to his Mahler."**

and Eugenia were then invited to lunch with the ship's officers, and Alex breached protocol for the second time that day: As his chair was held out for him, he remained standing. So did the rest of the party, including the rear admiral in command. Honored guests, of course, are seated first.

In his grandfather's day, Ostrovsky relates, Jews were not allowed to live in St. Petersburg, but Raphael Ilych's talent with pianos earned him special dispensation to do so. Alex Ostrovsky calls the gift that has been his family legacy a "golden hammer," and it has served him well. So has his ardent dedication, which is every bit as important as the keys he holds to the piano's best-concealed secrets. "I think of myself as an artist," Ostrovsky says. "I try to create the best performance that a piano can achieve." **S**

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# Left Bank Balladeer

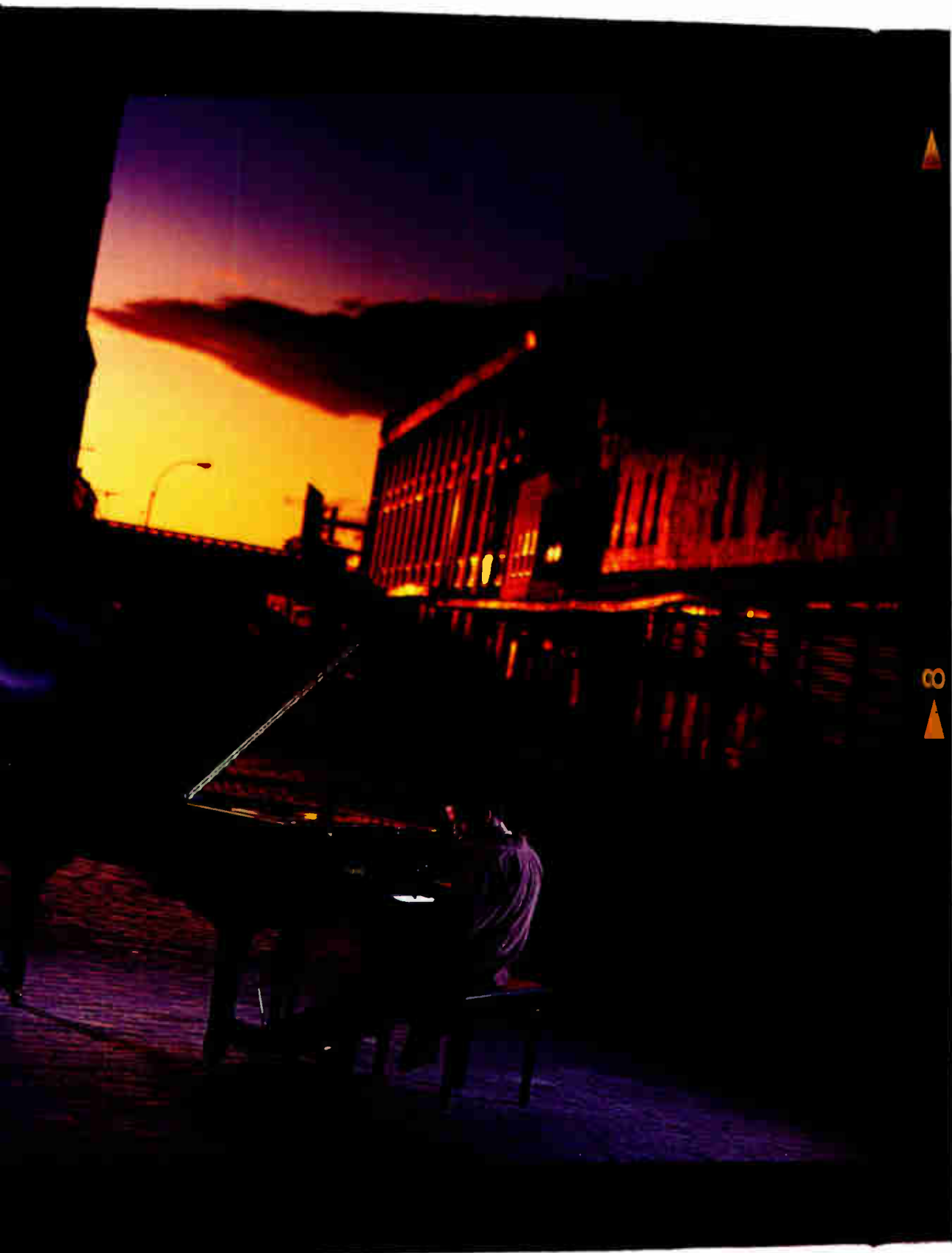
Dan Ouellette

**I**n late December the inclement weather in the San Francisco Bay Area sank plans for Betty Carter's pick-up all-star band — flying in from several locations — to squeeze in at least one rehearsal prior to the vocalist's week-long engagement at Yoshi's jazz club in Oakland.

Yet on opening night Carter proved to be an able pilot, navigating her crew — vibraphonist Bobby Hutcherson, tenor saxophonist Mark Shim, bassist Curtis Lundy, drummer Ralph Peterson, and pianist Jacky Terrasson — through a remarkable impromptu show. But about halfway through the first set, the diva decided to relinquish control for a spell. She turned to her quintet and asked, "Who'd like to start a ballad?"

From Jimmy Scott to Cassandra Wilson, **Jacky Terrasson** is rapidly becoming the **pianist of choice** for jazz vocalists.

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Lundy, the bassist in Carter's recent touring band, offered to take the lead. She shook him off. Hutcherson, who was performing with her for the first time, also volunteered, but Carter said, "I know you can do it." She paused, then looked over to Terrasson, who had put in an eight-month stint with her band several years ago. "No, I want Jacky to give us a ballad. Jacky, what are you going to do?"

Terrasson, the shyest of the group, shook his head no, but Carter teased him into reluctantly sprinkling out a couple of notes. He had already turned in a dazzling performance, echoing the leader's scats and improvising with a rich mix of fleet lyrical lines and tumbling dissonant phrases. However, with the spotlight trained on him, he seemed scared. But he closed his eyes and eased his way into an impassioned rendition of Thelonious Monk's "Ruby My Dear." He mused on the keys in quiet reverie, building his tentative opening into a gorgeous solo outing of romantic introspection. It was a highlight of the show. Carter and the rest of the band joined the audience in heartily applauding him.

Terrasson's on a roll. Not only has the 31-year-old enjoyed a meteoric rise in his solo career since 1993, when he blew away the rest of the piano contestants at the prestigious Thelonious Monk Competition; but, because of his innovative interpretations of standards, he's been in high demand with jazz vocalists as an arranger and accompanist.

Last year he traveled with Dee Dee Bridgewater on a month-long North American tour, playing several of his arrangements of Ella Fitzgerald songs behind the Paris-based expatriate. Terrasson also supports Jimmy Scott on his latest album, the jazz-meets-gospel *Heaven* (Warner Bros. 46211-2). In addition to arranging the eclectic mix of heaven-titled tunes, Terrasson comps with contemplative beauty as Scott hauntingly sings. Add to that the young pianist's two excellent trio discs for Blue Note (*Jacky Terrasson*, CDP 29351 2; and *Reach*, CDP 35739 2), and a

istry is strong, and he'd love to have a document of at least one of these sets.

Walking up the stairs to the dressing room at the club, Terrasson also comments on the magic. He's especially excited about playing with Hutcherson for the first time. On the opening evening, the two began their musical conversations during Monk's "Straight No Chaser" by meekly telegraphing phrases back and forth across the stage while Lundy was taking a bass solo. The next night, Terrasson reports, they were dialoguing more fluently. He says he hasn't spoken to Hutcherson yet, but he'd love to invite the vibist to play on his next solo album.

"I've always admired Bobby," says Terrasson as Shim practices tenor-sax scales in the next room. "To me, he's one of the greatest living musicians and master improvisers. It's been beautiful to be able to play with him."

The Berlin-born, Paris-raised son of a French father and African American mother, Terrasson talks with a trace of a French accent. He speaks quietly yet laughs easily. He has close-cropped, curly brown hair, and dark brown eyes that twinkle in conversation.

Terrasson was classically trained in a conservatory high school in Paris, but gravitated toward jazz because the music offered him more freedom to experiment. Influenced by the music of Duke Ellington, Thelonious Monk, Bud Powell, and Bill Evans, Terrasson opted for an education in jazz improvisation at Berklee College of Music in Boston. He further sharpened his jazz chops in Chicago, where he moved for a year in 1987 before returning to Paris to do a year's compulsory service in the French army. He continued his jazz schooling when he linked up with Bridgewater, who was beginning to build a strong European following at the time.

"Working with Dee Dee was one of my first serious gigs," Terrasson recalls. "We toured all over Europe for six months. She's the coolest singer I've ever worked with. She's

a really straightforward person." After returning to the States in 1990, he got a call from Carter, well known for enlisting young musicians and then pushing them to higher plateaus of performance.

"I learned so much from Betty," he says about his apprenticeship. "She's such a creative improviser. Backing her is like comping for an instrument. Plus, I love the way she

sings ballads. Instead of starting a phrase where you expect it, she'll wait two bars. I love playing with that sense of space. It allows a song to breathe."

Meanwhile Terrasson was also making small waves with his improving trio, which features bassist Ugonna Okegwo and drummer Leon Parker. But it was winning the Monk Competition at the age of 28 that turned heads in the jazz world. He quickly found himself in the middle of a major jazz-label bidding war, which Blue Note won. "The Monk Competition essentially launched my career," says Terrasson. "But that didn't mean I started playing better as a result. I was already on my way by then."

Terrasson wrote several fine original compositions for his first two CDs. But he also explored new ways of covering standards by displaying upstart (some would say arrogant)



"i like to **break the rules** and have fun with a piece. i get a kick out of disguising tunes, to play them in **unpredictable** ways."

new album with vocalist Cassandra Wilson, and it adds up to a career in ascension.

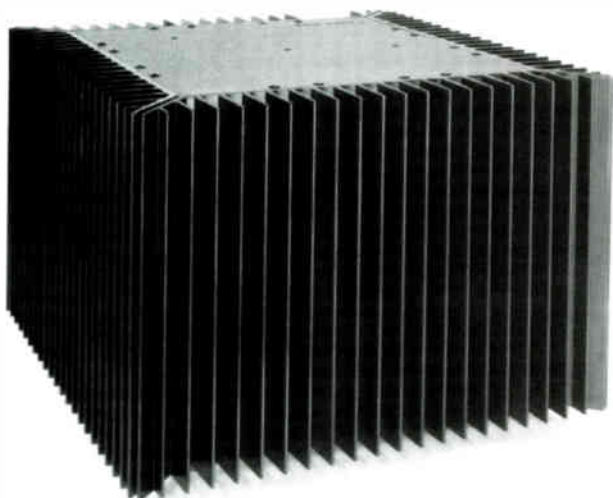
Two nights after the spontaneous Carter set (the vocalist was so pleased with the impromptu results that she canceled rehearsals for the rest of the engagement), Terrasson, who's been living in San Francisco temporarily for the last few months, arrives at Yoshi's an hour early to hang and talk about his multifaceted career. On his way into the house he meets saxophonist Mark Shim, another graduate of Carter's touring jazz "school" and a newly signed Blue Note recording artist.

Shim eagerly greets Terrasson, asking, "Did you bring your DAT tonight?"

"Oh, no, I forgot it again," Terrasson says. "But I promise you I'll have it tomorrow."

Shim looks disappointed. He knows the onstage chem-

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notions of arranging tunes from the Great American Songbook. "I like to break the rules and have fun with a piece," he says. "I get a kick out of disguising tunes, to play them in unpredictable ways."

On the classic number "For Once in My Life" that appears on his debut disc, Terrasson launches into a turbulent left-hand vamp. He then pushes his trio mates ahead at an uptempo pace, stamping his own signature on the tune he fell in love with 10 years before when he heard Tony Bennett sing it. He also delivers a distinctive take on the Cole Porter chestnut "I Love Paris," rendering it with tango-infused gusto. "We wanted to change it around, so we worked in a funk beat and reharmonized the bridge. That number is especially important to me because I grew up in Paris."

Likewise, on *Reach*, Terrasson puts a new spin on "(I Love You) For Sentimental Reasons," a slow ballad he first heard on a Nat King Cole record. "We decided to go somewhere different with that tune by treating it to an uptempo Latin beat. It totally worked. It's a favorite with our audiences. I love Nat Cole, so I figured, who can top his version of that song? Why not take it to a whole new place?"

Taking old standbys into new territory has kept Terrasson busy, especially as a sideman/collaborator with jazz vocalists. When Craig Street—who's proven his finger is on the pulse of new jazz vocalise by overseeing projects by Cassandra Wilson and Holly Cole—was pegged to produce Jimmy Scott's new album, he chose Terrasson to help sculpt the songs. "That was a wonderful musical experience," Terrasson says. "My job was to break down the tempos of songs to make them work for Jimmy's vocal style. Some of the duo tunes we did were breathtaking. I was so struck by Jimmy singing 'No Disappointment in Heaven' that I wasn't sure I could finish playing it with him."

Terrasson says that recording *Heaven*—a transfixing listening experience featuring Scott's idiosyncratic phrasing consisting of clipped syllables and quivering vibrato—was full of trial-and-error experimentations. He and Scott met at the vocalist's house and rehearsed several tunes from a song list Street had compiled. Then they went into the studio with bassist Hill Greene and percussionist Joseph Bonadio to record the songs live, with minimum overdubs. "Craig told us to just try things, that whatever worked we'd keep. Jimmy was great. He was very open-minded. He was willing to try different things I came up with. Sometimes he liked what I did with the songs and sometimes he'd ask me to change an arrangement."

Except for Curtis Mayfield's "People Get Ready," Terrasson wasn't familiar with the tunes. That proved to be to his advantage. Case in point: the Talking Heads' "Heaven," written by David Byrne. "I didn't know that song," Terrasson explains. "I just had a chart to work from as well as a tape if I needed it. But I love using those corny charts they make for pop songs because you're just given the basics. That gives me the freedom to go wherever I want with the song in my arrangement."

**"I love using those corny charts they make for pop songs because you're just given the basics. That gives me the freedom to go wherever I want with the song."**

Terrasson's latest vocal-oriented project is a Blue Note album with Cassandra Wilson, scheduled for late-spring release. Recording took place in January. Before entering the studio with producer Bob Belden at the helm and the rhythm team of Mino Cinelu and Lonnie Plaxico, Terrasson expressed excitement. "I love the darkness and moodiness of Cassandra's voice. I'm thoroughly looking forward to this."

After tracking in New York, Terrasson is even more enthusiastic. Back in San Francisco—where he lives with



JIMMY KATZ/QUANT STEPS

his girlfriend, a medical doctor working on a fellowship for a year and a half—Terrasson says that he and Wilson really hit it off musically on the as-yet-unnamed CD. They cover such tunes as "My Ship," "Come Rain Come Shine," and "That Old Devil Woman." There's a funky rendition of "Tea for Two" and a more groove-oriented version of Terrasson's "Baby Plum," with lyrics by Wilson. Plus, they do a fun take on "Tennessee Waltz," in  $\frac{9}{8}$  time. Terrasson uses a Wurlitzer on that tune and a few others.

Terrasson and Wilson also render a sweet version of Antonio Carlos Jobim's "Waters of March." "One day Cassandra said that she really wanted to do that song," Terrasson explains. "So the next day Bob [Belden] brought in a tape. We transcribed it and set out to put a different feel on it. We tried several different ways of approaching it. We tried to swing it straight. That didn't work. Then we tried to make it funky. That didn't work either. Finally we settled on that Latin-Brazilian feel that has a swing to it. The tune has a lot of lyrics so the words dictated the arrangement."

At the end of our conversation I bring up the evening at Yoshi's when Betty Carter put him in an embarrassing position. He smiles and admits that he felt bashful about the opening show. "I should have just let go," he says. "But we hadn't rehearsed at all, and I wanted to play it very prudently." He hastens to add, "But I was cool. I didn't know what I was going to play at first, but I thought about that nice little arrangement I had of 'Ruby My Dear' and then I was fine. It was good to be pushed."

Terrasson rises to the occasion in such circumstances. He recalls recording his first album, *Lover Man*, a pre-Blue Note release on the Japanese label Venus (he recently purchased the rights to the collection, which may be rereleased by Blue Note in the future). The sessions took place in a studio with a dozen of the bandmembers' friends acting as an audience. "It was a good idea, because I think it made everyone push and play better. We recorded the album as if we were playing a club gig. That's what it's like with Betty—being put on the spot. That's cool. Everyone needs to be challenged a little."

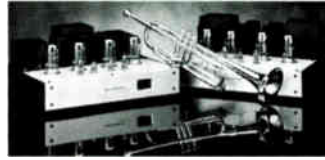
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## dCS Elgar D/A processor

John Atkinson

Things are changing rapidly in the world of professional digital audio. After a decade of stability, with slow but steady improvement in the quality of 16-bit, 44.1kHz audio, the cry among audio engineers is now "24/96!"—meaning 24-bit data sampled at 96kHz. Not coincidentally, DVI offers audiophiles a medium with the potential for playing back music encoded at this new mastering standard.

Originally a defense and space contractor offering high-performance (and presumably high-cost) analog/digital converters (ADCs), British-based Data Conversion Systems is one of a small number of companies pioneering the new standard. Its 24-bit dCS 900-series ADCs are well respected in the classical audio engineering community, as is its dCS 952 D/A processor. Now dCS has entered the consumer arena, applying its pro audio and military experience to the needs of the High End.

## Enter the Elgar

The solid-state dCS Elgar is a low-profile unit finished in two-tone gray with a central green LED matrix on its front panel. Chrome pushbuttons select Standby—dCS recommends leaving the unit powered all the time—Display brightness, Phase invert, De-emphasis choice, Input select, Mute, and Volume/Balance. The last governs the function of the right-hand control knob, presumably a shaft encoder as it is capable of continual rotation. The volume can be controlled digitally in 0.5dB steps down to a minimum of -60dB; the balance is controlled in -1% steps down to each channel being

**Description:** Remote-control D/A processor with volume and balance controls; switchable narrow- and wide-window PLL on data input; 64x-oversampling digital filter; and 5-bit "Ring DAC." Sampling frequencies: 48, 44.1, and 32kHz (standard), plus 96 and 88.2kHz (with dual-AES/EBU software option). Inputs: 2 AES/EBU on XLR jacks, 1 S/PDIF on BNC jack, 1 S/PDIF on RCA jack, 1 S/PDIF on ST-optical, 1 S/PDIF on TosLink optical. Outputs: unbalanced analog on RCA jacks and balanced analog on XLR jacks. Frequency response: "set for optimum transient response." S/N ratio: >110dB (unweighted, audio band). Measured analog output level: 3V/1V (current versions are specified as 6V/2V),

switchable. Measured analog source impedance: <1 ohm (balanced), 51 ohms (unbalanced).

**Dimensions:** 16.5" (420mm) W by 2.75" (70mm) H by 14.6" (370mm) D. Weight: 33 lbs (15kg).

**Serial number of unit reviewed:** ELG045. Software version: 1.4 (D).

**Price:** \$12,000. Approximate number of dealers: 7.

**Manufacturer:** Data Conversion Systems, Ltd., Mull House, Great Chesterford Court, Great Chesterford, Cambridge CB10 1PF, UK. Tel: (44) 1799-531999. Fax: (44) 1799-531681. E-mail: [elgar@dcsltd.co.uk](mailto:elgar@dcsltd.co.uk). US distributor: Canorus Inc., 240 Great Circle Road, Nashville, TN 37228. Tel: (615) 252-8778. Fax: (615) 252-8755. Internet: <http://www.canorus.com>.

turned off. Pressing the Display and Volume/Balance buttons brings up a menu of subsidiary functions.

The rear panel has the usual selection of data inputs, including two AES/EBU inputs on XLR jacks, which can be used in double-speed or parallel mode for high-speed (96kHz or 88.2kHz) decoding. The input receiver can be switched between wide-window mode (called "Analogue") for data sources with poor clock stability and/or accuracy, and a narrow-window, jitter-rejecting "Digital" mode for closer-tolerance sources. Missing is a data output, something that those of us with DAT recorders and AES/EBU-input level meters find useful. Both balanced and unbalanced analog outputs are provided, both capa-

ble of being switched between 3V RMS MOL and 1V.

But it is inside where the true beauty of the Elgar resides. The necessary oversampling, decimation, and low-pass filtering, along with control of volume and balance, are achieved with DSP and Programmable Gate Array chips. Usually, a D/A processor uses a conventional, binary-weighted, multi-bit DAC running at eight times the sampling frequency (8fs), or a single-bit DAC running at 256fs or higher. Each topology has limitations in different areas: multi-bit DACs get very complex if you want better than 20-bit performance; single-bit DACs have to use high-order noise-shaping to get effective 20-bit resolution, and are more prone to data jitter.

The Elgar features neither. Instead, dCS uses what they call a "Ring DAC." This proprietary design features a 5-bit, unitary-weighted, resistor-ladder DAC in a 64fs oversampling topology. dCS is careful *not* to claim that it has 24-bit performance—this implies an unweighted RMS noise floor of -144dBFS—only that the Elgar will accept 24-bit data. However, they do specify an unweighted noise floor lower than -110dB in the audio band, which implies a true resolution close to 19 bits.



dCS Elgar D/A processor



## Sound

I first used the Elgar as a conventional processor, its level control set to 0dB and its analog outputs feeding a Mark Levinson No.38S preamplifier. (Transports were a Mark Levinson No.31 and a Meridian 500; amplifiers were either a Pass Labs Aleph 3, a Levinson No.332, or a pair of the new Levinson No.33H monoblocks; speakers were B&W Silver Signatures or Focus Signature 88s.) The Elgar was able to lock to all my digital sources in its narrow-window, "Digital" PLL mode, so that was how I used it. The unit runs hot—don't place other components on top of it.

The first series of listening sessions was both satisfying and dissatisfying. Satisfying because the sound was always musical; I enjoyed my favorite CDs and DATs for hours on end, one leading to another. Dissatisfying because I am a professional reviewer, dammit, and professional reviewers are supposed to dissect in exhaustive detail the sound of the component they're reviewing. To tell the truth, I had a very hard time identifying any sonic signature with the Elgar in isolation. It was obviously time to compare it with my long-term reference, the mighty Mark Levinson No.30.5.

Compared with the Levinson, using the No.38S preamplifier to ensure level matching within 0.1dB, the Elgar sounded less laid-back in the upper

midrange, with a slightly more vivid overall balance. Its treble character was as grain-free as that of the No.30.5, though the latter's low frequencies sounded more weighty and voices were a hair more fleshed out. But I arrived at these conclusions only after lengthy, sometimes frustrating listening sessions.

And I never did decide which was the best component when it came to imaging. On some program material, I thought the No.30.5 threw a more spacious soundstage; other times the dCS processor had a slight advantage. One thing's for certain: the Elgar is a contender. If the spectrum of Class A digital processors extends from the Sonic Frontiers SFD-2 Mk.II on the sweet but rather soft- and flabby-sounding end, to the Spectral SDR-2000 Pro on the superbly detailed but perhaps a little lightweight end, with the Levinson plumb in the middle, the Elgar differs from the '30.5 in being more like the Spectral than the Sonic Frontiers. Good company, eh?

For the next sessions I dispensed with the preamp, which gave me the simplest possible signal path: digital from transport to DAC using an Illuminati Orchid AES/EBU cable; balanced analog from DAC to amplifier using AudioTruth Lapis X3, and the Elgar's volume control setting playback level. This volume control operates in the digital domain and appears to be properly dithered in that it is free from

"zipper noise" as it is operated. With the analog outputs switched to High, the control setting varied between -6dB and -12dB, depending on the recording.

The result was an astonishingly detailed yet delicate presentation. One of the areas where 16-bit digital has traditionally underperformed is when the mix gets really complicated. With poor players/processors, all the sound sources blend together at climaxes, the sound resembling a giant mouth organ. Well, not only was this *not* what the Elgar did without a preamp in the chain, but it allowed individual sonic objects to be differentiated better than anything I've heard. It was equaled in this respect only by the combination of the No.30.5 and the Meridian 518, which is 50% more expensive.

Somewhat behind the curve, I just picked up a copy of Pink Floyd's 1988 *Delicate Sound of Thunder* album (Columbia C2K 44484), recorded live on the first of rock's big "pension" tours. In "Comfortably Numb," even as David Gilmour wails and weedley-wops higher and busier on his Stratocaster, and fellow Cantabrigian guitarist Tim Renwick keeps the big fuzztone riff going in the background, via the naked dCS I could still focus on the bass guitar, the kick drum, the keyboards. Just as I probably could have live. No, forget that—even Pink Floyd has probably succumbed to the live-sound-engineer-from-hell syn-

## MEASUREMENTS

All measurements were performed at 44.1kHz. With pin 2 of its output XLRs connected as positive, the Elgar was noninverting with its front-panel phase switch set to Normal, inverting with it set to Inverting. The output impedance was very low (in the region of 1 ohm) from the balanced jacks, and somewhat higher (51 ohms) from the unbalanced RCAs. The output levels were inconsequentially lower than specified, at 2.95V/985mV balanced and 2.98V/990mV unbalanced. I haven't shown the Elgar's frequency-response or de-emphasis error graphs: both were flat within  $\pm 0.02$ dB (response) and  $\pm 0.075$ dB (error) limits. The channel separation, too, was excellent at better than 100dB up to 4kHz, with then a gentle reduction up to 88dB at 20kHz.

Fig.1 shows a  $\frac{1}{3}$ -octave spectral analysis of the Elgar reproducing a 1kHz tone at -90dBFS. The top pair of traces are with the Audio Precision System

One outputting dithered 16-bit data. The noise floor is basically that of the test signal. The lower pair of traces is with the data word width set to 20 bits. The data noise drops by 10dB or so, unmasking a very slight 120Hz power-supply component in the left channel. Excellent linearity is implied by the fact that the 1kHz component just reaches the -90dBFS line. But note the small

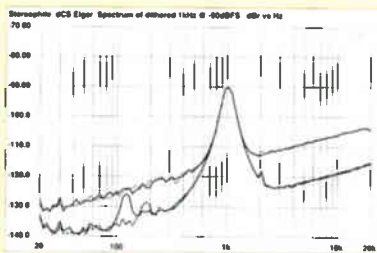


Fig.1 dCS Elgar, spectrum of dithered 1kHz tone at -90.31dBFS, with noise and spurs; 16-bit data (upper traces) and 20-bit data (lower traces) ( $\frac{1}{3}$ -octave analysis, right channel dashed).

blip at 2kHz: This could be second-harmonic distortion, or it could be something else.

To investigate further, I drove the Elgar with 20-bit data representing a subsonic tone, 4Hz, at a very low level, -100dBFS. Note the rise in the noise floor at ultrasonic frequencies in the resulting output spectrum (fig.2), which will be due mainly to signal dither but also to the Elgar's noise-shaping. But

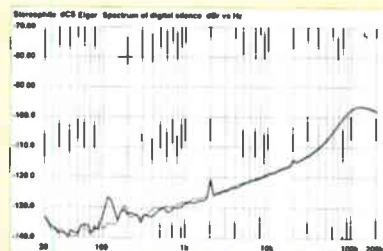


Fig.2 dCS Elgar, spectrum of 4Hz tone at -100dBFS (20-bit data,  $\frac{1}{3}$ -octave analysis, right channel dashed).



drome that has afflicted just about every rock concert I've gone to in the past 15 years. (The Dead were the honorable exception, of course.) The Elgar gives you *better* than live sound—dCS's marketing department is just going to *love* that quote.

### Better sound

But it was when I abandoned 16-bit CDs and DATs that the Elgar scaled the highest sonic heights. Not only did my 20- and 24-bit Nagra-D tapes sound delightful in their analoglike sense of ease; that delicious sense of detail when the processor was used straight into the power amplifier was invaluable when I was editing the 24-bit hard-disk masters for *Stereophile's* new *Rhapsody* CD (see June '97, pp.70–81). Choosing the right note on which to splice between two takes is an exacting business. Not only do you need the musical flow to match each side of the edit point, the sounds also must match. Or if they don't match exactly, the difference must be musically justifiable. A slight change of timbre on a major attack will still sound natural, for example. The more sonically transparent the playback chain, the less stressful the editing. With the Elgar, I benefited from *very* low stress levels.

But it was the experience of auditioning 96kHz-sampled tapes, made with the dCS 9021D A/D converter, that finally sold me on the Elgar. The latest software

for the Nagra-D 4-channel digital recorder allows it to be used as a 2-channel 96kHz or 88.2kHz machine. For playback of a 96kHz-sampled two-channel tape, two AES/EBU cables<sup>1</sup> connect the Nagra's digital outputs to two of the digital inputs of the Elgar processor; when both of its AES/EBU inputs are simultaneously selected, the Elgar remultiplexes the two 48kHz two-channel datastreams into a single 96kHz two-channel stream.

You wouldn't expect that increasing the recorded bandwidth by just over an octave would have any effect. But yes, although the improvement in quality was, on the face of it, subtle, going back to 44.1k was more of a degradation than you'd expect. At 96k there seemed to be more "air" around individual objects within the stereo image, the sense of the acoustic space captured on tape was more tangible, cymbals seemed more lifelike in that they more resembled a vibrating metal sheet, a clarinet sounded more like a column of vibrating air excited by a reed, and voices sounded simply more palpable. And surprisingly,

<sup>1</sup> There is conflict in the pro audio community as to how to handle high-bandwidth digital data. Nagra, dCS, Genex, and SA11e have chosen to use two standard AES/EBU connections, each carrying one channel's worth of data; Sonic Solutions and some other companies run a single AES/EBU connection at twice the speed. I'm sure imaginative companies like Bob Katz's Digital Domain will introduce the necessary adaptor boxes.

one of the biggest perceived differences when comparing 96kHz and 44.1kHz versions of the same material was in the bass. With the higher sample rate, there seemed to be another half-octave of low-frequency extension. Weird stuff!

Summing up, the sound of 96kHz tapes reconstructed by the dCS Elgar was simply more real. And that is what the High End is all about.

### Summing up

I'll get the bad stuff out of the way as quickly as possible: the dCS Elgar doesn't have HDCD decoding, doesn't have a digital output, costs \$12,000, and... that's it. On the plus side, the Elgar sounds simply superb and has a measured performance to match. It joins the hallowed ranks of Class A digital processors in *Stereophile's* "Recommended Components." It is also future- and DVD-proof in that it will decode two-channel 24-bit digital recordings recorded at sample rates of 88.2kHz and 96kHz.<sup>2</sup> A nice if pricey one from the digital guys in Cambridge (Cambridge, England, that is). **S**

<sup>2</sup> If you already own a Mark Levinson No.30.5, you should note that Madrigal is shortly to introduce a revised input board for both that champion and the No.36/36S, allowing the processors to accept two-channel 96kHz data sources, probably with a double-speed AES/EBU input, as well as two-channel versions of Dolby Digital (AC-3), DTS, and MPEG/Musicam audio data. (You can find full details at <http://www.madrigal.com>.)

## MEASUREMENTS

note also that there is still a spectral component present at 2kHz. I suspect that this is an "idle tone" of some kind—noise-shaping filters can lock into cyclical patterns when presented with data representing a very-low-level signal or no signal at all. However, at better than 120dB down from full level, I doubt that this behavior will have any subjective consequences.

The Elgar's linearity (fig.3) is indeed excellent, there being no deviation

from perfect until -110dBFS, due to the unit's very low noise floor. The waveform of an undithered -90.31 dBFS, 1kHz sinewave with 20-bit resolution (fig.4) *looks* like a sinewave. Only in the otherwise superb noise-modulation plot (fig.5) is there a hint of the spurious component at 2kHz. The Elgar's output spectrum while decoding 16-bit data representing an equal mix of 19kHz and 20kHz tones, each with a level of -6dBFS (not shown),

was clean. While the 1kHz difference component was noticeable by its absence, there were a few high-order components visible above the noise floor. These should be inconsequential, however.

Finally, I wasn't able to perform any jitter tests. However, as *Stereophile* has just acquired one of Paul Miller's new test instruments, the Elgar's jitter measurements will be included in a Follow-Up.

—John Atkinson

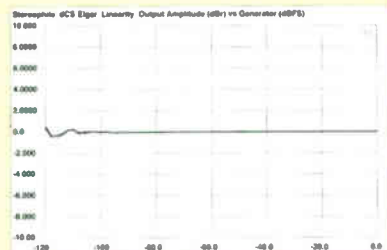


Fig.3 dCS Elgar, departure from linearity (right channel dashed, 2dB/vertical div.).

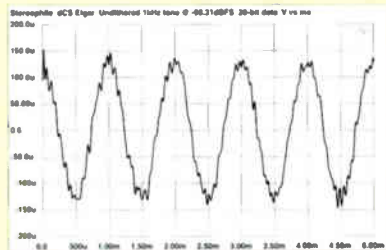


Fig.4 dCS Elgar, waveform of undithered 1kHz sinewave at -90.31dBFS (20-bit data).

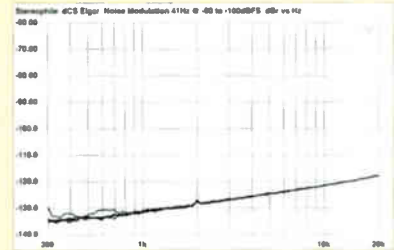


Fig.5 dCS Elgar, noise modulation, -60dBFS to -100dBFS (10dB/vertical div.).

## van den Hul Frog phono cartridge

Wes Phillips

**W**hat's green, costs \$2500, and mates superbly with a tone-arm? The van den Hul Frog. Sounds like a joke, doesn't it? Despite the whimsical name—and its bright and fanciful emerald-green body color—the Frog is a serious attempt to bring most of the performance of the well-regarded \$5000 van den Hul Grasshopper to a more affordable price point.

"The Frog is the practical man's Grasshopper—the Connecticut Yankee's grasshopper, if you will," explained Stanalog Audio Imports' George Stanwick.<sup>1</sup> "It has the same coil-winding, front pole, stylus (a highly polished variant of the vdH Type One), and suspension. Unlike the Grasshopper, however, the Frog has a copper coil, a metal body, and less expensive magnets. The Grasshopper has evolved into a cartridge that is, essentially, custom-made. Mr. van den Hul can tailor the cartridge to the client's preferences as to output, compliance, even musical taste. The Frog, by comparison, is off-the-rack."

Still, with repeated proclamations concerning the death of vinyl, doesn't it take real guts to come out with a \$2500 phono cartridge? "Van den Hul believes that our cartridges are good investments in the long term," Stanwick explained. "To begin with, we estimate stylus life at up to 3000 hours—about 50% greater than is typical. But we also have affordable re-tipping charges: The Frog or the Grasshopper can be totally refitted for about \$500 for a standard repair."

### Froggy went a-courtin'

The Frog was one of the stars of HI-FI '96. Although there were only two, the VPI Aries/JMW Memorial Arm/vdH Frog combo seemed ubiquitous in the Waldorf=Astoria, and I made a point of spinning some vinyl whenever I ran across it. I was never disappointed. Before leaving the show, I requested a sample from George Stanwick. I received it last autumn and have put it through its

paces on three different turntables with three different arms. I've also used four different phono sections with it: the Ayre K-1's optional balanced RIAA board, Krell's KPE Reference, Conrad-Johnson's Premier Fifteen, and my reference Naim Prefix. The Frog has a forgiving nature—it mated well with every combination I tried.

Setup is relatively simple: The threaded holes in the Frog's aluminum body allowed me to cinch it tightly against whichever headshell I was using. Be careful about VTA and azimuth, as the profile of the Type One stylus exaggerates any deviation from true. (Rather than go into much detail concerning setup, I'll refer you to Michael Fremer's comprehensive instructions in this month's "Analog Corner.")

My background in record production has caused me to cast a jaundiced eye upon severe line-contact stylus profiles. Beyond a certain point (you should pardon the expression), I believe you end up playing a part of the groove that simply doesn't sound good. Because I base this belief upon my experiences of playing stampers and masters with a "saddle"-shaped stylus designed to play the physical negative of an LP, it doesn't necessarily follow that what I was hearing was solely attributable to playing the bottom of the groove; but I remain leery of claims that getting in there deeper is a good thing. Thus forewarned with prejudice, I was pleasantly surprised by how sweet-sounding I found the Frog.

I'm not saying the Frog was pervasively sweet, simply that without even hearing it, I had determined that its stylus would impart a clinically dry, somewhat bleached sound. In fact, once the cartridge broke in—and it took perhaps 300 hours to do so—it had bloom informed by detail, a broad dynamic range, and a rare ability to reveal emotional nuance in music-making.

With 650µV output, the Frog puts out enough juice to drive most phono stages easily. Stanwick told me that Mr. van den Hul believes in offering slightly higher output in the service of greater clarity in the signal—about half a millivolt more than average. That makes sense to me in

**Description:** Moderate-output moving-coil cartridge. Stylus shape: vdH1S. Stylus radii: 2x85µm. Frequency range: 5Hz–55kHz. Tracking downforce: 13.5–16mN (1.35% $\pm$  1.6gm). Static compliance: 35µm/mN. Output voltage: 650µV at 1kHz/8cm/s. Channel balance: <0.30 dB. Channel separation: >35dB (1kHz), >30dB (10kHz). Equivalent stylus-tip mass: 0.32mg. Coil inductance: 0.063mH. Recommended load impedance: 200 ohms. Recommended tonearm mass: 6–10gm. **Dimensions:** n/a. **Weight:** 8gm. **Serial number of unit reviewed:** 5302.

**Price:** \$2500. Approximate number of dealers: 25.

**Manufacturer:** van den Hul b.v., The Netherlands. US distributor: Stanalog Audio Imports, P.O. Box 671, Hagaman, NY 12086. Tel./Fax: (518) 843-3070.

the same way that the front-end-first theory of system-building does. At any rate, I can't argue with the results: the Frog was quietly harmonious with every phono section I employed.

You can run the Frog straight in to a 47k ohm load, as I did at first, and it will sound pretty darn good—full of detail, with lots of ambient low-level information. But the Ayre K-1 did not like 47k, unlike the Conrad-Johnson Premier Fifteen. Driving the K-1 set to 47k, the Frog sounded hard and flat. So I installed the 800 ohm resistors and felt that everything benefited from this loading. Strings had a softer, rounder quality, while the sound overall was still detailed and dynamic. As I experimented further (and changed phono sections), I refined this loading to about 600 ohms—more or less the 560 ohm loading I used when I switched to my reference Naim Prefix. I refuse to get too doctrinaire about this; it seems that the "correct" loading must change from one preamp/phono section/arm cable combination to another. In the end, 560 ohms/400µV on the Prefix lit my wick, but experi-

<sup>1</sup> Stanalog Audio Imports was formed by Stanwick expressly to bring the van den Hul line of cartridges into the U.S. In cooperation with the Dutch cartridge builder, Stanalog also offers re-tipping and stylus replacement for cartridges from virtually any manufacturer.



mentation suggests that most folks should be able to dial in their preference without too much trouble.

Nor did I find the Frog, at 8 grams, hard to mate with a tonearm. I know that I'm supposed to posture about how much effort analog is, but in my experience, it doesn't have to be—especially not with well-designed products like the Frog. I settled on a tracking force of about 1.75gm with the VPI and Inmedia arms, but the Naim ARO seemed to work best a trifle heavier, at around 1.85gm.

### Doo-dah!

A healthy output can be a seductive thing. After living with the 250µV Transfiguration Temper, I found the Frog's 650µV a luxury—I was able to turn down my preamp substantially while maintaining high output levels, and crescendos and other climaxes gained considerable heft. The lower noise floor meant I could hear further into recordings as well. This, as Martha Stewart would say, is a *good* thing.

M•A Recordings has released Begoña Olavide's *Salterio* in a limited-edition 180gm pressing (M•A M025AV, LP), much to the delight of vinyl junkies everywhere. This densely textured recording

highlights Ms. Olavide's mastery of the psaltery—a delicate medieval harp—as well as her warm, enveloping vocals. The disc has a HUGE soundstage, which the Frog rendered as appropriately vast. The recording was made in a stonewalled Spanish church, and the vdH nailed the acoustic down to the faintest shiver of

### The Frog puts out enough juice to drive most phono stages easily.

reverberation. Yet there was considerable impact coupled with the finesse—an immense drum boomed forth with explosive force, even as finger cymbals and a belled Indian bracelet were reproduced with clarity and grace. Power and precision were allied with warmth and bloom.

One day last winter, John Atkinson burst into my office jabbering excitedly. "I just heard some music so bizarre that I bet *you* know what it is." I wasn't entirely certain he meant it as a compliment, but it turned out he'd hit the target. KUNM had been playing the music of Ivo Papasov and his Bulgarian Wedding

Band. Balkan wedding-band music—*stambolovo*—is wild stuff, simultaneously rhythmically tricky and passionate as all get-out. Papasov is the acknowledged master; when he appears in a village, the entire province closes down.

Papasov's playing is filled with wild runs, forceful shrieks, and elaborate melodic fancies. To say that Papasov plays clarinet is as inadequate as saying "Jimi Hendrix played electric guitar." The band lays down the complex time signatures of Balkan dances—11/16, 5/8, 7/8, 9/8—not that they're above a rousing 2/4 march. Drummer Stefan Angelov is incredibly fast and powerful, yet always swings freely. The first time I heard the group, I recognized the music immediately—it was the folk music Frank Zappa only *dreamed* of.

The Frog was up to the task of sorting out the voices in the band's *Orpheus Ascending* (Hannibal HNBL 1346, LP). Many cartridges, even rather good ones, have a difficult time separating Papasov's clarinet from Nechko Neshev's accordion. Our Froggie, though, helped me hear what was metal-reed vanishing and what was wooden-reed blowing (and I do mean *blowin'*). Radi Kazakov's forceful electric bass had deep bite and a ton of

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Stereophile,  
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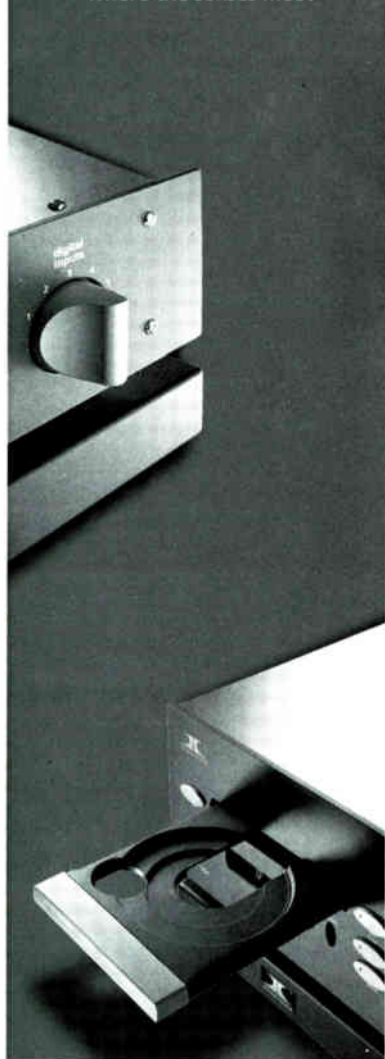
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propulsion as it pushed the band along. And every fan of creative rhythm guitar should hear Andrey Kamazamalov's Curtis Mayfield-on-(a lotta)-speed wah-wah chording as presented by the van den Hul. The music had swing and drive and bite, but it was full of woody richness and human warmth. Wowee.

Most recent late-night listening sessions have just had to end with Classic Records' spectacular reissue of Miles Davis' *Kind of Blue* (CS 8163, LP). I can't begin to calculate how many evenings this music has ended over the 25 years since I bought my first copy of the session, but the Classic reissue is something special. In case you haven't heard, this edition has four sides: 1 and 2 are the record as released (meaning that side 1 is played back at the wrong speed—the original tape was off by about 1.5%); side 3 is the first side at the correct speed; and side 4 is a bonus, "Flamenco Sketches" cut at 45rpm. *Kind of Blue's* pitch problems have driven me nuts for a quarter of a century; Sony's SBM gold CD (64403) corrected this, to my great relief—but the LP is more welcome still.

Miles's breathy tone is brass burnished more deeply than gold on "So What," and the Frog allowed me to hear the rasp in Coltrane's tone vividly—almost as if for the first time. Paul Chambers has an extra glide in his stride as he walks his bass—the instrument sounds deeper and fuller, in addition to its having a dollop more swing than on the original. Here, the Frog showed its mettle—swing is such an evanescent quality, and the cartridge parsed the differences between strut and saunter to a fare-thee-well. Jimmy Cobb, always solid, must have put extra sheen on his cymbals for the Classic cut—they have even more air, more shimmer. How small can the grooves be that create such an ethereal, floating purr? I can't imagine, but the Frog surely can follow them with no sign of effort or blur. Nearly 40 years on, this music sounds as fresh as it did when it was recorded. That really says something for the reissue.

It also speaks volumes about the van den Hul Frog.

#### It's not easy being green

Throughout the auditioning, I was impressed by the amount of musical detail van den Hul's Frog managed to extract from recordings I know well. Yet I never felt it was emphasizing detail over the gestalt. Without ever cloying, the Frog was unceasingly warm—music never lost its "human" touch. And the cartridge mated with a wide variety of tonearms and phono preamps. The Frog is no

prima donna—it plays well with others.

Compared to my reference, the Transfiguration Temper—a cartridge that costs 50% more—the Frog lacked an extremely small amount of airy liquidity. However, to another listener that liquidity could sound like an undesirable softening of detail. Horses for courses, as always, but the van den Hul Frog is awfully hard to fault.

Add to that the cartridge's extended stylus life and the firm's reasonable re-tipping charge and the Frog seems a bargain, even at \$2500. It's easy to use, easy to drive, and sounds great. Expensive cartridges are going to be hard put to justify their cost with the Frog around—I'd think long and hard before shelling out more. And I'm not really sure that, in the long run, I'd save money by spending less. For my money, right now, the Frog is the cartridge to beat.

And that's no joke.

S

## Associated Equipment

**Analog Front-End:** Linn Sondek LP12 turntable with Naim Armageddon power supply, Naim ARO tonearm, and Immedia RPM 2; or VPI TNT Mk.III turntable and JMW Memorial Tonearm.

**Digital Front-End:** Naim CDS.

**Phono Section:** Naim Prefix/HiCap, Ayre K-1 phono module, Krell KPE Reference, Conrad-Johnson Premier Fifteen.

**Preamplifiers:** Ayre K1, Lamm L-1.

**Power Amplifiers:** Krell FPB 600, Krell KAS, Plinius SA-100.

**Loudspeakers:** Aerial 10T, Martin-Logan SL-3.

**Cables:** MIT balanced 350, Cardas balanced phono, and Straight Wire Crescendo interconnects; MIT 850 and Straight Wire Black Silc bi-wire speaker cables.

**Accessories:** API Power Wedge 112, Magro 24 Component Stand, Bright Star Audio Ultimate TNT Isolation System, The Shelf by Black Diamond Racing, Mark 3 Cones (equipment) from Black Diamond Racing.

**Room Treatment:** RPG Ab-fusors; ASC Tube Traps, Bass Traps, Studio Traps, and Slim Traps; ratty ol' house-catty.™

—Wes Phillips

## Shure V15VxMR and Audio-Technica AT-ML150 moving-magnet phono cartridges

Michael Fremer

**H**ow can two meticulously built, high-technology, high-performance, premium-quality moving-magnet (MM) cartridges that measure so well (according to their manufacturer-supplied specs) sound so different?

That was the question I asked myself after auditioning both of these high-compliance transducers in two different settings. Why two? Well, the sound I got from each was so different in the Rega 9 'table—review to appear next month—I figured I'd better give them both another shot someplace else. So I mounted them in a couple of Graham nonceramic arm wands and compared them on the Graham 1.5t/VPI TNT combo. Same basic difference.

I never did answer the "why" question, nor did I expect to. Like loudspeakers, cartridges usually do sound very different from one another, and especially at this price point. They have "character." And while in the ideal audiophile world we shoot for accuracy, not for compensating colorations to achieve neutrality, in the world of \$300 cartridges that's not really possible. Hell, it's not really possible in the world of \$3000 cartridges, but many of those come much closer to neutrality than do either of these.

### A Shure thing

Older analog fans fondly recall the introduction of Shure's M3D back in 1959—that black blob of a device was the first stereo moving-magnet cartridge. A few years later it was followed by another black blob, the M7/N21D, which tracked at a lower downforce. Put either in a Garrard Type A turntable and you were cruising down the vinyl highway in "state-of-the-art" transportation. Anti-skating? Azimuth? VTA? Are you kidding? You couldn't even adjust overhang on that setup. But you could stack records!

In 1964 Shure changed the vinyl landscape when it introduced the first V-15 model. Until then a cartridge had been, for most listeners, an add-a-penny-to-the-list-price-of-the-turntable

**Shure V15VxMR:** Moving-magnet cartridge with Microwall/Be™ hollow, beryllium cantilever, Micro-Ridge MASAR™ polished stylus tip (0.0015" by 0.003"), Dynamic Stabilizer/De-staticizer, Side Guard Stylus Protection System. Source resistance (typical): 1000 ohms. Source inductance (typical): 425mH at 1kHz. Recommended stylus downforce: 1.0gm (1.5gm with Stabilizer). Channel separation: 25dB or better at 1kHz; 18dB or better at 10kHz. Frequency range: 10Hz–25kHz. Output: 3mV RMS (5cm/s peak velocity, 1kHz). Recommended load: 47k ohms in parallel with 250pF.  
**Weight:** 6.6gm.

**Price:** \$299. Approximate number of dealers: 600. Warranty: 1 year parts and labor, not including stylus wear.

**Manufacturer:** Shure Brothers, Inc., 222 Hartrey Ave., Evanston, IL 60202-3696. Tel: (800) 25-SHURE. Fax: (847) 866-2279.

**Audio-Technica AT-ML150:** Moving-magnet cartridge with Vector-Align™ dual magnets, PC "Paratoroidal" coils, 0.3mm-diameter gold-plated beryllium cantilever, MicroLine™ stylus, ceramic mounting base. Source resistance: 730 ohms. Source inductance: 380mH. Recommended stylus downforce: 1.25gm, ±0.3gm. Channel separation: 31dB at 1kHz; 21dB at 10kHz. Frequency range: 10Hz–30 kHz. Output: 4mV RMS (5cm/s, 1kHz). Recommended load: 47k ohms in parallel with 100–200pF. Vertical tracking angle: 20°.

**Weight:** 7gm.

**Price:** \$400. Approximate number of dealers: 50. Warranty: 1 year parts and labor, not including stylus wear.

**Manufacturer/Importer:** Audio-Technica U.S., Inc., 1221 Commerce Dr., Stow, OH 44224. Tel: (330) 686-2600. Fax: (330) 688-3752

device. At about \$60, the Shure made prospective purchasers think twice about cartridges. It was pricey (in today's dollars it cost more than the new 15VxMR), but with its 15° tracking angle, symmetrical bi-radial elliptical stylus, and 1gm tracking capability, it quickly became the cartridge of choice for the well-heeled audiophile.

Companies like Empire, AIDC, and Pickering followed with their upscale models, but sometimes being first has its advantages; Shure's top-of-the-line models kept their status—at least in America—as the Cadillacs of cartridges for many years, with the subsequent V15 Type II (1966), Type II Improved (1970), Type III (1973), IV (1978), and finally the V (1982) and VMR (1983).

By the time Shure ceased V15 production at the dawn of the digital age, pricey moving-coil cartridges were already in vogue, and Shure's reputation had slipped somewhat among audiophiles—even among Shure diehards—who felt that when the Illinois company

moved production to Mexico, quality had headed south as well. Having switched to moving-coils myself by then, I can't say whether that was truth or prejudice.

### Audio techniques

While my 1967 Allied catalog lists Shure, AIDC, Pickering, Sonotone, GE, Empire, and even Ortofon (whose SPE/T was, at \$75, the most expensive Allied carried, though you could pay it off at \$5 a month), Audio-Technica is not listed. Nor is it to be found in Lafayette's Golden Jubilee 1971 catalog—though you could get a Grado FTE for \$19.95, and by then Stanton had beat Shure in the price department with the 681EE at \$72. Today's DJs and hip-hopers are still scratching with a cartridge that looks identical to the 681EE.

So while Shure's been on the American scene since the inception of stereo, Audio-Technica established US distribution in 1972. Since then the company, whose cartridges are made in Japan, has



issued a number of well-regarded moving-magnet and moving-coil cartridges. Currently, the MM ML150 and the MC OC9 are at the top of Audio-Technica's roster.

### The Shure V15VxMR — a technological extravaganza

The new V15 comes out of an era when low-mass, low-tracking-force, high-compliance cantilever/stylus systems were considered essential for high performance. Given today's medium- to high-mass arms and low-compliance, low-output cartridges, the V15 seems like a throwback to another era. In some ways it is.

Back when light tracking was a fetish, I ruined many fine records by tracking them too lightly. Though it was within the specified range of the cartridge I was then using, the arm/cartridge combination simply couldn't stay on the road; the stylus went careening through the grooves, hitting the vinyl guard rails and ripping out sections as it went.

While the Rega RB 300 arm is a medium-mass design, its effective mass is such (because of a variety of factors best discussed elsewhere) that it works well with medium- to low- and high-compliance cartridges. The Shure tracked beautifully on the Rega arm at 1gm downforce, and its vertical and horizontal low-frequency resonance points (measured using the *Hi-Fi News & Record Review* test record) fell in the ideal range below musical modulations and above record-warped frequencies.

Since 1978 Shure has employed a somewhat controversial front-mounted, viscous-damped "Dynamic Stabilizer" device that uses a carbon-fiber brush to contact the record. The efficacy of damping is well accepted today, though most arm manufacturers apply it at the pivot point, which is not nearly as effective as at the cantilever end. That's why automobiles put the shock absorber by the spring—or, in today's McPherson struts, inside the spring. That's where it really belongs. Only Max Townshend's modified Rega arms feature silicone damping at the headshell, via a front-mounted trough. The problem is, having a pool of silicone floating over the record surface makes many vinyl enthusiasts queasy.

Shure's carbon-fiber contact point also makes some audiophiles queasy, but not because of the potential of an oil spill. The problem with the brush is that, despite the microscopic size of the bristles (Shure claims 10,000 pack the tiny device), they "play" the record along with the stylus. Though it was way, way

down in level, I could actually hear the brush, acoustically and electrically.

On most program material I couldn't hear the brush, but when I could it was obviously unacceptable. Fortunately you can click it up and out of the way, but you have to remember to readjust VTF, as the brush counteracts downward pressure by half a gram. The stabilizer offers substantial benefits that will outweigh its problems for many vinyl lovers: it keeps the cartridge from "bottoming out" on warped records, helps keep the resonance points where they belong, minimizes power-sucking subsonic frequencies from reaching the amplifier, acts as a stylus cushion if you accidentally drop the arm, and the carbon-fiber bristles sweep away dust before the stylus reaches the groove.

**If you're looking for  
music with a reasonably  
honest portrayal of the  
harmonic structure of  
the real thing, you'll get it  
from the V15.**

When you play seriously warped records and see zero subwoofer motion, you know the device works. While some Shure enthusiasts claim the V15 sounds better with the stabilizer clicked out of the system, I reviewed the cartridge with it in position, as Shure's engineers intend.

Other high-tech features of the V15VxMR include an ultra-thin (0.0005") beryllium Microwall/Be™ cantilever, patented MASAR™ polished stylus, and the Side Guard stylus-protection system. According to Shure, the 6.25 stiffness-to-mass ratio of the new cantilever is the highest of any cantilever ever made, and results in outstanding high-frequency tracking. The low-mass Micro-Ridge stylus shape features a very small tracing radius, which reduces distortion; and the MASAR polishing of the contact area results in an ultrasoft contact surface.

That's what Shure says. What did I hear? First, I had to mount the cartridge in the Rega. I'll tell you one thing: Being able to remove the stylus assembly makes installation much easier. When I slid the cantilever assembly out from the body, I realized that Shure hasn't changed its basic cartridge construction technique since the M3D way back when. As with the M3D, the V15's stylus-



Shure V15VxMR phono cartridge

assembly/cartridge-body interface is a hollow square shaft that slides into a square internal fitting. Obviously, proper alignment of the parts during manufacturing and a close-tolerance fit are critical to the cartridge's performance.

Once the V15 was aligned and set to 1.5gm (the dynamic stability reduces the [tracking force] to 1), I began playing records. I noted that the Rega's non-VTA-adjustable arm was tracking virtually parallel to the record surface—which makes the V15 a good VTA match for the Rega.

Cold out of the box, the V15 sounded warm. Over time it got even warmer, though the bass tightened up a bit. By any definition, the new V15VxMR is a warm, sweet-sounding cartridge. Its basic nature, coupled with its superb tracking ability, yielded a completely grain- and etch-free sonic picture that was never fatiguing or hard-sounding.

But it didn't sound particularly exciting either. I kept wishing for more transient snap, more speed, more inner detail, more air. I kept wishing for that tightly focused image surrounded by an eerie envelope of air that lets me believe the event is actually occurring in front of me. I kept wishing for the performance you get from a \$3500 moving-coil job, but that's simply not going to be forthcoming from a \$299 cartridge. Nor did I expect it. I just wanted it.

What I expected from the Shure, I got. That is, I got remarkably clean, distortion-free tracking at 1gm with outstandingly clean portrayal of sibilants. I got a really suave top-to-bottom, octave-to-octave balance and control. The Shure did not stick out anywhere in the spectrum, and that's an accomplishment at this price point.

If you're looking for music with a reasonably honest portrayal of the harmonic structure of the real thing, you'll get it from the V15. It didn't skimp on the midrange or bleach the top. It didn't bloat the bass or thin it out. It gave me what's musically most important. Its biggest sins were of omission—it didn't



give me all of the air and space present on live recordings, or the kind of front-to-back layering of perfectly focused images I hear from the top-shelf moving-coils, and it didn't recover the small microbursts of energy that make music sound live. Despite its low mass and high-tech features, the V-15 tended toward slow and thick—it sacrificed the transient for the harmonic envelope, and trimming the capacitance didn't appreciably change things.

But look—at this price point, mix'n'-match is the best strategy. If your system is too "zippy" and bright, if you're using inexpensive solid-state electronics that are etched and a bit hard and forward, the Shure might be the perfect fit. If you're doing analog on a budget—say, with a Dual 'table—the V15 might be the perfect match. It will sound honest and take great care of your records until you can bump up your front-end.

#### **The Audio-Technica AT-ML 150: The harmonic envelope, please...**

On the other hand, if your system sounds too slow, too laid-back, too rich, you might be a candidate for the Audio-Technica; it was moving-coil-like in its speed and extension, and in its ability to recover inner detail. The ML150 was fast and lithe, and it too was an excellent tracker, though it emphasized transient information throughout the audio spectrum at the expense of the harmonic envelope.

The ML150 features Audio-Technica's Vector-Aligned V-shaped magnet system, wherein the two magnets are positioned to match the left and right channels in the record groove. AT claims the arrangement yields "outstanding channel separation, low distortion, and superb tracing performance." The 150 tracked beautifully at 1.25gm, handling the heaviest-modulated music grooves I could throw at it; its lateral and vertical resonance points on the Rega RB 900 arm were within the ideal ranges.

The 150 also features a gold-coated beryllium cantilever and a MicroLine™ stylus that resembles the shape of a cutter stylus, and which AT claims provides for better high-frequency response, less wear, and lower distortion "...than with earlier configurations."

The 150's coils are wound with PC wire (Pure Copper, by Ohno Continuous Casting), which is formed from a high-temperature extrusion die that produces "...copper with virtually no transverse crystal barriers to impede signal transmission or color sound." The 150 features a Mu-Metal shield between the coils for

(claimed) better separation, and an anti-resonance ceramic mounting base.

Speaking of which, mounting the ML150 was kind of a pain; if you're not careful, the nuts can end up interfering with the stylus assembly you've removed for safekeeping. After you've attached the cartridge body to the arm,

**Without sounding too  
"edgy," the AT did an  
outstanding job of  
delineating boundaries  
between images  
and space.**

if you haven't used the shortest possible screws and the round nuts, you'll find that the stylus assembly won't snap into place when you try to reattach it. A minor annoyance. However, the AT does mate well mechanically with the Rega's preset VTA.

Once installed, the 150 jumped out at me with its very "fast" sonic presentation. Compared to the Shure's warm comfort, the AT sounded exciting and "snappy," more like a moving-coil cartridge. Without sounding too "edgy," the AT did an outstanding job of delineating boundaries between images and space. Transient attack throughout the spectrum was taut, with well-articulated bass and crisp yet natural-sounding high frequencies.

The result was less murk and better spotlighting toward the back of the soundstage, which also appeared slightly wider than the Shure's. Reproducing massed strings, for instance, the Audio-

Technica let me hear the individual players better than the Shure, which tended to homogenize them.

I heard more detail with the Audio-Technica: when singers "doubled" their voices, for instance, each individual track was easier to follow. For better or worse, individual microphones on multitracked recordings were easier to pick out. Bells had more shimmer, metal guitar strings more bite, reeds more "reediness."

At first it seemed that the Audio-Technica was the clearly superior cartridge, and in terms of "event" information it was. But after a while its lack of harmonic richness robbed music, particularly symphonic music, of its lush splendor. It was kind of like eating rich food when you have a cold—you taste it, but only so far. On male voices—particularly baritones—I got plenty of head and mouth but not enough chest. Female voices could sound like "mouths in space," detached from heads and bodies. Reverberant tails tended to dry up before they'd run their natural courses, which made large spaces seem small, and small ones almost nonexistent.

Compared to the Shure, the Audio-Technica, despite its superior information retrieval, began to sound thin and gray—as if the music were coming through a scrim that wasn't letting all of the colors through. "The harmonic envelope, please!" I kept telling myself.

While the Audio-Technica's bass extension was prodigious in terms of the fundamental, it shortsheeted the rich harmonic that makes a timpani sound like more than just a membrane. With the Shure I got more of the kettle and less of the mallet hitting the drumhead. And so it went, up and down the spectrum. (I'll spare you a few dozen examples; I'm certain you get the picture.)



Audio-Technica AT-ML150 phono cartridge

# NATURALLY

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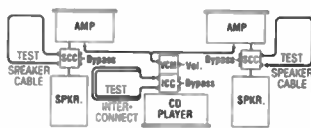
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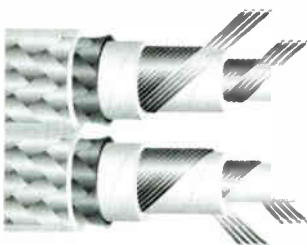
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## Conclusions

You simply can't have it all for \$300.<sup>1</sup> But you can have a lot. Both of these cartridges feature superb tracking at under 1.5gm, with the Shure gaining the upper hand on warped records because of its stabilizer brush. Within the limits of their individual characters (the Shure was slow, rich, and soft, the Audio-Technica fast, lean, and detailed), both cartridges gave a very believable presentation of music, with the kind of overall image focus and instrumental clarity no digital front-end matches, in my listening experience.

So which cartridge is better? And would I recommend a moving-magnet cartridge over a similarly priced high-output moving-coil? Either one of these moderately priced cartridges will match or out-track the finest moving-coil, and do it at 1 or 125gm vs about 2. And you can replace the stylus in about five seconds—something you can't do with any current moving-coil cartridge. No \$300 moving-coil cartridge features the high-tech, low-mass stylus/cantilever systems either one of these MM cartridges offers. But I wouldn't use either of these high-compliance cartridges on a high-mass arm, or on most linear trackers. No problem on the Rega arms, though.

Each of these moving-magnet cartridges offers a level of technological and mechanical sophistication that few, if any, similarly priced moving-coil cartridges can match. While neither could extract as much information from the grooves as the better, similarly priced moving-coil cartridges, both performed with a top-to-bottom coherence and consistency matched by only a few of the better budget moving-coils.

The Shure? The Audio-Technica? (Or even that long-term favorite, Suniko's Blue Point?) I can't answer that question for you. Both cartridges offer a lot of music for a very reasonable price. Some of you will find the Shure too sweet, too rich, too slow and boring; some will find the Audio-Technica too thin and lean. Nor can I tell you what Grado's new wooden-bodied entrant at this price point sounds like. (But I'm reviewing the \$1200 top of that line, and it's awfully good.)

Which of these two cartridges is better? It depends on what you need. Speed and detail? Go for the Audio-Technica. Warmth and richness? Go for the Shure. Want both? Go for your wallet and head into costlier territory. **\$**

<sup>1</sup> Though the AT's suggested list price is \$400 and the Shure's is \$300, I've seen both advertised for around \$250 mail-order.



## Mission 754 Freedom 5 loudspeaker

Thomas J. Norton

HE: Wow, those Blammo loudspeakers sure sound spectacular!

SHE: Yes, and they look like a rejected prop from *Star Wars*: C1PO and C2PO.

HE: How 'bout these gorgeous MiniBlams? Listen to that soundstage!

SHE: Those stands must have come out of a machine-tool catalog.

Okay, so I'm stomping all over Political Correctness here. But in most households, *someone*—probably the *someone* holding this magazine—cares more about the way things sound than how they look. But admit it: Someone else under the same roof has probably said, and more than once, “Not in *my* living room!”

But the situation is not as grim as it once was. While too many cookie-cutter boxes still vie for the customer's attention in dealers' showrooms, many manufacturers recognize the need for good looks to go hand in hand with good sound.

Mission Electronics is definitely one of them. The UK company makes some of the industry's most elegant loudspeakers.



Mission 754 Freedom 5 loudspeaker

Moreover, while they may have cut their corporate teeth on high-performance stand-mounted designs, their premier models today are all sleek, *compact* floorstanders. The 754 Freedom 5 (a mouthful of a name) is at the top of Mission's current line.

### More than meets the eye?

No one objects to a good-looking cabinet, but there has to be more to a loudspeaker than meets the eye. In the case of the Mission 754, there certainly is. It's built around three anything-but-dated drive-units. The extreme bottom end, up to 110Hz, is handled by an 8" woofer with a polypropylene cone. The cabinet loading is bandpass; the woofer is completely enclosed, communicating with the outside world only via ports that open to the bottom, just above the base (or “plinth,” as they say in Mission's home country). The woofer baffle is angled slightly to allow it to fit within the cabinet's narrow width—the latter characteristic designed to minimize diffraction from the front-mounted midrange and tweeter.

The silk-dome, ferrofluid-damped tweeter is used not only in the all-new 754, but also in the latest revisions of several earlier models in Mission's 75 Series. (It replaces a very different tweeter used in the original 752 and 753.)

The most important driver in any loudspeaker is the one chosen to reproduce the midrange, and Mission is particularly proud of the midrange unit in the 754. Its voice-coil employs edge-wound, flat copper wire on a Kapton former, with a nonresonant phase plug. But its real claim to fame is a patented “Aerogel” diaphragm said to have an unusually high stiffness-to-mass ratio; this results in true piston operation without breakup well into the mid-treble. The Aerogel midrange appears to be made by the French driver manufacturer Audax. I say that because my 1994 Audax catalog describes an identical cone material used in several OEM Audax mid-woofers. While one of the drivers appears identical to the one in the 754, the latter may well use a variation custom engineered for Mission—such sourcing is extremely

**Description:** Three-way, floorstanding, loudspeaker with bandpass-loaded woofer. Drive-units: 1" (25mm) ferrofluid-cooled silk-dome tweeter, 6.5" (110mm) Aerogel-diaphragm midrange unit, 8" (200mm) polypropylene-cone woofer. Cross-over frequencies: 110Hz and 3kHz. Frequency response: 55Hz–20kHz,  $\pm 1.5$ dB,  $-6$ dB at 32Hz. Sensitivity: 90dB/W/m. Nominal impedance: 6 ohms. Recommended amplifier power: 25–250Wpc.

**Dimensions:** 42.5" (1080mm) H by 8.7" (220mm) W by 12.6" (320mm) D. Weight: Not known.

**Serial numbers of units reviewed:** 540000369 (both).

**Prices:** \$2700/pair in black ash, \$3000/pair in Primavera or Rosewood. Approximate number of dealers: 20.

**Manufacturer:** Mission Electronics Inc., Huntingdon, England PE18 6ED, UK. US distributor: Mission Electronics Inc., 400 Matheson Boulevard East, Unit 31, Mississauga, Ontario, Canada L4Z 1N8. Tel: (905) 507-0777. Fax: (905) 507-0797. Web site: <http://www.mission-cyrus.com>.

common in loudspeaker manufacturing.

In any event, Mission is the only loudspeaker manufacturer I know of that uses such an Aerogel driver in its designs. I bring up the Audax connection primarily because Audax provides a little more information on the diaphragm design than does Mission's literature. Audax calls their design “HD-A,” for High Definition Aerogel. They describe it as “ultra light, extremely rigid, and [with] maximized internal damping,” going on to say, “This no-compromise cone is based on a totally controlled matrix of acrylic polymer gel in which an optimized proportion of carbon and Kevlar fibers are embedded. An exclusive proprietary process acts to perfectly align the fibers along the polymer chain. The procedure allows total control over the contour and weight of the cone, while making it possible to vary the thickness of the



membrane along the profile." In other words, a cutting-edge design.

The 754's crossover network is of split construction with 12 elements. Two pairs of input terminals provide for bi-wiring, if desired. Grooves cut into the inside walls of the cabinet are used to route the wiring from the crossover to the drivers, minimizing any chance of spurious noise from the internal cabling—a nice touch indicative of the attention to detail throughout the design.

The Mission's cabinet is more sophisticated than it appears. The basic structure is manufactured using folded-cabinet technology. (Mission calls this TFCT, for transverse folded-cabinet technology, but does not go into detail as to how this

might differ from the folded-cabinet construction used by any number of manufacturers.) The internal walls are damped with visco-elastic compounds. And, of course, there's that external wood-vener finish; few manufacturers can claim better cabinetwork than this.

Only two things bothered me about the design and ergonomics of the 754. First, the spikes furnished by the manufacturer were not sharp enough to properly penetrate my carpet and keep the loudspeakers from rocking, and the 754 itself isn't massive enough to rely on brute force to accomplish this. Fortunately, my collection of orphaned spikes and cones (every reviewer has one) provided me with an alternate,

thread-compatible set. These firmly coupled the loudspeakers to the floor. Second, while the 5-way binding posts on the rear of the cabinet appear to be of high quality—as supplied, they're 3-way posts, small plastic inserts preventing the use of EEC-outlawed banana plugs—the thickness of the posts, combined with their finger-tighten design and the cramped recess in which they're located, conspired to make it maddeningly tedious to attach spade-terminated loud-speaker cables. I never obtained satisfyingly solid connections.

## Sound

After an extended break-in period, I set the Missions up in my favored locations

John Atkinson measured the Mission 754 Freedom 5 and provided me with the results after most of my listening tests were completed.

The Mission's sensitivity was estimated a high 88.3dB/W/m (B-weighted). Its impedance is shown in fig.1. The bass is tuned to 50Hz, a relatively high figure consistent with my listening impressions of a tight but not particularly extended bass. The minimum impedance is 3.9 ohms—also at the LF tuning point. This, combined with the relatively benign phase range of the impedance, should make the Mission an easy load to drive. There is an obvious ripple in the response curve at just above 600Hz, this type of glitch usually indicative of a strong system resonance of some kind.

Fig.2 shows FFT-derived responses of the 754's drive-units measured on the midrange axis at a distance of 50", combined with the nearfield responses of the midrange unit and the woofer measured near the ports. Note the port response (the leftmost of the three curves). The response peaks at 45Hz. It does roll off rapidly above 100Hz, and the acoustic crossover to the midrange

falls at 100Hz, comfortably near the specified value of 110Hz. One of the characteristics of bandpass loading is that it results in a natural acoustic crossover, rolling off the top of the woofer's response without the apparent need for an electrical low-pass crossover woofer between the amplifier and the woofer.

But there is no free lunch. We did not break into the Mission's cabinet, and so cannot state unequivocally that the 754 relies solely on this acoustic characteristic of a bandpass design to low-pass-filter the woofer. But there's a strong indication that it does do this in the woofer's response from 300Hz to 1kHz. There is a price to be paid in the bandpass cabinet's acoustical low-pass filter, and it's clear here that the price is midrange resonances from the ports. Actually, I was quite surprised that these resonances did not have a significant effect on the listening results—the nearfield measurement used for the port response certainly exaggerates their significance. But they might have contributed to the deterioration I noted

in the quality of the Mission's performance at higher playback levels.

While the response of the midrange driver is quite smooth through much of its range, there is a severe glitch between 600 and 700Hz that is probably related to the resonances observed from the woofer ports. Again, this was not distinctly audible as an obvious coloration; it is high-Q and covers barely a third of an octave. And again, the nearfield measurement probably exaggerates its significance. A smaller glitch at just above 3kHz, however, may be more significant. It also appears as a clear resonance in the waterfall plot (see fig.7). More resonant modes are visible above this frequency, but they are heavily suppressed by the steep crossover slope. The acoustic crossover between midrange and tweeter appears to fall at 4kHz, significantly higher than specified.

The midrange low-pass filter begins well before the tweeter high-pass, resulting in a dip in the crossover region. This is more obvious in fig.3, the averaged response taken on the midrange axis at a

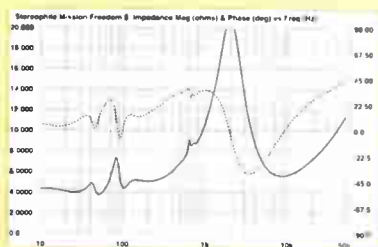


Fig.1 Mission 754 Freedom 5, electrical impedance (solid) and phase (dashed) (2 ohms/vertical div.).

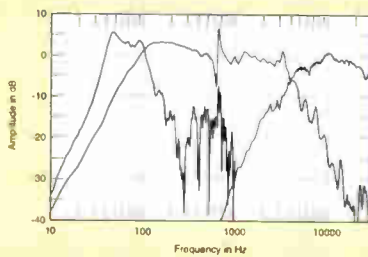


Fig.2 Mission 754 Freedom 5, acoustic crossover on midrange axis at 50", corrected for microphone response, with nearfield midrange and port responses plotted below 700Hz and 1kHz, respectively.

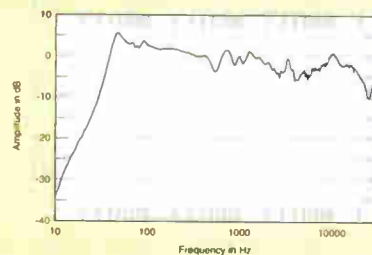


Fig.3 Mission 754 Freedom 5, anechoic response on midrange axis at 50", averaged across 30° horizontal window and corrected for microphone response, with nearfield port response plotted below 300Hz.

—firing diagonally across the room. But I found this position less than completely satisfactory. The diagonal setup works like a charm with warm-sounding loudspeakers like the Energy Veritas v2.8s or the Wilson WITTs, but was too lean with the 754s. Plan Two: I rearranged my listening room to position the loudspeakers on the short wall, firing down the length of the room.

This was actually a timely occurrence. I had intended to change to such a setup soon in any event, as the review crunch caused by the near-simultaneous arrival of two video projectors for review in the *Stereophile Guide to Home Theater* required that I set up a screen in my formerly audio-only listening room

(the sound you just heard was John Atkinson falling out of his chair). But not to worry: the flat screen can be easily covered with acoustic diffusers and the projector rolled out of the way for serious audio listening.

The Missions were positioned well away from adjoining walls and angled in slightly from the straight-ahead position. The grilles were removed for all the listening tests. After confirming that this position worked well sonically, the spikes were installed and the games begun.

Light'n'Lively. If Sealtest (I think) will forgive me appropriating their phrase, it describes in a nutshell what I heard from the Mission 754s. My listening began with male vocals—the usual suspects,

including the Fairfield Four, Gordon Lightfoot, Richard Thompson, and the King's Singers. The sound was very open and neutral. Coloration was low, with the notable absence of such typical offenders as boxiness or nasality. Nor was there any unusual midbass fullness or unnatural warmth. Quite the contrary: the overall sound was actually rather cool. The 754 was not thin-sounding, but those audiophiles who like their sound to "bloom" will find the Mission short of that quality.

The balance was just a little forward, but the singers never sounded like they were trying to get in my face. The sound was remarkably transparent and unveiled—qualities that were especially

distance of 50" combined with the port nearfield response. While a dip such as the one visible centered at the crossover frequency of 4kHz would normally indicate a "polite" sound, this was apparently not the case with the Mission. I suspect that the resonant peak at 3.2kHz, together with the loudspeaker's lateral off-axis rise in the crossover region (see fig.5), combined to produce a lively quality where a more laid-back sound might have been anticipated from a casual reading of fig.3. Note also the bass lift just below 50Hz. Again, in my room the bass did not sound at all underdamped, as this rise might indicate, though the near-wall listening did give a hint of it. But the ear responds more to the precipitous drop just below 50Hz; there is little effective response available from the 754 below about 40Hz. On a more positive note, I've already observed that the bass characteristics of the 754 may work well in smaller rooms. And the rapid rolloff might make for an easy blend with a subwoofer.

Fig.4 shows the vertical response of the 754 relative to the midrange-axis response. The latter is normalized to flat, with the remaining curves showing the changes as the listener moves up or down. Sit too high and the top octave disappears, and a suckout shows up at the mid/tweeter crossover. Sit too low and the treble tilts up a little. Lower, however, appears to be preferable to higher. The lateral response curves in fig.5 indicate a rapid off-axis rolloff of the high frequencies. More significantly, however, the response peaks off-axis in the mid/tweeter crossover region—one possible reason why the loudspeaker doesn't sound recessed. This, I think, is not the

best way to flatten the perceived response! And despite what I've said above about the possible compatibility of the 754's bass response with a small room, this kind of off-axis mid-treble response could be troublesome if the loudspeaker is placed too near a wall.

Fig.6 shows the 754's step response on the midrange axis; it's not quite time-coherent, but still surprisingly close. It's clear that the tweeter and midrange are both connected with the same positive acoustic polarity. The cumulative spectral-decay or waterfall

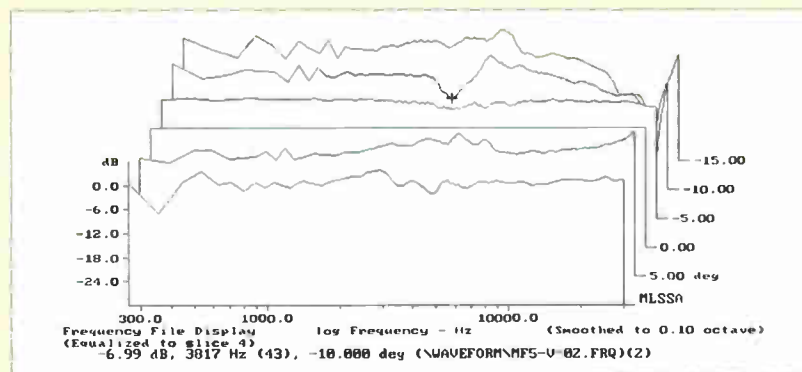


Fig.4 Mission 754 Freedom 5, vertical response family at 50", normalized to response on midrange axis, from back to front: differences in response 15°–5° above midrange axis; reference response; differences in response 5°–10° below midrange axis.

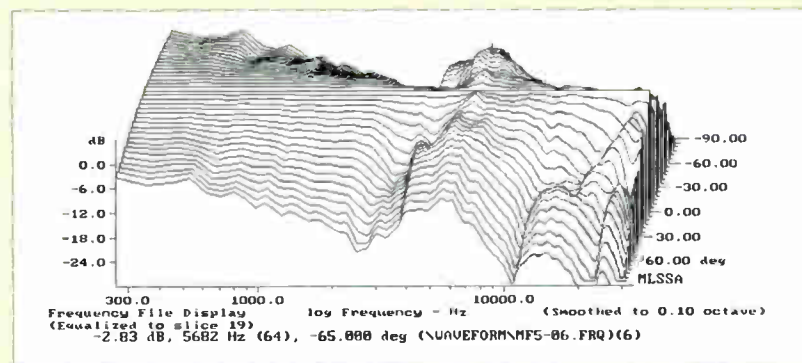


Fig.5 Mission 754 Freedom 5, horizontal response family at 50", normalized to response on midrange axis, from back to front: differences in response 90°–5° off-axis; reference response; differences in response 5°–90° off-axis.



apparent at the beginning of a new musical selection, or whenever I paused the CD player, then started it up again. The King's Singers' *Here's a Howdy Do* (RCA Victor 61885-2) and *Good Vibrations* (RCA Victor 60938-2) demonstrated these qualities perfectly: superior clarity and lack of coloration, with an up-front, in-the-room, but unhyped presence. This sense of "aliveness" was easily the 754's most appealing trait.

The Mission's bass, as noted briefly above, was exceptionally tight and defined. But the leanness already commented on continued to make itself felt. While bass details were very much there,

and very cleanly reproduced, they were definitely reduced in level. The low frequencies were clearly audible on *Däfos* (Reference Recordings RR-12CD), and the bass was rewardingly tight, but the sense of weight and solidity that frequently accompanies this recording was not there. On Dead Can Dance's *Into the Labyrinth* (4AD 45384-2) the sense of a kickdrum hitting me in the gut was not pronounced; the bass appeared to go down to perhaps 50Hz or so, then roll off rapidly below that point. And though the big bass drum in the opening movement of H. Owen Reed's *La Fiesta Mexicana* on *Fiesta* (Reference Recordings RR-38CD)

was certainly all there, it didn't knock me out of my chair the way it often does.

Nevertheless, the bass from the Mission was tight, detailed, and impressive in its overall clarity and lack of muddiness and smearing. This is a LF balance that just might work well in small rooms that tend to overinflate the bass of loudspeakers having more impressive objective response into the deepest octaves.

Through all of this, the Mission's soundstaging was first-rate. Depth was naturally rendered; if not the most remarkable I've ever heard, it was certainly convincing. Lateral placement was

plot on the same axis is shown in fig.7. The treble region is relatively clean, and the soft dome exhibits no ultrasonic resonances. But notice the midrange-cone resonance at 3.2kHz—the same place where a small peak occurs in the responses of figs.2 and 3.

Modern, rigid drive-units (metal, Kevlar, and, apparently, Aerogel) may perform well as pistons as advertised, but when that stiff cone finally breaks up and loses its pistonic nature—and all materials do so above a given frequency—it does not do so gently. If the response of the driver is not rolled off rapidly prior to the onset of the resonances, the latter will be audible. It's a lot like a bell: If you don't hit it too hard, you won't hear it. Give it a solid whack and it, well, *rings*. The primary resonance here is right in the region where the ear is most sensitive—the low treble—and is clearly a major contributor to the single significant problem I had with the Mission's sound: its tendency to turn bright, particularly at higher levels.

Fig.8 shows the resonances present in the cabinet side panel, assessed with a simple accelerometer placed near the bottom. Most of the modes are high in frequency (the resonance curves for the

back, front, and top panels are not shown for this reason). There is some flexure at the bass tuning frequency, and the hash visible in the midrange may be audible in some circumstances. It does correspond with the resonances measured from the woofer ports (fig.2). I noted no problems in my listening that I could definitely attribute to panel res-

onances, however.

This is not an unreasonable set of measurements, but neither is it particularly distinguished. A number of problems are obvious, and at least one—a noticeable resonance in the upper region of the midrange driver's response—relates directly to the 754's perceived sound quality.

—Thomas J. Norton

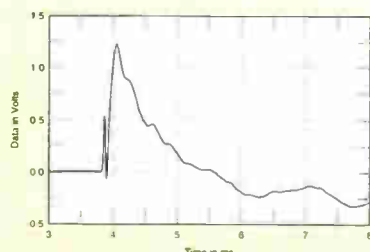


Fig.6 Mission 754 Freedom 5, step response on midrange axis at 50" (5ms time window, 30kHz bandwidth).

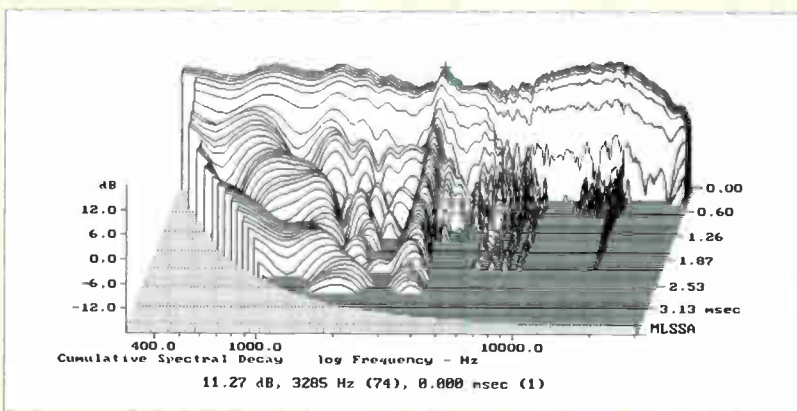


Fig.7 Mission 754 Freedom 5, cumulative spectral-decay plot at 50" (0.15ms risetime).

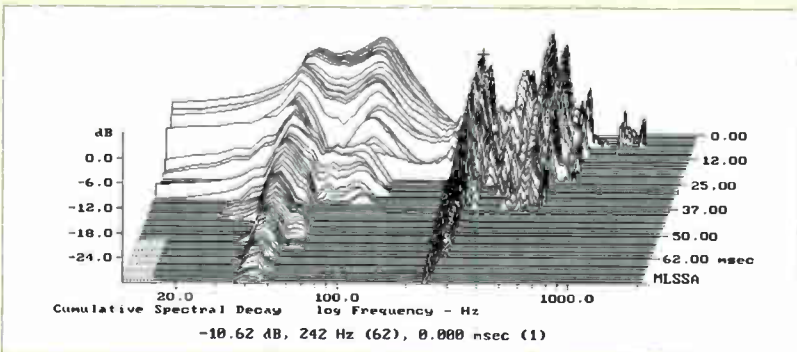


Fig.8 Mission 754 Freedom 5, cumulative spectral-decay plot of accelerometer output fastened to cabinet sidewall near base. (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz.)



precise; on those King's Singers recordings each vocalist was clearly positioned. Though I heard no truly remarkable illusions—such as imaging well beyond the outside boundaries of the loudspeakers—such phenomena are rare in my listening room. (Such qualities are, in my judgment, usually just a serendipitous combination of loudspeaker and room characteristics, not something in the recording—though in some rare situations the latter might be the case.)

The Mission's top end, however, was a mixed bag. I rarely found it to be fizzy or zippy, and the sense of detail and lack of veiling could be genuinely exciting on a lot of program material. Sibilants were rarely overheated. But that aliveness and clarity could easily turn to brightness, particularly at higher listening levels. Leo Kottke's *That's What* (Private Music 2068-2-P) is a recording with barrels of HF detail. With careful volume adjustment, the Mission reproduced it with an attractive combination of crispness and delicacy. But lean a little harder on the volume control and that delicacy could turn heavy-handed, the sound becoming etched and analytical. In my system, a change in level of as little as 2dB made the difference between raw sound and refined sound.

I noted the same effect on *The All Star*

*Percussion Ensemble II* (Golden String GSCD 013). Here the overall realism of the percussion was thrilling—lively and up-front in a way that I've seldom heard equaled. But the thrill dissipated on the crescendo at the end of "The General Manate": the cymbals turned fizzy and smeary, obscuring the otherwise superior detailing evident in the rest of the ensemble.

### That aliveness and clarity could easily turn to brightness, particularly at higher listening levels.

This is a very difficult test, but not an impossible one. Even a loudspeaker as modest as the Energy C-2, while not as alive-sounding as the Missions, maintains its composure better with high-level, high-frequency-rich material. The problem is not that the 754 won't play loud—it certainly will—but how the low-treble balance is perceived when it does.

To get another perspective on the sound of the 754, and to try to get a better handle on the problems noted above, I next made a change to the front-end of the system. Instead of the Levinson CD/Rowland preamp combination, I substituted the Sony XA7ES CD player. I elected here to bypass the preamp completely, using instead the Sony's variable outputs to drive the Aragon amplifier directly.

The results were intriguing. The Sony, as expected, filled out and warmed the bass noticeably. The sound was now less tight and detailed overall, but was still hardly sloppy—the essential tightness of the Mission's bass remained. The top end softened a little, and the mids were a little more forward, but not objectionably so. The sound now seemed more relaxed, and less of a magnifying glass on the source than before. Some of the 754s' superb inner clarity and soundstage precision was gone, though enough remained to confirm that this was, indeed, still a full-of-life loudspeaker. The bass and midbass richness contributed by the Sony was welcome—indeed, I suspect it would be preferred by most listeners. There really wasn't any true additional *extension* in the bass, but the extra warmth gave the illusion of it. The Sony's softer top end also reduced the effect of the 754's brightness, and while I was still conscious of it, it was now less distracting.

To finish out the listening tests, I moved the Missions to the long wall of the room, placing them as close as possible to the wall behind (about 8" in front of a 1'-deep, chest-high set of bookcases filled with LPs, CDs, and books). In this position, the bass filled out more, though it was a little less tight and defined. A welcome degree of extra power now fleshed out those organ-pedal and bass-drum passages—enough, in fact, to probably satisfy a substantial number of listeners. There still was no true deep bass of any significance, but the quality of the bass above about 40Hz did compensate, to a degree.

It was in this final auditioning that I was struck by how well the live quality of the Mission's sound held up at low and moderate listening levels. Given the problems I encountered at higher playback levels, the appealing quality of its sound at a less elevated output cannot be overlooked.

### Conclusions

The Mission 754 Freedom 5's strength is its performance at low to medium listening levels, with material not requiring a great deal of sonic weight to make the right impression. Within those limits its sound exhibits some exceptional qualities: tight, defined bass; an open, low-coloration midrange; and a sense of life and lack of veiling that I found extremely appealing.

But I do have trouble giving an unqualified recommendation. The low-bass response is not at all commensurate with the price. And unlike the best expensive minimonitors—which may do no better in the low octaves—the Mission brightens significantly at higher levels.

You should audition the Mission 754—its undeniable clarity will make some of you want to pull out your checkbooks on the spot. But if you do, listen to it with a wide range of material and at the listening levels you prefer. If your playback-level needs are modest, and you like the Mission's sound but find its price a little high, you might also want to audition the Mission 752. At \$1200–\$1400, the 752 gives you the same drivers, absent only the internal 8" woofer (the 6.6" Acrogel driver is used for the bass and midrange). I have *not*, I hasten to add, auditioned the 752, but its sonic flavor should be very similar to the 754's. It may have less very deep bass, and won't play as loud, but since I find neither of these qualities to be strengths of the 754 in any event, you just might find the tradeoff an attractive one. **S**

### System Context

The system used with the Mission 754 loudspeakers began with the Mark Levinson No.37 transport and No.36S D/A converter combination. Also pressed into service was the Sony CDP-XA7ES one-piece CD player. The preamp was the Jeff Rowland Design Group's Consummate, the amplifier the Aragon 8008. Cabling was from Kimber (the digital link from CD transport to converter), TARA Labs (RSC Reference from D/A converter to preamp), Cardas (Hex-link from preamp to amp), and Monster (bi-wire amp to loudspeaker: M1.5 for the top end, M2.2 for the bass). The acoustic treatment in my (approximately) 18' by 26' by 11' listening room combined ASC acoustic panels and Tube Traps with acoustic panels/bass traps from System Analysis Corporation.

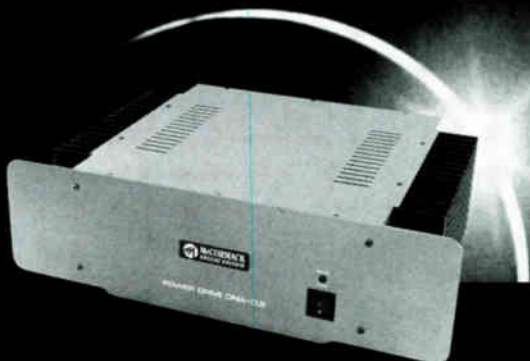
—Thomas J. Norton



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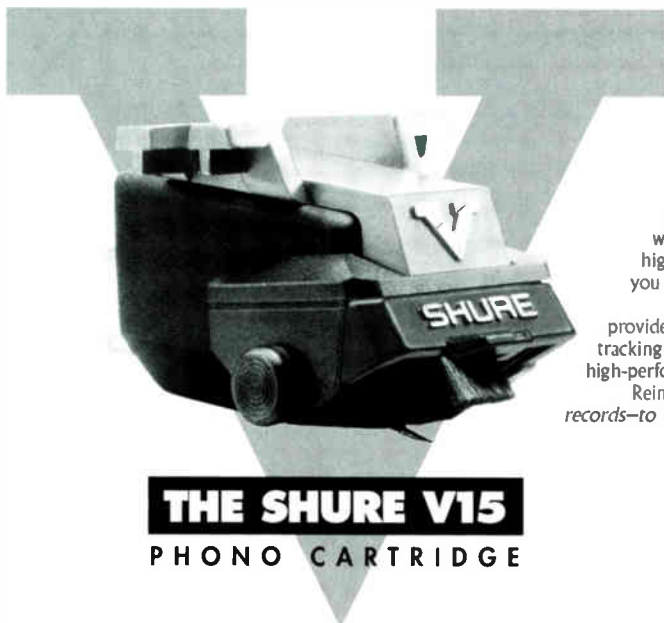
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## Reference Line Preeminence Two passive preamplifier & Preeminence One Silver Signature power amplifier

Steven Stone

In my last couple of preamplifier reviews I've harped on the sonic superiority of passive or nonexistent line-stages. However, the problem with passive line-stages is that you've got to match them with an amplifier that can accommodate their sometimes peculiar impedance requirements. Sonic shortcomings attributed to passive preamps are often the result of an inappropriate amp/preamp mating. I figured it was time to review a purist passive line-stage from a company that makes only passive line-stage preamps. "Always go to an expert," my father used to say.

So I called up Ralph Catino of Reference Line Audio and requested a review sample. To avoid the amp/preamp mating incompatibilities mentioned above, Ralph suggested I hook up his preamp to his Preeminence One Silver Signature amplifier, as they were designed specifically to work together.

Who am I to argue with logic? There's definitely something to be said for the "systems" approach to audio. Synergy can be a very good thing.

### The Reference Line

Like many high-end audio companies, Reference Line began as a hobby project. Ralph Catino and a neighbor built a passive preamp that sounded so good they soon found themselves making them for other audiophile acquaintances. One fellow brought his unit to Florida retailer Audio by Caruso, and suddenly Reference Line had their first dealer. Slick, sophisticated marketing never entered into their business plan—which is a bit odd, since Ralph Catino's educational background is in business administration, not audio engineering.

### Reference Line Preeminence Two:

Passive preamplifier with one pair of direct line-level inputs and 5 pairs of switch-selectable inputs (4 with tape recorder out), and one pair of stereo outputs (second pair optional). Frequency response: DC–100MHz,  $\pm 0.25$ dB (no conditions specified). Maximum working voltage: 350V/0.75W. Series impedance tolerance:  $\pm 0.1\%$ . Series resistance: 1k ohms (10k ohms optional). Attenuation accuracy: 0.015625dB or better. Shunt resistance: 1 ohm–10k ohms (100 ohms optional). Output impedance: 9:00 = 156 ohms, 12:00 = 625 ohms, 0dB = 900 ohms. Input impedance: 1k ohms (–60dB), –11k ohms (0dB). Channel separation: >100dB.

**Dimensions:** 18" W by 2.75" H by 7" D. Weight: 7.5 lbs.

**Serial number of unit reviewed:** 1307.

**Price:** \$2095. Warranty: lifetime to original owner, or 5-year transferable.

### Reference Line Preeminence One

**Silver Signature:** Solid-state power amplifier. Output power: 100W into 8 ohms (20dBW), 200W into 4 ohms (20dBW). Recommended minimum speaker load: 1 ohm. Input sensitivity: 500mV (selectable). Input impedance: 100k ohms (selectable). Frequency response: DC–100kHz,  $\pm 1$ dB. S/N ratio: 100dB (no conditions specified).

**Dimensions:** 19" W by 9.5" H by 16" D. Weight: 90 lbs.

**Serial number of unit reviewed:** 1314.

**Price:** \$7895 (Silver Signature), \$5695 (Signature).

**Common to both:** Approximate number of dealers: 12.

**Manufacturer:** Reference Line Audio Inc., 11580 SW Third Street, Plantation, FL 33325. Tel: (800) 599-7673. Fax: (305) 472-2913.

Since 1988 Reference Line has specialized in passive line-stage devices that attempt to keep the signal path as simple and uncomplicated as possible.

Reference Line makes three models of passive preamps. First there's the Preeminence One (Series III), available with or without IR remote. This preamp has one direct input, five regular line-level inputs, no balance control, and uses a metal-film potentiometer for volume control. The Preeminence One B is a balanced passive preamp available in three versions: standard, remote, and stepped attenuator. All three versions have two balanced differential inputs,

two single-ended RCA inputs, RCA tape outputs, and balanced and single-ended main outputs. The standard and remote versions use a standard potentiometer for attenuation, while the stepped-attenuator version uses a 24-position metal-film device.

All Reference Line preamps are built around the VOSA volume control, a proprietary circuit developed in 1989. The 24-position version has just that many 1% Roederstein metal-film resistors mounted on a 24-position mil-spec stepped attenuator with gold-plated silver contacts and a solid-core OFC bus ground.

**Preeminence Two:** The Preeminence Two got the nod for review because, in Reference Line's opinion, it is the company's most sonically transparent preamplifier. It has one direct input, five switched inputs, and two stereo pairs of single-ended RCA outputs. The front panel features two knobs attached to a pair of 24-position stepped attenuators,



Reference Line Preeminence Two passive preamplifier



and four toggle switches. The first toggle gives you the choice of dual-mono or stereo. Both volume knobs are active in dual-mono mode, so you can make balance adjustments between channels. In stereo mode the volume of both channels is controlled by a single knob. The second toggle switch selects between Tuner or Source input, the third among Aux 1, CD, or neither, and the last toggle selects among Tape, Record, or neither.

The Preeminence Two does have a few operational idiosyncrasies. There is no selector switch for the direct input. This is because direct input does not go through any relays, but is hard-wired to the volume pots. As it says in the instruction manual, "The direct input is always active in the signal path!" To avoid interaction between the direct input source and other signal sources, you must either turn off your direct input when not using it, unplug it from its AC source, or —preferably— un-



Reference Line Preeminence One Silver Signature power amplifier

plug the direct interconnect from the back of the Preeminence.

If you do not perform one of these actions, you may find that other

sources have the full-range capabilities of a small transistor radio — *ie*, no bass and no treble, merely a feeble mid-range. This is because the two source components will combine to drag down the impedance to the point where it severely impacts fidelity. In my system, any other connected input had an effect on the overall output impedance. When I used my Magnum Dynalab Etude tuner as a signal source, I had to disconnect *all* other inputs, regardless of their positions, to achieve full fidelity. It's a good thing the Preeminence is so small — only 5½" deep by 2½" high — as I spent a good deal of time fiddling with interconnects on its rear panel. Bear in mind that I was using a 25' interconnect between preamp and power amps. If you have a short run, you may not experience severe frequency attenuations with multiple input sources.

Another operational quirk: If you're using the direct input and switch between dual-mono and stereo volume attenuation, you'll hear a rather loud *click*. To avoid this, you need to choose some other input *and* turn the volume pots all the way down before switching from stereo to dual-mono. I needed to make this mistake only once before becoming acutely aware of the problem. While the noise was loud enough to get my heart pumping a bit faster as I thought, "Did I just take out a tweeter?," it wasn't loud enough to do any serious damage to my system. Lucky me.

**Preeminence One Silver Signature:** The Preeminence One is available in two versions, the Signature and the Silver Signature. The Signatures share

## Red Roller, Red Roller, will Stevie come over?

**R**eference Line recommended I use Versalab's RFI filter system.<sup>1</sup> The RFI is made up of Wood Blocks, which go between IEC-type AC line cords and their AC inputs; and Red Rollers, which slip over the ends of each interconnect and speaker cable. Versalab head honcho John Bicht sent me very specific installation instructions, which I followed to the best of my limited abilities — though I did draw the line at listening stark naked (just kidding).

Wood Blocks were installed on both of the Preeminence One's IEC AC inputs, as well as on the IEC AC inputs of the EAD DSP-9000 III D/A and PS Audio Lambda CD transport. I also used a Wood Block between my NoiseTrapper Power Strip (which feeds all my front-end components) and my wall outlet. Red Rollers were used at the inputs of the Preeminence One amp, outputs of the EAD D/A, inputs and outputs of the Vendetta SCP-2C phono preamp, and at the amplifier end of the speaker cables.

While I noticed no degradation of the signal with the Versa RFI system

installed, I also noticed no startling improvement. I've heard larger sonic changes from substituting different 1m interconnects. With the Versalab system installed the system sounded very slightly cleaner, with a bit better low-level detail.

My take on optional accessories like Red Rollers is simple: If a manufacturer recommends using certain products with their gear, I will always oblige. My job is to ascertain the equipment's maximum performance capabilities. Why not use manufacturer-approved, readily available accessories? Only if I notice a degradation in sound from a particular accessory do I remove it from my system. Versalab products were recommended, so I used them. Are they absolutely necessary for acceptable performance from Reference Line products? Not in my system. Do they ensure optimal performance? Again, in my system their contribution seemed slight, but I live way the hell and gone up in the foothills of the Rocky Mountains, where RF signals must be carefully coaxed into existence. The contribution of Versalab's RFI system in big, bad urban centers may be quite different.

— Steven Stone

<sup>1</sup> Versalab, 465 Okeepa, Loveland, CO 80537. Tel: (970) 622-0240. Fax: (970) 622-0239.

the same circuit topology, differing only in their parts complements. This design is actually two dual-mono amps sharing the same 90-lb chassis. Not only does each "channel" have its own power switch, it also has separate power cords. The One is a high-current, fully discrete, pure class-A amplifier designed principally by Erno Borbely (see interview sidebar). Its quiescent (idle) bias current is set at 6.5A, with a power dissipation of over 300Wpc at idle. The One puts out 100W into an 8 ohm load, 200W into 4 ohms. It is claimed as being able to deliver 40A peaks into a 1 ohm load, and is said to remain stable even into a very low impedance.

The driver section of the Preeminence One is symmetrical, pure class-A discrete topology. DC-coupled with a servo network to maintain low

offset at output. There are two gain stages and one buffer stage. Utilizing low-noise, complementary, monolithic Toshiba JFETs in a cascode arrangement with bipolar transistors, the first stage is designed to deliver high linearity and low input capacitance. The second gain stage is a folded cascode circuit that uses special high-frequency transistors with low collector-base capacitance. This stage also has onboard discrete regulators with MOSFET pass transistors.

The Preeminence One's output stage is made up of all MOSFET devices. A pair of TO-220-cased source-follower drivers and five matched pairs of 10A low-noise output devices each biased at 650mA make up the circuit. Very small amounts of local feedback are used in the input stages, while the output stage

is run without any feedback.

Erno Borbely believes that if an amplifier is well-designed, the power supply is most likely to limit performance, so a great deal of effort has gone into the power-supply design and choice of components. The Preeminence One has a high-current toroid power transformer and ultrafast (15 nanoseconds) HEXFREID diode rectifiers. MIT tinfoil bypass caps, fully independent hand-wired driver and output power supplies, and a staggered time-constant power-supply array are also employed.

The Silver Signature's entire power supply is hard-wired with Kimber KCAG 15-gauge pure-silver wire; the Signature uses 14-gauge Discovery stranded OFC-copper wire. All signal-path wires in both versions are Kimber

With a "passive" preamp, the concepts of distortion and noise have no meaning outside of the context of the system in which the device is used; measurements of them are not presented here. Gain is also generally meaningless, though I measured a loss of about 0.1dB through the Reference Line—even in the direct mode. This small loss will be irrelevant in practice, however. The Reference Line Preeminence Two is also noninverting (as it should be, unless there was a wiring error!).

More interesting with a passive preamp are matters of input and output impedance. With the Reference Line, the input impedance was 92.6k ohms with the level control set to full, though this dropped dramatically at any other setting. It was 3275 ohms at -1 step, 1560 ohms at -3 steps (-9.4dB), and 1120 ohms at -7 steps (-21.5dB). The same results were obtained through both the CD and the direct inputs. What this

means is that the output impedances of your sources become important, particularly if they are unable to deliver any appreciable current. As a general rule, if the source output impedance is 100 ohms or less, you should encounter no problems with the Reference Line Preeminence Two. (See also my measurements of the BAT preamp in June, Vol.20 No.6, for more on this subject.)

The output impedance of the Reference Line also varied, this time in an inverse fashion. It was 1010 ohms at maximum on the level control, 705 ohms at -1 step, and 82 ohms at -7 step. This should be of less concern than the preamp's input impedance, as most amplifiers have input impedances of at least 10k ohms, which should cause no difficulty. The output impedance at the tape outputs was virtually identical to the source impedance at the preamp input—no surprise with a passive device.

I was a little surprised by the steps on

the Reference Line's level control. With any passive preamp there is a strong likelihood that you will be using it near its maximum output. From maximum level to -8 steps on the control, the gradations were a rather coarse 3dB, give or take 0.2dB. Toward the center of the control—where you're not likely to need better resolution—the steps decrease to approximately 1.5dB. -8 steps is -24.5dB; even with a high-gain preamp (such as the Reference Line Preeminence One), anything less than this will probably be well into background listening levels.

Fig.1 shows the frequency response of the Reference Line Preeminence Two. As expected, it is virtually flat. This reading was taken at the maximum setting of the level control with the Audio Precision load set to 100k ohms; at any lower setting, the curve becomes progressively flatter. The crosstalk is shown in fig.2. Here, less than maximum on the level control actually resulted in a little less crosstalk.

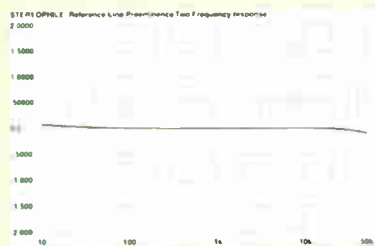


Fig.1 Reference Line Preeminence Two, frequency response at 1V into 100k ohms with volume control set to maximum, (right channel dashed, 0.5dB/vertical div.).

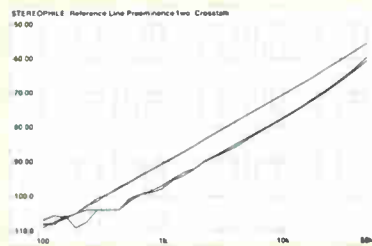


Fig.2 Reference Line Preeminence Two, crosstalk (from top to bottom at 20kHz): L-R, R-L with volume control set to maximum; with level control set to -3 steps (10dB/vertical div.).

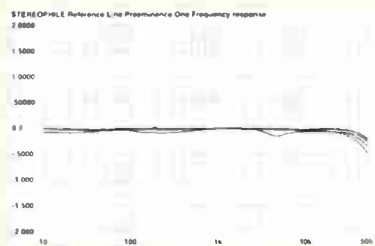


Fig.3 Reference Line Preeminence One, frequency response at (from top to bottom at 5kHz): 1W into 8 ohms, 2W into 4 ohms, and 2.83V into simulated speaker load (right channel dashed, 0.5dB/vertical div.).



AGSS pure silver wire. WireWorld Aurora cable is used in the Silver Signature for internal power cabling, while the Signature uses Cardas cable for internal AC chores. Both models employ custom MIT polystyrene (3 $\mu$ F) high-current power-supply bypass capacitors, and custom MIT polypropylene (0.1 $\mu$ F) dedicated "drain bypass" supply capacitors. The Silver's signal-path resistors are Caddock 1% aerospace-grade, with Vishay aerospace-grade resistors in the regulated power supply. The Signature uses only Caddock resistors. Both versions have OFC direct-plated RCA input connectors and high-current OFC nonplated Cardas output terminals, and each sports a mirror-polished, 1/2"-thick black-anodized aluminum faceplate, 1080 square inches of heatsink surface area, and

fuse-protected driver and output-stage power rails.

## Line in the sand: the sound

Sometimes while doing a review I feel like Lancelot looking for that sonic Holy Grail of the perfectly transparent audio component. Most of the time I'm more like Elmer Fudd, constantly outsmawted by dat pesky rabbit.

In theory, the Reference Line Preeminence Two preamplifier should sound transparent. After all, with the direct input, the signal is only going through two RCA connectors and six Vishay Lab-spec resistors. These components shouldn't have any effect on the sound, should it? But they do.

J. Gordon Holt is fond of pointing out that the first sonic parameter affected by a loss of fidelity is soundstaging. The ol'

curmudgeon is right. When compared to running the EAD DSP-9000 III processor straight into the Preeminence One or Boulder 500AE power amplifiers, the Preeminence Two passive preamp seemed to reduce depth. It was as if the last third of the soundstage had been compressed. On a recent JGH/SS recording of Brahms's *Academic Festival Overture*, the rear of the stage was noticeably shallower. It was as if all the horn players had suddenly moved forward onto the woodwinds' risers. Soundstage width seemed unaffected by the Reference Line, as did harmonic balance. Even dynamic contrast, pace, and low-end impact came through unscathed with the Preeminence Two. But depth was noticeably reduced. Go figure.

The only other area where the Preeminence was noticeably different

The increase at higher frequencies is likely due, as it usually is, to capacitive coupling between channels. We actually have measured lower crosstalk in some active preamps, but the separation here is more than sufficient for any source I know of. Both results in fig.2 were taken using the CD input; the results at the direct input were virtually identical.

There isn't a lot that can be measured in a passive preamp, but the results here are good ones. My only reservation centers around the relatively large volume-control steps.

Following its 1/3-power, one-hour preconditioning test, the heatsinks of the Reference Line Preeminence amplifier were merely warm to the touch. Its input impedance measured 98k ohms. The output impedance varied between 0.05 ohms and 0.075 ohms, depending on frequency and the test load used to take the measurement (with the higher values at 20kHz)—low enough, in any case, to be of no

consequence. DC offset was a maximum of about 35mV in both channels, but drifted slowly up and down and was thus difficult to measure precisely. Voltage gain into 8 ohms measured 35.6dB—a high figure, but undoubtedly intended to work well with a "passive" preamplifier.

The Reference Line Preeminence One is noninverting. Signal/noise ratio (ref. 1W into 8 ohms) measured 90.4dB over a 22Hz–22kHz bandwidth, unweighted, and 83dB over a 10Hz–500kHz bandwidth, unweighted (94dB, A-weighted).

Fig.3 shows the One's frequency response. It's nearly ideal, with the 8 ohm and 4 ohm results virtually overlapping; the deviation from flat is small even with our simulated real load. The 10kHz squarewave response in fig.4 does show a small damped overshoot (also just visible on the 1kHz squarewave, not shown). The crosstalk performance shown in fig.5 is difficult to criticize, with only the

normal increase at high frequencies due to capacitive coupling between channels. Though the two channels are not identical, even at its poorest the audible result of this degree of crosstalk will be insignificant.

The THD+noise vs frequency result (fig.6) is very good. Note that, to get these readings, I had to increase the power output to 10 times the level we normally use for this measurement. Even so, the result is partially obscured by noise (at higher output levels than the ones used, the distortion reading continued to decrease). The Reference Line's distortion waveform (fig.7) at 40W into 4 ohms indicates a dominant second harmonic, noticeable higher harmonics, plus noise. The results for 2, 4, and 8 ohm loads were similar, though with slightly increasing indications of higher harmonics at lower impedances loads; only the 4 ohm result is shown.

The Preeminence One's output spec-

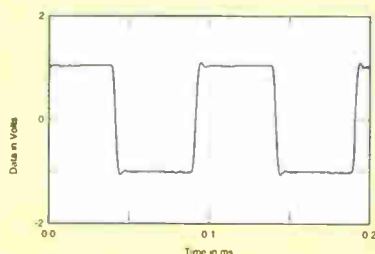


Fig.4 Reference Line Preeminence One, small-signal 10kHz squarewave into 8 ohms.

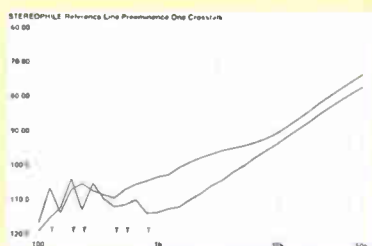


Fig.5 Reference Line Preeminence One, crosstalk (from top to bottom at 10kHz): L-R, R-L (10dB/vertical div.).

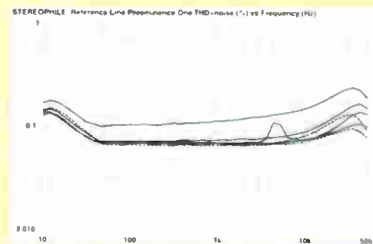


Fig.6 Reference Line Preeminence One, THD+noise vs frequency at (from top to bottom at 10kHz): 4W into 2 ohms, 2W into 4 ohms, 2.83V into simulated speaker load 1W into 8 ohms, (right channel dashed).



from a direct feed was in low-level detail. The low-level hall sounds on JGH/SS concert recordings were less present through the Reference Line. Not that I live to hear the sounds of Macky Auditorium's heating system, but through the Reference Line that gentle low-level whoosh of forced air was slightly less apparent. Since this was part of the outer envelope of the soundstage, the result was less sense of "the room." On commercial recordings like "Whipping Post," on Sara K's *Tell Me I'm Not Dreamin'* CD (Chesky JD133), the size of the room seemed slightly reduced, and the guitar's initial attack was a hair less vivid. Though I try to avoid audio clichés like "slight veiling," that phrase does accurately describe the sonic effect of the Preeminence Two in the circuit.

## Against the Carver

However, compared with the Carver Research Lightstar Direct "passive" pre-amp—reviewed in February 1996 (Vol.19 No.2)—the Preeminence Two did sound less colored. The Carver lacks the transient speed of the Reference Line; perhaps it's all that extra wire and relays and stuff the signal travels through. This was especially noticeable on snare-drum rimshots, where the Preeminence had better localization of the initial strike and "bloom" as the transient energy radiated outward. The Carver was also slightly more veiled in terms of low-level detail than the Reference Line. Through the Carver it felt as if I had to listen "harder" to get the same amount of information.

Depth was also slightly reduced

through the Carver. It felt as if the horn section on JGH/SS recordings had moved to the front of the woodwinds' risers, and pushed the poor winds onto floor level. Lateral width on both preamps was identical, but the Reference Line's lateral focus seemed a bit better. On the Carver's plus side, I didn't have to disconnect every other source input to achieve maximum fidelity, and it's graced with the best remote control I've ever used. Based on sonics alone, I clearly preferred the Reference Line, but for real-world ergonomic convenience and features the Carver is superior.

My expectations of the Preeminence Two were great, and, except for some ergonomic idiosyncrasies and small subtractive colorations, it lived up to most of them.

—Thomas J. Norton

trum reproducing 50Hz at 128W output into 4 ohms is shown in fig.8. This is a very good result: only the second harmonic at 100Hz and the third at 150Hz rise above -80dB (-75dB or about 0.017% at 100Hz, and -73.3dB or about 0.02% at 150Hz). Aside from less distortion at 100Hz (well under -90dB) and more at 150Hz (-64.5dB or about 0.06%) and 250Hz (-75.8dB or about 0.017%), the results into our simulated test load (not shown) were not all that different.

Fig.9 shows the amplifier's output spectrum and intermodulation products with a combined 19+20kHz signal at 93.6W into 4 ohms. The largest artifacts here are at 1kHz (-64.3dB or about 0.06%) and 18kHz (-63.4dB or slightly less than 0.06%). The results into 8 ohms (49W) were very similar. As is frequently the case, the amplifier would not quite reach two-thirds of its 1kHz clipping level with this difficult signal.

The 1kHz, THD+noise vs output

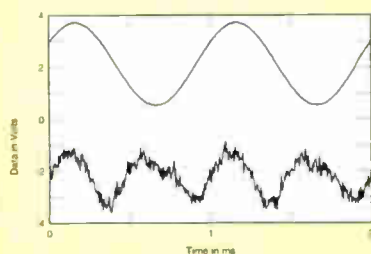


Fig.7 Reference Line Preeminence One, 1kHz waveform at 40W into 4 ohms (top); distortion and noise waveform with fundamental notched out (bottom, not to scale).

power curves for the One are shown in fig.10. The discrete clipping levels (at 1% THD+noise) are listed in Table 1. Note that while the One would put out significant short-term power into 2 ohms, as indicated in fig.10, it blew its power-supply rail fuses when I tried to run the discrete clipping measurement at this frequency. One of the rail fuses was in an extremely inaccessible part of

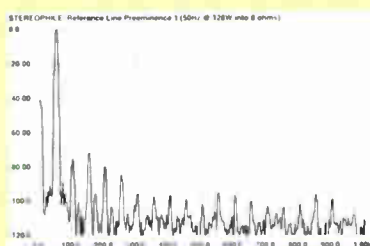


Fig.8 Reference Line Preeminence One, spectrum of 50Hz sine wave, DC-1kHz, at 128W into 8 ohms (linear frequency scale).

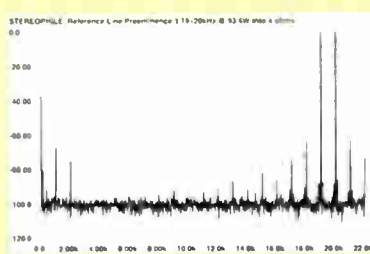


Fig.9 Reference Line Preeminence One, HF intermodulation spectrum, DC-22kHz, 19+20kHz at 93.6W into 4 ohms (linear frequency scale).

the chassis, requiring either a special insertion tool or partial disassembly to replace. We didn't have the first, and were not inclined to perform the second. This is a curious oversight in an amplifier that is otherwise impeccably crafted inside.

The Reference Line Preeminence One's test bench measurements were very good; an impressive result from a small, specialist manufacturer.

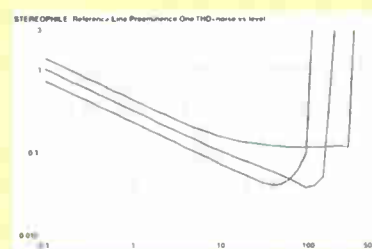


Fig.10 Reference Line Preeminence One, distortion (%) vs output power into (from bottom to top at 10W): 8 ohms, 4 ohms, and 2 ohms.

Table 1 Reference Line Preeminence One Clipping (1% THD+noise at 1kHz)

Load ohms	Both Channels Driven W(dBW)		One Channel Driven W(dBW)	
	L	R	L	
8 (line)	104 (20.2)	104.2 (20.2)	105.3 (20.2)	
4	122V	122V	121V	
2	189.6 (19.8)	188.8 (19.8)	191.2 (19.8)	fuses blew
	121V	121V	121V	

### Preeminent power

The Preeminence One power amplifier's performance came as a complete surprise. I've heard a lot of fine amps driving my Dunlavy Signature VIs, but no amplifier has exceeded the overall performance of the Preeminence One Silver Signature.

Compared to the Boulder 500AE—which, despite its Class B rating in *Stereophile's* "Recommended Components," has always been a Class A amplifier to my ears—the Preeminence One fared very well. It offered a more recessed soundstage, the front of the stereo image starting behind the speakers instead of at the speaker's grilles, as with the Boulder. While the One did not quite have the Boulder's lateral image focus, it did have better three-

dimensionality and depth. While I could pick out individual instruments' locations more quickly through the 500AE, the One did a better job of layering the orchestra.

The Preeminence One also had a most impressive midbass, with substantial impact and visceral power. Compared to the Boulder, it sounded warmer and fuller, more like the Manley 240 tube amplifier. But, unlike most tube designs, the Preeminence One's midbass was remarkably tight and under control. "Carmen" on Paula Cole's *This Fire* CD (Imago/Warner Bros. 46424-2), has some serious bass-drum transients that the Silver Signature handled nicely. On a JGH/SS recording of Shostakovich's Symphony 9, the bass drum has excellent weight and superb

dimensionality—with the One, I could track the bass drum's transient bloom as it rolled across the stage.

One of my least favorite extramusical low-bass references is traffic noise on live concert recordings. With the Boulder, I was more aware of such stuff than through the Preeminence One. While midbass energy was palpably present through the One, this amp lacked the low-bass extension of the 500AE. On most "full-range" speakers you may actually prefer the One's slight attenuation of low bass... but that's for you to decide.

One of the usual tube-enthusiast complaints about solid-state amps is that they introduce a subtle grain to the texture of the sound. The Reference Line Preeminence One Silver Signature

## An Audio Amateur?

**A**ny audiophile who has ever spent any time holding a soldering iron has probably heard of Erno Borbely. Since 1982, Borbely has been publishing his designs in *The Audio Amateur* [Now called *Audio Electronics*—Ed.] of which he is a Contributing Editor. He founded the Borbely Audio Kit business in 1984, now run by his wife, Irene. Borbely did the basic design work on the Reference Line Preeminence One amplifier, so it seemed like an ideal time to talk with him about audio. But as he lives and works in Germany, this interview was done via e-mail on the Internet. My first question was to ask Erno how had he become involved in audio? Was it the music or the technology that first attracted him?

**Erno Borbely:** In my younger days I was more interested in high frequencies than audio. Like so many other kids, I built crystal sets and radios when I was a teenager. I turned to audio when I first began to listen to live concerts around age 18. The first time I heard a mono Ortofon MC pickup was at the electroacoustics lab of the University of Trondheim in Norway. Stereo was just around the corner, and the first stereo demonstration I heard at a friend's house was very exciting. The real interest in reproducing music came after age 22, when I managed to get my first record player with a piezo pickup. From then on I was hooked on audio amplifier design. The first audio amp I designed used two EL84 tubes in normal pentode mode. The second one was an OTL circuit with eight 6AS7s. That was really fun.

My first professional work in audio started when I joined the Norwegian Broadcasting Corporation as an audio design engineer after college. The '60s brought lots of changes in audio, and although we still designed tube amplifiers, the mainstream soon became the transistor amp—first with germanium devices, then with silicon. I designed a number of studio mixer consoles with these new transistor modules. At the time I was also teaching sound engineering courses at the Norwegian Broadcasting Corp. I have written a number of course books, as well as co-written a book on semiconductor technology.

**Steven Stone:** In a 1982 issue of *The Audio Amateur*, the introduction mentions your designs for Hafler—specifically, the DH-200 power amp and DH-101 preamp. How did this association come about?

**Borbely:** While working with professional audio at the Norwegian Broadcasting Corporation, I became interested in consumer audio. Since David Hafler, then with Dynaco, was a well-known name in Norway, I wrote to Hafler and asked if I could work for him. I made an appointment to meet him at a hi-fi show a few months later in Stockholm. We discussed amplifier design and he said he might have a position for me the following year. In 1969 I moved to the States and began working on several of the Dynaco products. I designed the cascode output stage for the Stereo 400 power amp, and the tuning circuit and the stereo decoder for the FM-5 tuner. I actually hold the US patent for the FM-5 tuning circuit.

**Stone:** That 1982 *Audio Amateur* also includes your 60W MOSFET amp design. What led you to MOSFETs?

**Borbely:** In 1973 my wife and I moved to Switzerland, and I worked at Motorola for 5½ years as a Senior Application Engineer and Application Manager. I worked primarily with audio power amps using bipolar transistors, FM tuners with dual-gate MOSFETs, stereo decoders, and low-noise circuitry with bipolar and JFET transistors. I gained essential experience in these areas from Motorola's semiconductor-technology point of view. Many of my later designs benefited from this experience.

During this time I kept in touch with David Hafler. He was considering starting a new company; when he finally started the David Hafler Co., he asked me to join him as Director of Engineering. My first product, the DH-200, started out with a bipolar output, but Hitachi announced the first MOSFETs at this time, and we decided to go with them. It took some time to get used to the new technology, but it was worth it. I have been using MOSFETs ever since. MOSFETs offer a number of advantages compared to bipolar power devices, the most important to me being the absence of graininess.

Regarding the DH-101 preamp, I designed its circuitry before the DH-200, based on experience I gained of low-noise circuits at Motorola. I was experimenting with a fully complementary, high-speed, low-noise preamp topology at Motorola, and I adopted this to the phono preamp in the DH-



went a long way toward silencing that particular lament. While I wouldn't say the One had absolutely *no* grain, the grain was so fine, so well-integrated, that the result was almost grainless. Don't mistake this lack of grain for a "liquid" sound—the One was still a very matter-of-fact device, devoid of any additive "romance." I consider that a good thing—I like my schmaltz to be supplied by my music, not my equipment. Don't expect a lush midrange with the One—it's not a "tubey-sounding" device, but lets the music speak for itself.

Another area where solid-state amplifiers have traditionally been less sonically palatable than tube electronics is in their rendition of high-frequency information. Once more, the Pre-

eminence One was not your "average" solid-state amp in this regard. Neither sweet nor rolled-off nor etched nor forward, the One's top end sounded just plain neutral. On poorly EQ'd pop material, fried-egg cymbals sounded just as they should: bad. But on well-recorded material this amp preserved all the air, delicacy, and timbral finesse of the source. As a tool to determine just how well a recording has captured high-frequency information, the Preeminence One was simply superb. Differences in high-frequency response between several topflight ADCs used for the live recordings I make with JGH were ridiculously obvious through the Preeminence One.

Low-level resolution was certainly one of the Reference Line's fortes. At

the Winter 1997 CES, Canorus, who distribute Nagra recorders and dCS A/Ds, were demonstrating the differences between 44.1kHz Nagra tapes made with an Apogee A/D and a dCS A/D. They also played a 96kHz digital tape made with the dCS 9021) converter, using a Preeminence One to drive a pair of Focus speakers. Even in the sonically unfriendly Alexis Park room, it was easy to hear the differences between these recordings. At home on my own live recordings, it was obvious that the One did an excellent job of dredging up even the minute details buried deep in the mix. Coupling the One with the Dunlavy Signature VI speakers created a formidable "sonic microscope."

Perhaps some of the Preeminence One's seemingly excellent resolution

101. For the line-amp part I was using a complementary, differential circuit for the first time. Both stages were using low-noise bipolar transistors from Motorola. Later on I further developed these topologies, but using low-noise JFETs and MOSFETs instead of bipolar transistors.

**Stone:** *I gather you still think highly of MOSFETs—15 years later, the Reference Line Preeminence One Silver Signature amplifier also uses them. How did you hook up with Ralph Catino of Reference Line?*

**Borbely:** The connection with Ralph Catino started about seven years ago, when he started purchasing potentiometers through Borbely Audio. We first discussed the power-amplifier project about five years ago, which led to Reference Line building the initial prototype based on my design three years ago. Since then Ralph has been refining the design, with my input and his experimentation. I have to say, he is very demanding, even by my standards.... I respect the fact that he is committed to producing the most neutral power amplifier possible. In this respect, our goals are the same.

**Stone:** *What's special about the Reference Line compared to your past designs?*

**Borbely:** My design objective is low-level resolution and neutrality, and this can only be achieved by continuous improvement. My amplifiers are therefore developed in the evolutionary way: Both topology and components are continually reviewed, updated, and redesigned. As you know, I am using low-noise JFETs in the input stages in all of my amplifiers because of their

excellent low-level resolution. Selecting the particular JFETs and the input circuitry used in the Reference Line is one of the major changes from my previous designs. Another major change was to include a discrete regulator for the driver stage in this amp. The output stage, which is working in pure class-A, is now using higher-current MOSFETs than my previous designs.

**My design objective is  
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neutrality, and this can  
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continuous improvement.**

**Stone:** *How much of the Silver Signature's sound is the result of its circuit topology, as opposed to parts quality and wire choice?*

**Borbely:** I believe the topology and component quality, including wiring, go together. If the topology is not good, you can put the best caps, the best resistors, and the best silver wires in the amp, and it will still not sound right—and vice versa.

**Stone:** *What is the most important aspect of a superior power-amp design?*

**Borbely:** Using Field Effect Transistors [JFETs and MOSFETs] and operating them in class-A. Let me quote from our General Information leaflet, which outlines my design philosophy: "Our objective is to reproduce music without adding or subtracting from it; i.e., to make our amplifiers as *neutral* as possi-

ble. We are not interested in creating larger-than-life soundstages. We don't try to make our amplifiers 'sweet'-sounding by artificially building 'pleasant' harmonics into them.

"All our circuits are fully symmetrical, using complementary devices. We use discrete devices throughout because ICs are not available with fully symmetrical circuitry. We are using low-noise, high-mutual-conductance JFETs as input devices, and MOSFETs as output devices. FETs lack the graininess of bipolars, and are believed to generate a more 'friendly' spectrum of noise and harmonics than bipolars. Low-noise JFETs are capable of an extremely high resolution of low-level signals. Most of our circuits are cascode-connected for best linearity, and for reducing internal capacitances and capacitance modulation. All of our preamplifiers and power amplifiers are operating in or close to class-A. This ensures that the devices are operating in their linear region without abrupt nonlinearities and without turn-on/turn-off delays. Our power amps have enormous current reserve and good stability, and can drive the most difficult loudspeaker loads on the market."

**Stone:** *What are your future plans?*

**Borbely:** I am in the process of an early retirement from National Semiconductor, which will give me a chance to devote my energies full-time to audio.... I am looking for more customers like Reference Line, who can use my experience for producing superior products.

**Stone:** *Thank you for your time. I guess it's okay for me to go back to reading my newsgroups.*



## REFERENCE LINE

was a result of its ability to easily drive difficult loads. Microdynamics retained their subtleties through the One. Even on busy recordings like Toy Matinee's "Last Plane Out," all the small sounds buried in the mix were discernible. There was a dynamic effortlessness and dynamic precision that only broke down when the One was driven to the edge of clipping.

Did the Preeminence One clip easily? No. Still, *Stereophile's* latest release from the Santa Fe Chamber Music Festival, *Serenade* (Stereophile STPH009-2), can clip my system if I turn it up too much. And many of the JGH/SS

recordings on my shelves clipped the Preeminence One when played back at realistic concert levels. A 200Wpc or 300Wpc version of the Preeminence One amp would alleviate the problem nicely (hint).

### Bottom line

It's fun going off to look for one thing and finding something completely different. The Preeminence Two gets tantalizingly close, but not quite there—I suppose I'm still searching for the utterly transparent full-function preamplifier. Don't get me wrong—the Two is a nicely made, intelligently engineered

component. But in my system it was relegated to mere volume-attenuation chores. To guarantee maximum fidelity, only one input could be connected at a time. Since the Two is designed as a full-function control unit, it's a shame to pay for selectors and hardware that will never be used. For systems (like mine) with long cable runs, a single-input, direct-only attenuation box would be more appropriate, and less expensive.

Compared to the Carver Lightstar preamp, a *Stereophile* Class A-rated passive preamp, the Preeminence Two was less colored, but it was also far more limited in function and flexibility. In an ideal setup, with short cable runs, the Two could easily outperform the Carver, or any other preamp I've heard. In many systems its ergonomic foibles may make its use impractical: Class A sound with Class B ergonomics. Life could be a lot worse.

While I was disappointed by the Reference Line Preeminence Two's lack of universal applicability, the Reference Line Preeminence One Silver Signature was a delightful surprise. Here's a solid-state power amplifier with both strength and finesse. It may well be just the thing for someone with a difficult-to-drive full-range loudspeaker. My only regret about this amp was that I couldn't get a second unit to try vertically bi-amping my Dunlavy Signature VIs. Now that would be fun.

High-end reviewers are often accused of "losing contact with reality" as far as value-for-dollar and real-world costs are concerned. I'm as guilty as the next pseudo-pundit of often being more concerned with ultimate performance than bang for the buck. Even though, at \$8k, the Reference Line Preeminence One Silver Signature is one expensive big black box, it could be considered something of a value for money. Its pedigree is impeccable—the latest thinking from someone who has designed state-of-the-art amplifiers for nearly 35 years. Its overall performance is on a par with any high-end amp I've heard. It's bulletproof, yet has great finesse. Yes, you *can* spend more for an amplifier; but for merely \$8k you can get Class A sound.

Anyone in the market for a solid-state amp capable of driving difficult loads should give the Reference Line Preeminence One Silver Signature a serious listen. It deserves to be heard. 'Nuff said—consider it "just" another Class A-rated big black box with magic inside. **S**

## System Details

**F**or the last nine months all the systems I've had in my main listening room have shared a single trait: They've all used balanced interconnects fitted with XLR connectors. Reference Line gear, however, requires single-ended RCA interconnects. Since every long run of single-ended RCA interconnect I had in my house was at least a year old (and most far older than that), I called a couple of cable manufacturers to get their current offerings. I based my choices on Reference Line recommendations—I figure that whatever cables a manufacturer uses for their design and evaluation should be the least likely to cause unusual sonic results. Call it laziness or just plain common sense—I like to avoid the "You should have used XYZ cable" phone call. Reference Line recommended AudioTruth Diamond X2 and Discovery Signature interconnects and speaker cables. That's what I used.

The rest of my system during the course of the Reference Line review consisted of the following: Analog sources were a VPI TNT III turntable with the outboard flywheel on a Bright Star base and Townshend Seismic Sink. Tonearms mounted on the table were the Graham 1.5 TC and Clearaudio/Souther TQ-1. Cartridges included the van den Hul MC-1 Super, Dynavector XX-11 low-output MC, Clearaudio Veritas, and Fidelity Research/van den Hul FR-1. Digital front-ends were a PS Audio Lambda CD Drive, and Sony TCD-D8 portable DAT recorder connected via coaxial, AES/EBU,

TosLink, and AT&T optical connectors to an EAD DSP-9000 III D/A. Reference Line recommended I use Versalab's RFI filter system, reviewed by Wes Phillips in June 1996 (see "Red Roller" sidebar).

Other preamps in-house were the Carver Lightspeed and Pass Aleph P line-level units, with a Vendetta Research SCP-2C outboard phono unit. Power amps in-house were the Boulder 500AE monoblocks. Speakers were the Dunlavy Signature VIs. Digital cables used were Mod Squad Wonder Link 1 and Audio Magic Sorcerer coaxials, TARA Labs RSC Master AES/EBU, Illuminati RCA coaxial and AES/EBU, Aural Symphonics Digital Statement cable in both RCA coaxial and AT&T optical, AudioQuest and Sony TosLink connectors, and fiber-optic cable from Parasound with EIAJ connections. The power amps sat on Bright Star Audio Big Rock bases. Room treatments included Room Tunes CornerTunes, EchoTunes, and Ceiling Clouds, and Acoustic Sciences Tube Traps.

Other accessories: Arcici Levitation stand, Shakti Stones, VPI magic bricks, Fluxbuster, PAD break-in disk, NoiseTrapper Power Strip, Power Science Ltd. Foundation AC line conditioner, AudioQuest Record Brush, Gryphon Exorcist conditioning tool, Nitty Gritty record-cleaning machine, RadioShack Sound Pressure Meter, Kleenmaster Brilliantize CD cleaner, and a 1965 Gibson Barney Kessel cherry-sunburst archtop electric guitar.

—Steven Stone

## Esoteric Audio Research 834P phono preamplifier

Robert J. Reina

No, folks, vinyl is not dead. And even though my colleague Mikey is beginning to sound like a broken record, the little guy is right: when it comes to the sound on offer, CD still doesn't come close. There are more turntables, phono cartridges, and tonearms on the market today than ever before. Moreover, with companies like Classic Records, Analogue Productions, and Mosaic offering a steady stream of ultra-high-quality reissues, there seems to be an increasing supply of quality vinyl at reasonable prices.

One of the big problems analog fans face today is in the preamp department. Because most of today's most popular high-end preamplifiers are sold as line-stage only, vinylphiles must seek out separate phono stages. And there aren't a large number of stand-alone phono stages available, and fewer still at affordable prices.

### I heard it first at HI-FI '96!

I came upon the Esoteric Audio Research 834P phono stage quite by accident, at HI-FI '96 in New York. I was hanging out in the Alón room, listening to the Phalanx/Poseidon flagship speakers, unwinding after a long day. Although I've gone on record to a nau-

seating extent about my love affair with Alón speakers, and own pairs of Alón V Mk.IIs and Petite Trios (What can I say? Designer Carl Marchisotto and I have similar listening biases), I'd never really warmed to the sound of the Phalanx the three times I'd heard it at Consumer Electronics Shows.

But this time, at the Waldorf, the sound was exquisite—the best I've ever heard from an Alón design. I voted Marchisotto's room as tied for first place for Best Sound at the Show (after the first day, that is, when there were some cable break-in anomalies). Maybe it was the great room. Maybe it was the fact that it was the first time the designer had used the Audio Research Reference electronics and the VPI TNT/JMW Memorial arm/Clearaudio Insider cartridge. All in all, Marchisotto was twirling black discs on a system that retailed for close to \$125,000.

What most visitors to this room did not realize, however, was that between the Insider and the ARC Reference 1 preamplifier was EAR's 834P phono stage. This tiny box, sporting no more than an on-off switch and a volume knob, was lost in the shuffle amid all that oversized, state-of-the-art and cost-no-

**Description:** Moving-coil/moving-magnet phono preamplifier, available with or without front-panel level control. Input sensitivity for 1V output at 1kHz: 2.2mV (MM), 220µV (MC). Maximum output level: 30V. S/N ratio: 80dB (IHF, unweighted).

**Dimensions:** 5" W by 4" H by 11" D.

**Serial number of units reviewed:** 0911596 (auditioning), 97081016 (measuring).

**Price:** \$895 (black), \$1195 (chrome). Approximate number of dealers: 9.

**Manufacturer:** Esoteric Audio Research, Huntingdon, UK. US Distributor: EAR USA, 1624 Sunset Avenue, Santa Monica, CA 90405. Tel./Fax: (310) 396-1919.

object gear. My "Best Sound at Show" was being produced using a phono preamplifier retailing for just \$895!

I had to get this little wonder in my reference system to put up against my reference Vendetta Research SP-2C phono stage.

### A simple, down-to-EARTH design

The 834P's diminutive box epitomizes designer Tim de Paravicini's "simple is better" design: three ECC83 tubes, a toroidal transformer, and a tiny circuit board are all ya get. The front panel sports an on-off switch and a volume knob. (In a phono-only system, a separate preamp is therefore unnecessary.) The user can toggle between a standard 47k ohm moving-magnet input and a moving-coil input that uses internal step-up transformers, one for each channel.

The performance of the EAR 834P phono stage combined the strengths, weaknesses, and colorations of classic high-end tube gear. As one would expect, the EAR thus excelled at re-creating the inner detail of good recordings, and was adept at extracting the delicacy, the subtle nuances of well-recorded unamplified instruments. Along with inner detail came agile reproduction of transients, but without a trace of hardness.

The EAR's greatest strength was its ability to reproduce perfectly placed



EAR 834P phono preamplifier



holographic images with body and life on a wide, deep soundstage. This may be the phono stage for lovers of well-recorded classical works. On *Cantate Domino* (Proprius 7762) the layered vocals and French horns against the rear of the soundstage were arresting. And the EAR lit up the rear wall and provided a detailed perspective of the recording space unlike any phono stage I've

heard. If hall sound and ambience are important to you, you *must* audition this phono stage.

The 834P's tonal balance was replete with a number of classic "tubey" colorations that many of today's valve designers have been able to abandon. The amplifier's overall dark perspective reflected very laid-back extreme high frequencies and an overly round mid-

bass. There was a slightly euphonic liquid presentation throughout the mid-range and upper highs as well.

Whether the EAR's mixed bag of characteristics interests you will depend on your own listening biases, musical tastes, and the recordings themselves. On the Classic Records reissue of Richard Strauss's *Till Eulenspiegel* (RCA/Classic LSP-2077), the EAR presented the

**T**he EAR 834P we received from Bob Reina arrived defective (it had extremely low gain). Since he'd clearly had no problem with it, we can only assume that it was damaged in shipment. EAR sent us a second, more recent sample. It was slightly different from the original unit: The front-panel level control had been deleted, and the front panel itself was far better finished. The interior layout was nearly identical, though the main circuit board (screen-printed with a "1996" copyright date as opposed to BJR's sample's "1995") was somewhat larger (with a larger case to accommodate it). There appear to be some minor changes in parts—particularly regarding the power supply electrolytics—but no radical alterations in the original circuit or its layout. The measurements below were taken on this latest version.

The EAR's voltage gain measured 49.2dB moving-magnet, 68.2dB moving-coil. These are very high values, particularly for the MM; typically, the gain in MM gain stages is 35–40dB, and 55–65dB in MCs. I don't anticipate this high gain to cause any problems, but I'd check to make sure that it won't overload my line preamp. Signal/Noise (ref. 1V output) for the MM setting was 65dB from 22Hz to 22kHz, 61dB from 10Hz to 500kHz (both unweighted), and 74.6dB A-weighted (results are for the right channel, which was noisier). The corresponding results for the MC configuration were 62dB, 60dB, and 72.2dB, respectively (left channel). Set to MM, the 834P's input impedance was 49.7k ohms in the left channel, 51k ohms in the right. The input impedances for the MC setting were 515 ohms and 516 ohms (L&R). The output impedance measured 524 ohms in the left channel, 538 ohms in the right.

Fig.1 shows the frequency response of the 834P, with the MM result displaced up by 1dB. The response in both modes is very similar, and shows a modest downshelving in the high frequencies that may

slightly soften, but not dull, the treble. The crosstalk in fig.2 is relatively high on an absolute basis, but certainly lower than that in virtually any phono cartridge.

The variation of THD+noise with frequency (fig.3) is good. For the MC result, I've chosen to show the result for two input levels. As is usually the case with our phono-stage measurements, we make our primary measurement using an input that results in the minimum THD+N at 1kHz. This level was 2.2mV in the case of the EAR MC setting. This clearly minimizes the effect of noise on the reading, but does overdrive the MC stages at very high frequencies. The result with a 1mV input is also shown in fig.3; the 1kHz THD+noise is higher here, though not dramatically so. The 50kHz result is far better. The MM measurement shown was taken at an input level of 7.6mV.



Fig. 1 EAR 834P, RIAA error into 100k ohms (MM top, MC bottom) (0.5dB/vertical div., right channel dashed).

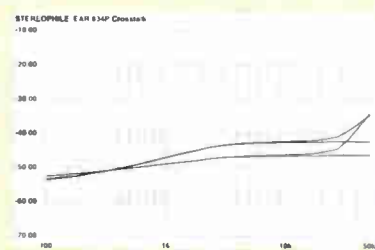


Fig. 2 EAR 834P, crosstalk (from top to bottom at 20kHz): R-L, MC; L-R MM; R-L, MC; L-R, MM (10dB/vertical div.).

Fig.4 indicates the way the THD+noise varies with output voltage at 1kHz. The minimum level corresponds to the 2.2mV (MC) and 7.6mV (MM) inputs used for the THD+noise vs frequency and crosstalk measurements.

Finally, the overload points (1% THD+N) for the 834P were 69.2mV at 1kHz, 260mV at 20kHz, and 785mV at 20Hz, MM (equivalent to 22.8dB, 14.3dB, and 23.9dB). The MC figures were 74mV, 275mV, and 0.85mV, respectively (equivalent to 23.4dB, 14.8dB, and 24.4dB). These are reasonable though not exceptional figures.

The measured performance of the EAR 834P while not especially notable, is good; nothing in the results would preclude solid sonic performance with a high-performance analog phono source.

— Thomas J. Norton

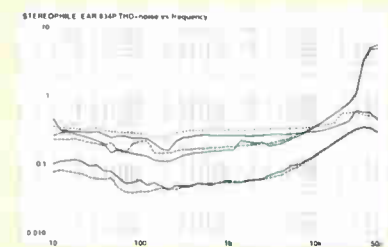


Fig. 3 EAR 834P, THD+noise vs frequency into 100k ohms at: (from top bottom) 1mV at 1kHz, MC; 2.2mV at 1kHz, MC; 7.6mV at 1kHz, MM (right channel dashed).

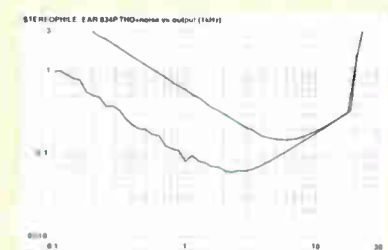


Fig. 4 EAR 834P, distortion (%) vs output voltage into 100k ohms at 1kHz; MC (top), MM (bottom).



## System Context

The LP front end used in the preparation of this review consisted of a Goldmund Studio/Syrinx PU-3 Revised/Koetsu Urushi LP front-end feeding the EAR's MC input. Other reference equipment included an Audible Illusions L1 line-stage preamplifier, Audio Research Classic 60 and VT100 power amplifiers, and Acarian Alón V Mk.II speakers. Interconnects were MIT Digital Reference and MIT CVTwin Terminator 350, with tri-wired Acarian Systems Black Orpheus speaker wire. —Robert J. Reina

sweetest string tones from the string bass through the violins. The detail and ambience surrounding midrange instruments were rather seductive, although the overall perspective of the orchestra was dark. Similarly, the silky strings on the reissue of Paul Desmond's *Desmond Blue* (RCA/Classic LSP-2438) seemed to have an extra dash of maple syrup.

Whether the midbass thickness was

bothersome to me seemed to vary dramatically from recording to recording. The EAR presented a fat muddiness to the string basses, which seemed to lag behind the higher strings in the third movement of Pierre Monteux's rendition of Tchaikovsky's *Symphony 4* (RCA/Classic LSP-2369). This thickness seemed to be isolated in a very narrow frequency range, however.

On analog rock extravaganzas in which the bombastic bass information is lower in frequency—such as Jeff Beck's *Guitar Shop* (Epic EK 44313), Human League's "Don't You Want Me" (on Virgin 8466-12), or Grandmaster Flash's "The Message" (on Sugar Hill SH-584)—the bass performance was as tight as could be. Both rock and classical aficionados should be impressed by this unit's wide dynamic capabilities.

This phono stage definitely bears the Tim de Paravicini sonic signature. Last year I was able to briefly audition Tim's EAR 509 power amplifier in my system; its strengths and weaknesses, colorations and textures seemed to parallel that of the 834 to a P!

But how does this phono stage compare to the FET-based Vendetta, my reference of nearly a decade? Well, I wish the Vendetta could reproduce the holo-

graphic body of images and room sound that the EAR can (maybe you really do need tubes for that), and the EAR does not share the Vendetta's single coloration: the highlighting of instruments in the lower high-frequency range. But the Vendetta's high- and low-level dynamic performance equals that of the EAR, and, at the end of the day, I cannot live without the Vendetta's superior clarity, overall lack of coloration, and lack of low-level noise. Nope, I'll keep my Vendetta, thank you.

Then again, if the Vendetta were available today (it hasn't been for a number of years), it would likely retail for three to four times the price of the EAR. Finally, if I'd never heard the Vendetta, I would probably have purchased the EAR to be my reference.

## Summing up—finally, serious tube gear for low wage-earners!

The EAR 834P is a remarkable piece of work: a reference-quality phono preamplifier that would feel at home in a system of any price. At its \$895 sticker price it's downright obscene. If you treasure analog as I do, particularly if you're a fan of well-recorded classical works, you should treat yourself to an audition of the EAR. **S**

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## RDP-980 D/A converter &amp; Rotel RDD-980 CD transport

Muse Kastanovich

**A**fter building good-sounding, affordable CD players for so many years, Rotel has come out with a CD transport and D/A converter pair. Though they could be seen as a "two-box CD player," the RDD-980 and RDP-980 will undoubtedly be used individually as well, in combinations with other digital components. They're more expensive (\$1300 for both) than Rotel's famous digital gear of the past, though Rotel has sold other components in a similar price bracket for over three years.<sup>1</sup>

Some will say that a one-box CD player must be inherently superior to an identically priced two-box combination. They are correct, in that a one-box player's transport is locked to the same clock as its D/A converter. This method avoids the jitter introduced by the digital data interface,<sup>2</sup> which requires the D/A converter to lock to a potentially flawed clock synthesized from the data being transmitted. In addition to this, a one-box player also has the economic advantages of a single chassis and shipping box.

Jitter can be introduced by the standard S/PDIF interface, yes, but that jitter can be partly removed by special circuitry in the receiving D/A converter, or by an outboard jitter-reduction box. And unless extraordinary measures are taken within a one-box CD player, jitter from other sources may not be attenuated as well as by an outboard jitter-reduction box.

**RDP-980:** D/A converter with remote control. Inputs: 5 S/PDIF on RCA jacks, 5 TosLink optical. Outputs: Fixed-level analog on RCA jacks; S/PDIF digital on RCA, TosLink digital. Frequency response: 5Hz–20kHz,  $\pm 0.5$ dB. S/N ratio: 110dB (A-weighted). Dynamic range: 95dB. Analog output level: 2.0V Analog source impedance: 100 ohms. RR-33 remote control controls all functions of both the RDP-980 and RDD-980.

**Dimensions:** 17.4" (440mm) W by 2.9" (72mm) H by 12.5" (316mm) D. Weight: 13.9 lbs (6.3kg).

**Serial number of unit reviewed:** 534208567.

**Price:** \$599.90.

**RDD-980:** CD transport with remote control. Digital outputs: S/PDIF on RCA jack, 500mV p-p, 75 ohms; TosLink optical,  $-17$ dBm at 660nm. Power consumption: 15W. RR-33 remote control controls all functions of both the RDD-980 and RDP-980.

**Dimensions:** 17.4" (440mm) W by 2.9" (72mm) H by 12.5" (316mm) D. Weight: 10.8 lbs (4.9kg).

**Serial number of unit reviewed:** 522204289.

**Price:** \$699.90.

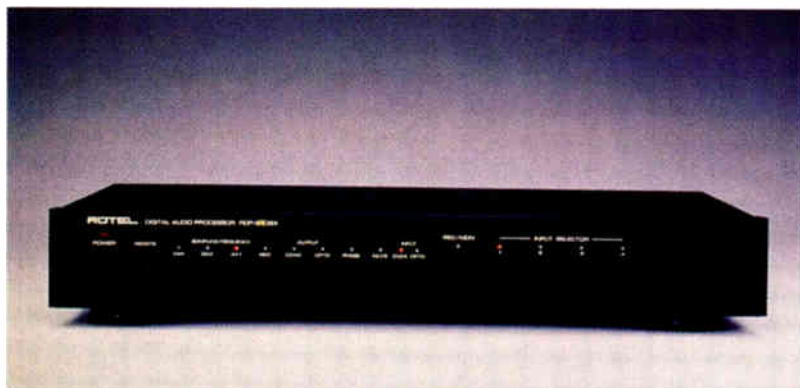
**Common to both:** Approximate number of dealers: 125. Manufacturer: Rotel of America, 54 Concord Street, North Reading, MA 01864-2699. Tel: (508) 664-3820. Fax: (508) 664-4109.

For example: I used to listen primarily to a modified Kinergetics KCD-20B CD player. After becoming accustomed to the way CDs sounded with their edges painted green with AudioPrism's CD Stoplight, I found that I could no longer stand to listen to unpainted CDs. The difference was not huge, but it was noticeable, and always an improvement. More recently, listening to various transport/processor combinations connected through two jitter boxes in series, the difference in sound obtained from painting a CD has been minuscule, if noticeable at all. After two full jitter-

reduction stages, the change effected by CD Stoplight is vastly reduced, rendering it unnecessary, in my opinion. I no longer bother to paint my new CDs' edges at all.

### Technology

The Rotel units present similar façades to the world: thin and elegant, with the ubiquitous black, brushed-aluminum faceplate and Rotel's cute polymer end-caps. They make quite a dynamic duo, and take up little vertical space. They have captive, two-conductor power cords. Each unit has its own remote control, with most functions duplicated on easy-to-use buttons on the front panels. Also available is the RR-33 remote, which



Rotel RDP-980 D/A converter

1 See Robert Harley's favorable review of the \$1495 Rotel RCD-990 in the January 1997 *Stereophile* (Vol.20 No.1), enthusiastically endorsed by Sam Tellig in March (Vol.20 No.3). [Due to Philips abruptly discontinuing the RCD-990's CDM-9 Pro mechanism, this player has become rare on dealer's shelves. A replacement using a different transport mechanism is scheduled to appear in the fall. — Ed.]

2 The AES/EBU, TosLink and coaxial S/PDIF, and AT&T glass-fiber optical digital transmission formats are all variations on a single standard that embeds the bit clock in the data. Unless great care is taken in matching source, cable, and receiver impedances and in synthesizing a new word clock from the recovered clock, all of these formats introduce jitter, in varying amounts. The only exceptions are in manufacturer-specific transport-processor pairs, where a separate dedicated link has been provided for the clock signal.



controls all functions of both units.

Inside each chassis, the main circuit board is separated from the small control-and-display board by a metal shield. Each unit has two separate transformers, to isolate the power supplies. The transformer secondaries and individual diodes are filtered by 0.01 $\mu$ F ceramic capacitors to reduce high-frequency noise in the power supplies. The power supply's electrolytic caps, some of which are the expensive Rubycon Black Gate brand, are quite large for affordable electronics.

The RDD-980 transport has all the standard controls plus A-B loop, programming, and Shuffle play. Only the basic buttons are found on the front panel. The white display is easy to read but cannot be turned off during play. The only thing the RDD-980 should have but does not is a 75 ohm BNC output jack. Instead it outputs an electrical S/PDIF signal on an RCA jack and a TosLink optical signal.

Mounted in the center of the transport is the shiny, stainless-steel chassis of the Philips CDM-9 laser mechanism [not to be confused with the RCD-990's CDM-9 Pro—Ed.]. It looks like it would last many years, even if played constantly every day by some sick music lover like me. The crystal oscillator clock is wrapped in a rubber sleeve that helps isolate it from vibrations. All resistors are precision metal-film.

The RDP-980 D/A is unusually flexible for an affordable processor; its five digital inputs could actually accommodate 10 sources, as long as half of these were on TosLink optical cables. In this crowded configuration the "coax/opti" button would switch between the two banks of five. One of the coaxial/TosLink combinations, called "Monitor," serves as a digital tape loop. There are



Rotel RDD-980 CD transport

also remote-selectable mute and polarity-reversal switches.

Inside the processor, the power cord takes a few turns through a large ferrite ring as a means of AC filtering. The analog section's ground plane is separated from the digital section's. There are a large number of separate voltage-regulation stages. The primary power supplies and all of the analog supplies use audio-grade Rubycon Black Gate electrolytic caps.

The Rotel processor uses the Crystal CS8412-CP input receiver, and the Delta-Sigma D/A converter chip is an Asahi Kasei AK4328-VP. It appears that the passive analog filters are placed ahead of rather than after the Analog Devices AD 711JN current-to-voltage converters. The I/V converters are followed by discrete transistor buffer stages, these coupled to the analog ("audio") outputs via a 100 $\mu$ F Rubycon Black Gate electrolytic. Only precision metal-film resistors are used throughout. Rather than being crowded together, the parts are laid out with plenty of

breathing space. This, and the absence of miniature surface-mount parts, means that the RDD-980 can be easily modified if one is so inclined.<sup>3</sup>

### Listening to the RDP-980 & RDD-980

Except for descriptions of the RDD-980 transport alone, and where otherwise noted, all comments regarding sound quality apply to the system with the \$299 Audio Alchemy DTI-Plus jitter-reduction box connected (see "Jitter Busting" sidebar). Though it has a front-panel power button, I left the RDP-980 on at all times for the best sound. The remote phase reversal was helpful in determining which few discs in my collection had actually been mastered with reverse phase. (Despite what some grouches might say, it is possible to hear reverse phase. Music in general sounds worse with reverse phase. To detect recordings afflicted with this problem, listen to solo voice or brass instruments. When the phase is reversed, it sounds as if they're inhaling when they're exhaling. Really.)

The Rotel pair offered plenty of low-end weight when the recording had it. The bass lacked a little tightness, but not much. It did offer a good foundation, but could have had a touch more dynamic snap to it. The bass was much more satisfying than that of either the CAL Gamma or the Audio Alchemy DITB, for example. These two budget processors, each of which sells for half as much as the RDP-980, sounded a bit lightweight in the bass when compared to the Rotel.

The midrange had a smooth, silky quality. There was just a touch of digital grain present, though much less so than in many affordable digital products I've

### Jitter Busting

Almost all my listening sessions featured the Audio Alchemy DTI-Plus jitter-reduction box (\$299 when available) connected. Jitter-reduction boxes are available for two or three hundred dollars from Audio Alchemy, Monarchy, Theta, and others. At these prices, there's no excuse for not owning a jitter box, unless your transport or D/A has special jitter-rejection built-in. The effects of an appropriate jitter box are all beneficial. However, even jitter boxes sound different from each other; the

Audio Alchemy is my favorite of the three that have been in and out of my system in the last six months.

I had been listening with two jitter boxes connected in series. Going back to just one, I couldn't help but feel that there was a bit more grain in the treble. The difference in sound was very small, however. I assumed that using just one jitter box would be much more representative of an "average" system configuration, so that's how I listened most of the time.

— Muse Kastanovich

<sup>3</sup> Don't forget that modifying most components, including this Rotel, will void your warranty. Be careful not to break it, or you'll have to fix it or pay to have it fixed.



heard recently. The mids were nice and communicative, and true. They sounded neither recessed nor thrust forward, in the absolute sense.

The treble also sounded nice and smooth. That is, unless I happened to be listening to The Pixies' *Doolittle* (4AD/Elektra 60856-2), with its flying razor blades o' brightness. "I bleed" from this "wave of mutilation" that tends to "gouge away" at my poor eardrums, but I still "la la love you" (*Doolittle*). Screaming guitars, screaming cymbals, and just plain screaming are hallmarks of this album, which was one of the pivotal documents of the beginning of the "alternative revolution." (I'm trying not to gag here. But even trendy pop music can be great, as long as it's on the leading, not the trailing, edge of the trend.) The Rotels let the truth be known about the brightness on this disc, but still softened it up a touch, to the point where it was less annoying.

After hearing vast numbers of different albums through the Rotel pair, it became evident that their sound was well-balanced, top to bottom. Instruments' sounds were well integrated, cre-

ating the illusion of a coherent presence. No part of the range was neglected or excessively highlighted. The only exception was perhaps a very minor softening in the top octave.

## I heard that smooth, analoglike quality that gives long-term satisfaction from digital gear.

Playing Michael Hedges's *Aerial Boundaries* (Windham Hill WHCD-1032), I heard that smooth, analoglike quality that gives long-term satisfaction from digital gear. Digital components normally excel in other areas, such as extension at the frequency extremes, pitch stability, rhythmic precision, and wide dynamics. However, the wonderful smoothness inherent in good analog reproduction, such as big open-reel tape machines and high-quality LP systems, has been difficult to find in the CD

players and D/A converters of the past. That's why this quality is such a happy find in these Rotels. They don't make all CDs sound as if they're analog recordings, but they do take the sound a couple of steps in that direction.

The smoothness was not at the expense of detail or dynamic qualities — there was plenty of bite in the guitar transients on "Ragamuffin," Hedges's sharp plucking preserved well enough to keep everything nice and lively. Many of the guitars on this album have a very lightweight timbre, with too much sparkle to sound completely realistic. Regardless, the sounds are very pleasing, and the Rotels presented the guitars as they were recorded.

Next up was the Dirty Dozen Brass Band's *Jelly* (Columbia CK 53214). In this collection of Jelly Roll Morton's caaaaarly jazz tunes, this New Orleans group demonstrates the pulsing, bouncy qualities that can be coerced from acoustic brass instruments when placed in the right hands. The flawless rhythm and timing relationships between the various veteran players' lines came across clearly. It made me want to

The Rotel RDP-980 produced an output voltage of 2.35V when decoding a full-scale, 1kHz sine-wave, and its output impedance measured a low 75 ohms at any audio frequency. After the RDP-980 had locked to the Audio Precision System One's digital signal generator, its DC offset was so low it was unmeasurable. Before it locked, however, I saw a very-low-frequency oscillation at the output, accompanied by a reading of 24VDC at the analog output. The DC and low-frequency oscillation stopped as soon as the RDP-980 locked to a digital source. I don't know if this was a fluke (I couldn't repeat the condition), a bad sample,

or a design flaw. The RDP-980 did, however, lock to all three sampling frequencies, and didn't invert absolute polarity. The following measurements were made with 16-bit input data; the RDP-980 wouldn't pass 20-bit data.

Fig.1 shows the Rotel's frequency-response and de-emphasis error. The de-emphasis curve shows a very slightly rising treble, which will make pre-emphasized CDs sound slightly more forward and a little brighter. Channel separation (fig.2) was good, with just -105dB of crosstalk at 1kHz. A spectral analysis of the RDP-980's output when decoding a -90dB, 1kHz dithered sine-wave (fig.3) showed a trace of 120Hz power-supply noise in the audio, and a

fairly high noise level. A wideband spectral analysis (fig.4) shows the rather steep rise in noise with frequency, which is greater than the 6dB/octave rise in noise

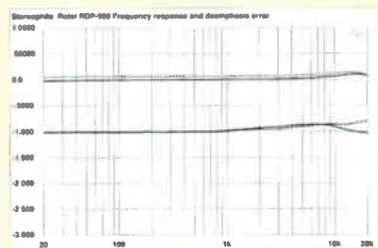


Fig.1 Rotel RDP-980, frequency response (top) and de-emphasis response (bottom) (right channel dashed, 0.5dB/vertical div.).

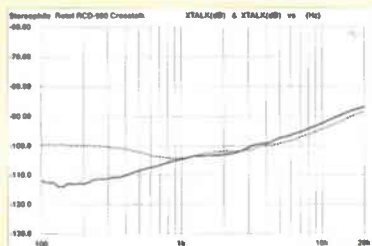


Fig.2 Rotel RDP-980, crosstalk (R-L channel dashed, 10dB/vertical div.).

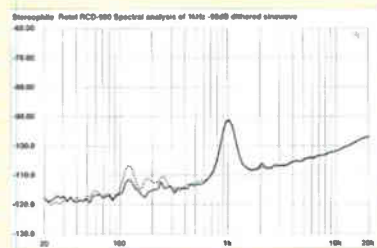


Fig.3 Rotel RDP-980, spectrum of dithered 1kHz tone at -90.31dBFS, with noise and spurs (16-bit data, 1/2-octave analysis, right channel dashed).

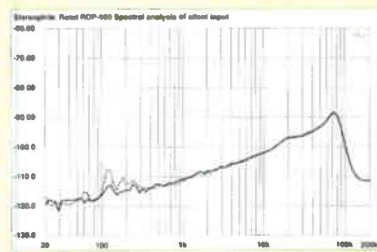


Fig.4 Rotel RDP-980, spectrum of digital silence (16-bit data, 1/2-octave analysis, right channel dashed).

dance with someone sexy.<sup>4</sup>

Despite what I believe to be an emphasized upper treble on the Dirty Dozen album, the Rotel pair presented it in a fairly inoffensive way. There wasn't too much high-frequency hash on the cymbals or the brass sounds, yet they still retained most of their detail. The instruments were easily recognizable, and easily distinguished from each other. Moreover, they had a good measure of midrange and bass heft, despite the brightness of the recording.

I also did some listening with the Rotel R1D-980 connected directly to the R1P-980. Without any jitter box, everything sounded a bit breathy on The Cule's *The Manor Sessions* (Beggars Banquet BBP 1 CD). There was a slight impression of high-frequency "white noise" riding on top of the music, and the soundstage was more compressed and confused. The electronic delay on Ian Asbury's vocal on "Electric Ocean" was

harder to hear. Likewise, other subtle sounds were more difficult to pick out.

Don't let the nitpicking observations in the above paragraph fool you—the two Rotels connected directly sounded quite good. They complemented each other well, and teamed up to provide

**The two Rotels connected directly complemented each other well, and teamed up to provide very involving, exciting music.**

very involving, exciting music. They had good pace and timing, and still retained most of that delightful smoothness. The improvement wrought by introducing a jitter box was really very small compared to the excellent sound they provided on their own. Still, it's the kind of improvement that's very easy to get addicted to.

## RDD-980 comparisons

Comparisons to other transports and CD players were made using the R1P-980 and other D/A converters connected directly, with no jitter box. My favorite digital link here was the new Sound & Video Digiflex +Plus (\$105). The multiple inputs and remote switching capabilities of the Rotel processor came in very handy for instantaneous listening comparisons.

Sonic differences between transports tend to be relatively small, though often important musically. Differences are decreased by a jitter-reduction box, though a transport's inherent sound will still shine through. It's always important to start with a high-quality digital signal, even if it's being improved by some kind of circuitry prior to the analog conversion stage.

First up were the three CD players I reviewed for the June 1996 *Stereophile* (Vol.19 No.6), used as transports only. To make a medium story short, neither the AMC CD6, the Nakamichi MB-2s, nor Rotel's own RCD-950 could quite match the accuracy of the R1D-980. The CD6 and the RCD-950 came fairly

## M E A S U R E M E N T S

one expects with a  $\frac{1}{3}$ -octave analysis.

Although it was not indicated in fig.3, the R1P-980 had very poor linearity (fig.5). The left channel has nearly 10dB of negative linearity error at -90dB, meaning that signals recorded on a CD at -90dB are reproduced at -100dB. The right channel's linearity error was nearly -4dB at -90dB. One possible sonic consequence of this technical performance could be an apparent truncation of reverberation decay in the left channel. As the reverberation decays below -70dB it will drop in level abruptly, rather than smoothly as in a converter without this large negative-linearity error. I was puzzled—because this error didn't show up

in the spectral analysis—but the two measurements are made in different ways. Moreover, I confirmed the linearity error by driving the R1P-980 with varying input levels and monitoring the output level by eye. I am at a loss to explain the discrepancy between the linearity and spectral analyses, which I've never seen in any other digital processor.

The large linearity error was further suggested by fig.6, the R1P-980's reproduction of a 1kHz, undithered sine wave at -90dB. If this waveform looks excessively noisy, it's because the reproduced level is actually -100dB, not -90dB, due to the linearity error. This, combined with the high-frequency

noise seen in figs.3 and 4, is why this waveform is barely distinguishable.

Fig.7, the R1P-980's noise-modulation plot, looks surprisingly good considering the linearity error. The traces are fairly well grouped, although the high overall noise level is apparent from where the traces lie. The R1P-980's intermodulation distortion spectrum (fig.8) is clean, but with a fairly strong 1kHz difference component rising to the -90dB level.

Looking next at the R1P-980's jitter performance, I used the Meitner LIM Detector to measure the R1P-980's clock-jitter level and produce jitter spectra under different signal conditions. The R1P-980 was driven by a PS Audio

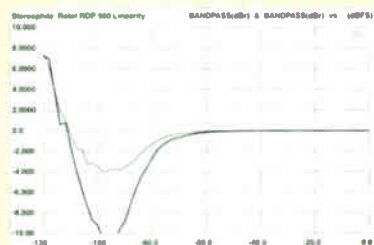


Fig.5 Rotel RDP-980, departure from linearity (right channel dashed, 2dB/vertical div.).

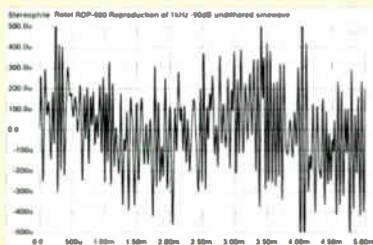


Fig.6 Rotel RDP-980, waveform of undithered 1kHz sine wave at -90.31dBFS (16-bit data).

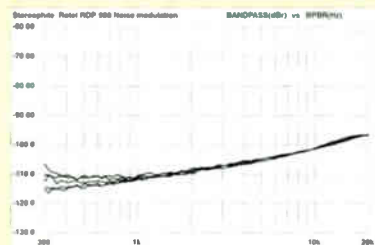


Fig.7 Rotel RDP-980, noise modulation, -60dBFS to -100dBFS (10dB/vertical div.).



close, functioning competently as pure digital sources. Music from the RDD-980 had a solidity and richness that was noticeably better, though. The soundstage was larger, and better fleshed out. Subtle details were heard more easily with the dedicated transport.

Among the RDD-980's obvious competition is the Audio Alchemy DDS III that I favorably reviewed last August, which sells for exactly the same price (\$699 when last available, but which now may be hard to find). The Audio Alchemy had a more mellow balance, mainly due to its reduced treble energy. On some of my favorite electronically processed rock recordings the DDS III produced a more balanced sound, with a less artificial treble. In contrast, the Rotel presented the same rock music more as it exists on the CD, with the treble information more clearly revealed, even when it was overblown. Because of this honesty, its more powerful dynamics, and other strengths, the Rotel was generally preferable to the Audio Alchemy. The DDS III's gracious treatment of some albums was enjoyable, but the Rotel transport provided more accuracy and information.

## RDP-980 comparisons

The D/A converter was auditioned with several transports, but spent the most time with the RDD-980 or Audio Alchemy DDS III. My favorite analog interconnect to use with the RDP-980 was the \$125/pair TARA Labs RSC Prime, stiff and unruly though it may be.

## The Rotel RDD-980 was generally preferable to the Audio Alchemy DDS III.

There aren't too many serious D/A converters around the \$600 point, though there are a few. Below this point the choices get even more sparse, with the Audio Alchemy DITB and CAL Gamma both standing out as best buys for \$299. I compared the RDP-980 to these two budget converters, and it came out on top—as, at twice the price, it should. The RDP-980 had a much more refined sound, in addition to its already-noted superiority in the

bass. It had a greater sense of space, with a wider, deeper soundstage. It presented more fine detail while simultaneously minimizing long-term listening fatigue.

A more evenly matched competitor was found in one of the *Stereophile* joint budget components of 1995: the Parts Connection Assemblage DAC-1. Though no longer available, the DAC-1 is something of a benchmark, if such a thing can even exist in the fast-paced world of D/A converters. The RDP-980 sounded surprisingly similar to the DAC-1. Rarely do I encounter two components so close in sound quality. The RDP-980 had a more solid bass and a smoother, more refined sound overall. On the other hand, when it came to dynamics, the DAC-1 kicked the Rotel's ass, and revealed more treble detail. Considering its original price of \$449, the DAC-1 is quite a wonderful-sounding D/A; the RDP-980 was easily its equal in sound quality.

*Da-da-da dummm!* Enter the Parts Connection DAC-2. A best buy at its factory-direct price of \$499, the DAC-2 was the converter that the Rotel could not

Lambda transport playing signals from the CBS Test CD). When driven by a full-scale 1kHz sinewave, the RDP-980 had the jitter spectrum shown in fig.9. We can see some periodic jitter associated with the test signal (the spikes at 1kHz, 3kHz, and 4kHz), along with other periodic jitter components. The RMS jitter level, measured over a 400Hz–20kHz bandwidth, was 107 picoseconds. If that seems like a low number, keep in mind that this was measured on a 64x clock, not the 8x clock found in most digital processors. An RMS jitter level of 107ps is a much greater percentage of a 2.8224MHz clock's period than of a 352.8kHz clock's period.

With a test signal of all zeros, the jitter

spectrum became much cleaner (fig.10), and the RMS jitter level dropped slightly, to 102ps. Note the spike at 735kHz, introduced by the 735kHz subcode transmitted down the S/PDIF interface. When the signal level was reduced to –90dB (again with a 1kHz sinewave), the spectrum (fig.11) became very clean, except for the strong periodic component induced by the 1kHz test signal. The RMS jitter level, however, rose to 162ps.

The RDP-980's technical performance was odd, particularly the large linearity error. I was also bothered by the high DC levels at the analog out-

put when the unit wasn't locked to a digital source.

— Robert Harley

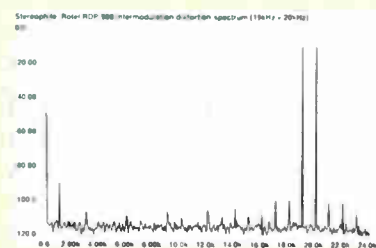


Fig.8 Rotel RDP-980, HF intermodulation spectrum, DC–22kHz, 19+20kHz at 0dBFS (linear frequency scale, 20dB/vertical div.).

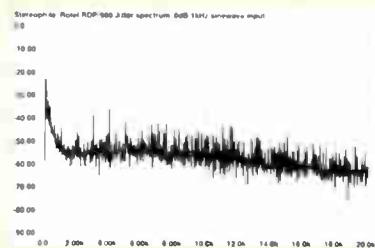


Fig.9 Rotel RDP-980, word-clock jitter spectrum, DC–20kHz, when processing 1kHz sinewave at 0dBFS; PS Audio Lambda transport (linear frequency scale, 10dB/vertical div., 0dB=1ns).

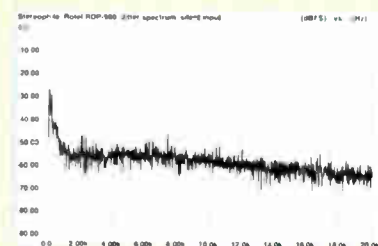


Fig.10 Rotel RDP-980, word-clock jitter spectrum, DC–20kHz, when processing digital silence; PS Audio Lambda transport (linear frequency scale, 10dB/vertical div., 0dB=1ns).

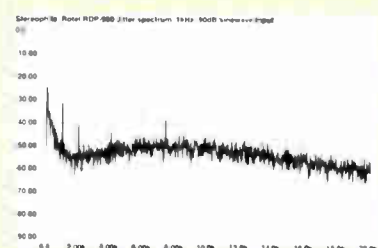


Fig.11 Rotel RDP-980, word-clock jitter spectrum, DC–20kHz, when processing 1kHz sinewave at –90dBFS; PS Audio Lambda transport (linear frequency scale, 10dB/vertical div., 0dB=1ns).



## Associated Equipment

**CD Transports/Players:** Audio Alchemy DDS III, AMC CD6, Rotel RCD-950, Nakamichi MB-2s, Musical Design CD 2, Sony Walkman D-335 with POC-151HG optical mini-plug to TosLink cable.

**Jitter Reduction:** Audio Alchemy DTI-Plus, Monarchy Audio Digital Interface Processor, Theta Timebase Linque Conditioner.

**D/A Converters:** The Parts Connection Assemblage DAC-2, Assemblage DAC-1, Audio Alchemy DAC-in-the-Box, California Audio Labs Gamma.

**Preamplifier:** Audio Electronics AE-2 (The Bride of Zen).

**Power Amplifiers:** Pass Aleph 3, home-built Zen monoblocks.

**Loudspeakers:** B&W 804, Linn AV5140.

**Loudspeaker Cables:** Straight Wire Maestro, TARA RSC Reference Gen.2, AudioTruth Argent.

**Interconnects:** Sound & Video (HAVE) Digiflex Gold I, Digiflex +Plus, Audiflex Gold V; TARA RSC Reference Gen.2, RSC Prime; Kimber PBj; Audio Magic Presto, Sceptre; Audio Alchemy Clearstream.

**Accessories:** RoomTune JustaRack, home-built power conditioner, 2kg steel slabs (speakers), *Stereophile* back issues.

**Room Treatment:** ASC Alpha Wedge foam panels, tapestries, blankets.

— Muse Kastanovich

measure up to.<sup>5</sup> But let's not make more of this than it is. The DAC-2 was better at waking me up and getting me excited about making my own music, or about going rock climbing.<sup>6</sup> For big-city dwellers who want to *relax* after a long day's work, however, the Rotel RDP-980 might be the better choice. It may not quite have the DAC-2's strong microdynamics, expansive soundstage, or extraordinary resolution, but it has an unfailing ability to put one at peace with the world. Also in the Rotel's favor are its many more features; the DAC-2 provides only two inputs, and no remote control.

### Conclusion

The RDD-980 is one of the few pure CD transports available for under \$800. Rather than include a CD player's analog output stage and D/A, all of the resources here went into improving the performance of the digital output. It shows—this thing sounds better than any of the \$249–\$1499 CD players it was compared with. The RDD-980 is dynamic, detailed, musical, and functions flawlessly. I figure if I can get two separate transformers and a stainless-steel mechanism in one compact, good-looking transport for \$700, I'm going for it. I'm buying the review sample. Highly recommended.

While I wasn't quite as excited about

the RDP-980 D/A as I was about its matching transport, it did provide plenty of well-reproduced music. I felt the \$499 Assemblage DAC-2 bettered the RDP-

**These Rotels might just  
cross that invisible  
threshold that leads  
to many years of  
listening satisfaction.**

980 sonically in many areas, though the DAC-2 has nowhere near the RDP-980's remote-controllable features or choice of inputs. This kind of digital system flexibility will be invaluable to people with laserdisc players and DAT recorders coming out of their ears. A whole gaggle of digital sources could be simultaneously connected to the RDP-980 and controlled easily.

The Rotel RDP-980 D/A lacked a little bit of top-octave information, and had good but not great microdynamics. Its midrange was particularly seductive, and the overall sound quality was very competent for a processor in this low price range. Its mellow, softened presentation did not prevent it from revealing the true character of recordings. Nor did it have any trouble revealing subtle differences between other components in the system. It is, therefore, recommended, especially because of its smooth, refined qualities.

From the moment the Rotel RDD-980 and RDP-980 entered my system to the moment they were boxed up for the trip to Santa Fe to be measured, they provided me with great music. I always looked forward to listening sessions when they were in the system—which has not been true of every piece of equipment I've listened to lately.

Though these two pieces are *very* affordable by today's standards, it's possible to spend even less on digital separates. In my opinion, these two represent something of a starting point for a *long-term* digital high-end system. Lesser components such as the Audio Alchemy DITB and the AMC CD6 are still high-end in that they offer fantastic value for the price. However, those lesser components may not succeed in keeping their owners happy for more than a year or two. These Rotels, on the other hand, might just cross that invisible threshold that leads to many years of listening satisfaction. One can upgrade from the RDD-980 and RDP-980 to much-better-sounding pieces, to be sure, but the Rotels manage to satisfy just enough to make it easy to postpone such an upgrade indefinitely. **S**

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<sup>5</sup> There is a \$150 parts upgrade available for the DAC-2. See my Follow-up in June (Vol.20 No.6).

<sup>6</sup> Or dancing around the listening room with delusions of grandeur flying through my head. Or uncontrollably strumming an air guitar on the major beats. Or...

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## Bright Star Ultimate TNT Isolation System

Wes Phillips

*The record player's connected to the platform,  
the platform's connected to the table,  
the table's connected to the building...  
Now hear the hum of the floor!*

Sound, as we all know, is motion. Actually, *reality* is motion. Nothing is truly at rest. Everything we hear, feel, touch, or taste is moving all the time. But, quantum mechanics aside, even objects seemingly at rest tend to be moving in relation to one another—if at rates undetectable to our unaided senses.

It would be wrong to assume that just because we can't see or feel this motion, it has no effect—especially if we're talking about how it interacts with hi-fi gear. I was stunned, some 10 years ago, when I moved a \$300 CD player from a massive piece of furniture to a rigid equipment stand and discovered that there was a readily discernible change in sound quality. I had taken it as a matter of faith that turntables, no matter how effective their suspensions, would benefit from a well-designed stand; I was agog that solid-state electronics did as well.

The sources of vibration that affect an audio/video system are both external to the components and internally generated by them. External sources include the loudspeakers, which, of course, send quite a bit of vibration through the walls and floors of the room and into the stands and chassis of the components,

while simultaneously radiating acoustic energy directly at those chassis. Other sources of external vibration include heating and air-conditioning systems, vehicular traffic, and even footfalls. Internal sources of vibration include motors, transformers, and cooling fans. All of these act upon components simultaneously; and, as we all know, these unwanted vibrations have detrimental sonic effects upon the musical performance of audio/video systems.

These days, there is certainly no dearth of equipment-support accessories, as a riffle through the ads in this magazine will show. Nor are we offered a shortage of design philosophies when it comes to vibration-control devices: Some subscribe to the "pass-through" hypothesis, which holds that vibrations must be routed out of a component, not damped within it; others argue vigorously that damping is the only logical solution; some maintain that the introduction of mass "baffles" vibration by converting its frequency to one below the threshold of audibility; whereas others claim that extremely low-frequency oscillation is the most dangerous sort, prone to unpredictable energy release; or, of course, you can control the vibration by "tuning" it. It's all very confusing, and I sure haven't discovered the one true path.

But I have found a system that seems to strike an intelligent compromise

**Description:** Support system combining pneumatic isolation with high-mass damping.

**Dimensions:** Air Mass TNT: 35.25" W by 3.25" H by 21.75" D. Big Rock TNTsp: 27.75" W by 4.75" H by 21.5" D. Mini Rock F: 7.5" W by 4.75" H by 7.5" D.

**Prices:** Air Mass TNT: \$499. Big Rock TNTsp: \$305 (\$275 without split plinth). Mini Rock F: \$89; \$893 for all three. Approximate number of dealers: 78.

**Manufacturer:** Bright Star Audio, 2363 Teller Rd., Unit 115, Newbury Park, CA 91320. Tel: (805) 375-2629. Fax: (805) 375-2630.

among the various theories, and which is effective and offers great value: Bright Star's Ultimate TNT Isolation System for the VPI TNT turntable, consisting of an Air Mass TNT pneumatic isolation mount, a Big Rock TNTsp mass loading platform, and a Mini Rock F outboard platform for the TNT's optional flywheel.<sup>1</sup>

### Shaken, not bestirred

But wait a gosh-darn minute here— isn't the VPI TNT designed around an effective suspension in the first place? Yep, it is. That's precisely why I found Bright Star's new isolation system so fascinating. The TNT's suspension system is effective: The motor is well-isolated from the plinth, which is inert and suspended on four spring towers, and the platter is even decoupled from the bearing. And yet, over the years, continual refinements in the isolation of the system from the environment have resulted in greater and greater resolution. When Bright Star's Barry Kohan and I ran into one another at the 1997 Winter CES, he mentioned his new VPI support system, claiming it made a substantial difference in sound quality. So I requested one for audition, knowing from past experience that it was going



Bright Star Ultimate TNT Isolation System

<sup>1</sup> Bright Star also offers Ultimate Isolation Systems for electronic components: the Air Mass pneumatic mounts, Big Rock sand-filled platforms, and Little Rock damping/RFI shields.





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to be a long time before I disassembled the TNT in order to put it on a new stand—the process requires a lot of grunting. Then Harry Weisfeld called and mentioned in passing that he was enthusiastic about the Ultimate system. *Very* enthusiastic. This I had to hear.

Assembling the Ultimate TNT Isolation System, like assembling the TNT itself, is best accomplished by two people. I'm sure that one desperate person could manipulate it, but it's awkwardly sized and you might as well get an audio buddy over to help you. *Stereophile's* David Hendrick was gracious enough to assist me in the operation.

The heart of the Ultimate TNT Isolation System is the 35.25" W by 3.25" H by 21.75" D trapped-air suspension table, which consists of a shallow box containing four inflatable "doughnuts"—they look like wheelbarrow inner tubes—upon which rests a lid. The inflation valves for the four inner tubes are connected to extension hoses that feed out the back of the base, fastening to its outer corners in such a way that you can inflate the tires from the front. (This is convenient, but I suggest

that you just orient the table so that the hoses face the front—it detracts from the plain face of the unit, but the easy access is worth it. I'm sure Kohan can figure out a way to make this more attractive on future models.)

The top plate is big enough that Bright Star's Big Rock TNTsp sand platform can sit upon it with room left over for the Mini Rock F flywheel stand. (If you use the TNT's optional flywheel, place it upon the cutout intended for the motor on the TNTsp, then place the motor upon the Mini Rock F—Bright Star includes a longer belt appropriate for this spacing.)

The Big Rock TNT is the reason you need that friend. The Big Rock platforms are sandtables—you fill the box with sand, level it, and place the Big Rock's lid upon the sand to support the component. In the Big Rock TNT's case, you fill the unit with approximately 90 lbs of sand. Before putting the lid on, it is imperative that you settle the sand by rocking the platform back and forth; otherwise the loose sand will drift, and the weight of the TNT will cause the lid to warp. This is one area where I would like to see the Big Rock changed—I think its top-plate could use a lot more rigidity than it has now. This may not be so important on the electronics-sized units (although I'm sure it couldn't hurt), but the top of the TNTsp is *huge* and, seemingly, torsionally flexible.

Having settled the sand and leveled it, just set up the TNT and check it for level as well. As always with equipment support, you should start the whole process by truing the stand, and then just use the component's adjustability to cope with the minute variations introduced in setup.

Once the system is fully loaded, it's time to inflate the bladders in the Air Mass. You don't want to overinflate them; the lid should rise above the sides of the box by only about  $\frac{1}{8}$ ". Inflate each bladder in turn by several strokes of the enclosed bicycle pump. It may take several trips around the valves, but this job is best done slowly. Use a torpedo level to check true from side to side and front to back.

#### That brave vibration each way free

I asked Barry Kohan why the Ultimate Isolation System incorporated a pneumatic suspension as well as mass-damping. "Combining both high mass and high absorption offers the best control of vibration—vibrations trying to enter externally from the stand beneath the

'table as well as those absorbed acoustically by the 'table from the air, or even vibrations generated by the motor, the bearing, or the groove interface.

"Rigidly mounted stands, since they don't offer absorption, tend to transfer unwanted vibration into the component. They are also prone to ringing, which introduces new vibrations.

"There's a philosophy that says that it is desirable to have a stand that has a resonant frequency similar to that of the turntable's suspension. This is *wrong*. It

**"Combining both high mass and high absorption offers the best control of vibration."**

can cause unwanted additive effects at that frequency and result in larger amplitude of oscillation in the turntable's suspension system—the two will interact with one another. If you add to that the spinning mass of the platter, what you end up with is a recipe for instability as the platter spins and the suspension oscillates. If there are only slight differences between resonant frequencies of the stand and the turntable's suspension, these differences tend to interact with one another and actually feed off of one another, magnifying the effect."

As I write this, I witness a perfect illustration of this principle. My computer keyboard is suspended under my desk by a sliding arm, while my monitor is on a cantilever attached to the rear of the desktop—as I type, the tapping of my fingers on the keys causes the monitor to sway up and down with a motion far greater than might be thought possible from the force of my keystrokes. The resonant frequencies of all of these elements combined with the mechanical amplification of two levers—not to mention the mass of the monitor swaying at the end of the cantilever—interact with one another to produce this effect. Just imagine how similar interactions interfere with the job of a phono stylus trying to trace microscopic HF grooves.

#### No great shakes, no small thing

The Ultimate TNT Isolation System works like a charm. While I was never aware of noise breakthrough before employing the Bright Star system, I heard a substantial improvement after installing it. How does one note the absence of noise when one was

### Associated Equipment

**Analog Front-End:** VPI TNT Mk.III turntable, VPI JMW Memorial tonearm, van den Hul Frog phono cartridge.

**Digital Front-End:** Naim CDS CD player.

**Phono Sections:** Ayre phono module, Krell KPE Reference.

**Preamplifiers:** Ayre K1, Lamm L1.

**Power Amplifiers:** Krell FPB 600.

**Loudspeakers:** Aerial 10T, Martin-Logan SL3.

**Cables:** Cardas balanced phono and Straight Wire Crescendo interconnects, Straight Wire Black Silc bi-wire speaker cable.

**Accessories:** API Power Wedge 112, Magro 24 Component Stand, The Shelf by Black Diamond Racing, Mark 3 Cones from Black Diamond Racing.

**Room Treatment:** RPG Abffusers; ASC Tube Traps, Bass Traps, Studio Traps, and Slim Traps; placid, flaccid tomat.

—Wes Phillips

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unaware of its presence in the first place? That's easy—by hearing details that were previously inaudible but had always been present. High frequencies seemed clearer, less smeared—harmonics leapt off strings and floated independent of the fundamental, for example. I could hear farther into the spaces in which the music took place, which was not an unalloyed improvement—sometimes it made me much more aware of the lack of a real acoustic in built-up-in-the-studio recordings. Bass sounded more deep and taut, especially sustained notes or anything in the bottom two octaves of the piano.

This last was quite noticeable when I listened to Robert Silverman's performance of Liszt's B-minor sonata (*Sonata*, Stereophile STPH008-1, LP). When listening to the test pressings of the disc, I had been impressed by the effortless power of Silverman's left-hand chording. After installing the Ultimate Isolation System, I found it even more so—the clarity of the bass put even more backbone into it. No, I put that the wrong way around: the backbone had always been there, but previously it had been obscured by extra padding. The individual notes were more incisive with the Bright Star system.

The downside is that I heard that dratted motorcycle shift through its gears outside the United Methodist Church with greater clarity, in addition to being even more aware of Robert Silverman's vocalizing throughout. But I shouldn't complain. The motorcycle and the singing aren't why I listen to this performance of the B-minor sonata; the musicianship is, and I found the added detail, the deeper, tighter bass, and the clarity of the highs to add significantly to that. And that's what it's all about.

### Let's get loaded

There are other isolation systems out there, of course. The Vibraplane, which Shannon Dickson and Michael Fremer have written enthusiastically about, is also available for the TNT. But I bought my car for less than a Vibraplane costs—while I'm sure it's superb, it might as well not exist when it comes to my ever owning one.

What I like most about the Bright Star Ultimate TNT Isolation System is that it's simple, affordable, and it works. I can confidently predict that anyone who owns a VPI TNT will notice a substantial improvement in the performance of their turntable for less than the cost of a pair of high-quality interconnects. I'd call that a bargain. **S**

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## Elcom Technologies' ez Audio multiroom "audio extender"

Michael Framer

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**F**requent flyers have grown numb to those ads in the backs of airline magazines, and oldsters can remember reading them in *Popular Science* back when synchronous earth satellites spun around only in the head of Arthur C. Clarke.

So, when returning from the recent WCES I ran into these Elcom guys on an airplane (appropriately enough) and they told me that their company's products turn house wiring into audio carriers, video carriers, modem carriers, and telephone jacks, I was, to say the least, skeptical—especially since they promised that their products looked and sounded *good*. When they offered to send me a sample, I took the bait. I'm glad I did.

### What's the frequency, Kenneth?

True to their word, a few days after I got home from CES a box arrived containing the company's ez Audio (\$159.99), which consists of a small, nicely finished (as in a computer peripheral product), white-plastic FM transmitter box and a receiver of the same size. You plug a "line-out" or "tape-out"

from your preamp into the transmitter's L/R RCA jacks and plug the unit into a wall socket. Select your source—tuner, CD changer, even a tointable—and, Elcom claims, you can plug their receiver into any socket in your home and, like magic, the signal will appear there to be played back through the built-in headphone jack or through your favorite small speakers or via a mini-jack line-out into another amplifier. Actually, you don't even need a preamp. If you have a spare tuner or CD player, you can plug it into the ez Audio transmitter directly.

The receiver includes a built-in 2W (don't laugh!) amp with bass, treble, volume, and balance controls. Hey! If this thing sounds halfway good, think of the possibilities: You want to listen to music outdoors? Crank up your preamp (you can leave the amps off, obviously) and your tuner or CD player, plug the Elcom receiver into a patio outlet, hook up a pair of speakers or your headphones, and you're ready to go! Want to listen to the Sunday-morning TV news shows (better off not having to look at John McLaughlin and Fred "Beetle" Barnes) while having breakfast on the patio? Plug the line-out jacks of your TV monitor into the transmitter.

To answer that big "if," I plugged my RadioShack 3400 portable CD player into the RCA jacks of the transmitter, which I plugged into a basement wall socket. I took the receiver to my bedroom—two floors up—and connected a pair of NHT SuperZero speakers to it using the 18-gauge wire supplied by Elcom. I had very low expectations as I plugged the receiver into a wall socket, and...

*Boom!* Out came Janis Ian's *Breaking Silence* (the gold CD version) in fully separated stereo, with clean, extended high frequencies, decent

**Description:** Multiroom "audio extender" turns your wall outlets into speaker terminals. Modulation scheme: FM. Transmission carrier frequencies: 3.58MHz, 4.5MHz. Dynamic range: 70dB. S/N ratio: 60dB. Frequency range: 75Hz–15kHz. Distortion: <1.8% THD at 1kHz (no level specified). Transmitter connectors: RCA jacks. Receiver connectors: RCA jacks, 3.5mm line-out jack, 3.5mm headphone jack. Power output: 2Wpc into 8 ohms (3dBW).

**Dimensions:** 6.1" H by 1.7" W by 3.2" D. Weight: 12.1 oz (transmitter), 14.1 oz (receiver).

**Serial number of unit reviewed:** none.

**Price:** \$159.99. Approximate number of dealers: 200.

**Manufacturer:** Elcom Technologies Corp., 78 Great Valley Parkway, Malvern, PA 19355. Tel: (800) ELCOM-123, (610) 408-0130. Fax: (610) 408-0136.

bass (such as it is from the SuperZeros: not much below 100Hz), no gross distortion, no audible noise, and plenty of volume (if not the widest range of dynamic contrast). I was able to adjust the bass, treble, volume, and balance to what I thought constituted a very pleasant overall sonic picture, with no apologies necessary. Really.

Was it "high-end" audio? Of course not. But it was much better than I'd expected, and more than adequate for patio or office listening.

I broke out the Grado SR-80 headphones and plugged them in. With the volume control all the way down, there was a faint suggestion of 60Hz hum, which was easily masked by the first appearance of music as I turned the volume up. And because the tiny 2W amp could drive the SuperZeros to adequate listening levels, it obviously had no problem with the headphones.

Finally, I plugged the receiver's line-out into an input on Mission's M-Time home-theater electronics and listened

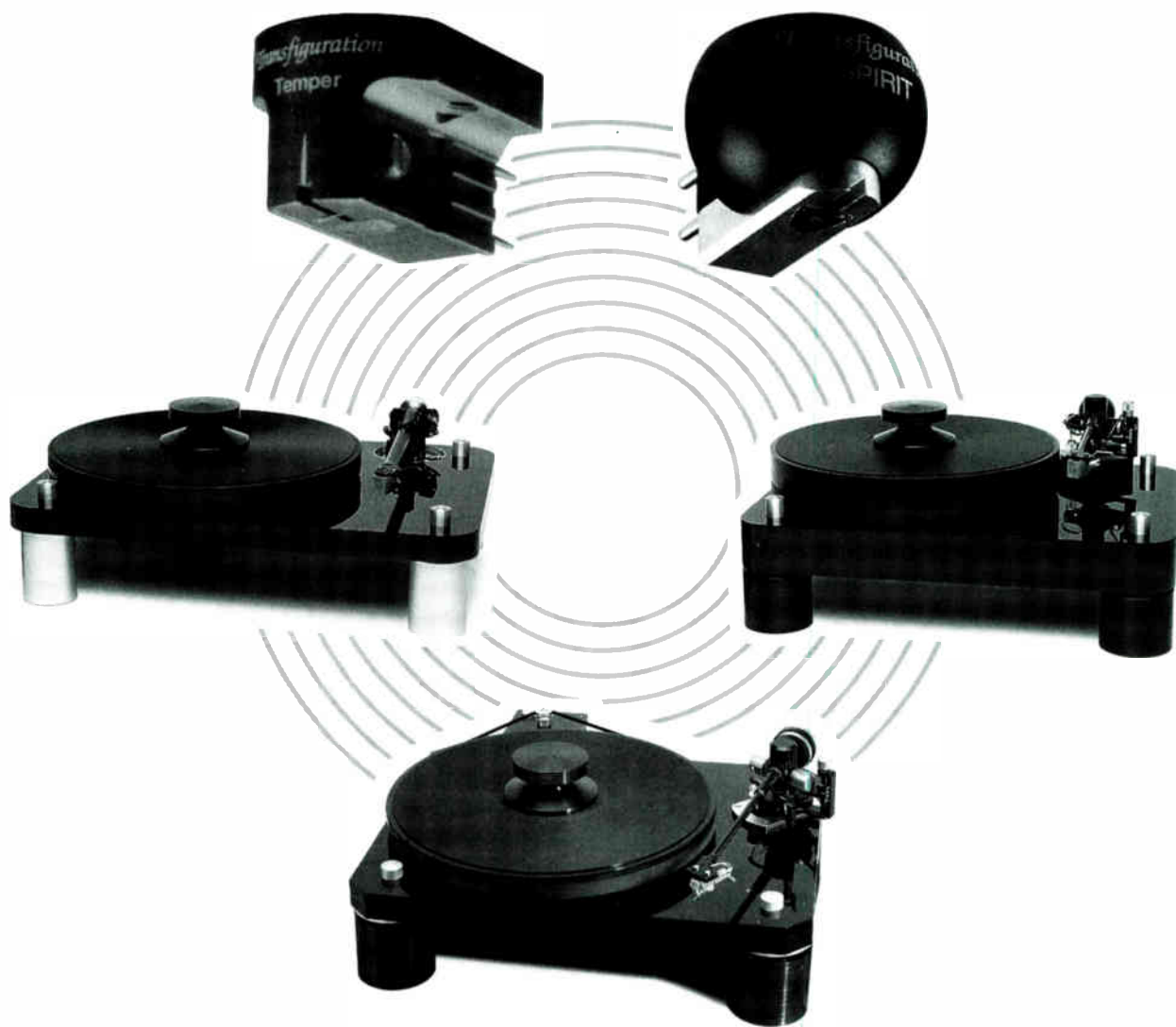


Elcom Technologies' ez Audio multiroom "audio extender"



# "High End Analog...Done Right."

Andrew Singer, *President, Sound by Singer*



Pictured, clockwise from bottom:  
Basis 2001 turntable with Graham 1.5 Basic tonearm and Benz Glider cartridge,  
Basis 2000 turntable with Basis RB300 tonearm and Benz Ruby 2 cartridge,  
Transfiguration Temper cartridge, Transfiguration Spirit cartridge,  
Basis 2500 turntable with Graham Model 2 tonearm and Benz Ruby 2 cartridge

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through NHT VT-1.2s, which are rated down to about 30Hz. That was a really pleasant surprise, especially — given the M-Time's revealing, high-performance amplifiers — the respectably low level of noise. But I don't think any *Stereophile* reader contemplating buying the ez Audio will use it in conjunction with high-end gear — at least on the input side.

Before I was finished I'd walked throughout the house. SuperZeros in hand, plugging the receiver into wall sockets in every room. Though most of them sounded fine. I did not get satisfactory results from every socket. There was unpleasant noise and hum from some — usually indicative of reverse polarity or other electrician's mistakes. The Elcom representative told me the only no-nos were surge-protector-equipped power strips and GFI outlets — the ones with the built-in circuit breakers. But I plugged the receiver into one of those in my kitchen and it worked perfectly. (Extension cords, by the way, work fine; dimmers cause interference.) One other caveat: The system will only work on single-breaker boxes with dual phase.

My one concern: What kinds of hash

and garbage does the ez Audio add to your power line? Let's say your wife is using it to listen to music on the patio via an upstairs system, while you're trying to listen to music on your reference system. What happens to the juice powering *your* system? I don't know, but I'm sure it would be a good test of your power-line conditioner — if you use one.

I'm not going to blather on about soundstage width, image specificity, and the like — I don't think that's called for with this product. Rather, I'm going to think of spring, and all the listening possibilities ez Audio will open up for me. Next I'll try their system for sending video over the house wiring, which allows you to plug in your VCR, laserdisc player, or DSS satellite dish and receive picture and sound on any other television in the house. And yes, you can control the source using its remote control. In other words, if you only watch one TV at a time, one DSS receiver is all you need — no extra wiring, no fuss. If the picture is as good as the Elcom guys say it is — "maybe one grade degradation" — won't that be great?

Good show, Elcom — I'll be watching for your listing on the stock exchange. **\$**

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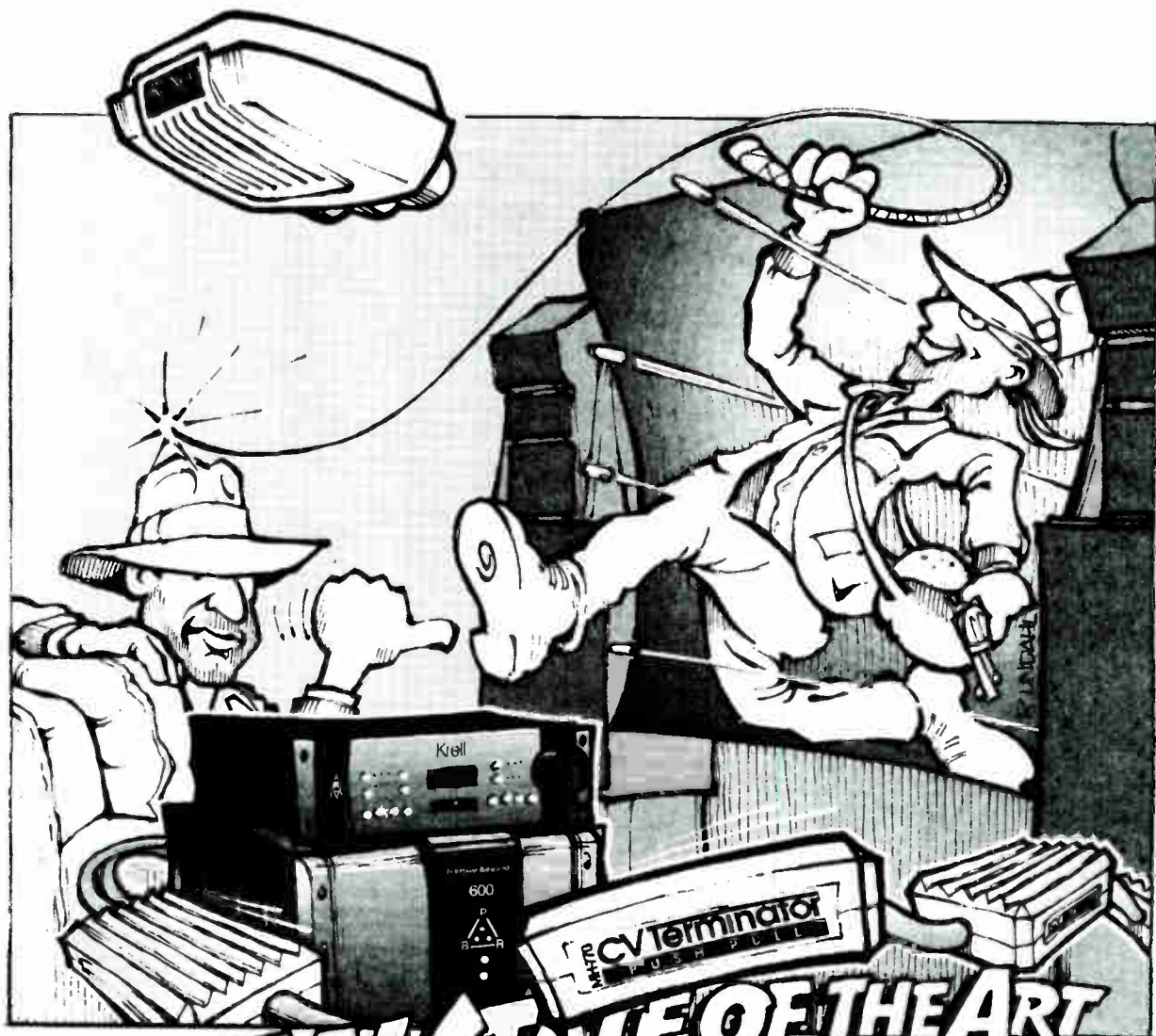
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## F O L L O W - U P

Thomas J. Norton and Robert Deutsch

### Sony CDP-XA7ES CD player

Following my review of the \$3000 Sony CDP-XA7ES CD player last November (Vol.19 No.11, p.153), a number of readers observed that I did not comment on using it with its variable output. Fair enough. Most readers will need the flexibility offered by a preamp connection, in which case the fixed outputs will be most appropriate. But a few words are in order for those who want to use a direct hookup from player to amp, and they'll find some of those words in my review of the Mission 754 Freedom 5 loudspeaker elsewhere in this issue.

To summarize, with the Missions, the overall sound from the variable outputs hooked directly up to the Aragon 8008 amplifier was sweeter than the direct outputs running through my Rowland Consonmate preamplifier; the latter combination sounded a little too cool and analytical with the 754s—though this has definitely not been my experience with less bright-sounding loudspeakers.

Those who may be contemplating using the Sony from its variable outputs, and who can live with the lack of system flexibility this requires (one source only, or swapping connections whenever you want to listen to tape, LP, etc.), should encounter no serious problems with impedance matching. My measurements of the Sony indicated an output im-

pedance of 195 ohms from the variable output, which should be a good match for any conventional amplifier I know of, tube or solid-state.

— Thomas J. Norton

### Jeff Rowland Design Group Model 2 power amplifier with BPS-2 battery power supply

Like many audiophiles, I've been impressed with the effectiveness of dedicated AC lines and line conditioners. Although power supplies in audio equipment are supposed to provide isolation from the various sorts of interference (EMI and RFI) that may be present on AC, cleaner AC power usually translates to cleaner sound. If *reducing* EMI/RFI from the power source is worthwhile, it follows that *eliminating* it should be even better.<sup>1</sup> This is the promise of battery power: by having a source of pure DC, you are, in effect, rolling your own. No EMI/RFI coming in through the power line, and you don't have to worry about the line-voltage variations that are common in most areas of North America.

But wait, there's more! According to Jeff Rowland, conventional AC-based power supplies in amplifiers suffer from impedance fluctuations that are a by-

<sup>1</sup> Audio equipment can also be affected by the EMI/RFI radiated through the air. Neither battery power supplies nor power-line conditioners can help with this.

**Jeff Rowland Design Group BPS-2:** Battery quantity and type: six 6V, 12 ampere-hour Sealed Lead Calcium; Panasonic LCR6V12P or equivalent. Charging type: microprocessor-controlled 4A maximum current, float level constant voltage.

**Dimensions:** 17.5" W by 5.25" H by 14.25" D. Weight: 52 lbs.

**Serial number of unit tested:** Not known.

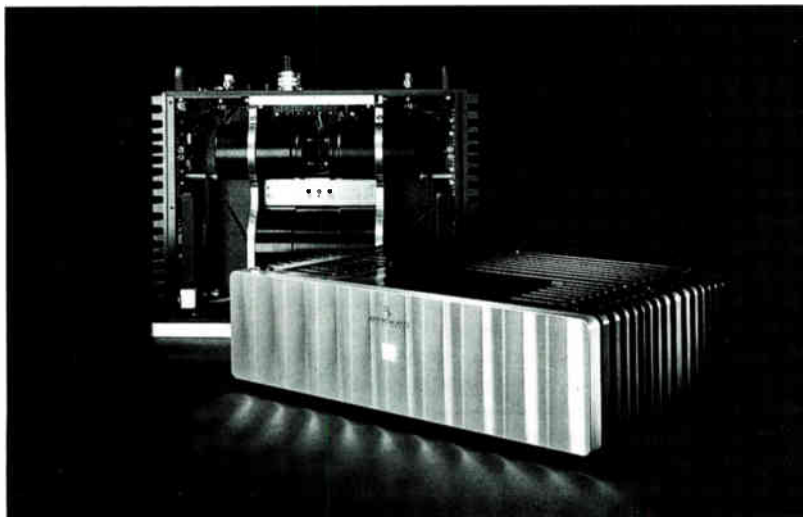
**Price:** \$2600. Approximate number of dealers: 29. Warranty: 5 years, parts and labor.

**Manufacturer:** Jeff Rowland Design Group, Inc., P.O. Box 7231, Colorado Springs, CO 80933. Tel: (719) 473-1181. Fax: (719) 633-4158.

product of the conversion from AC to DC. This, in turn, results in ripples in the DC supply, particularly evident at low frequencies. With a battery supply, the AC/DC conversion is performed by the charger, so the battery may be thought of as a capacitor with high current capability, low DC resistance, and no AC ripple.

Of course, battery power is not without its downside. First, there's the cost: batteries that produce sufficient voltage and current to run a power amplifier are likely to be expensive. The service life of a lead-acid battery can be reduced by too much or too rapid charging, and by allowing the battery to discharge completely before charging. (NiCads, on the other hand, *must* be completely discharged before recharging.) The battery's power reserve has to be sufficient to last at least the average listening session, so we're not just talking about using a couple of AAs. Audio circuits are sensitive to voltage drop, so to maintain sound quality the batteries' output must be monitored, and provision made for switching from DC to AC if the need arises (assuming that the amplifier has an AC as well as a DC power supply).

Over the years, a number of high-end designers have introduced battery-powered products, but to my knowledge none has taken the uncompromising approach of Jeff Rowland. The BPS-2 weighs over 50 lbs and contains six 6V,



Jeff Rowland Design Group Model 2 power amplifier

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the original review, but my opinion of the Model 2 hasn't: I still think it's a superb amplifier, refined yet dynamic.

On changing over to battery power, initial impressions were equivocal. Switching back and forth, replaying the same segments of music (with the pre-amp gain control untouched, volume remains the same), I first had a hard time detecting *any* change. Eventually I was able to get a fix on some differences, but they were generally minor. In the battery-powered mode, the bass was a bit leaner and tighter, although not more extended. (The Model 2 has very good overall bass performance, but it's no match for a bass champ like the Bryston 7B-ST.) The upper midrange/treble was slightly cleaner, more delicate, with transients ringing more freely, but this was apparent only in the most critical comparisons. The magnitude of the differences was less

than I've heard among high-quality interconnects or speaker cables.

The effect on dynamics was complex. At very high levels—louder than I normally play my system—I thought the

**In the battery-powered mode, the bass was a bit leaner and tighter, although not more extended.**

battery mode was somewhat reticent, with not as much get-up-and-go as AC operation. At more sensible levels, however, the dynamic life of the music was enhanced by the battery mode, with a

better sense of rhythm and pace. Once again, the differences were subtle, evident only on repeated comparisons.

Not fair? I made these comparisons with a Chang Lightspeed CLS 9600 power-line conditioner and a dedicated AC line. While this sort of setup is not uncharacteristic of the kind of high-end system in which the Model 2 is likely to be found, it's arguably not the fairest set of control conditions under which to assess the benefits of battery power. In any case, it would be useful to know how battery power compares with "raw" AC.

To do this, I repeated the AC/DC comparisons with the Model 2 plugged directly into the wall—without going through the Chang power line conditioner, but still using the dedicated AC line. Results: still pretty close, but the

higher-order components, plus the usual noise visible with such low levels of distortion. The waveforms into 8 and 2 ohms (not shown) were similar.

The Model 2's output spectrum reproducing a 50Hz input at 100W into 4 ohms is shown in fig.5 The distortion products are all extremely low—below -90dB, or 0.003%. Into our simulated loudspeaker load at a level of 21.9V, only the third harmonic (at -75dB, or 0.17%) was in any way relevant, though other artifacts are less than -80dB are visible.

Fig.6 shows the amplifier's output spectrum reproducing a combination of 19+20kHz signals at 66.4W into 4 ohms (visible clipping was present above these output levels with this input signal). While there are more intermodulation products visible with a 4 ohm load, in all cases the artifacts are very low—a maximum of -70dB (0.03%) at 21kHz.

The 1kHz, THD+noise vs output

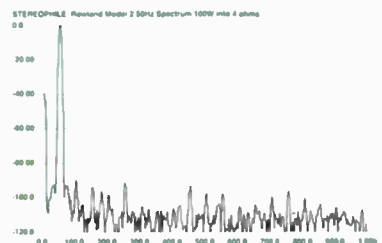


Fig.5 Rowland Model 2/BPS-2, spectrum of 50Hz sine wave, DC-1kHz, at 100W into 4 ohms (linear frequency scale).

power for the Model 2 are shown in fig.7. The discrete clipping levels for the Model 2 are shown in Table 1, along with the results for direct-line operation (battery off). Note that the Model 2 puts out less power under battery drive, and does not quite meet its 4 ohm specification of 150W under any conditions except that of line drive, one channel driven. I also noticed that the distortion increased gradually at high output

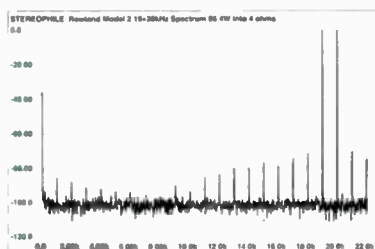


Fig.6 Rowland Model 2/BPS-2, HF intermodulation spectrum, DC-22kHz, 19+20kHz at 66.4W into 4 ohms (linear frequency scale).

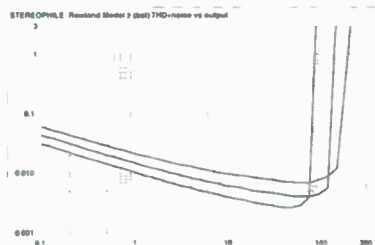


Fig.7 Rowland Model 2/BPS-2, distortion (%) vs output power into (from bottom to top at 40W): 8 ohms, 4 ohms, and 2 ohms.

when the amplifier was driven through the battery. For example, with one channel driven into 4 ohms, the power listed above at 1% distortion was only good for a few seconds before the distortion would start to increase gradually and constantly. After 30 seconds, it was up to 1.25% and still increasing. On line drive under the same conditions, the distortion remained stable. This suggests that the power available from the battery is slightly degraded if called upon to drive the amplifier at high power for an extended period—not typical of music.

Nevertheless, the battery-powered Rowland Model 2 produced a solid set of measurements especially notable for low distortion, noise, and crosstalk.

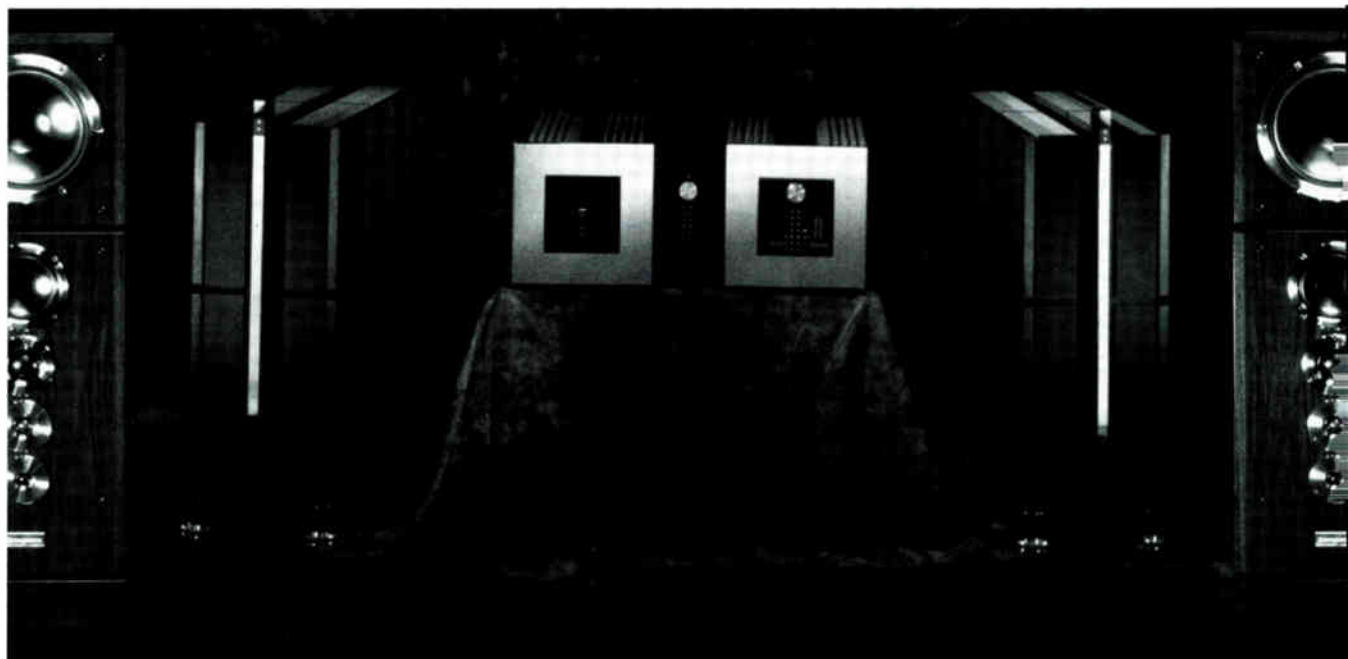
—Thomas J. Norton

Table 1 Jeff Rowland Design Group Model 2 Discrete Clipping levels (1% THD+noise at 1kHz)

Impedance ohms	Both Channels Driven W(dBW)		One Channel Driven W(dBW)
	L	R	L
8 (battery)	74.8 (18.7)	74.9 (18.7)	81.3 (19.1)
	120V	120V	120V
(no battery)	99 (19.2)	99.2 (20)	121.6 (20.8)
	120V	120V	120V
4 (battery)	116 (17.6)	118 (17.7)	134 (17.7)
	120V	120V	121V
(no battery)	126.2 (18)	126 (18)	170.3 (19.3)
	120V	120V	120V
2 (battery)			184.5 (16.7)
			120V
(no battery)			199.6 (17)
			120V



# THE EPITOME OF TRUTH



*(Pictured Above, from Left to Center: Dynaudio Consequence Loudspeaker, \$25,000.00 per pair; Dynaudio Arbiter Monoblock Amplifier, \$200,000.00 per pair; Dynaudio Arbiter Preamplifier, \$96,000.00)*

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differences were a bit more clearly in the favor of battery power, the AC condition sounding somewhat fuzzy and subdued. Finally, I plugged the Model 2 into a nondedicated AC line. This time it was no contest: In the battery mode, the sound had greater openness and transparency, with a greater "suddenness" of transients. The percussion instruments on track 3 of the familiar Chesky Jazz Sampler & Audiophile Test CD (JD37) actually seemed louder, the music had a more dynamic feel, and the soundstage was more precisely defined. By ordinary standards, the sound in the AC mode was quite acceptable; but having heard the difference, I was eager to switch back to battery operation.

Oh, just one more thing... Although the BPS-2 is designed to be left plugged in all the time, I would not have been true to the obsessive-compulsiveness that characterizes all audiophiles had I not bothered to check whether the sound improved when the BPS-2 was unplugged from AC.

The part of me that's *not* obsessive-compulsive would dearly like to report

## Associated Equipment

**Analog Source:** Fully updated Linn LP12 turntable, Ittok tone-arm, AudioQuest AQ-7000nsx cartridge.

**Digital Sources:** PS Audio Lambda II and Sonic Frontiers SFT-1 transports, Audio Alchemy DTI-Pro32, Sonic Frontiers SFD-2 Mk.II digital processor, Illuminati D-60/Orchid digital links; Sonic Frontiers SFCD-1 CD player.

**Preamplifiers:** Convergent Audio Technology SL-1 Mk.II, Balanced Audio Technology VK-5i, Jeff Rowland Design Group Synergy.

**Loudspeakers:** Dunlavy Audio Laboratories SC-IV, Vienna Acoustics Mozart.

**Interconnects, speaker cables, power cables:** TARA Labs Decade.

**Accessories:** Chang CLS-9600 ISO power-line conditioner (see text), Shakti Stones, Shakti On-Lines, Original Cable Jackets, Bright Star Little Rock.

— Robert Deutsch

that this makes no difference, but I must say that it *does*. Not night-and-day, not chalk-and-cheese, but another subtle improvement that moves the sound away from the electronic and toward the musical. Having to unplug the BPS-2 is a pain, and remembering to re-plug it at the end of the listening session is even more so, but a man's gotta do what a man's gotta do.

There's no doubt  
in my mind  
that the BPS-2  
"works."

So, is battery power worth it? At \$5800, the Jeff Rowland Model 2 is an expensive amplifier, and the additional \$2600 for the BPS-2 is not exactly small change. Is this a cost-effective way to improve the sound of a system? Tough question. It depends (my favorite way to start answering difficult questions) on a number of factors, especially the nature of the system itself.

There's no doubt in my mind that the BPS-2 "works"—under certain conditions, it allows the Model 2 to operate in a manner that results in a more musically satisfying listening experience. However, the effect is greatest when the amplifier is not given ancillary support through use of a power-line conditioner and a dedicated AC line. Chances are, if you can afford \$5800 for an amplifier, you're likely to have a listening room supplied with dedicated AC lines—and if you don't, you *should*. The installation of a dedicated line and a good power conditioner will cost less than the price of the BPS-2, and will benefit the entire system. Using the appropriate AC power-line treatment gets the sound pretty close—albeit not all the way—to that obtainable through battery power. Unless everything else in the system is beyond reproach, I'd be inclined to spend the \$2600 on a component that offers a greater potential for improvement. For example, the \$500–\$750 upgrade of the Balanced Audio Technology VK-5 to VK-5i makes more of a difference than adding the BPS-2 to the Model 2.

If everything else in the system is beyond reproach and/or cost is not a factor, then by all means go for the BPS-2. The improvement may be subtle, but it is an improvement, and at the Model 2's level of performance, subtle improvements are all you're likely to get.

— Robert Deutsch

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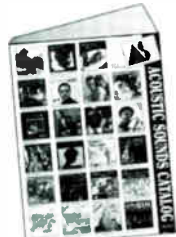
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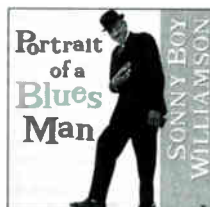


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## Robert Baird

**"B**leeding Chunks" is undoubtedly the most disgusting of all musical slang terms. For me it conjures up visions of Shylock and his pound of flesh—or the look on my face when I'm forced to witness a dinner companion wolfing rare prime rib. That graphic term, hereinafter referred to as BC (not to be confused with another charming expression, "blowing chunks"), has been in frequent use around *Stereophile* these days as we argue over what's become *the* musical question of the '90s: Is classical music dying?

On one hand, RIAA figures seem to show that overall record sales are actually increasing, and that classical music's market share is *not* losing ground—or at least not losing it as fast as is being shouted from the rooftops. One possible explanation for these numbers is that Naxos and the other budget labels are selling more, while the full-price, name-artist, major-label discs are indeed languishing.

On the other side, it's painfully obvious that all the major labels have dramatically slashed their new-release schedules. Many are now down to two or three new releases (as opposed to reissues) a month—which, even if you're as inept at math as I am, still add up to fewer than 40 a year. In the recent past, certain majors had 40 new classical discs every three months. Reissues, a hot-button issue with many labels because of the detrimental effect they've had on the sales of new projects, have, in some instances, dried up altogether.

It's also clear that classical music is having a problem building a new audience. Younger people do not relate well or often to classical music, undoubtedly feeling that it's their parents' music, not theirs. To combat this, classical labels—who can no longer count on the schools to help out—have embarked on a series of increasingly hilarious marketing strategies. However strange the idea, the object is the same: to integrate classical music into a younger lifestyle.

The easiest sell, or so the logic goes, are the younger baby boomers, the 30-to-40 crowd who've got jobs, mates, and possibly kids. Philips has decided that the best way to entice the DSS crowd is

to link life activities with BCs from their sterling catalog in a series called "Set Your Life to Music." Each volume has a semi-official connection: *Beethoven at Bedtime*, *Chopin & Champagne*, *Puccini and Pasta*, *Debussy for Daydreaming*, and *Mozart for Mothers-to-Be*. You get the idea. The best thing I can say about the *hecho en preschool* artwork is that it's colorful and nonthreatening—impulse buying is

However strange the idea,  
the object is the same:  
to integrate classical music  
into a younger lifestyle.

a big factor here. Despite the ridiculous titles and the perky packaging only LeRoy Newman could love, these discs are filled with first-class readings by well-known orchestras: The band on most of the Mozart-for-expectant-moms CD, for example, is the Academy of St. Martin-in-the-Fields. One helpful suggestion: Why not get down 'n dirty with people's lives circa 1997. How about *Ravel for Ritalin* or *Mussorgsky for Mini-Vans*? And for Gen-Xers, what about *Prokofiev for Piercing*, or that old NYC favorite, *Puccini for PIB* (People in Black)?

Philips swears that this series, which now numbers 18 volumes, is a big seller. How big? It's easier to get launch codes for ICBMs than to get record labels to admit how many discs they've actually sold. The standard answer, no matter what the record, is "50 or 60 thousand." Call up a label and ask 'em; it never fails.

EMI's idea for reaching the masses is also a mix of savvy marketing and demeaning side effects. Taking their cue from the hugely successful (no, really) line of *...for Dummies* books, EMI has produced a line of classical *...for Dummies* CDs. Also reputed to be hefty sellers, these discs have a point-of-purchase fear factor. I saw a Michael Keaton movie once in which he's at the grocery store buying Tampons and, much to his chagrin, the clerk gets on the store intercom to boom out something like, "I need a price check

on the mondo pack of extra-maxi tampons." Imagine the same thing here: "I need a price check, there's a dummy here trying to buy Debussy." Yow!

Despite dissing your intelligence, this series is an excellent place to begin learning about classical music. The composer bios are complete, and a MIDI interface allows you to read and hear the score while isolating sections of the orchestra so you can, for example, hear just the part played by the violins. Again, the music here is drawn from solid catalog entries. The *Mahler for Dummies* features the Chicago Symphony under Giulini, the LSO under Tennstedt, and the New Philharmonia under Barbirolli.

Bravest of all are the few attempts to reach America's much-worried-over youth. Sony's *Lease Breakers*, the spiritual descendant of EMI's *Heavy Classix* (which carried a subtitle referring to "The Loudest Classical Music") is obviously meant for fans of amplified guitars, the fist-pumping contingent who need to *feel* their music. The juxtapositions here are jarring, to say the least: "Sunrise" from *Also Sprach Zarathustra* into "O Fortuna" from *Carmina Burana* into "Ride of the Valkyries."

Having already made the world safe for loud music, EMI has now moved into *The Death of the Look of Hope*, aka *Pulp Classix, Vol.1*—a bizarre attempt to align (a year too late) with the "Get the Gimp" retro-smarm of *Pulp Fiction*. So what classical music would you select if you were into gratuitous gunplay and shootin' smack? EMI chose Prokofiev, Gershwin (?), and—tighten that rubber hose around your arm—Puccini's "O Mia Babbino Caro."

As much as I'm poking fun, I respect and support anything that attempts, however lamely, to attack the problem of building a younger audience. If new audiences don't listen, Mozart will become a museum piece. Unfortunately, the biggest drawback to schemes like these is that, while classical music is full of gorgeous melodies, it doesn't lend itself well to the hit-tune format. Classical music needs context, and often the whole piece, to make sense. No matter how creatively packaged, bleeding chunks are still just that. **S**





## H A R D W A R E N E W S

In analog accessory news, the **Orbitrac 2** is now in stock, at \$34.99. As vinyl junkies and Stereophile readers know, Michael Fremer started a virtual one-man campaign to bring back this vital record-cleaning accessory. **Audient Technologies** has finally released their **Datrix** and **Datrix Reference** digital cables, as close as you can get to the state-of-the-art for reasonable prices! **Bedini** has a new model of the **Clarifier** available – and this one works on LPs too! **Black Diamond Racing** has gone one better with their new reference isolation platform, **The Shelf for the Source**, used to great effect under CD transports and turntables. Also covered by Michael Fremer (March '97) is the **Disc Doctor Miracle Record Cleaner** and accompanying brush. **Music Direct** is also stocking the new **Eminent Technology LFT-11** multimedia speakers, with miniature planar drivers and a subwoofer – hands down, the best computer speakers available! (Check out the Audio Adventure's review.) The new **Grado Reference** phono cartridges provide wonderful sound for the buck, starting at only \$35, with ten models up to \$1200. We especially like the **Platinum**, which competes with some other well-known names at \$300 retail. A British company called **Milty** has an analog reissue of their own: the **Zerostat** anti-static gun, for LPs, at \$49.99. Those who remember the '70s will remember the original **Discwasher** version of the Zerostat, which is identical to the Milty. In the tonearm sweepstakes, we're now carrying the incredible **March** models from Scandinavia, which are favorites in the middle price ranges. **Sennheiser** has a winner in the **HD600** headphones (\$349.99), the new top-of-the-line, with even more transparent sound than the Class A HD580, John Atkinson's reference. For the single-ended diehards in the crowd, **Sovtek** has finally delivered their **300B** tube, with the best specs ever and a price that will make lots of friends for this big bottle. **Synergistic** has improved their well-regarded power cable with the **Reference AC Master Coupler**, the best power cord we've ever tried, period – and we're taking trade-ins on the originals! **3M** has new vibration control sheets (\$8.99) and tube dampers (\$3.49). These guys really know what they're doing, and at these prices, you can afford to experiment! We've also got Sam Tellig's favorite contact cleaners, the **XLO Contact Enhancers**, at less than a buck apiece (\$9.49 for a pack of 10). While **Audio Alchemy** continues its reorganization, we've snapped up remaining stock – and we've got some very popular models at prices you won't believe. (Let's just say that we've seen most used pieces selling for more.) The **Pro-32** is only one of many specials we're running right now – we've also got the **AD 1.2 upgrade chip** for \$89.99 (\$74.99 with Pro-32 purchase), plus the new **Monolithic Sound** power supply upgrades for many Audio Alchemy products.



*With the reports of the death of analog being greatly exaggerated, there is a new crop of fantastic new LP accessories out there. Two of the best we've found are the Disc Doctor's system and the Allsop Orbitrac 2.*

*As Stereophile's Michael Fremer will tell you, it is possible to get most of the grunge off of used records – if you're careful! We recommend a cleaning with the Orbitrac, followed by a wet cleaning by a VPI or Nitty Gritty machine, using the Disc Doctor's aptly-named Miracle Record Cleaner. You'll be spinnin' and groovin' in no time!*



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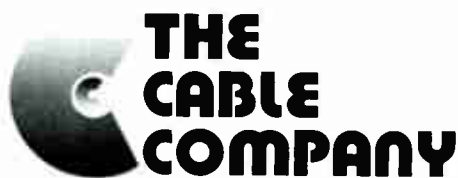
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## B U I L D I N G   A   L I B R A R Y

Steven Stolder

MICHAEL OCHS ARCHIVES



If, as Nietzsche said, a joke is an epitaph of an emotion, then Randy Newman is, to garble one of his song titles, a Real Emotional Guy. Combining a mordant perspective on the world with a keen wit and deadly delivery, he is that rarest of domesticated beasts—an eloquent musical humorist.

But take it further. Loudon Wainwright III and John Prine can quip with the best standups, and, like Newman, they mix the mournful with the mirth-

ful, often in the same breath. But are they world-class composers able to create elaborate pieces that are one part Aaron Copland, one part Fats Domino?

In fact, had the nephew of film composers Alfred, Lionel, and Emil Newman never leaned into a microphone to murmur a single sardonicism, he would have made his mark as a melodist. Newman has composed more than a dozen film scores, including *Ragtime*, *The Natural*, *Toy Story*, and *James and the Giant Peach*. His for-hire arrangements include Peggy Lee's classic "Is That All There Is?"

Newman was born in Los Angeles in 1943 and spent a portion of his childhood in New Orleans, where he developed a taste for the cadences of the city's signature rhythm and blues to go with his family's seemingly inbred pop-orchestral endowment. Entering the music business when he was 17 as a staff hack for a music-publishing company, Newman's first break came in 1962 when the Fleetwoods recorded his "They Tell Me It's Summer." Later that year, his first work under his own name appeared—the "Golden Gridiron Boy"/"Country Boy" 45 on the Dot label. A forthright atheist whose religious perspective would eventually be well documented in "Old Man" and "God's Song," among others, Newman's debut single was produced by one Pat Boone. Newman later reported that the two got along swell.

Through the remainder of the '60s, Newman wrote songs that were picked up by an almost comical assortment of vocalists ranging from Frankie ("Rawhide") Laine to current cocktail-crowd champ Martin Denny, and from P.J. Proby (better known for his split trousers than his interpretive powers) to Claudine Longet, whose greatest claim to fame was leaving crooner Andy Williams for star of the slopes Spider Savich, whom she later shot to death. Add to the list a number of more sym-

# Randy Newman

pathetic interpreters who included Harper's Bizarre, Irma Thomas, Dusty Springfield (her classic *Dusty in Memphis* includes two Newman gems), and Harry Nilsson (who placed the UCLA dropout on a pedestal with his 1970 *Nilsson Sings Newman* tribute).

Newman's sophomore record, *12 Songs* (Reprise 6373-2) was actually cut prior to his debut. The public's first exposure to Newman the performer, however, came with an eponymous collection of 11 originals that appeared in 1968. The switch was appropriate, since the heavily orchestrated *Randy Newman* (Warner Bros. 6286-2) (subtitled "Creates Something New Under the Sun") is the prototypical Newman album. Intermixing skewed humor with naked pathos, it must have indeed seemed like "something new" to the few who heard it (Beatle Paul McCartney being among the early enraptured). Highlights include the dramatic, sweeping "Cowboy," the droll "Love Story" (boy meets girl and envisions their future all the way to dotage and death), and the creepy "Davy the Fat Boy." Of "I Think It's Going to Rain Today," Dusty Springfield once told me: "I swiped his whole string arrangement because it's so wonderful." Newman's dispirited reading of "Rain" may be the best version of

the oft-covered tune.

With 1970's *12 Songs*, Newman eschewed the string-driven expanse of its predecessor for unorchestrated solo and rock quartet arrangements (Ry Cooder, Clarence White of the Byrds, and Jim Gordon of Derek and the Dominos are among the sidemen). If anything, the lyrical perspective here is stranger (and certainly more paranoid) than on any collection Newman has done. "Let's Burn Down the Cornfield" explores arson as an aphrodisiac. In "Lucinda," the narrator pleads in vain for his California golden girl ("in her graduation gown") to get out of the way of a

If a joke is an epitaph  
of an emotion, then  
Randy Newman is a  
Real Emotional Guy.

beach-cleaning machine. "Uncle Bob's Midnight Blues" is a free-association shuffle that manages to evoke Bing Crosby, Sonny Boy Williamson, and the Rolling Stones for no logical reason. *12 Songs* sold nearly as pitifully as its predecessor, but one of its tracks—"Mama Told Me Not to Come"—lined Newman's pockets when it became a No.1 hit for Three Dog Night in July 1970.

After those two vastly contrasting achievements, Reprise filled the gap between studio visits with *Liw* (Warner Bros. 6459-2), a 1970 solo concert recording from the Bitter End in New York. Constructed around five songs from the first album and four from the second, it's rounded out with two selections that would appear on the forthcoming *Sail*

*Away*, another tune Newman didn't polish in the studio until 1977's *Little Criminals* ("I'll Be Home"), and two amusing, otherwise unrecorded trifles—"Tickle Me" and "Maybe I'm Doing it Wrong." While *Live* has a modest appeal, it's ultimately inessential.

*Sail Away* (Reprise 2064-2), however, is essential. Expertly meshing ornate elements of the first album with the drive of the second, it's dominated by tunes that have become Newman staples, among them the xenophobe's anthem "Political Science" and the title track, a slave trader's pitch to African tribesmen that would be courteously misinterpreted by everyone from Linda Ronstadt to Brownie McGhee (the tune is pretty; the sentiments it sweeps along with it is not). Most striking is the album's coda, "God's Song." Reminiscent of Mark Twain's blasphemous *Letters From the Earth* (a late Samuel Clemens novella in which an out-of-his-depth Satan serves as a moderating influence on an amoral Supreme Being), it's Newman at his most caustic and affecting. (Etta James's excellent take on the song, available on MCA's *The Essential Etta James*, is made all the more provocative thanks to an incongruous gospel arrangement.)

The post-Watergate *Good Old Boys* (Reprise 2193-2) is Newman at his peak. The 1974 LP opens with "Red-necks," a racist's tirade inspired by a TV talk-show battle royale involving '60s segregationist Lester Maddox and "some smart-ass New York Jew" (in real life, Nebraska-born WASP Dick Cavett). Newman's cracker narrator initially seems to be shaping up as a caricature, but he's abruptly humanized when he takes stock of his own surroundings (where "college men from L.S.U. / Went in dumb. Come out dumb too"), then coldly casts his eyes to the north, where "your northern nigger's... free to be put in a cage" in a litany of urban ghettos. "Birmingham" provides the setting and identifies the steelworker's wife, who's addressed in the third song, "Marie." Here the Good Old Boy drunkenly professes devotion ("You're a flower, you're a river, you're a rainbow") and self-contempt ("Sometimes I'm crazy... I'm weak and I'm lazy") over one of Newman's most fervent melodies.

Side two drifts back several decades to the roots of the modern South. The epic-scaled "Louisiana 1927" chronicles the monstrous flood that (as argued by John M. Berry's new historical account, *Rising Tide*) broke down the region's decorous elements and unleashed its feral racist factions for years to come.



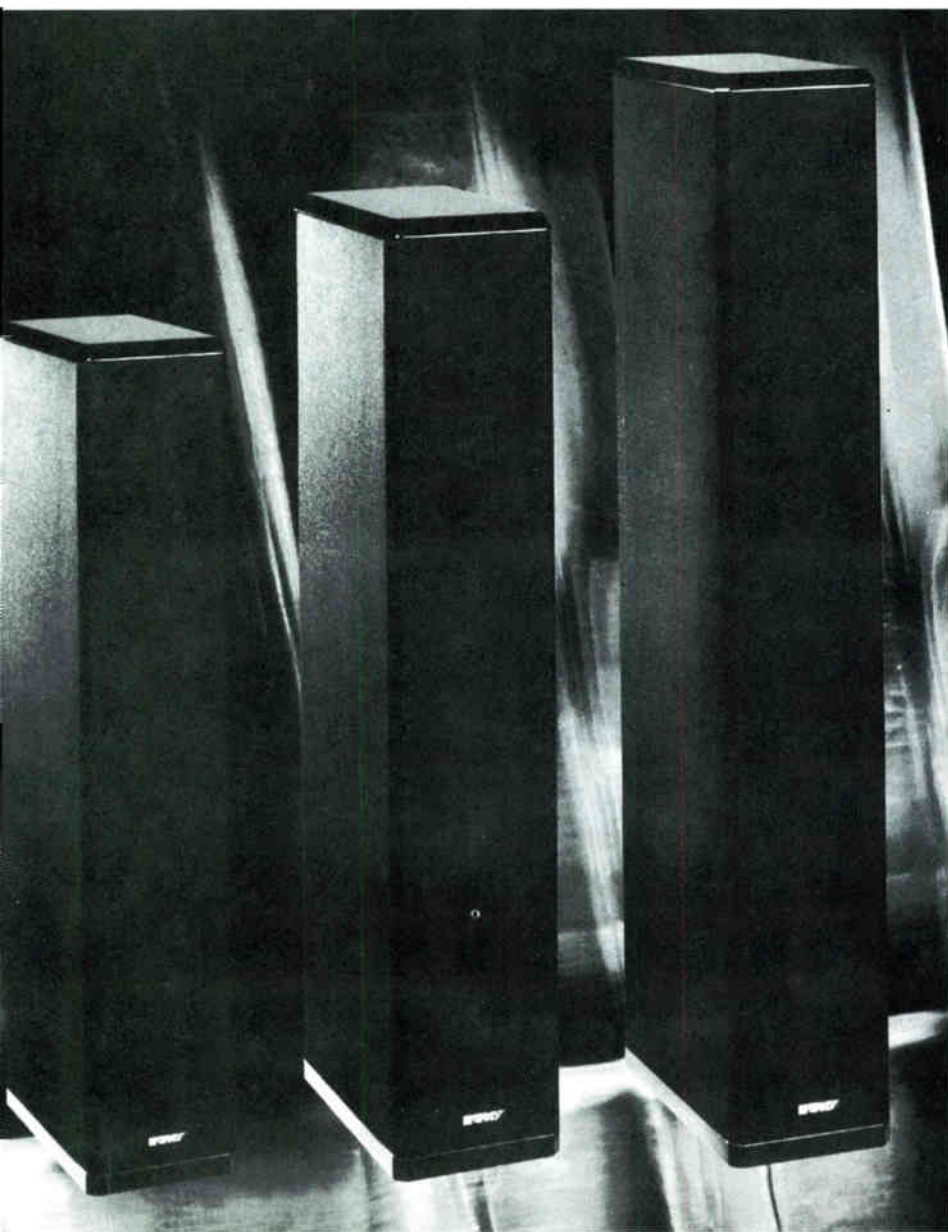
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Newman then uses populist boss Huey Long's campaign anthem, "Every Man a King," to usher in his own song about the "Kingfish" ("Who looks after shit-kickers like you?"). *Good Old Boys* ends anti-climactically, but then so does *The Adventures of Huckleberry Finn*. This is Newman's crowning achievement.

*Little Criminals* (Warner Bros. 3079-2) proved to be Newman's commercial breakthrough, thanks in large part to an unlikely Top-10 novelty hit. "Short People" may be responsible for positing Newman in the public consciousness as a kind of highbrow Ray Stevens-type wag, but, hey, look at the bright side: It snuck its B-side—the unremittingly grim album-closer, "Old Man on the Farm"—into thousands of jukeboxes. One can imagine barflies the world over punching in the wrong number and being confronted by a solo pianist morosely mumbling "Waitin' for some rain to fall / Waitin' for some mail to come / Waitin' for the dawn again." In 1977, that may have been more subversive than "Anarchy in the U.K." While *Little Criminals* isn't as focused as its studio predecessors and is marred by one or two too many throwaways, it's studded with memorable songs, including

"Baltimore" (one of Newman's best rock arrangements), the desolate "Texas Girl at the Funeral of Her Father," and "In Germany Before the War," a chiller inspired by *M*, Fritz Lang's 1931 melodrama about a child murderer.

Newman's next two efforts—1979's *Born Again* (Warner Bros. 3346-2) and 1983's *Trouble in Paradise* (Warner Bros. 23755-2)—are widely considered missteps. On the former, Newman takes his

**"Short People" hit the Top 10, and snuck its B-side—the unremittingly grim "Old Man on the Farm"—into thousands of jukeboxes.**

characters to new depths—an ignoble notion that, on the surface, makes a good deal of sense. One-dimensional songs like "They Just Got Married," "Mr. Sheep," and "Half a Man," however, are more irritating than provocative. *Born Again*'s best tunes, such as the callow shuffle "The

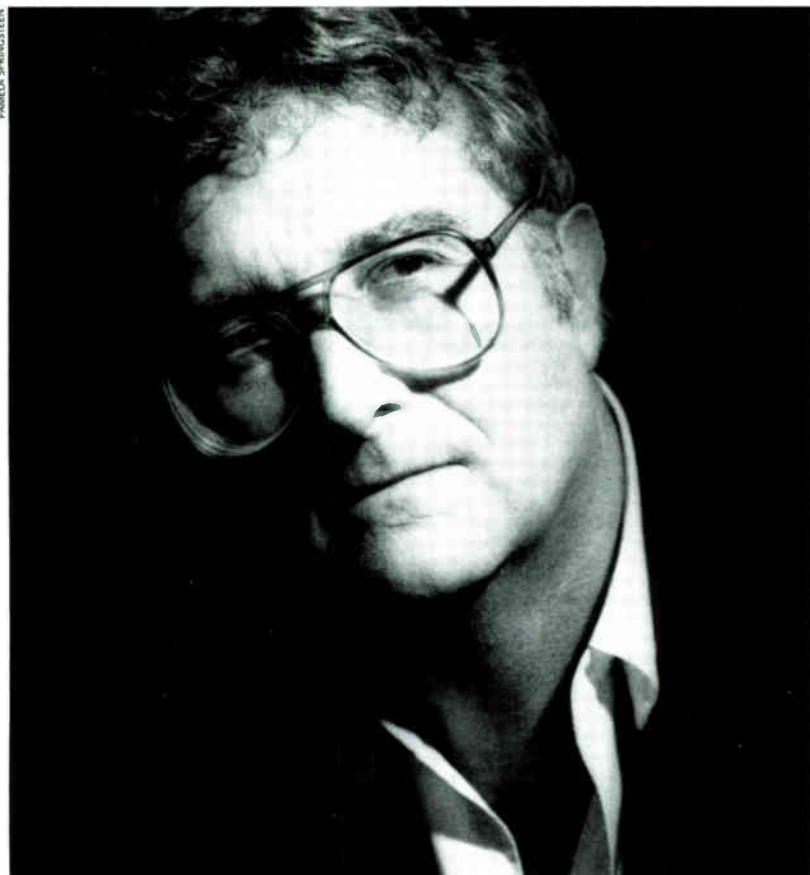
Girls in My Life (Part I)" and the avaricious "It's Money That I Love," are oddly modest in intent, which says a great deal about the album as a whole.

*Trouble in Paradise* is more likable, thanks to the SoCal sing-along "I Love L.A.," as well as the brooding character study "Real Emotional Girl." Still, it's a spotty collection that ranks in the lower quarter of Newman's recorded output.

Slowed by Epstein-Barr syndrome, which saps sufferers of energy, the never-prolific Newman allowed five years to pass before reemerging with *Land of Dreams* (Reprise 25773-2). A definite improvement over its two predecessors, it begins on an uncharacteristically revealing note. The three opening songs hark back to Newman's youth in the Crescent City. While "Four Eyes" is marred by bombastic production, "Dixie Flyer" and "New Orleans Wins the War" are finely drawn remembrances with funny, moving details: Newman's rye-drinking Jewish relatives try to pass as cracker Christians ("Who wouldn't down there, wouldn't you?"), and a father who arrives to announce to the city's imperishable revelers that the war had ended three years earlier ("Maybe they'd heard it, maybe not / Probably they'd heard it and just forgot"). While a few songs miss the mark ("Red Bandana," "Masterman and Baby J.," and the redundant "It's Money That Matters"), "Falling in Love" is a jaunty change of pace, "Bad News from Home" is taut and ominous, and "I Want You to Hurt Like I Do" niftily turns munificent all-star '80s sing-alongs of the "We Are the World" ilk on their pointy little heads.

Newman busied himself with lucrative soundtrack work through the first half of the '90s, scoring *Avalon* (Reprise, 26437-2), *The Paper* (Reprise 45616-2), and *Maverick* (Reprise, 45816-2), among others. His most recent nonsoundtrack recording is 1995's *Faust* (Reprise 45672-2), a long-promised retelling of Goethe's tale of divine gamesmanship. Newman recruited a cast of generational peers to perform his "opera." While Don Henley is jarringly abrasive in the title role (that may be the point, but shrill is shrill to these ears), Linda Ronstadt, Bonnie Raitt, Elton John, and, in particular, James Taylor (as a mad-denyingly smug and cocksure Creator) are up to the task. As is Newman, self-typecast as the Devil. While *Faust* falls short of his best '70s work, its ambition and flashes of brilliance make it a more than worthwhile effort. It bodes well for future offerings, though in Newman's case, patience is always called for.

It's also generally well rewarded. **S**



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Richard J. Rosen

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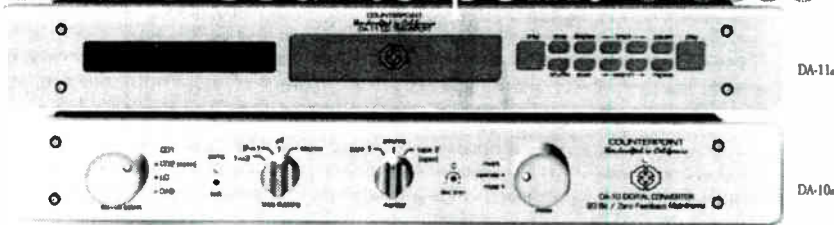
Of course, I wasn't thinking about any of this when, in the company of Classic Records' Mike Hobson, I arrived at Bernie Grundman Mastering in Hollywood. With the very tapes lying casually in front of me on the mixing board, I found it difficult to think clearly of anything, except for the way my concepts of what constitutes "mint" and "original" were radically mutating. Listening to the three-track masters of such a familiar recording, the depth of detail was breathtaking. There was a solid sense of substance to instruments that I could sit up and

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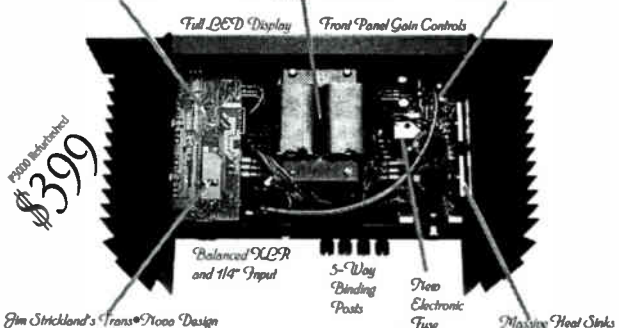
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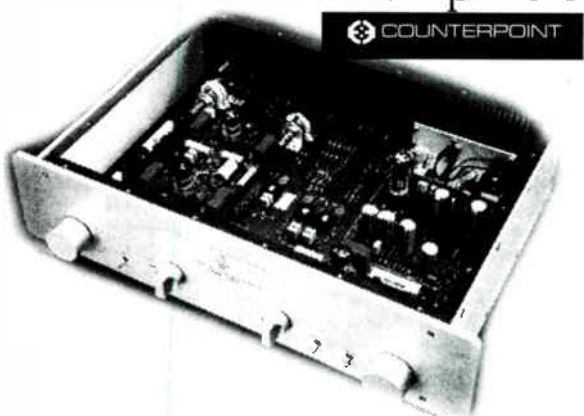
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There was  
real breath  
and spit  
in the  
horns, and  
real fingers  
on Paul  
Chambers'  
bass strings.



point to, and a feeling of space and bloom around them I'd never heard before. There was real breath and spit in the horns, and real fingers on Paul Chambers' bass strings, the low notes pulling the rhythm along rather than just warmly glowing at the back of the soundstage. What really struck me overall, though, was the marked difference in *mood*. The album I'm used to has a laid-back, languorous, cool vibe, but what I was hearing was so like actual musicians playing off each other in the room before me that it felt *exciting*—and that, I must say, felt a little odd... but in a good way.

Inspired by the experience, I've been listening to my six-eye "original" Columbia LPs quite often since, and mainly to the stereo version, which, unlike most rock and jazz records of the period, neither feels particularly dulled next to the mono, nor overly artificial. While there's not much happening in the middle except when Miles pops up, the omnipresent warmth of the bass in the background and the mid-field depth of Jimmy Cobb's drumkit inside the right speaker give it a sense of dimension. Besides, it's close to the mix I heard on the session tape.

More recently I've added a test pressing of the new Classic Records version (CS 8163), as well as Sony's new 20-bit CD reissue (Columbia/Legacy CK 64935), along with their gold-plated Super Bit Mapped Legacy Mastersound version. This, then, represents the original release and every other recently in print, excepting the digitally remastered LP and the first plain-vanilla CD.

Listening to the Mastersound CD, it's obvious they got a lot of things right that the previous CD incarnation did not. Gone is the brittle, icy, detail-y sound, in favor of a kind of analoglike warmth. The detail is still there in the highs, more so than on the original LP, which brings into relief the bass strings and the tinkle of the piano keys. The soundstage is rather shallow, and the players—particularly Coltrane and Adderley in their solos on "So What"—seem to be isolated and hermetically curtained from the rest of the ensemble. Inexplicably odd is the mix on "Flamenco Sketches," which may be the best piece on the record. It's the only version I've heard with Miles and Jimmy Cobb mixed to the right, leaving an empty middle. Aside from these issues, it's remarkably satisfying musically, and I could have been quite content with it...

...until I heard the new CD. The first thing I noticed was a little tape hiss preceding the music. I considered this a good sign, as it can indicate that the integrity of the master hasn't been sacrificed in favor of noise reduction. I wasn't let down. The mix is a little more up-front and foreshortened compared to the six-eye, but the sense of the spaces around the players,

as well as the blending of the ambiances of their instruments, are conveyed much the way they are on the master. The shimmer of the cymbals, the wood of the bass, the round tones of the horns, the resonance of the piano, all seem to radiate from fixed images across a musical canvas suspended between the speakers, filling in the empty white spaces.

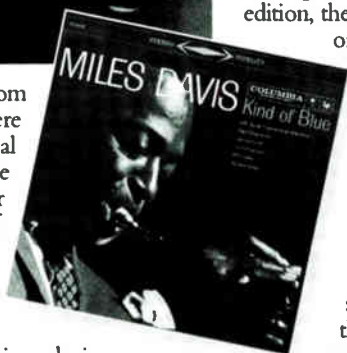
Reissue producer Michael Cuscuna has done an exceptional job of capturing the flavor of the original tapes. For Sony's new Columbia/Legacy CD he mixed and mastered from the self-same three-track session tapes I'd heard at the Classic Records date, with the opening three pieces at the correct speed. During the first 34 years of its existence, until the Mastersound edition, the master used had been recorded too slow on side one, resulting in those tracks being pressed about a quarter-tone sharp.

Classic Records gives you a choice: they present the LP in its original form, pitch variations and all, along with an additional speed-correct side 1. Playing "Flamenco Sketches," I'm impressed by the depth and width of the stage. The body of the piano resonates well beyond the left speaker, the drumkit spreads back and to the right, and the music radiates from a three-dimensional space and hits like a gentle breeze. It's got all the detail of the CD—the breath, the spit, the wood, the brass—while being just a little more relaxed and effortless. It's almost as if I could picture myself anywhere in the soundstage and be able to visualize how the sounds of the instruments would reach me from that point of view.

And what of the differences between the off-speed and corrected versions? As you might imagine, it's subtle. With concentration, it seems easiest to pick out the piano notes as being slightly out of tune. The traditional side 1 has a touch of thinness, the players sounding a little more withdrawn. This may, in fact, add to the kind of weightless quality of the music. The corrected version has a little more bloom and a little more air, leaning a bit to the U-R-there side. The purist in me was skeptical about whether such an undeniable masterpiece needed to be "fixed." The mistake may have contributed in some way to its greatness. On the other side of the coin, I suppose purists have to consider the original tape, as approved by the artist, as the true reference. Classic allows you play this game for yourself.

Additionally, both new reissues offer packaging based on the original jacket, corrected labels and liner notes, additional commentary, newly released session photos, and, most important, the first take of "Flamenco Sketches," the only additional complete take recorded at the sessions. Classic puts it on side 4 at 45rpm for even higher quality, Sony offers it as track 6. Either way, it makes one of these worth owning. The tempo on the extra track is a smidge slower, the rhythm section starts off with a hesitation-and-release style that's intriguing, and all of the solos are different. What it boils down to is more of a very good thing.

Even if you already own the gold CD or an original LP, if you love *Kind of Blue* I'd still recommend buying either of these. (If you don't dig KOB, seek professional help.) The new CD costs about half of what the Mastersound one did, and it's much better with more stuff. Even if you have mint six-eye vinyl, it might be kinda worth selling it for 150 bucks (\$250 if your conscience will let it go to Japan), buying the Classic for \$45, and donating the rest to help save the rain forest. Buy one, buy both—either way, you can't lose. **\$**





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R E C O R D R E V I E W S

# RECORDING

OF THE MONTH

In 1967, Charles Lloyd's *Forest Flower* became one of the first jazz albums to sell a million copies. Lloyd was a star, and played major rock venues like the Fillmore in San Francisco. His popularity was astonishing, given the fact that he played uncompromised acoustic jazz. It was even more astonishing when Lloyd walked away. At the height of his celebrity, he retreated to Big Sur and went on a 20-year search for the "inner life."

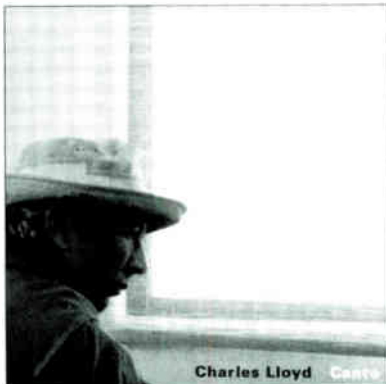
What is just as remarkable as Lloyd's early fame and his renunciation of it is that his return to active music in the '90s has gone mostly unnoticed in his own country. When he emerged from self-imposed exile, Lloyd recorded four albums for Manfred Eicher's ECM label over a five-year period. Together, they constitute a body of work unique in modern jazz. But now there is a fifth, *Canto*, that goes beyond them.

The first four ECM albums had a cool beauty that held heat underneath like an underground fire. *Canto* is just a little wilder: it flirts with the edge; it's freer in the way it flows to evolve form.

This particular Lloyd quartet has toured on and off for four years, and has been intact for the last three ECM recordings. It is now the strongest ongoing ensemble in jazz, and has achieved a level of interactive synergy that validates Lloyd's dictum: "It's not about someone's solo."

*Canto* opens with 17 minutes called "Tales of Rumi." It starts very slowly, with the bass of Anders Jormin brooding up from silence in the left channel, then Bobo Stenson strumming inside the piano on the right. Billy Hart joins the weaving processional, lightly tapping his rims, then Stenson segues exquisitely from strings to keys. Insidiously the momentum gathers, Jormin twisting and dancing, before Lloyd's tenor sax slides in at 6:30 like a huge sigh, and together the four ascend until "Rumi" is a whirling maelstrom.

The other two extended pieces, the title track and "M," reveal the creative license with which this ensemble ar-



## CHARLES LLOYD

### *Canto*

Charles Lloyd, tenor sax, Tibetan oboe; Bobo Stenson, piano; Anders Jormin, bass; Billy Hart, drums  
ECM 78118-21635-2 (CD). 1996. Manfred Eicher, prod.; Jan Erik Kongshaug, eng. DDD.

TT: 65:18

Performance ★★★★★1/2

Sonics ★★★★★2

rays itself in musical space. Compared to Lloyd's quartet, most modern jazz, however competent, sounds linear and merely denotative. Stenson lays across openings left by Lloyd to arc enormous tangents to the song, while Hart and Jormin follow to create the moment.

The sonic quality achieved by engineer Jan Erik Kongshaug at ECM's Rainbow Studio in Oslo is one of modern life's most reliable pleasures. So much of ECM's music is rapt and atmospheric, and Kongshaug always gets the intimate details correct and bathes every sonic portrait in warm light. *Canto* has that sense of rightness, and it keeps Lloyd in focus right down to his softest whispers. But Kongshaug also stays with

Lloyd even when he can't contain himself and breaks into shriek and rasp. *Canto*'s recorded sound captures its fevered inspiration.

—Thomas Conrad

*Canto* completes Charles Lloyd's quiet comeback.

D. Dargatzis

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# CLASSICAL

## KRONOS QUARTET

### *The Dreams and Prayers of Isaac the Blind*

Kronos Quartet: David Harrington, violin; John Sherba, violin; Hank Dutt, viola; Joan Jeanrenaud, cello; with David Krakauer, clarinet, bass clarinet, basset horn

Nonesuch 79444-2 (CD). 1997. Judith Sherman, prod.; Robert Hurwitz, exec. prod.; Craig Silvey, eng. DDD. TT: 32:10

Performance ★★★★★1/2

Sonics ★★★★★1/2

**M**ulticulturalism, while certainly a current trend in contemporary music, is by no means new. Mozart sought to depict Turkish musical flavors, Rimsky-Korsakov the Middle East. Brahms and Liszt set what they called Hungarian dances. In this century Bartók, Kodály, Ruth Crawford Seeger, and Ralph Vaughan Williams were all avid folk-music collectors whose own creative outputs were influenced strongly by those quests for traditional roots.

That said, many of today's multicultural composers and performers have taken things to a new level. Striving for a penetration of the cultural idiom is of utmost concern. In the past decade in particular, the Kronos Quartet has led the way, seeking out new, culturally connected composers from around the globe and bringing their voices into the mainstream of classical music.

*The Dreams and Prayers of Isaac the Blind*, by Argentine-born Osvaldo Golijov (b. 1960), takes Kronos into the realm of Yiddish music. Klezmer clarinet wizard David Krakauer, who in the past has paired up with John Zorn in new klezmer directions, teams up with

Kronos for the CD.

The writing is beautiful. Its opening *Prelude: Calmo, Sospeso* and closing *Postlude: Lent Liberamente* capture the air of mystery of Eastern European music. In the former, Kronos becomes an accordion, delivering its chords with crisp-focused balance. In the latter, melodies unfold in soft, reflective, prayerful waves. Both have a floating sense of suspended motion.

*Dreams and Prayers'* first movement proper takes on a variety of moods. There is the typical laughing-and-crying clarinet horseplay, the strong klezmer dance rhythms and accented melodies. But strung in there as well are surreal textural allusions reminiscent of Ennio Morricone's spaghetti-western scores. It is a movement of broad range, both dynamically and thematically, and one that especially challenges Kronos lead violinist David Harrington, who rises to every complex pitch bend and rhythmic flurry with aplomb.

The second movement starts with dry, truncated puffs of string chords. Clarinetist Krakauer starts his eastern-European pitch-bending, free-meter dance as Kronos slowly and stealthily extends a backdrop and accents the traditional beat. He and Harrington engage in a true clarinet/violin klezmer dialog of sudden starts and liquid phrases. It is a dance of life with austere accents. The tempo slows to a surreal pace, the voicings in remote octaves, tracing the melodies' ultra-elongated, sculpted lines. A sudden burst of virtuosic energy reanimates the movement before it dies out in soft, fluttering tones.

The work's third movement is more *cantabile* than the rest and features more interplay between quartet and soloist. There are lovely joint harmonies and expressive colors as it builds toward a

wave of passionate crying and intensity from all forces. In the end, soft tremolo fiddles and soaring clarinet unfold one another.

Though the playing time is short, this is moving music played with passion, virtuosity, and idiomatic style. Plainly, Kronos has done its homework.

—Daniel Buckley

## MAHLER

### *Symphony 6, "Tragic"*

**MAHLER:** *Symphony 7, "Song of the Night"*

Václav Neumann, Leipzig Gewandhaus Orchestra Berlin Classics 0090462 BC (CD). 1996. Eberhard

Geiger, prod.; Hartmut Kölbach, eng. ADD. TT: 76:02

Performance ★★

Sonics ★★1/2

**BEETHOVEN:** *Overtures: Fidelio, Leonore No.3*

Václav Neumann, Leipzig Gewandhaus Orchestra

Berlin Classics 0090452 BC (2 CDs). 1996. Eberhard

Geiger, Reimar Bluth, prods.; Jürgen Reglar, Werner

Ebel, engs. ADD. TT: 101:48

Performance ★★1/2

Sonics ★★

**T**hese Berlin Classic discs are not, strictly speaking, reissues, as they haven't previously appeared domestically. The 1968 recording dates, however, make them contemporaneous with the Mahler 6 by the same forces that once appeared on Vanguard LPs. Like the Vanguard readings, these performances of a firmly grounded, unified orchestral sonority and stylish, authoritative podium leadership.

Neumann strikes an excellent balance between forward drive and tonal weight, setting mobile but never rushed tempos that clarify the movement structures while giving the melodic expression its full due. He secures excellent balances in the contrapuntally more involved sections, so that the various motifs all register clearly in the proper proportions (this is harder than it sounds); and his rhythm is less insistently square than on his Supraphon remakes.

The distinguishing virtue of the Leipzig forces is their ability to play each note in running passages with full tone; the whirling string figures in the *Finale* of 6 add to the tension, while the bright reed obbligatos in that of 7 enhance the march theme's celebratory air. On the down side, the oboes in 6 (though not in 7) are sour, the English horn is downright flat in its solo in the *Andante*, and the tenor-horn soloist in 7 has that old-fashioned wobbly vibrato. (There's also a passing error in 7's *Nachtmusik II*: at 2:57 the cellos repeat F minor instead of changing to the Critical Edition's F major). The resonant sound—derived, oddly, not from the Gewandhaus, but from various Leipzig churches—homogenizes the



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sonority into grayish colors, but there is plenty of definition, impact, and body.

The two Beethoven overtures are solidly traditional (in the best sense), and again the clarity of the running figures enhances textural interest in the *tutti* climaxes.

—Stephen Francis Vasta

## RACHMANINOFF

### Piano Concerto 3, Five Études-Tableaux

Lief Ove Andsnes, piano; Paavo Berglund, Oslo Philharmonic Orchestra  
EMI Classics 5 56350 2 (CD). 1997. Tony Harrison, prod.; Mike Clements, eng. DDD. TT: 57:35  
Performance ★★★★★  
Sonics ★★★★★

Just when the controversial David Helfgott's recording of Rachmaninoff's Piano Concerto 3 was leaving pianophiles appalled last winter, the up-and-coming Norwegian pianist Leif Ove Andsnes was touring the US playing the same concerto and inspiring widespread relief: No, standards hadn't fallen to a new low, and Yes, Helfgott is probably a short-time aberration in the music scene and—in light of his mental illness—should best be thought of in the same light as the Special Olympics.

Unlike Helfgott, Andsnes easily lives up to his hype in this remarkably well-engineered live recording. In fact, at the risk of alienating half the people I know, I'd venture to say Andsnes' recording of this work is, in many ways, preferable to Martha Argerich's standard-setting performance on Philips.

In many cases, what passes for an interpretation of Rachmaninoff's Piano Concerto 3 seems more like a pianist trying to make this finger-busting piece function despite his or her own technical limitations. There's no sense of that with Andsnes. This reading is filigree Rachmaninoff, played almost with the fluidity of Mozart. Not that there's anything unduly dainty about Andsnes' take. There's plenty of drama; it's just deployed with a coloristic precision that no other performance I've heard can touch. Though part of the whole point of this piece is to show off a bit, there's a musical integrity to Andsnes' fireworks.

Andsnes has a conspicuous lack of neurosis, a trait that was also the hallmark of Vladimir Horowitz. There are moments, even in the first movement, when the pianist projects a geniality that one associates with Chopin. The piano's second-movement entrance can often sound like the entire world falling apart in a single flourish, but not here. The final movement can seem like a race with death; with Andsnes, there are

moments of delicacy that recall Mendelssohn's *A Midsummer Night's Dream* music. With this celestial, uncomplicated approach, Andsnes proves Rachmaninoff doesn't need heavy emotional baggage to make his music communicate. And though conductor Paavo Berglund isn't always an exciting presence, on this occasion he's a close, insightful collaborator.

The five *Études-Tableaux* included as encores confirm what the concerto has proven: Andsnes is a major pianistic presence.

—David Patrick Stearns

## PETERIS VASKS

### Chamber Music

*Landscape with Birds; Fantasia — Landscapes of a Burnt-Out Earth; Episodi e Canto Perpetuo; Music for a Deceased Friend; Book.*

Dita Krenberga, flute; Inara Zandmane, piano; Kristine Blaumane, cello; Latvian Philharmonic Trio; Riga Wind Quintet;  
Conifer 75605 51272 2 (CD). 1996. Tryggvi Tryggvason, prod. and eng. DDD. TT: 76:40  
Performance ★★★★★  
Sonics ★★★★★

In a forum more suitable than a review, it would be interesting to explore the reasons for the late-20th-century emergence of certain Eastern European composers from relative obscurity into an unusually revered status. This near-worshipful regard extends from musicians to major classical record companies. Suddenly, it seems, Witold Lutoslawski, Arvo Pärt, Giya Kancheli, and Henryk Górecki are everywhere. And now we see, with increasing frequency, the names and music of Veljo Tormis and Peteris Vasks.

Of course, this turns out to be a good thing—after years of the aimless meanderings of minimalists and inarticulate utterances of composers seeking more to shock and confuse than to enrich and enlighten, each of the above-named is a composer with something of substance to say. It's probably no accident that, in every case, their music emerges more or less directly from the place, the people, and the often oppressive and tragic circumstances that have defined life in their part of the world during this century. They have experienced something worth expressing in music, and each has found his own way to do it.

Among the advantages of working with the music of a living composer is that, provided he or she is willing and articulate, we can learn firsthand the composer's intentions. Vasks, who happens to take an active role in performances and who is not afraid to explain his ideas, works from a fundamental love of nature, of the landscape of his native



Latvia, and from a desire to express idealism and optimism rather than just sadness and the "drab everyday." He also believes that his own language is essential in conveying his musical ideas: "In my music I speak Latvian," Vasks says.

As we listen to this varied program of chamber works, ranging from *Landscape with Birds* for solo flute to *Music for a Deceased Friend* for flute, alto flute, oboe, clarinet, horn, and bassoon, we realize that Vasks' language is at once universal and personal as he asks his performers to stretch the traditional boundaries of expression on their respective instruments. Flute glissandos, fluttering, and tapping sounds may strike you as gimmicks in the hands of some composers, but here, as in *Landscape with Birds*, we hear—and see—the birds in flight, in song, moving through trees, winging across the sky in the distance.

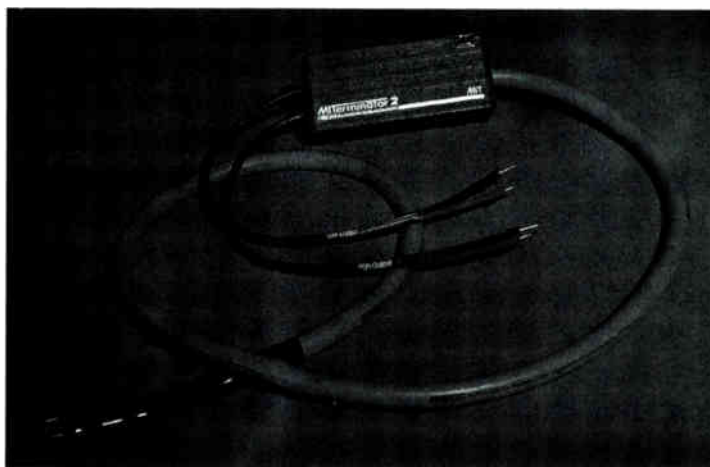
Not all of Vasks' works are so immediately evocative or so easy to appreciate. *Fantasia — Landscapes of a Burnt-Out Earth* is a difficult and intensely emotional solo piano piece that seems to deny complacency and order; *Episodi e Canto Perpetuo*, Vasks' "Homage" to Olivier Messiaen, is nearly 30 minutes of exceptionally wide-ranging drama that demands both concentration and technical virtuosity from its trio of performers (violin, cello, and piano).

Anders speaking of virtuosity, the program's final work, *Book* for solo cello, is a tour de force that will test the stamina and technique of the best cellists. In several passages the performer is even required to sing a wordless melody, which cellist Kristine Blaumane does beautifully.

A chamber music program, especially one that employs different configurations of instruments for each work, can be a tricky thing to record so that balance and listener perspectives are preserved from track to track. This recording achieves that and offers natural-sounding



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winds, strings, and piano in an acoustic space appropriate to the number of performers and instrumental forces.

—David Vernier

## VERDI

### *La Forza Del Destino*

Galina Gorchakova, Leonora; Nikolai Putilin, Carlo; Gegam Grigorian, Alvaro; Mikhail Kit, Padre Guardiano; Olga Borodina, Preziosilla; Georgy Zastavny, Fra Melitone; others. Valery Gergiev, Kirov Orchestra & Chorus, St. Petersburg Philips 446 951-2 (3 CDs). 1997. Anna Barry, prod. Jean Marie Geijssen, Thijs Hoekstra, Roger de Schot, engs. DDD. TT: 2:38:08

Performance ★★1/2

Sonics ★★

This is the first commercial recording of Verdi's original, 1862, St. Petersburg version of *Forza*. (There is an exciting live reading from the '80s available on the Exclusive label starring Martina Arroyo and Kenneth Collins from the BBC, but it is not competitive sonically.) The small variations between the 1862 version and the very familiar Milan version are many and interesting—those who know their *Forza* well will enjoy noting the differences in vocal lines, orchestrations, melodies. The large differences include the presence of a prelude rather than the accustomed overture, a huge, showy aria for Alvaro that closes Act III (the act still opens with "O tu che in seno..."), and a totally different finale in which Alvaro leaps off a cliff to his death, leaving everyone unsaved and in a state of melodramatic shock—which, if you ask me, better suits the tale than does Verdi's later, more heavenly ending.

Gergiev again proves himself. He leads a taut, rich performance, with fine attention paid to Verdi's orchestral colors, and he's greatly aided by the engineers, who keep balances, including voice-instrument balance, clean and clear. His orchestra plays the score with passion and understanding; the chorus is just as good (save in the crucial "Vergine degli angeli" scene, where they seem to lose concentration).

Gorchakova is a thrilling Leonora with a big, dramatic voice that, sadly, is not always under control. She can't sing pianissimo and rarely even tries, and the tone occasionally spreads and flies off-pitch at the top. But she's a major artist and is highly effective nonetheless. Grigorian's Alvaro is likewise successful. I can't actually think of another working tenor who could get through this music with the right weight and declamatory powers. And that extra aria is a brute—far too heavy and high for,



say, Domingo. Putilin, despite strain at the top of his voice, is an ideal Carlo, singing off the words even more than his colleagues and coming across as a ferocious character. Borodina has no trouble with Preziosilla's ridiculous music, and Zastavny's Melitone is, for a change, not a clown. It's a pity about Kit's Guardiano—five years ago he would have had few of the focus and pitch problems he exhibits here. He has authority, but the role really needs a rolling bass sound, which Kit can no longer muster.

All in all, and despite its shortcomings, this important release, which adds to our understanding of Verdi's creative process, is self-recommending to all Verdi lovers.

—Robert Levine

## STAGE & SCREEN

### FLOYD COLLINS

#### *Original Broadway Cast*

Music and lyrics by Adam Guettel, book by Tina Landau

Christopher Innvar, Floyd Collins; Jason Danieley, Homer Collins; Jesse Lenat, Jewell Estes; Theresa McCarthy, Nellie Collins; Cass Morgan, Miss Jane; Don Chastain, Lee Collins; others: Ted Sperling, cond.

Nonesuch 79434-2 (CD). 1997. Tonimy Krasker, prod.; Tomi Lazarus, eng. DDD. TT: 68:27

Performance ★★1/2

Sonics ★★

Is it an album of old-time Kentucky country music? A pop opera? Or cutting-edge musical theater that peers beyond Stephen Sondheim? Let's keep it simple: Though it got lost amid such attention-grabbing shows as *Rent* and *Bring in da Noise, Bring in da Funk*, *Floyd Collins* was, in some camps, the best musical to come out of the 1995–96 New York theater season. It's not hard to see why: It's based on the true story of Floyd Collins, who in 1925 was exploring a cave as a possible tourist

attraction, got trapped by rocks, and died after an extended siege that turned into one of America's first media circuses. Though often infectiously catchy, this musical might have come with a warning label: "THIS MUSICAL IS SERIOUS, CYNICAL, AND DOWNBEAT."

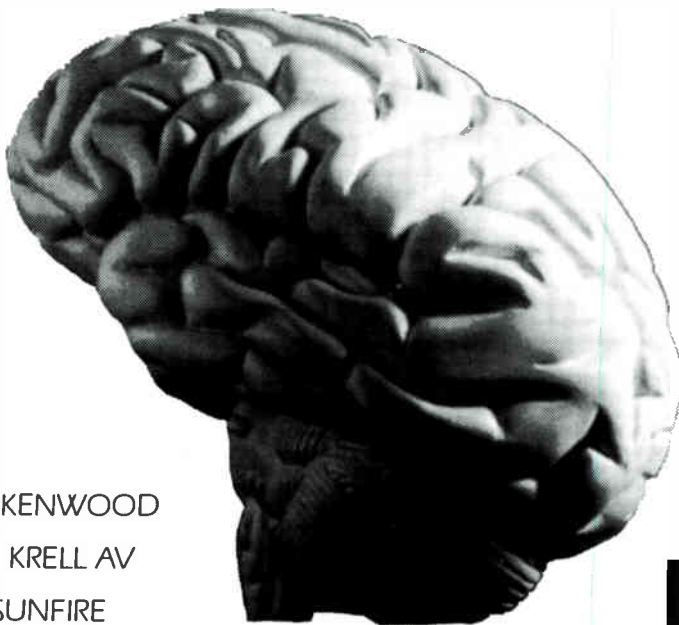
With little hope of commercial gain, Nonesuch leapt in and captured the original cast album on tape. With any luck, history will prove it to be a visionary move. It signifies the recording debut of composer/lyricist Adam Guettel, grandson of Richard Rodgers and son of Mary Rodgers. Compared with Rodgers & Hammerstein's *Oklahoma!*, a musical that also portrayed inarticulate backwoods people, *Floyd Collins* has no hit tunes but is infinitely more authentic. Guettel embraces the Kentucky bluegrass and 1920s swing styles wholeheartedly, opening up the standard ABA and ABAB format to accommodate the operatic weight of Tina Landau's libretto. He also brings to these styles a breathtakingly virtuosic technique. In one of the early scenes, when Floyd first discovers his cave, he sings in counterpoint to his own echo with a dazzling array of melodies that all coalesce into a perfectly unified whole.

Guettel's lyrics are full of clever, accomplished rhymes, but, unlike Sondheim, they're never guilty of calling attention to themselves. At every turn they reveal something deep about the psychology of the characters. One of the most remarkable moments is the "Riddle Song" that closes Act I: Floyd, by this time trapped, plays a riddle game with his brother Homer to pass the time, with good-natured insults and undercurrents of desperation for and exaltation of the daily pleasures they once took for granted. Most Broadway composers would be hard pressed to handle any one of those elements convincingly. Guettel does it all at once.

Guettel's best moments are the final minutes of Act II. As Floyd begins to die, all of the important themes of the show are reprised, deliriously superimposed on each other, as if his life were passing before his eyes. The final song, "How Glory Goes," is Floyd's litany of questions about what death will be like. It includes every Bible School cliché as well as thoroughly adult fears about loneliness and detachment from earthly life.

Nonesuch went all the way in the packaging of *Floyd Collins*, with notes by playwright John Guare, a grainy photograph of the real Floyd, and reproductions of newspapers that covered the event. One does wish that producer

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Tommy Krasker had taken a firmer hand with the score: While the recording faithfully represents what we heard onstage, accommodations should have been made for CD-only listeners who might be puzzled by some of Floyd's more eccentric yodeling in Act II, or jarred by some of the abrupt song endings. However, the cast masterfully projects each character's personality, sounding convincingly Kentuckian without resorting to stereotypes. Standouts include Christopher Innvar in the title role and Jason Danieley as his brother Homer. Those with a serious interest in the American musical shouldn't miss this under any circumstances.

—David Patrick Stearns

## RAGTIME

### The Musical

World Premiere Recording. Music by Stephen Flaherty. Lyrics by Lynn Ahrens. 1996 Toronto Cast. Ted Sperling, cond.  
RCA Victor 68629-2 (CD). 1996. Jay David Saks, prod.; James P. Nichols, eng. DDD. TT: 62:07  
Performance ★★★★★/2  
Sonics ★★★★★/2

For lovers of the musical theater, hope springs eternal. Sure, we've been disappointed by new shows that merely rehash old ideas in a way that just highlights how much better the old shows were. We've had to endure shows that were critically acclaimed yet had no music that could be described as tuneful or memorable. Yet somehow, with each new show or cast recording, we hope that maybe this time we'll be lucky, maybe this time we'll win.

Well, folks, that great come-and-get-it day has arrived! Or, at least, it's about to arrive. After a successful run in Toronto, *Ragtime* is set to open on Broadway in December 1997. The impetus for the musicalization of E.L. Doctorow's best-selling novel came from Toronto producer Garth Drabinsky, whose Livent Corporation was responsible for the reworking of *Kiss of the Spider Woman* that went on to Broadway success, and whose production of *Show Boat* received the Tony Award for Best Revival of a Musical in 1995. As Marty Bell tells the story in the informative notes that accompany the CD, the producers started from scratch, actually auditioning eight composer/lyricist teams and individuals by asking them to write songs for the planned musical; the selection of the composer/lyricist was made by listening blind to the demo tapes. Stephen Flaherty and Lynn Ahrens emerged as the unanimous choice from these listening sessions. Flaherty and Ahrens' previous work includes *Lucky Stiff*, an Off-

Broadway show with a charming score; *Once On This Island*, interesting but limited in musical scope; and *My Favorite Year*, a would-be-big-time show that went down in flames.

Flaherty and Ahrens' score for *Ragtime* is the best I've heard since *Les Misérables*, and establishes the pair as a major force in the American musical theater. Flaherty's music shows a depth and breadth of musical imagination that transcends any of his previous work. It draws on established musical traditions and styles (as one would expect, ragtime is a significant influence), and is at the same time fresh and original. Flaherty is a prodigious melodist, and *Ragtime* has some startlingly beautiful tunes. Ahrens' lyrics are deceptively simple yet appropriate, at times quite clever, yet without a hint of cleverness for its own sake. The fit between music and lyrics recalls the great collaborations of Rodgers & Hammerstein and Lerner & Loewe.

One of the ways I gauge my reaction to a CD is by the number of times I press the "Next" button on the remote control—there are relatively few cast recordings that I can listen to all the way through without using this digital equivalent of the hook. However, with *Ragtime*, if the remote had no "Next" button, I'd hardly miss it. Even the comedy/novelty numbers—not my favorite parts of musicals—have bits of melody that catch the ear and maintain interest. There are one or two numbers that seem a bit contrived and weak in melodic inspiration, but "Your Daddy's Son," "New Music," "Journey On," "Make Them Hear You," "Back to Before," "Ragtime," and, especially, "Wheels of a Dream" stand comparison with some of the best that the Broadway theater has had to offer.

And what a cast! Brian Stokes Mitchell, who carries the difficult central role of Coalhouse Walker, Jr., gives a finely nuanced performance of great musical and dramatic power. He is matched by Audra McDonald (a touching, beautifully sung Sarah), the heavenly Marin Mazzie as Mother, Peter Friedman's innocent and childlike Tateh, and Mark Jacoby, the old-fashioned Father trying to make sense of a world that's changing around him. Another star of the recording is the ensemble, which features the best voices from six other current Livent shows running in North America. Under the musical direction of Ted Sperling, the orchestra—mostly members of the Toronto Symphony—does full justice to William David Brohn's brilliant orchestrations.

The recording was made over a three-



The voices of *Ragtime*: Audra McDonald and Brian Stokes Mitchell.

day period at Toronto's Manta Eastern Sound. Although not quite purist in approach (in a commercial studio environment, multimiking/multitracking rules), the cast and orchestra were recorded together in real time, and the sound has clarity, depth, and startling dynamics. RCA/BMG is committed to recording the original cast when *Ragtime* reaches Broadway. They'll have a tough time equaling, let alone surpassing, the concept album. For me, this is the Recording of the Year.

—Robert Deutsch

## THE SIMPSONS

### Songs in the Key of Springfield

Original Music from the Television Series  
Rhino R2 72723 (CD). 1997. Alf Clausen, prod.; Gary Stewart, Robert L. Emmet, exec. prods.; Rick Riccio, Cary Butler, Armin Steiner, engs. AAD? TT: 55:55  
Performance ★★★★★/2  
Sonics ★★★★★

Somewhere along the way, *The Simpsons* morphed from a string of wicked one-liners that Groucho would have loved into a hit, albeit twisted, comedy series. After seven seasons Matt Groening's baby has increased its ratings, convinced even the cartoons-are-for-kids mindset to tune in, and, yes, beat out *The Flintstones* for the title of the longest-running animation series in prime time.

The key to enjoying the show has always been a working knowledge of pop culture. If you don't watch TV, go to the movies, listen to music, and/or did not draw a breath during the '70s, the show's humor will sail over you like the Duff Beer blimp. But if you're the least bit conversant in pop culture, the jokes hit. The same holds true with the music, whose lyrics usually have jagged edges. For example, when the damaged denizens of Springfield decide to stage a

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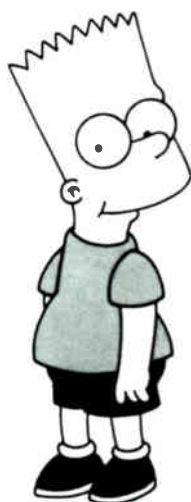
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community playhouse version of *A Streetcar Named Desire* (with the voice of Jon Lovitz as director), the title tune "New Orleans" has verses that go, "New Orleans! / Stinking, rotten, vomity, vile / New Orleans! / Putrid, brackish, maggoty, foul" and a chorus that concludes, "If you want to go to hell take a trip / To Sodom and Gomorrah on the Mississipp." When Homer joins a secret organization called the Stonecutters (whose activities he describes as "beer busts, beer blasts, keggers, AA meetings, Stein hoists..."), their anthem is "We Do," in which they confidently claim shadowy responsibility for rigging Oscar night, burying the introduction of the electric car, controlling the British Crown, and keeping the metric system down.

Although he obviously knows his Carl Stalling—famous musical quotes, always a Stalling trademark, are used extensively in both the show and its end credits—*Simpsons* music director Alf Clausen prefers song parodies to sound effects. It's no surprise, then, that the most successful numbers here—both musically and in terms of comedy—are frolics like Homer's "It Was a Very Good Beer," the country spoof "Bagged Me a Homer" by aspiring star (and Homer-as-Colonel Parker protégée) Lurleen (the voice of Beverly D'Angelo), and Reverend Lovejoy's unforgettable rendition of "In-A-Gadda-Da-Vida." Like the Warner cartoons, a virtual army of players, singers, and voices all work very seriously on these deliberately silly musical confections. The only gross omission here is the group of songs from the recent and very classic "Sherry Bobbins" episode.

Again, if you get the show, you'll find this disc a hoot. But even nonbelievers will smile. Using dialog from Julie Kavner, Harry Shearer, and the rest of the cast to string the musical numbers together, this disc has more than a few hilarious moments. While the dialog will always be the star of this show, the music has become more prominent in recent years. Lacking the verve and many-faceted brilliance of Raymond Scott's work with the Warner 'toons, the *Simpsons'* ever-increasing body of music is still worth a listen, and hopefully a laugh or two.

—Robert Baird

## 2001: A SPACE ODYSSEY

### Original Soundtrack

Rhino R2 72562 (CD). 1997. Rick Victor, David McLees, prods.; Dan Hersh/DigiPrep, Chris Clarke, engs. AAD? TT: 78:51  
Performance ★★★★★  
Sonics ★★★★★

It was with keen anticipation that I opened a copy of the original motion picture soundtrack of Stanley Kubrick's 1968 epic *2001: A Space Odyssey*. On a musical level it took me back to my youth, when music became something more than a hobby and the audio bug bit me hard, when men were men, and audiophiles stalked the streets of Tombstone looking for turntables that could track the cannon shots on the *1812 Overture*.

Now available on CD for the first time, thanks to those lovely archivists at Rhino, this release is a real event for audiophiles, music aficionados, and film buffs alike. How many high-end pilgrims found themselves employing the soundtrack's stirring rendition of *Also Sprach Zarathustra* to audition speakers, cartridges, and power amps based upon their ability to reproduce the larger-than-life dynamics of Richard Strauss's moaning organ pedals, heraldic brass, thundering drums, and crashing cymbals? Hey, how many people in 1968 were even listening to Richard Strauss, let alone his obscure orchestral tone poem for Friedrich Wilhelm Nietzsche?

Not many, and that's part of the enduring grandeur of Kubrick's soundtrack. While few people ever ventured past the intro to explore the rest of *Zarathustra* (quite different in mood), for the first time many young listeners experienced an aural rush of adrenaline from orchestral music comparable in impact to electric rock. And outside of Frank Zappa, how many classical listeners would have had the patience to sit through the

chilling 20th-century tonalities of György Ligeti's *Requiem for Soprano, Mezzo Soprano, Two Mixed Choirs, and Orchestra* as it washed over them like lamenting waves of lost souls?

The answer is none, unless it was connected to a corresponding visual image—which is why the music on this soundtrack retains so much emotional power. Subtract Ligeti's music from the scene in which scientists uncover the monolith on the moon, and there would be no corresponding tension or mystery. Without the tolling strings from Aram Khachaturian's *Gayane Ballet Suite*, the vastness and loneliness of space is not nearly as compelling (compare this piece to Bernard Herrmann's slow elegies in *Psycho*). Without the urbane pageantry of Johann Strauss's *Blue Danube Waltz*, you'd lose the satiric edge to Kubrick's libidinous coupling of a space shuttle and a space station.

What little dialog there is in *2001* has almost no human resonance when compared to the machinelike formality of HAL 9000. That is, in part, along with its psychedelic notions of spiritual rebirth, one of the movie's main themes—all of which are conveyed through the symbiosis of visual images and music. Surely the use of classical music in movies and television was nothing new in 1968 (you can hear Liszt's *Les Preludes* in the Flash Gordon serials, and Rossini's *William Tell Overture* is forever bound to *The Lone Ranger*), but heretofore it had been used mainly as thematic wallpaper—in *2001*, it was an integral element of the entire exposition.

Which is why, with its bonus tracks of supplemental material (including both the film and soundtrack renditions of *Zarathustra*, an unedited version of Ligeti's *Adventures*, and a dialog montage featuring HAL the computer), *2001: A Space Odyssey* is still capable of projecting an extraordinary range of images upon your mind as your transducers shout with delight.

—Chip Stern

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MCA MCA104-11353 (4 CDs). 1996. Various original engineers & producers. Paul Elmore, reissue digital preparation & assembly; Ron O'Brian, prod. AAD/A1D1/D1D1. TT: 5:04:51

Performance ★★★★★

Sonics ★★★★★

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**Stereophile Recommended Component 4/97, page 151, Goertz AG and Goertz Copper RCA.**

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**Stereophile, 3/96, p. 114, Interview, Ulrik Poulsen And His Amazing Flat Cables, Jonathan Scull.**

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**Stereophile Recommended Component, 4/1997, p. 153, Goertz MI AG 2 and MI 2 \$\$\$ Speaker Cables.**

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**Stereophile, March 1996, page 118, Jonathan Scull.**

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the "Greatest Hits" approach: select the best-known numbers from previously released CDs, perhaps organizing them by the type of song (eg, duets), chronology, or composer/lyricist. For a real show-music fan, these sorts of releases are of very limited interest: chances are, you already have the complete recordings the selections are taken from.

It's also not unusual for the compilations to sound worse than the originals, because they often derive from tapes that are removed a generation or two from the masters. A very different kind of compilation is where there's a serious attempt to select more obscure material, typically from recordings that are collectors' items, and even previously unreleased alternate takes of well-known numbers. This is the approach taken in *Front Row Center: The Broadway Gold Box*.

Compiled by Max Preco, editor of *Show Music* magazine, the collection includes selections from some classic shows (*Oklahoma!*, *Carousel*, *The King and I*, *Porgy and Bess*, *Annie Get Your Gun*, *Anything Goes*, *Guys & Dolls*, *Man of La Mancha*). Some are previously unreleased alternate takes, others have been remixed from the original three-track masters. The alternate takes are interesting to hear, although comparison with the versions that made it to records reveals that, in most cases, the producers made the right decision.

The real strength of this collection lies in the presentation of little-known shows, and recordings that have not been available for some time. *Mexican Hayride*, *Follow the Girls*, *Lute Song*, *Take A Chance*, *Look Ma I'm Dancin'*, *Texas*, *Li'l Darlin'*, *Seventh Heaven*, *The Amazing Adele*, *Doonesbury*—the list goes on and on. My favorites include "The Eagle and Me" from *Bloomer Girl*, "Too Long at the Fair" from *The Billy Barnes Revue*, "Shy" from *Once Upon a Mattress*, "I Wouldn't Bet One Penny" from *Donnybrook*, "You'd Better Love Me" from *High Spirits*, and "Night Letter" from *Two Gentlemen of Verona*. There are some shows with generally nonmemorable scores that nevertheless have one or two great songs, and Max Preco has an uncanny ability to pick these out: eg, "Hard Candy Christmas" from *The Best Little Whorehouse in Texas*, "River in the Rain" from *Big River*, and "I'll Always Remember the Song" from *Romance/Romance*.

You want stars? You got stars: Ethel Merman, Mary Martin, Beatrice Lillie, Eddie Cantor, Alfred Drake, Vivienne Segal, Nancy Walker, John Raitt, Ray Bolger, Vivian Blaine, Gertrude Lawrence, Rosalind Russell, Sammy Davis,

Jr., Delores Gray, Tammy Grimes, Carol Burnett, Richard Kiley, Bernadette Peters, Patti LuPone. Although the recordings from the '30s and '40s may leave something to be desired in terms of technical quality, it's good to hear these performers early in their careers, fresh of voice and before style had a chance to develop into mannerism.

Given the sources, sound quality is really not bad. Whenever possible, they've gone back to the original masters, and, in the case of the earliest recordings, there's been some CEDAR restoration by Steven Lasker, who has managed to get rid of most of the ticks and pops without shaving off too many of the high frequencies.

Worth almost the price of the collection is the accompanying booklet, with historical notes by Max Preco and some wonderful pictures. Solid gold indeed.

—Robert Deutsch

## ROCK

### JOHN LEE HOOKER

#### *Don't Look Back*

Pointblank 122072 (C11). 1997. Van Morrison, prod., except for "Dimples": Los Lobos with Mario Caldato Jr., prods. Jim Stern, Samuel Lehner, Mario Caldato Jr., Mick Glossop, engs. AAI? TT: 53:14  
Performance ★★★★★  
Sonics ★★★★★

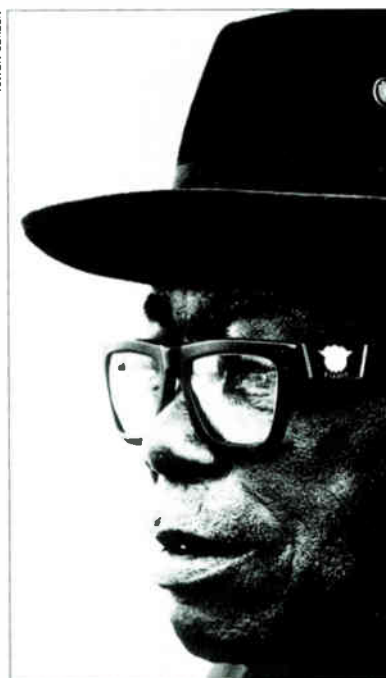
**T**he great blues artists have shown the ability to sustain their brilliance all through life, but the artistic renaissance of John Lee Hooker in the 1990s is nothing short of incredible. At 79, Hooker has just released one of the greatest albums of his career, *Don't Look Back*.

The record is produced by Van Morrison, who shares vocals with Hooker on several tracks. Their duets are inspired exchanges, terse and full of emotion: Hooker, sly, insinuating, and always frighteningly intense, Morrison commenting on his lines in lyrical, blues-inflected yowls and exclamations.

"I've been working with Van about 10, 20 years off'n'on," said Hooker in a phone conversation from his home. "This is the first time he produced me. He was right there with me in the studio, we were singing together."

The album is a bit of a departure from the recent series that began with his 1989 comeback album *The Healer* and continued through last year's *Chill Out*.

"This is a little smoother," Hooker admitted, "but I'm gonna do what I want to anyway no matter who produce



Retired but not retiring, John Lee Hooker's got nothing to worry about except livin'.

me. They all end up doing it my way anyway and it always come out right. It's really relaxed, really laid-back. All the tunes are good."

Hooker does a bit of rural philosophizing on the title track. At one point, Morrison sings "Those days never grow old," and Hooker grimly answers, "Never come back again."

"A lot of people look back, you know," Hooker mused, "a-and they tell you don't look back, it's no good. Look ahead. Look into the future."

For Hooker, the future is now.

"I live in Redwood City outside of San Francisco," he said. "I'm almost retired. I try to be with my friends, and love people, that's about all I can do. I spend my days watching TV, watching baseball during the season. I'm into cars, I like buying cars. I get a lot of letters from fans. I think I've brought a lot of happiness to people. I play a show every now and then."

"Over the years I got ripped off time and time again. I got stepped on, ripped off, all the blues singers did. But that don't happen too much now. I can't do anything about all those records they ripped me off on, but I can do those records again now, like on this new one I redid 'Dimples' with Los Lobos, and 'Don't Look Back.'

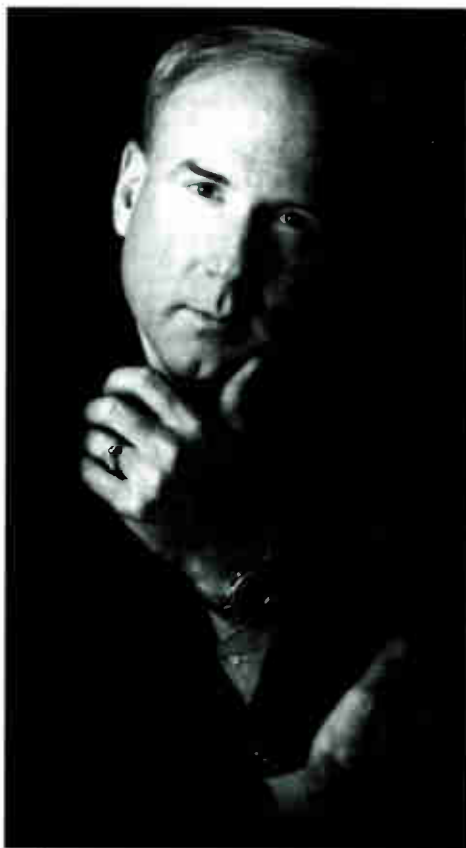
"I'm gettin' paid now. I've got good lawyers, they take care of all that. No problem. I'm doin' much better now than ever. I never have to work again if

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I don't want to. I'm set for life. It feels good to sit back and have nothing to worry about except livin'."

The dirt-poor sharecropper's life Hooker was born into in Mississippi still exists in his collar-grabbing vocal delivery, but it's a part of his history he won't dwell on.

"I haven't been back there in a long time," he said. "It was the bad time. I left there when I was very young. I had just started playing. My stepfather, Will Moore, taught me how to play when I was a young kid and I left Mississippi when I was 14 years old. Eventually

went to Detroit."

In Detroit Hooker became one of the biggest stars of the blues, defining a whole genre with "Boogie Chillen," a No.1 hit in 1948. He recorded more than 100 sides during the 1950s and '60s. In the '70s Hooker moved to California and recorded with Canned Heat, and made his first contact with Van Morrison. Hooker's music was largely ignored in the '80s, but he's become a vital force since releasing *The Healer* and helping to create a serious blues revival.

"I'm kinda surprised blues has remained as popular as it has over the

years," said Hooker. "I knew all along it was the right music for me. It's the only real music."

—John Swenson

## LAURA NYRO

### Stoned Soul Picnic: The Best of Laura Nyro

Columbia/Legacy C2K 48880 (2 CDs), 1997. Dan Loggins, compilation prod. AAD? TT: 2:04:09  
Performance ★★★★★  
Sonics ★★★★★

The late Laura Nyro had two distinct personas during the late '60s and early '70s. She was a wildly

## The Chess 50th Anniversary Collection

### CHESS BLUES CLASSICS: 1947 to 1956

Various Artists  
MCA/Chess CHD-9369 (CD), 1997. TT: 46:57  
Performance ★★1/2  
Sonics ★★★★★

### CHESS BLUES CLASSICS: 1957 to 1967

Various Artists  
MCA/Chess CHD-9368 (CD), 1997. TT: 46:35  
Performance ★★1/2  
Sonics ★★★★★

### ETTA JAMES: *Her Best*

MCA/Chess CHD-9367 (CD), 1997. TT: 60:33  
Performance ★★★★★  
Sonics ★★★★★

### MUDDY WATERS: *His Best, 1947 to 1955*

MCA/Chess CHD-9370 (CD), 1997. TT: 59:57  
Performance ★★★★★ 1/2  
Sonics ★★★★★

### HOWLIN' WOLF: *His Best*

MCA/Chess CHD-9375 (CD), 1997. TT: 55:53  
Performance ★★★★★ 1/2  
Sonics ★★★★★

### CHUCK BERRY: *His Best, Vol.1*

MCA/Chess CHD-9371 (CD), 1997. TT: 52:54  
Performance ★★★★★ 1/2  
Sonics ★★★★★

### BUDDY GUY: *Buddy's Blues*

MCA/Chess CHD-9374 (CD), 1997. TT: 53:20  
Performance ★★★  
Sonics ★★★★★

### BO DIDDLEY: *His Best*

MCA/Chess CHD-9373 (CD), 1997. TT: 58:01  
Performance ★★★  
Sonics ★★★★★

### JIMMY RODGERS: *The Complete Chess*

*Recordings*  
MCA/Chess CHD-9372 (2CDs), 1997.  
TT: 1:44:48  
Performance ★★1/2  
Sonics ★★★★★  
*All of the above: Andy McKaie, prod.;  
Erick Labson, eng.*

At this late date—ie, after it's been packaged and repackaged innumerable times—the much-vaunted glories of the Chess catalog inspire nearly as much boredom as they do adulation. Sure, this is Chicago blues at its best and rock'n'roll at its most primal, but how many Muddy Waters Best Of's does any one person need per lifetime?

This time the motivation to re-dredge the Chess vaults hinges on two slim hooks: the 50th anniversary of the Chess label (never mind that Chess was sold in 1975), and, more important, the advent of 20-bit technology. Musically, this first batch of nine releases (at least 20 are planned overall) are, of course, wonderful. Familiar, very familiar, but wonderful all the same. Compiled by Andy McKaie, MCA's able catalog guru and a man who should have a reissue Grammy named after him, these discs hold only two meager surprises: During MCA's tenure with the Chess catalog, neither Howlin' Wolf nor Etta James has received the best of treatment on record. Oh boy.

Before I go on, let me drop the jaded tone for a moment and add one "Gee Whiz" proviso: If you've been off on an interplanetary holiday or been held hostage for the past, well, to use MCA's numbers, 50 years, then these discs are beyond essential—they come right after air, water,



Chuck Berry

and televisions larger than 27" in order of life-sustaining essentiality.

That said, even the most casual music fan will have heard all this before. Except, that is for the improved sound. In some cases—Chuck Berry's "Memphis," for instance, was recorded on a Sears tape recorder in a St. Louis hotel room—there's only so much that can be sonically enhanced. But make no mistake, the Chess catalog has never sounded better. The soundstage (a term not normally associated with Chess) actually has space and presence. The separation between instruments (many of whose players remain unknown) is a new world. And vocals like Muddy Waters' "Standing Around Crying" or Howlin' Wolf's "Evil" have never had as much warmth and richness as they have here. If you know this material, then the Howlin' Wolf, Etta James, and Chuck Berry are the greatest revelations, both sonically and in terms of having it all on one disc.

—Robert Baird



Etta James

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successful songwriter, penning tunes that became major hits for the 5th Dimension ("Stoned Soul Picnic," "Wedding Bell Blues," "Blowin' Away," "Sweet Blindness"), Barbra Streisand ("Stoney End," "Time and Love"), Blood, Sweat and Tears ("And When I Die"), and Three Dog Night ("Eli's Coming"). She was also a recording artist and performer who recorded all these songs herself, and many that are equally good if not better. *Stoned Soul Picnic: The Best of Laura Nyro* anthologizes Nyro's work for the first time, collecting her own versions of her best-known songs as well as tracking

her recording career through the 1980s and '90s.

Part earth mother, part woman of the world, Nyro, who died on April 8, was an enchanting performer who wrote some of her most lasting work before she turned 21. Embodying the hopes, excitement, and confusion of Vietnam-era times, her early songs are poetic treasures, set to melodies that are hummable one moment and improvised out the next. Stripped of the pop production that made them so viable on the airwaves, Nyro's original renditions are edgier but sweeter, her vulnerable voice

navigating her songs' melodic twists and turns with complete control.

Even after her songs stopped being covered by big stars, Nyro remained true to her original style, as illustrated by the selections here from her most recent albums, *Mother's Spiritual* (1984) and *Walk the Dog & Light the Light* (1993). Of the 34 tracks on the sterling *Stoned Soul Picnic*, all but two, recorded live at the Bottom Line in New York City in 1993 and 1994, have been previously released, though there are five cuts from Columbia albums not currently available on CD, and a knock-out rocking

## The Last Laugh

### BILL HICKS

#### *Dangerous*

Rykodisc 10350-2 (CD). 1990/1997. Peter Casperson, prod.; Matt Hathaway, Nancy Albion, engs. AAI? TT: 54:34

Performance ★★1/2

Sonics ★★

#### *Relentless*

Rykodisc 10351-2 (CD). 1992/1997. Kevin Booth, prod., eng. AAI? TT: 57:42

Performance ★★

Sonics ★★

#### *Arizona Bay*

Rykodisc 10352-2 (CD). 1997. Kevin Booth, prod., eng. AAI? TT: 66:07

Performance ★★

Sonics ★★

#### *Rant in E-Minor*

Rykodisc 10353-2 (CD). 1997. Kevin Booth, prod., eng. AAI? TT: 73:56

Performance ★★

Sonics ★★

**B**ill Hicks was part psychedelic transcendentalist, part rock-'n-roll preacher with a feverish compulsion to speak the truth as he saw it. To paraphrase fellow Southerner Brett Butler, he loved the South but saw all of her faults, and imagined himself as Jesus at his angriest, running righteously through the halls of the money changers. This innovative comedian was also a first-rate guitarist, but, as is often the case with visionaries, he died way too young (in 1994 at 32 from pancreatic cancer) — just as he was starting to garner the kind of acclaim his talent deserved. Even a cursory surf through the Internet reveals the depth of that loss as felt by his rabid following.

The reasons why are outlined here over the course of four albums, two of which, *Arizona Bay* and *Rant in E-Minor*, are being released for the first time on Rykodisc as part of their Special Voices Edition. Of these four



The tongue is mightier than the sword.

discs, *Dangerous* is an echo-inflected recording, and the edits of Hicks's live performance lack a certain continuity, though there are several startling moments (such as Jimi Hendrix reducing Debbie Gibson to mall giblets). However, *Relentless*, the second album, is very good, *Arizona Bay* is remarkable, and *Rant in E-Minor* is completely over the top — cathartic acid baths of divine rage in which comedy and music intersect to raise the consciousness and afflict the comfortable.

A lot of people hear Lenny Bruce and Richard Pryor in Hicks's dark episodes, but he puts me most in mind of Lester Bangs, the late rock journalist who was also a great moralist. Hicks was like some sort of futuristic shaman, determined to shake the shit out of his audiences while forcing them to look at the full range of paradoxes and "fevered egos polluting our collective unconscious" even as he hinted at a sense of oneness for mankind.

Rendered in often graphic lan-

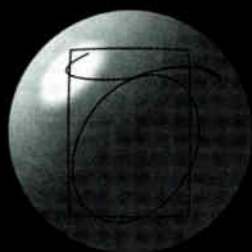
guage and imagery (Hicks's portrayals of Rush Limbaugh and Jesse Helms on *Rant in E-Minor* are worthy of Hieronymous Bosch), these are among the most cutting-edge comedy records of the last 20 years. And with each successive album Hicks's use of guitar music (a gentle, engaging amalgam of blues and rock à la Hendrix and the Dead) added to the intensity of his aural collages. His rendition (on *Relentless*) of "Chicks Dig Jerks" has attained cult status: "Hitler had Eva Braun / Manson had Squeaky Fromm / Ted Bundy had lots of dates / I wonder what I'm doing wrong / I can't account for women's little quirks / but one thing's for certain is that chicks dig jerks."

As several of his colleagues have noted, Bill Hicks wasn't angling for the TV sitcom with the goofy neighbor, but dealt head-on with a variety of hot-button issues: he was an unapologetic champion of marijuana and psilocybin mushrooms, decried the commercialization of music and the "Persian Gulf distraction," heaped abuse upon anti-abortion and anti-smoking fanatics alike ("nonsmokers die every day — sleep tight"), expressed a taste for pornography (even as he railed against the hypocrisy of using sex as a come-on in the media), and suggested that perhaps Jesus hadn't returned because he didn't want to look at another cross.

Why speak of all this in an audiophile magazine? Because with each successive recording, Hicks's mixture of music and outrage achieved new levels of aural sophistication, moral intensity, and spiritual clarity — like a good squeegee for your third eye. He'll be missed.

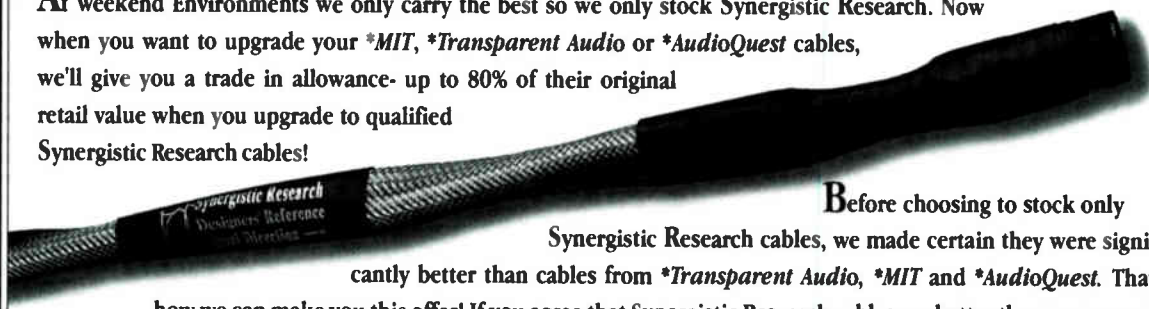
— Chip Stern





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version of the politically charged "Save the Country," previously available only as a hard-to-find single.

Though her spirit and inspiration were clearly born in an era free of the weights of self-consciousness and ego that bog down the would-be poets of today, the songs of Laura Nyro have a fresh timelessness to them. When she sang, Nyro laid her soul on the line, and as a result her songs sound as good today as when they were first released. From Rickie Lee Jones to Shawn Colvin and Suzanne Vega, many younger performers have been indelibly influenced by Nyro's originality, her gentle spirit, and her hypnotic songs. So like that enticing potion that the singer in "Sweet Blindness" enjoys down by the grapevine, Laura Nyro's music lives on, filled with "a little magic, a little kindness," and a whole lot more.

—David Sokol



## SAM RIVERS

### *The Complete Blue Note Sam Rivers Sessions*

Sam Rivers, tenor and soprano sax, flute; James Spaulding, alto sax, flute; Freddie Hubbard, Donald Byrd, trumpet; Julian Priester, trombone; Jaki Byard, Herbie Hancock, Hal Galper, piano; Ron Carter, Herbie Lewis, Cecil McBee, bass; Tony Williams, Joe Chambers, Steve Ellington, drums  
Mosaic M133-167 (3 CDs). 1997. Alfred Lion, prod.; Rudy Van Gelder, eng. AAA/AA1. TT: 3:18:26

Performance ★★★★★  
Sonics ★★1/2

In an age of clones and classic jazz wannabes, Sam Rivers remains a beacon of visionary integrity. Even as an emerging "New Star" in the 1960s, Rivers was very much his own man, and over the course of three CDs, *The Complete Blue Note Sam Rivers Sessions* presents a compelling portrait of a post-bop pioneer in transition.

That's because, at the time Rivers began to record for Alfred Lion's Blue Note label in December 1964, the nascent free-jazz movement had polarized a scene that for some had come to represent emotional content at the expense of disciplined technique. But Rivers' roots in gospel, blues, and R&B, the macho tenors of the swing era, and the harmonic and rhythmic breakthroughs of Dizzy Gillespie and Charlie Parker (plus a long apprenticeship on the Boston scene of the '50s and early '60s) gave his music a sense of the familiar, but with a pronounced edge.

On "Fuchsia Swing Song," the first of



these four sessions, with Jaki Byard, Ron Carter, and Tony Williams (Williams had been a key collaborator since they first played in 1959, when the drummer was 13), Rivers works within seemingly traditional forms, grounded in harmony and meter; in the four takes of "Downtown Blues Upstairs," Byard's comping and soloing span the whole history of jazz piano. But the unexpected hesitations of "Ellipsis" and the rhythmic changes of "Luminous Monoliths" hint at a new freedom most eloquently portrayed in Rivers' bracing tenor sermons: he delights in extending and suspending phrases, moving out of meter, and superimposing oblique vocal inflections to counteract the tunes' swinging symmetry.

Of the remaining three sessions from 1965–67, the second, which yielded "Contours," has the most resounding sonic impact and the best interplay—with a band consisting of Freddie Hubbard, Herbie Hancock, Ron Carter, and Joe Chambers. The third session, with Rivers' working group of the time, is a remarkable collection of standards that illustrates just how much harmony can be elasticized without breaking. And the pianoless final session (unreleased at the time of its origin), with its front line of two reeds and two brasses, offers the freest depiction of Rivers' vision.

Over the course of four years you can hear a new music emerging in which the elemental power of Rivers' playing rises to match the organic certitude of his writing. From the lurching intervallic leaps of "Mellifluous Cacophony" to the elegant harmonic embellishments of "What a Difference a Day Makes," from the complex open voicings of "Paean" and "Précis" to the roaring polyphony of "Effusive Mélange," the music documented on *The Complete Blue Note Sam Rivers Sessions* stands proudly with the best of '60s icons Ornette Coleman, Eric Dolphy, and John Coltrane. —Chip Stern

## KENNY WHEELER

### *Angel Song*

Kenny Wheeler, trumpet, flugelhorn; Lee Konitz, alto sax; Bill Frisell, electric guitar; Dave Holland, bass  
ECM 78118-21607-2 (CD). 1997. Manfred Eicher, prod.; Jan Erik Konshaug, eng. DDI. TT: 70:04  
Performance ★★★★★  
Sonics ★★★★★

I've always resisted the notion of an ECM style of music. Nevertheless, many of the best ECM productions evince the same kind of intimacy and collective coherence as traditional chamber music—which is ultimately the charm and appeal of trumpeter Kenny Wheeler's *Angel Song*, as serene and melodic a modern jazz outing as I've heard in some time.

For whatever reason—misplaced political correctness or lack of visibility on the US jazz scene—Kenny Wheeler is among the most underrated of trumpet virtuosos. There's an ease of execution, a poignant human quality to his distinctive timbre. On "Angel Song," listen to his fluttering descents into the lower register, the cracked yet powerful vocal inflections, and the sudden emission of high harmonics as he leaps into the horn's upper register—it sounds as if a whistling column of air is slowly leaking from a balloon.

Much of the music on this drummerless outing has a moody Spanish tinge ("Present Past") or a raga-ish Nordic gravity ("Unti"), and the rich, full sound Wheeler elicits from his trumpet and flugelhorn is every bit as meaningful as the melodic contours of his lines. In alto player Lee Konitz, Wheeler is matched with a lyrical player whose ease of phrasing, rhythmic buoyancy, and sense of adventure match his own. On "Omno," the jazziest selection in this recital, as it were, bassist Dave Holland's fluent 4/4 pulse and electric guitarist Bill Frisell's evocative minor voicings form a seamless web of open harmonies for Wheeler and Konitz to bounce off of, leading to a contrapuntal dialog redolent of Lennie Tristano's visionary late-'40s designs. And on "Kind Folk," bassist Holland sets everything in motion with a rhythmic cycle in six that suggests African rhythms, as Frisell tolls quietly away and Wheeler plays cat-and-mouse with the beat, building tension with long, bop-pish lines and long, lazy tones.

As for the sonics, they're what you'd expect from ECM. Eicher and engineer Jan Erik Konshaug bring a remarkably human touch to digital sources—warm, airy, and detailed. —Chip Stern

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# MANUFACTURERS' COMMENTS



## Balanced Audio Technology VK-P10

Editor:

We would like to express our appreciation to Jonathan Scull for his thorough review of the VK-P10 phono stage in June [Vol.20 No.6, p.171]. The high versatility of this product makes such a review a painstaking process. The musical enjoyment that Jonathan received from his favorite records seems to be a fair reward for such an undertaking. We are gratified that with the VK-P10 balanced phono stage, Jonathan had "never heard the RG-8 Symphonic Line cartridge sound so good."

We would like to address one observation made by Tom Norton in the measurements section—namely the ability of the VK-P10 phono stage to drive a gruesome 150 ohm load. This also invites a brief discussion of one very important but generally misunderstood subject. It can be referred to as the source-load interface.

Needless to say, phono stages are not designed to drive 150 ohm loads. They are destined to work into the high input impedance load of a typical line-stage preamplifier or power amplifier (in the case of a system with a direct connection). Indeed, Tom Norton pointed out that his testing in this area is "of mainly academic interest." This information is, nonetheless, very useful to understanding relevant aspects of design philosophy at Balanced Audio Technology. The VK-P10 did admirably well in this unusual test—it drove the 150 ohm load to a full 2V signal level. To understand the uncommon nature of such a feat, let us say for now that this translates into 10mA peak signal load current. Very few phono stages or line-stage preamplifiers are capable of such a drive. Therein lies the true nature of the Balanced Audio Technology trademark high-current design approach.

There are at least three major design elements that define circuit behavior when connected to various loads. One is the peak signal current that the output stage can supply. Another is the value of the output capacitor, typically found in vacuum-tube products. The last one is circuit output resistance. In many cases the discussion concerning the source/load interaction is limited to just this last one. And very unjustly so, because although the source resistance does play its role in such interaction, it is often secondary

when compared to the contributions of the other two parameters.

The output impedance contribution comes in two ways: the reduction of the signal magnitude and the creation of a high-frequency pole in the system frequency response. The resulting signal-magnitude reduction (1 or 2dB in most cases) is typically insignificant. The presence of the high-frequency pole (high-frequency cutoff point) simply dictates that the total capacitance of the signal cables connected to the preamplifier output should be kept below a certain value. For example, in the case of a preamplifier with 1k ohm output impedance, the cable capacitance should be limited to 5000pF in order to preserve a 30kHz system frequency response. Such a condition is easily met by any "normal" home system, where the cable length usually doesn't exceed 20'.

The value of the maximum signal current available from the output stage is usually not found in any product literature for one simple reason: it is usually quite low. In this respect the VK-P10 with its 19mA current delivery easily sets the standard. Where the traditional cathode follower output stage runs out of steam at 2mA or 4mA, the VK-P10's plate-loaded output stage just keeps going.

This represents a marked contrast with the behavior of some top-rated products when subjected to such demanding loads. Fig.1 shows one such example. Note the unstable performance into such loads as the combination of limited current output and feedback related instability yield a marked deviation from linearity. Here the contrast with the VK-P10's graceful

degradation is clear. For further insight into this complex subject, see page 6 of the VK-5 white paper on the importance of graceful degradation to proper engineering design. (The text is available at [www.balanced.com](http://www.balanced.com).)

The third parameter that we mentioned is the value of the output capacitor. For a number of reasons it was selected to be 1μF in the VK-P10. This value, together with the corresponding line-stage input resistance, sets the low-frequency cutoff point of the system frequency response. In the VK-P10's case, the full frequency response is preserved as long as the input impedance of your line stage is over 10k. We know of no line preamplifier that would violate this requirement. (The balanced preamplifiers with 600 ohm input impedance usually incorporate an impedance switch that changes the input impedance to a high value.) Therefore, the VK-P10 phono preamplifier presents no issue when being used with virtually any line-stage preamplifier in existence today. The special needs of customers facing some uncommon interface problems can be addressed through a very simple modification.

Finally, though Jonathan Scull feels that the VK-P10 sounded most similar to units costing \$25,000, we recognize that the \$4000 price of the VK-P10 puts this reference product out of the range of many audiophiles' budgets. We believe that *Stereophile* readers should be aware that we now offer a VK-P5 balanced 10-tube phono stage for only \$1995.

Again, our thanks to Jonathan Scull for keeping the analog fires burning brightly.

Victor Khomenko

Balanced Audio Technology

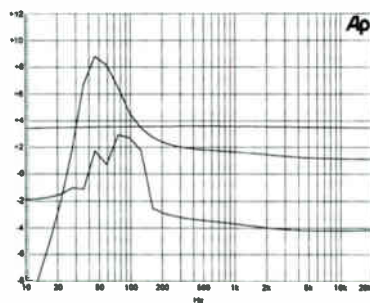


Fig.1 B.A.T. VK-P60 frequency response at 1V output from (top to bottom at 10kHz) into 100k ohms, 600 ohms, 150 ohms (2dB/vertical div.).

## Martin-Logan Aeries i

Editor:

A few thoughts on room placement. In many rooms, we have found that due to the controlled dispersion of our star panel, Martin-Logan products tend to give relatively good performance immediately in most rooms if the setup procedure in the manual is followed. In many instances, good performance is easier to obtain than with most "point-source" products. Sam Tellig is correct, though, when he indicates that higher performance can be achieved with careful and skilled "tweaking."

Actually, the Aeries can work well in relatively large rooms if one does not over-

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Thanks again for a revealing and fun review.

Gayle Sanders  
President, Martin-Logan, Ltd.

## Shure V15VxMR

Editor:

Michael Fremer is undoubtedly the foremost commentator on the analog scene today, and this review demonstrates why. In our experience, it is rare to find such sound theoretical knowledge and absolute factual accuracy in an in-depth equipment report that covers as much ground as this one does. We are indeed fortunate to have such an articulate and thoughtful critic serving our industry.

Notwithstanding the above, we do differ with Michael on some aspects of phonograph cartridge performance. In particular, it has not been our experience that the performance of \$300 moving-magnet cartridges is necessarily inferior to that of higher-priced moving-coils. Rather, their respective sound-reproduction characteristics are different.

Generally speaking, the V15VxMR and its predecessor, the V15MR, have been characterized as sounding neutral and without a certain briskness that many listeners seek. Yet when voicing such perspectives, most listeners also note that the detail, warmth, and musicality that result from a smooth, resonance-free output signal and unmatched mechanical dynamic range such as the V15's are very desirable characteristics.

Real-life musical performances using acoustical instruments are very delicate, asking the listener to reach out toward the performers for the fullness of the experience. Choral voices are breathy and almost angelic in nature. We believe that the V15 achieves that kind of quality in its rendition of recorded music. To fairly evaluate the capability of this transducer, the comparison that *should* be made is to a live performance, *not* to another system component that contains its own distinctive biases and idiosyncrasies.

When using a V15, the listener has the choice of adjusting the various system controls to modify/extend the sound, causing powerful passages to envelop the room with clean high levels, while not suffering from the sonic intensity of a constantly present resonance that can

soon fatigue the ear and tire the mind (as is often the case for alternative cartridge designs).

The point is made in the equipment report that this "high-performance" cartridge should not be used on a high-mass arm. Also noted is the efficacy of the V15's "Dynamic Stabilizer," which provides damping at the ideal location: the cantilever end. This feature, in fact, renders the V15VxMR an excellent match to a tonearm of any mass.

The origins of the stabilizer go back to the era of the Garrard L100 turntable. The V15 Type III was to have been the highest-compliance stylus structure that could practically be built. But to our great dismay, this combination could barely manage any but the flattest of discs. In all other cases, the arm/cartridge would leap from the record surface and bound across the bands.

From that time on, all Shure stylus structures have been designed to strict limits of compliance, and adjusted to place the compliance-mass resonance in the region between record warp frequencies and the lower limit of the audio information band. To tame residual undesirable energy, the stabilizer was placed at the most effective tonearm position, on the pickup itself. The effect of the damping is quite pronounced with tonearms of any effective mass value, but most striking is when the stylus compliance and arm mass result in a resonance frequency in the optimum 8–10Hz range. The structure is the least sensitive to outside stimulation, and is well-damped to boot.

To carry Michael Fremer's analogy further, just as *any* car should have a shock absorber, so *any* tonearm/cartridge should have a damper. Only the V15 provides for this.

Finally, it was observed in this review that "Shure hasn't changed its basic cartridge construction technique since the M3D way back when." Although the M3D and all later Shure pickups, including the newest V15VxMR, share the convenience of a stylus design that permits quick placement by the user, little else has been carried forward from the older generations. Materials, geometry, and production methods have been cautiously revised and optimized since introduction of the M3D in 1959. To emphasize, any similarity between the earliest and the latest cartridges is to ignore the great contributions made to record reproduction technology over the past 40 years.

Despite the differences noted, we wish to thank Michael Fremer for his unique contribution to our industry, and for this most illuminating look at high-performance phonograph cartridges.

Robert M. Kita  
Manager, Design Engineering Services  
Shure Brothers

## Mission 754 Freedom 5

Editor:

We would like to thank *Stereophile* for a most comprehensive review of our 754F model. We are quite pleased with the results of this test, especially in the company of other speakers costing typically two to three times the price. We would, however, like to clarify a few points.

1) Some fuss was made over the response anomaly around 600Hz. This is grossly exaggerated due to the nearfield measurement. This stems from the inevitable back-wall reflection of the mid-range enclosure and can be easily eliminated by applying heavy damping to the acoustic volume behind the driver, which would inevitably destroy the dynamics of the midband. We chose instead to apply minimal damping optimized for the most transparent and dynamic response. Further, we have no evidence that this very high-Q feature is detrimental to the sound quality.

2) The very tight bass response characteristic of the 754F was part of the design brief and was successfully implemented through the bandpass approach. There are many loudspeakers, smaller and larger, that produce "apparently" more extended bottom end than the 754F's; however, not many reproduce with the precision and the real weight of this model. Additionally, an important consequence of this downward-firing bandpass design is its relative immunity to room placement.

3) The mention of treble hardness at higher volume levels would have to be read in the context of the ancillary equipment used. We are pleased that Tom tried a different CD player and got better results.

Henry Azima  
Mission Group

## Reference Line Preeminence One and Two

Editor:

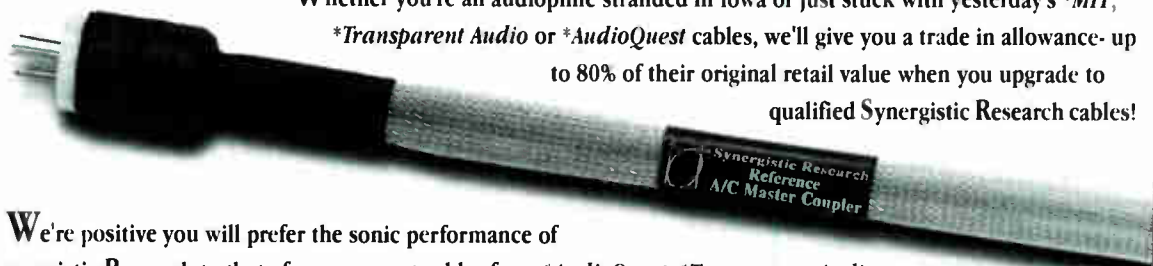
We at Reference Line greatly appreciate Steven Stone's incisive, complimentary review of our Preeminence Two and our Model One Silver Signature. Furthermore, we respect his straightforward, no-nonsense review/evaluation approach. Steve's style conveys relative information in lieu of hyperbolic "tales from audioville." Bravo! Keep it to the point, and tell it like it is!

A few years ago I had the good fortune to drive a full-blown Winston Cup race car at Homestead Motorsports Speedway. The "car" has no door, so you have to climb into the beast, contorting yourself to do so (not so easy a task for a slightly pudgy Italian). Unlike a street-legal luxury sports sedan, the Cup car is devoid of all creature comforts: no super-cushy leather seats, no AC climate control, no ABS or SRS, no cruise control, no nothing! Nothing, that is, except pure, unadulterated performance! To me, this is analo-





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gous to our philosophy regarding audio gear—less is more, and performance is everything.

With this premise in mind, we would like to address a couple of points of interest. First, in reference to the Preeninence 2's functionality—specifically the Direct Input (DI) feature: Yes, it is somewhat "idiosyncratic" to manually disconnect cables, but the DI is a *pure performance* feature, and, as such, we feel ergonomic concerns are preempted.

Also, the *only* cables that ever require disconnection are the source cables dedicated to the DI. How or why Steve felt compelled to disconnect all source cables is confusing; the remaining inputs are all switched (defeatable via toggle control), and thus are exceedingly user-friendly. Note: Since many demanding audiophiles use *one source* exclusively (or predominately), the ergonomic concern is often a non-issue in application.

We find Steve's assertion that "in the right setup, the P2 could easily outperform any other preamp" most compelling. To us, this is the dominant issue, and we are most pleased that Steve asserted this point regarding the product's absolute potential. Certainly, the P2 is not for everyone—but then again, neither is a pure racing machine! The P2 is not designed with "universal" appeal in mind—it is a pure performance product! For this primary reason, our dealers offer "test drives" (no obligation in-home trials) of the P2.

Secondly, regarding the Model One Silver Signature, Steve's assertion that "no amplifier has exceeded the overall performance" is most impressive. Again, to us, this is the key point of the review, and the one we are most pleased by. In addition, the logical conclusion is that the amplifier offers a total package of sonic virtue, and thus is holistically designed—we certainly agree!

In closing, I would also like to thank Mr. Norton for his in-depth testing of the preamp and amplifier. I agree with his comments regarding the P2's attenuation taper; for many systems it would be less than ideal. We are not dogmatic regarding this issue, and thus provide three taper options: low, mid, and high. Since we provided the Model One with the P2, we elected the "low" taper, which we feel is most applicable with our amplifier. For applications where less attenuation is required (more high-level listening), we recommend either the "mid" or "high" taper.

I am sorry Mr. Norton did not contact us regarding the blown fuse—we could have guided him to install another one very easily (the only tool necessary is a long flat-blade screwdriver). I would also point out that the fuse location is not an accident. Since the fuse interjects a slight impedance rise, it is best placed at the termination of the rail feed to ensure the low-

est possible supply reactance.

Finally, for 2 ohm testing and/or operation, we would have advised Mr. Norton to increase the (standard) 6A rail fuses to 10A values.

Happy listening and great racing!

Ralph Catino

President, Reference Line Audio

### Esoteric Audio Research 834P

Editor:

It is gratifying to have so positive a review of the EAR phono stage in *Stereophile*, and to have Robert J. Reina deem the 834P "a remarkable piece of work" and a "reference-quality phono preamplifier that would feel at home in a system of any price." No argument there, but I would like to make some comments.

Tim de Paravicini's goal in electronics design is neutrality. He has, in fact, stated publicly many times that properly designed tube and solid-state circuits should be indistinguishable in sound. While his choice of vacuum tubes for EAR designs is a personal one, he has frequently designed solid-state electronics for other manufacturers. They, too, have the de Paravicini sound, which some may characterize as "tubey," but I—and many others—would describe as natural and involving. Like other things in high-end audio, these traits are often more apparent in A/B comparisons. I invite your readers to compare EAR electronics with other electronics—tube or solid-state—and discover the differences for themselves.

I also invite them to listen to recordings made with de Paravicini's electronics. Both the Altarus and the Water Lily record labels use his electronics in the entire recording chain, from microphone to mike preamp to the electronics in the tape machine, as well as in the mastering chain, Tim's A/D converter for CDs, and his cutting system for LPs. Try *A Meeting by the River* on Water Lily—a "Recording of the Month" in *Stereophile* and, if memory serves, a "Record To Die For" once or twice as well—and judge the results.

As Robert Reina himself states, it all comes down to listener bias. In the final analysis, even our perceptions of neutrality in sound reproduction are subjective, and by no means universal. (Nor is neutrality everyone's preference. How to otherwise explain the current rage for single-ended amplifiers, or the fact that some of the best-loved audio components of all time are far from neutral?) The fact that our perceptions—of sound or anything else—are invariably biased by a multitude of accountable and unaccountable factors can never be overemphasized.

One last thing: readers of the test results may presume that the version of the 834P tested by Tom Norton has replaced the one heard by Robert Reina. In fact, *both* are available. The version with the heavy chrome faceplate and

gold-plated knob retails for \$1195. For those who value economy over appearance, the original "black box" version retails for \$895. The circuit is the same. The principal difference (aside from cosmetics) is that the deluxe version is not available with level control. There is a sonic advantage to having the volume pot removed from the circuit path, but this is offset if the user feeds the output of an 834P equipped with level control directly into the power amp(s), thereby bypassing the preamp and two sets of interconnects. (The 834P, by the way, is one of very few phono preamps, in or out of production, that allows this.) The "black box" version, moreover, can be ordered without level control, or the pot can be easily removed from the circuit.

Thanks again to both *Stereophile* and Robert Reina. As Tim would say, long live vinyl!

Dan Meinwald

Proprietor, E.A.R., USA

### Bright Star Ultimate TNT Isolation System

Editor:

We would like to thank Wes Phillips and *Stereophile* for the wonderful review of our Ultimate TNT Isolation System. Correct vibration control is essential for all components to allow them to perform to their fullest potential. This is especially true for excellent products such as VPI's TNT turntable.

Our Ultimate Isolation System™ creates an environment around the component of high absorption *and* high compliance *and* high mass and shielding. Each of our isolation devices—Air Mass, Big Rock, and Little Rock—can be used individually with a component for significant increase, but best performance is achieved when all three are used together as an Ultimate Isolation System (turntables don't require a Little Rock). This multi-stage isolation system is the most comprehensive in the industry!

Bright Star vibration-control products *eliminate* vibration and resonance. Other products are limited in their ability to control vibration, and ones that attempt to manipulate or "tune" resonance will change the sound of a component but ultimately achieve their results by altering the signal, which takes us further away from the faithful reproduction of the recording. Once the component has been contaminated by resonance, there is no way to remove those effects. Vibration and resonance must be eliminated from audio and video components for us to achieve the highest level of performance possible—only then can the true nature of our components and recordings be fully realized.

I would also like to mention our Rack of Gibraltar series, which is designed to best enhance the Ultimate Isolation System. These reference-quality equip-

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### Transparent Audio on Show coverage

Editor:

We appreciate *Stereophile's* efforts to provide an exhaustive report of equipment at shows. The logistics of covering the 1997 Las Vegas Consumer Electronics Show at the Alexis Park must have presented many challenges to your staff. The fact that some key exhibits were in hotels scattered around the urban sprawl no doubt added to the difficulties.

We must question, however, your decision to categorize each piece of equipment covered into distinct categories; i.e., "Digital," "Amplifier," "Loudspeakers," etc. Extensive planning and coordination with other manufacturers are required to plan a successful sound demonstration at a show. We do not understand how one can evaluate isolated components where sound demonstrations are involved, because it is the entire system that provides the result. Would you not serve your readers better by letting them know

how the industry coordinates successful systems of components, including the audio cabling, in your show reports?

The current trend in *Stereophile's* show reports not only splits the industry into categories, but it categorizes cable as an "accessory" like Tiptoes or Cramolin. An accessory is an add-on—something that enhances the system but is not necessary to make the system, as are an amplifier or a pair of speakers.

As you know from press releases that we mail to you before and after shows, we provide a long list of manufacturers with all their audio and video cabling needs. We ship hundreds of cables to every show, every pair of which must be customized in terms of length, termination requirements, and application. Much of the cable goes into complicated multichannel and multimedia systems. The cable must be faultless or the system does not work. Any exhibitor who accepts the challenge of putting together an active demonstration knows that proper cabling is a component of the system that is just as important as any other component. Any cable manufacturer who supplies cabling to exhibitors knows the magnitude of effort and planning required.

Your readers deserve to know that to get the best results from their other audio components, a significant amount of attention needs to be directed toward link-

ing these components together properly. We sincerely hope that in the future *Stereophile* will give more attention to the role of cable as a component in an audio system.

Karen Summer  
Transparent Audio

### Rega is alive and well

Editor:

Some of our customers have expressed concern over some comments made in the "Analog Corner" section of the May issue of *Stereophile* (Vol.20 No.5, p.63).

The concern is that some readers may misunderstand the passage referring to a turntable manufacturer called Mosquito (who we assume uses one of our OEM tonearms) going "belly-up."

Would it be possible for you to print something in your next issue to reassure those people who may have misinterpreted the comment as Rega going belly-up? We feel sure that this would only be a small percentage of your readers, but would very much appreciate you giving the matter some attention.

Thank you for your time.

Jason Bidwell  
Export Sales Coordinator, Rega

Indeed, Michael Fremer's comment did concern Mosquito going "belly-up," not Rega. MF will be reviewing the Rega Planar 9 turntable in the August issue of *Stereophile*.

—JA

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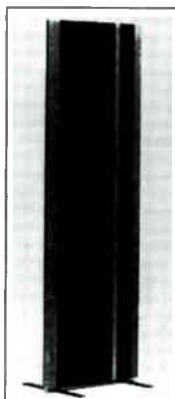
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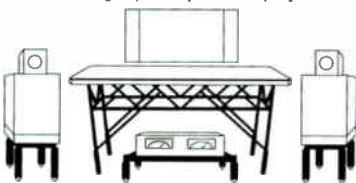
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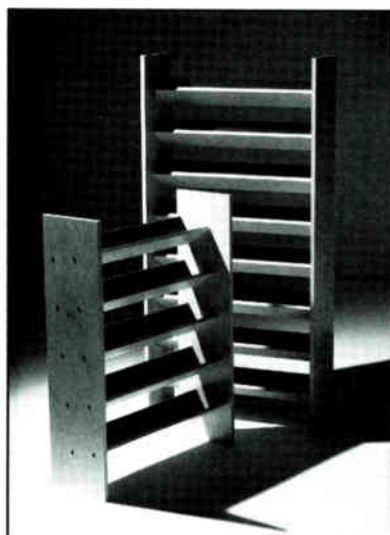
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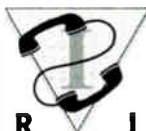
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## Larry Archibald

**"O**ne year, two countries, one predominant grape—but up to five grapes altogether." That's how our every-other-Monday-night wine-tasting group started out this past week. Rhoda had put the wines together (her first time), made them blind to the rest of us (and even to her husband), and assembled the accompanying bread and cheese that keeps us from losing our heads to inebriation as we sample away at eight to 12 wines, trying to divine their characteristics—and identities, if we're lucky. This time there were ten wines.

Even though the tasting was blind, I did pretty well. I identified the year, the two countries in question, seven out of the ten wines in terms of which of the two countries they came from, the predominant grape and subsidiary grapes, and in one case, the exact wine. I think I did the best of anyone in our wine group, though on any kind of expert basis my achievement wouldn't have been seen as anything special.

My sense of self-satisfaction dimmed the following day, though, as I realized that on a statistical basis my conclusions were little better than guessing. After all, seven correct out of ten would be achieved by a coin toss pretty frequently. And I don't think getting the year right—one guess right out of one guess made—offers any statistical significance at all. Maybe the one wine I identified exactly would be seen as significant, but, again, it's one guess right out of one guess made. And there were nine other wines I couldn't place at all, outside of their year, grape variety, and country of origin.

So, while statistically it appears that I don't know anything about wine, I think that common sense would indicate that I actually do know *something* about wine. Not as much as internationally recognized experts, but not bad for a small-town putz.

Blind testing makes heavy requirements in terms of proof. My seven out of ten doesn't qualify. Even nine correct identifications out of ten only reaches a likely certainty of 95%. And what about what's known in the wine world as "palate fatigue"? When you sample 16 or 20 wines, your taste buds lose their freshness and don't give you accurate sensory input anymore. Your judgment is

affected, too. While, at the beginning of the wine evaluation you look for balance, freshness, intensity, and lack of defect, by the time you've tried 15 or 20 similar wines you're just dying for something different. This effect has large negative consequences: wine writers tend to strongly recommend enormously oaky and overly extracted wines just because they stand out from the crowd.

### Most heavy-duty wine buyers know you can't really count on what's written to make your buying decisions for you.

Most heavy-duty wine buyers know you can't really count on what's written to make your buying decisions for you. Wine writers narrow the field, but you're *always* better off trying the wines yourself. Even better, you should try the wine in a situation similar to the ones in which you actually drink wine—in company, with well-matched food. The process may be less pure from a scientific standpoint, but you're much more likely to come up with a pleasant experience years in the future when you pull that wine from your cellar.

In a recent issue, a once-a-year competitor—if you're one of his subscribers, you'll know who I'm talking about—indulged himself even more lavishly than usual in castigating *Stereophile* for its lack of blind testing. It's true: to this competitor's, and some of our readers', horror, *Stereophile* persists in its 35-year-old tradition of sighted equipment evaluation.

We've found that using equipment just the way you do when you take it home yields the best long-term evaluative results. As I write, I'm listening to the new Thiel CS6 speakers powered by a Krell FPB 600 amplifier, and sourced by a C.E.C. transport into a Sonic Frontiers SFD-2 Mk.II processor through a Mark Levinson No.26S preamp and AudioQuest wires. As you can see, none of my listening is blind—but even so, with another six or seven days of evaluating, pulling stuff in and out of the system, and maybe three

days of writing, I could give you a pretty good idea of how each of these components would work in your house.

But you already know what I'd say. Except for the Thiels, each of these components has been written up in *Stereophile*—and you could probably form a reasonably good opinion of the Thiels based on the other products of theirs we've reviewed and the show comments that have appeared in these pages.

Should you go out and buy these products based on what we've said? No, not unless you're prepared for disappointment. I didn't find that any of the products sounded substantially different from what was said in their *Stereophile* reviews, on either a short- or a long-term basis. But I never would have bought them sound unheard. By hook or by crook, I would have auditioned them first. I recommend you do the same.

Our once-a-year-competitor says that all the products I'm auditioning, other than the speakers, sound no different from their much-less-expensive competitors. I strongly disagree. While lots of discussion could take place as to the degree and the importance of the differences that exist, all the components in my system differ from their lesser- and greater-priced competitors in important ways. Are the sonic differences worth the price differences? I know I have an opinion, as would you, but the answer to that question is a truly personal judgment only the prospective purchaser should answer.

Fortunately, you can readily evaluate the different stances of different magazines in this matter. Take a component you have two different brands of, or borrow one from a friend, and see if they sound different. Choose any method you wish, blind or sighted. Do the same when you plan a purchase.

You may find that, indeed, the 1982 Mouton Rothschild, rated 100 points on a scale of 100 by Robert Parker, is no different from, or better than, a Kendall Jackson cabernet from 1994.

My guess, though, is that you'll discover differences that matter, and that you'll hear them more readily when you're focusing on the music, not on the faceplates of the products or the intricacies of a double-blind test. **S**



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- Coaxial RF (radio frequency, also called RG for radio guide) cable carries the combined audio and video signal from an antenna or a DSS dish, or a cable TV box.
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- S-Video (Y/C), carries the same information, but in two pieces. The "Y" signal carries the b/w picture and

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- Component Video (YIQ): Even the "C" in Y/C is a combination signal. Since there are three colors (red/green/blue), there must be two color difference signals. Y-I is the red signal, Y-Q is the blue, and Y minus red and blue is green. DVD players are the first to feature YIQ outputs.

- RGB: Red, Green and Blue are the real components of a video signal. RGB cables carry the three color signals, plus the vertical and horizontal marker information that allows the monitor to draw a picture and not just a continuous line of changing colors. RGB is most common for feeding separate video projectors.

Audio: As important as it is to get the video right, it's the audio that carries the drama, the power, the emotion...whether it's a system with or without a picture.

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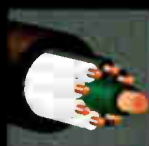
F-18



TYPE 6



SR-1604



AC-12