

THE WORLD'S #1 A/V MAGAZINE

Stereo Review

SPEAKER SHOPPING MADE SIMPLE

How to Make
Sound Choices for
Music and
Home Theater

MINIDISC VS. DOLBY S

Two Hot Contenders
Duke It Out for the
Home Recording Title

A/V FURNITURE

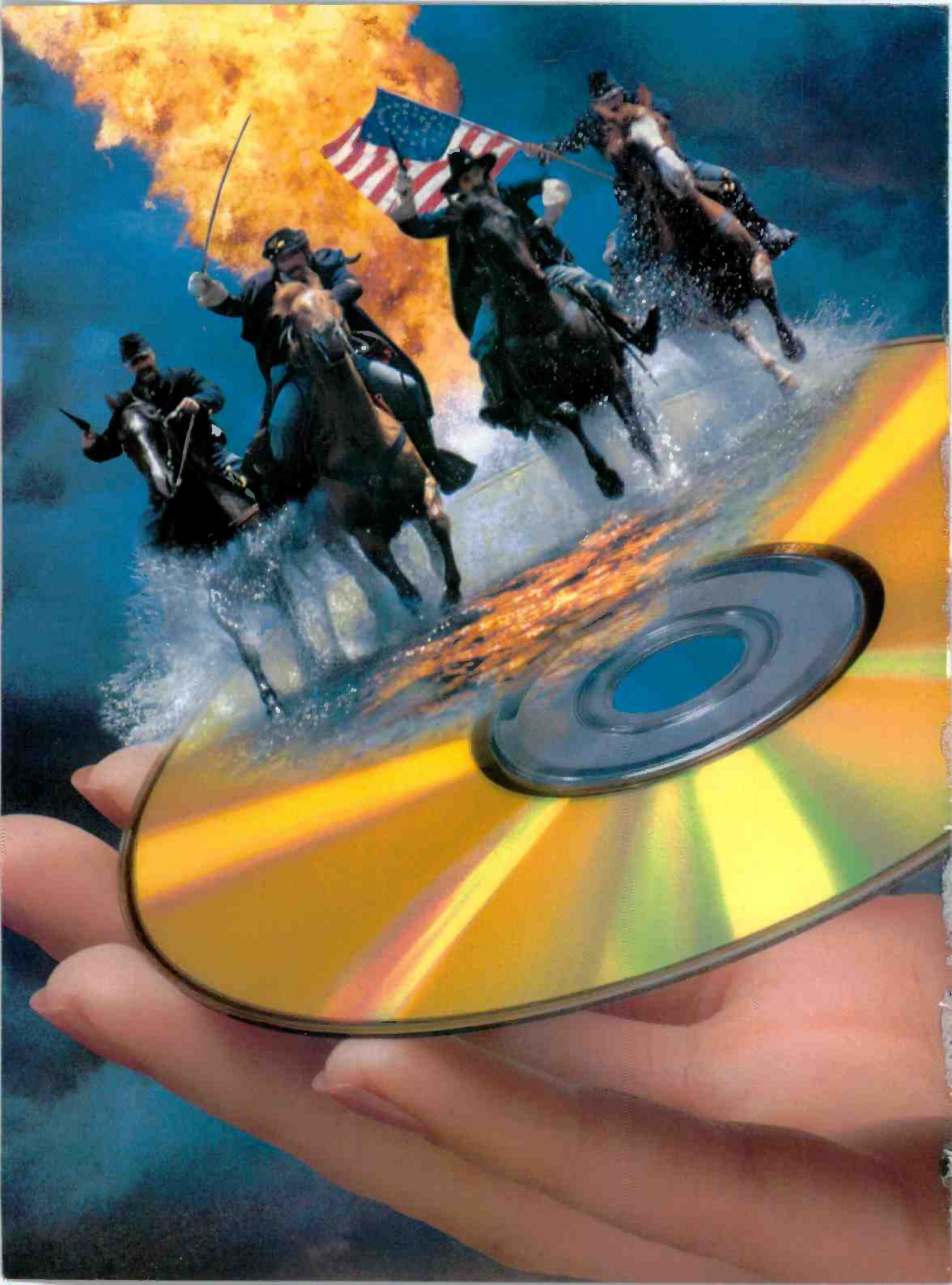
Some Space-Age
Solutions to a
Perennial Problem

TEST REPORTS

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Converter, Energy Speaker,
MTX Subwoofer, more



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Stereo Review

INCORPORATING HIGH FIDELITY

March 1997

The Infinity Compositions Overture 3 is just one of the thousands of speaker options. See page 52 for tips on how to select the right speakers.

Photograph by Dave Slagle

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75 Best Recordings of the Month

The Finnish band Värttinä's world-beating "Kokko," bass-baritone Bryn Terfel singing Rodgers & Hammerstein show tunes, Adrian Belew topping himself with "Op Zop Too Wah," and Richard Goode playing Mozart's Piano Concertos Nos. 18 and 20



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BULLETIN

BY BOB ANKOSKO & WILLIAM LIVINGSTONE

DVD, HDTV NEWS DESK

The latest word on DVD is that it's coming to a store near you this spring — *really!* As we went to press, a handful of movie companies broke their silence, promising to ship the first batch of DVD's to stores as early as this month. . . . After ten tortuous years of technical and political wrangling, the FCC has adopted a digital TV standard, paving the way for widescreen high-definition TV next year. The first HDTV's are expected to cost \$1,000 to \$1,500 more than conventional sets of comparable size. Watch for a complete HDTV report in the April issue.

ROCK ON THE ROAD

The Rock and Roll Hall of Fame has sent out a traveling exhibit, sponsored by Radio Shack and Optimus, that will stop in forty U.S. cities. The multimedia show visits Tampa (February 21-23), Miami (February 21-22), and Orlando (February 28-March 10). It then goes to Austin (March 14-16) and Houston (March 21-23) and zigzags around the country until November.

A/V DIGEST

If you're shopping for a multimedia PC, the latest technotreat to keep an eye out for is MMX, an extension to Intel's popular Pentium PC chip set that's said to significantly improve audio, video, and graphics capabilities. MMX should be available in 166- and 200-MHz PC's by the time you read this. . . . Tomorrow's Research Today (TRT) of Vista, California, announced that it has perfected the Tubistor, a device that "combines the best of tubes and transistors." . . . Custom-designed Bose music systems will appear in more vehicles this year than ever before, according to the company. New systems are available in the Cadillac Catera, Acura

3.0 CL, and Pontiac Bonneville SSEi. . . . A study done by the Consumer Electronics Manufacturers Association found that while 52 percent of Americans make audio recordings, fewer than one in five do so regularly.

INVISIBLE-SPEAKER UPDATE

We caught a demo of the latest version of ATC's HyperSonic Sound (HSS) speaker technology, and the system turned out to be different from what we described here in December ("In Search of the Invisible Speaker"). Instead of using two small devices to create sound in thin air, HSS produces sound by aiming a single Oreo-size device, with an array of electrostatic elements, toward any surface. Sound emanates from the target surface, be it a wall or someone's head. Very cool, but sound quality still has a way to go.

KID STUFF

Raffi, champion children's entertainer from Canada, has licensed his recordings to Rounder, which has issued eleven of his best-sellers on CD and tape. To mark the 20th anniversary of Raffi's first release, Rounder has brought out a boxed set, "The Singable Songs Collection," on three CD's or cassettes, with fifty songs for the very young, including *Shake My Sillies Out*. . . . Joe Scruggs, champion children's entertainer from Texas, has won the Cable Ace Award for the best original song on cable TV with his hit *Bahamas Pajamas* on Shadow Play.

MUSIC NOTES

Rhino Records is throwing its weight behind the current vogue for rock in Spanish with "¡Reconquista! The Latin Rock Invasion!" The compilation of songs by major rock bands from Mexico, South America, and Europe was set for release in February. . . .



"TWISTER" ON THE SMALL SCREEN

Does anyone *really* want to watch a movie while sitting in front of a PC? We don't think so, yet at the recent COMDEX trade show many companies used Hollywood blockbusters to showcase the A/V capabilities of computers equipped with the new high-capacity DVD-ROM drives now hitting the market. During his keynote speech, Intel president Andy Grove played scenes from *Space Jam* and *Twister* on a PC to show how computer designers should try to "create a lifelike experience." Giving new meaning to the term "work station," Philips ran nonstop DVD movie demos on a PC decked out with six speakers to demonstrate the thrills of a six-channel Dolby Digital soundtrack. In another approach to multi-channel PC sound, SRS Labs, Spatializer, QSound, and others demonstrated systems that deliver the surround sensation of a Dolby Digital soundtrack over just two speakers.

Promotion of the movie *Evita* starring Madonna, the *Material Mom*, includes *Evita*-style clothing and accessories from Salvatore Ferragamo, *Evita* cosmetics (very red lipstick) from Estee Lauder, and *Evita* shops in nine Bloomingdale's stores.

READ ALL ABOUT IT

Greenwood Press has published *Joan Baez: A Bio-Bibliography* by Charles J. Fuss (\$55). . . . New from Knopf is *Franz Liszt: The Final Years, 1861-1886* (\$50), the third and last volume of Alan Walker's authoritative biography of music's first international superstar. . . . The autobiography of B.B.

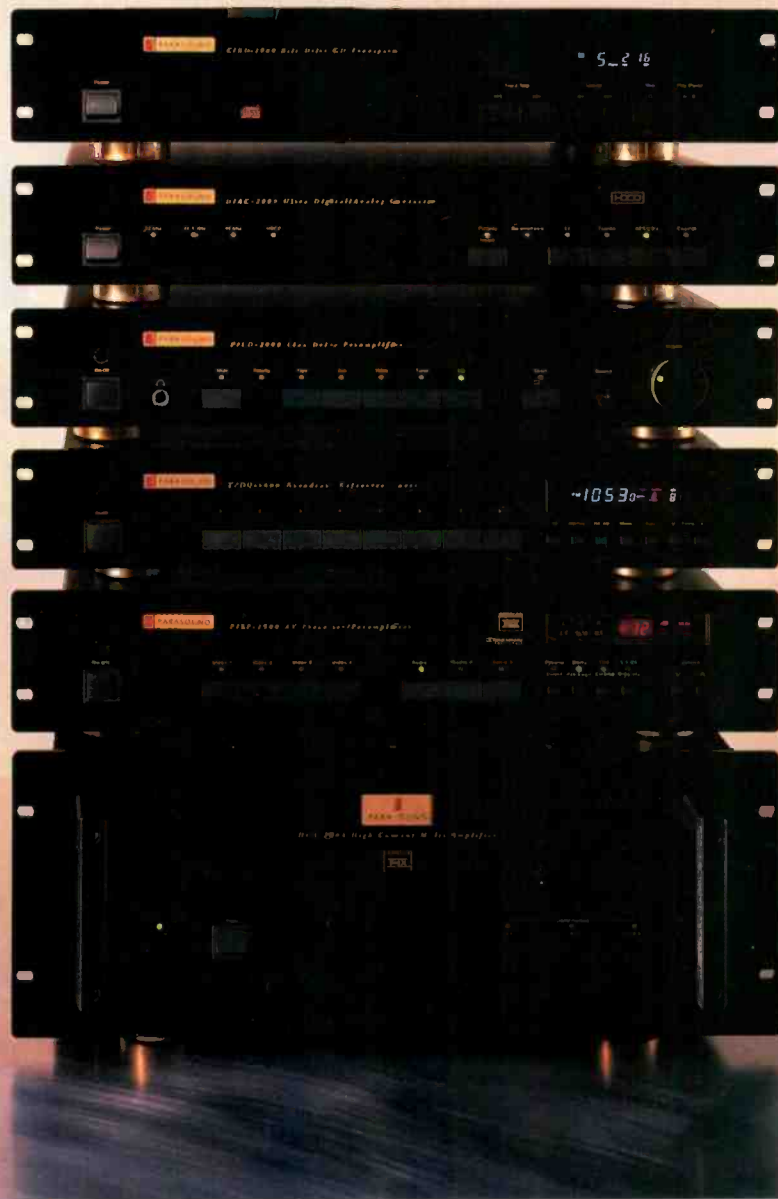
King, *Blues All Around Me*, is available from Avon for \$23.

BERNSTEIN'S DEBUT

A recording of the 1943 radio broadcast of Leonard Bernstein's legendary New York Philharmonic debut is now on CD. Filling in for Bruno Walter, who was ill, Bernstein led a concert of Schumann's *Manfred Overture*, Rozsa's *Variations*, and Strauss's *Don Quixote* that made him famous. The CD is available for \$15.99 on the Web (www.leonardbernstein.com or www.musicblvd.com), or you can order toll-free from 1-800-99MUSIC. Proceeds benefit the New York Philharmonic pension fund.

ILLUSTRATION BY MIKE LEE

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Ensemble II



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 Save \$100

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with two voice coils. Ensemble III maintains the smooth, natural tonal balance of our more expensive systems, but without the same deep

Ensemble III brings high-performance sound into even very small rooms. It uses genuine two-way satellite speakers.

Regular Price: \$349.99

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bass extension. *Stereo Review* says it "sounds first rate in every respect."
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The Surround II

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The Surround

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Powered Subwoofer

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LETTERS

MiniDisc Pro and Con

While I agree with most of Ken Pohlmann's January "Signals" column, "The Fall and Rise (and Fall?) of MiniDisc," I'm puzzled by his lack of confidence in the MD format's survival. While MD may be getting "old," newer formats such as CD-RW certainly don't offer anything more than what MD can already provide, and they lack the durability and portability of MD (and CD-RW's won't play in most existing CD players). Indeed, until DVD-RW is an established reality, I can't think of a better replacement for the analog cassette (talk about old!) than MD. CHRIS OLONZO
San Francisco, CA

Back in February 1995, Ian Masters's "Audio Q&A" column recommended to one Eyal Packer of Haifa, Israel, that he buy DCC over DAT. I suspect he now owns a piece of equipment that holds the world speed record for obsolescence. Shame on you!

Now comes Ken Pohlmann's column about MiniDisc. Same editorial comparisons, same unabashed recommendation. At least you're consistent! Get a conscience!

CHARLES H. BONNETT
Penn Valley, PA

Thanks, Ken Pohlmann, for your realistic biography of the MD. I'm a huge fan simply because my love is recording. It's not about prerecorded MD's (I have one): it's about the flexibility of creating your own discs (I have in excess of 150).

The feature I use most often is trap and delete, which lets me isolate and delete as little as 0.06 second of data. That means, for example, that when I record live concerts off the air, I can simply record the whole program, including commercials, and then go back and delete everything I don't want. Odd noises, flubbed lines, and even crackling leader time between songs on vinyl can all be trapped and deleted, giving a cleaner and more satisfying recording than I could ever capture with cassette tape.

I know of no other format, for the price, with the flexibility and convenience of MiniDisc. Even when I am recording a better-quality source on MD, the difference to my ears is imperceptible, probably because I'm enjoying the music too much. I don't have time to wait for CD-RW — I'm having way too much fun now. PAUL SVANE
Rutherford, NJ

Ready for DVD!

I'm all set, and I'm sure there are countless others just like me — chomping at the bit to be the first kid on the block to show off a new DVD player! The big question I still have concerns the availability of discs. At first, selection will be limited, but when DVD is mainstream, what is the outlook for disc rental and sales? I know of only a few

local places where I can rent or buy laser-discs. Will the lower-price DVD's be sold at locations that now sell CD's? How soon will mail-order companies hop on the bandwagon? PAUL M. DUPONT
Hatboro, PA

As we went to press, Warner Home Video, Columbia TriStar Home Video, and a handful of others had finally announced that they will release DVD movies this spring to coincide with the release of DVD players. It now looks like a few dozen DVD titles will be available by March or April. We assume that most retailers will offer DVD movies for rental at some point — if not initially, then in the future when hardware sales begin to take off. Stay tuned.

Freezing CD's

Rob Sabin's "Secrets of Youth" about the care of CD's in the December issue mentioned extremes of temperature in the same breath as "abuse," but he never explained that further. My thousands of CD's are temporarily being stored in my unheated attic in Michigan. Is this a recipe for disaster?

ALICE KING
Ann Arbor, MI

STEREO REVIEW contributor Ken Pohlmann, author of The CD Handbook (A-R Editions), says that your discs in the attic should be fine, but he recommends letting them warm to room temperature before playing to avoid condensation inside the player. High temperatures are more of a danger — CD's can warp if they're left on a car seat or dashboard on a hot day, though even in this respect they're more robust than vinyl discs or tape cassettes.

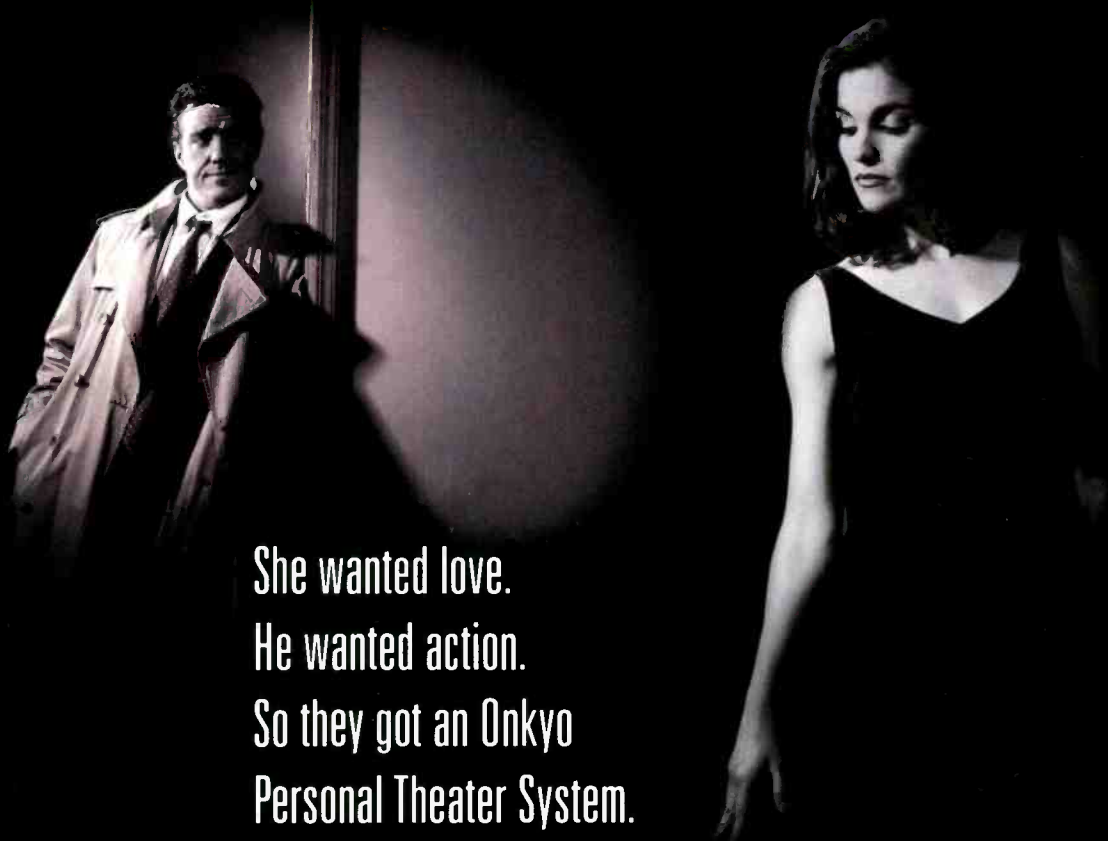
Amplifier "Exotics"

Corey Greenberg's article on exotic amplifiers in January was interesting if only because it illustrated how certain enthusiasts consider audio to be a belief system, rather than a hobby or a means to enjoy recorded music better. I noted three things in particular about the comments of the manufacturers Mr. Greenberg interviewed.

1) At least some of them appeared suspicious of standard amplifier performance parameters and standard bench-test procedures. For instance, several seemed enamored of tube configurations despite the inability of tube amps to match the bench-test or even real-world performance of decent, reasonably priced solid-state models, many of which have received good reviews in STEREO REVIEW.

2) Each individual interviewed considered his product to be the best. That those conclusions were reached by people with a vested interest in selling their respective hardware comes as no surprise. What did

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Carey Gibsonberg, Home Theater Technology, Volume 2, No. 7



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surprise me was that your writer made no attempt to verify — by means of simple double-blind testing techniques or any other objective procedures — those obviously very conflicting claims.

3) Most of the interviewees pointed out that their products had still not reached audible perfection. No merchandiser with any marketing savvy at all would have it any other way — not if he wished to continue to sell outrageously overpriced hardware to enthusiasts who consider equipment more consequential than the musical end product.

It is a disappointment that you would publish such an article without critical analysis of the assorted claims, particularly when "Time Delay" on the last page of the same issue noted that ten years ago David Clark and Ian Masters did a piece for you on amplifier sound that concluded, "Certainly there are still differences between amps, but we are unlikely to hear them." In addition, we have the well-documented opinions of your primary equipment tester, Julian Hirsch, who has repeatedly stated that all decently built amplifiers, provided they are not driven into clipping and have reasonably low output impedances, sound pretty much alike to him.

Exactly what was the point of publishing this article?
HOWARD W. FERSTLER
Tallahassee, FL

The point of the article was to provide a glimpse into a world of "exotic" audio components we don't usually cover in STEREO REVIEW. That's all. We decided to let the manufacturers or their representatives speak for themselves because we believe STEREO REVIEW's readers are sophisticated enough to discriminate between science and belief (or romance, or hype).

Charles the Drole?

Henceforth, The Magnificent Rodrigues shall be cylept "Charles the Drole" — at least, that's what he's called on page 28 in the January 1997 issue, which announces the thirteenth annual Rodrigues cartoon caption contest.

Charles the . . . "Drole"? Neither Webster's Ninth New Collegiate Dictionary — somebody must remember that antique, paper-based spellchecker — nor the spellchecker on my computer lists "drole." Why don't you offer a prize to the person who best explains this new nomenclature? (Of course, anybody resorting to the word "droll" is automatically disqualified.)

PAUL A. ALTER
Hyattsville, MD

But naturellement, we were using the French form of the word, drôle. Unfortunately, the accent got left off by mistake. Really.

We welcome your letters. Please address correspondence to Editor, Stereo Review, 1633 Broadway, New York, NY 10019. You should include your address and telephone number for verification. Letters may be edited for clarity and length.

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NEW PRODUCTS



▲ JOLIDA

Jolida's SJ 101A integrated tube amplifier, which operates on four EL84 power tubes and two 12AX7A preamplifier tubes, is rated to deliver 20 watts per channel into 8 ohms from 30 Hz to 50 kHz. Stereo inputs are provided for CD and aux sources (a tape loop is optional), along with line outputs and volume,

balance, and top-mounted bias-adjustment controls. At 12 x 5½ x 9½ inches with its cage, the retro-looking SJ 101A is among the smallest integrated tube amplifiers available. Price: \$499; \$525 with cage. Jolida, Dept. SR, 10820 Guilford Rd., Annapolis Junction, MD 20701.

• Circle 120 on reader service card



▲ SONY

Sony's CDP-CA9ES five-disc carousel CD changer uses a new 20-bit digital filter design said to reduce noise, a current-source D/A converter to reduce distortion, and separate analog and digital transformers to minimize interference that can degrade sound quality. Convenience features include the ability to

change four CD's while one is playing, disc titling, customizable volume levels for 172 discs, thirty-two-track programming with a twenty-track music calendar, six play and repeat modes, and program edit to select tracks to fill a given length of blank media. Price: \$700. Sony, Dept. SR., 1 Sony Dr., Park Ridge, NJ 07656.

▶ PLATINUM

Platinum Audio's Studio-2 speaker has two 5-inch polypropylene woofers and a single 1-inch metal-alloy dome tweeter. One woofer is assigned all signals below 2.5 kHz; the other operates from 2.5 kHz down to about 200 Hz. The crossover is mounted on a die-cast, heat-sinked backplate that helps the speaker handle up to 250 watts. Bandwidth is given as 35 Hz to 20 kHz, and the 39½-inch-tall tower is finished in textured black. Price: \$1,995 a pair. Platinum Audio, Dept. SR, 10 Commerce Park N., Unit 12, Bedford, NH 03110-6907.

• Circle 121 on reader service card



▼ KEF

KEF offers two subwoofers in its Home Theater Series. The Model 20B (below, left) combines a 10-inch paper-cone driver and a 70-watt amplifier in a sealed, 12-inch-cube cabinet finished in gray vinyl. It has high- and low-level inputs and outputs, a continuously adjustable crossover variable from 50 to 150 Hz, and a phase

switch. The Model 30B is similar but has a 12-inch woofer, a 100-watt amp, selectable music and video modes, and a 14½ x 15¼ x 16⅞-inch cabinet. The low-end limit for both subs is given as 40 Hz. Prices: 20B, \$500; 30B, \$700. KEF, Dept. SR, 89 Doug Brown Way, Holliston, MA 01746.

• Circle 122 on reader service card



NEW PRODUCTS



◀ LEGACY

The Legacy Classic four-way speaker has a ribbon tweeter, a 1¼-inch linen-dome tweeter, a defeatable, rear-firing 1-inch titanium-dome tweeter, a 7-inch Kevlar midrange, and 10-inch composite woofers mounted front and rear. The 42-inch tower is available in rosewood, walnut, oak, and black. Bandwidth is given as 22 Hz to 30 kHz, impedance as 4 ohms.

Price: \$2,450 a pair. Legacy Audio, Dept. SR, 3021 Sangamon Ave, Springfield, IL 62702; phone, 1-800-283-4644; www.legacy-audio.com.

• Circle 123 on reader service card



▲ B&W

B&W's CC3 center-channel speaker has an injection-molded rear inside baffle consisting of tapered, sound-absorbing pyramids like those in an anechoic chamber. The result is said to be a cleaner midrange thanks to the elimination of standing waves and deeper bass from its small cabinet thanks

to the need for less internal damping material. Drivers include a 1-inch soft-dome tweeter flanked by 4-inch woofers. The CC3, finished in black ash vinyl, measures 5 x 16 x 6 inches. Price \$179. B&W, Dept. SR, 54 Concord St., North Reading, MA 01864-2699.

• Circle 124 on reader service card



▲ REGA

The Rega Planet is the first CD player from a British company best known for its turntables. It is said to achieve better sound quality by using a special analog post-conversion filter from Sony and a D/A converter chip developed by Burr Brown in

conjunction with Rega. User features include twenty-four-track programming and a remote control. Price: \$795. Rega, distributed by Lauerman Audio Imports, Dept. SR, 519 Noelton Dr., Knoxville, TN 37919.

• Circle 125 on reader service card



▲ BLAUPUNKT

The Blaupunkt Las Vegas car CD receiver has a radio timer that automatically boots up a favorite program even if the deck is turned off or playing a CD at the time. Other features include CD-changer controls, a user-programmable turn-on message, and the ability to select or

review loaded discs by name. The Las Vegas is compatible with Blaupunkt's optional Thummer infrared steering-wheel remote control. Prices: Las Vegas, \$400; Thummer, \$100. Blaupunkt, Dept. SR, 2800 S. 25th Ave., Broadview, IL 60153.

• Circle 126 on reader service card



◀ SHERWOOD

Sherwood's HTS-7000 home-theater system features the RV-7050R A/V receiver, rated for 80 watts each to the three front channels and 60 watts total to the surrounds. Speakers include front left/right satellites, each with a 5-inch woofer, a ½-inch tweeter, and a stand; a center speaker with two 3½-inch woofers and a 2-inch

tweeter; two surrounds, each with a 3½-inch full-range driver; and a 10-inch, 100-watt powered subwoofer. A universal home-theater remote control is supplied along with the receiver's own remote. Price: \$1,299. Sherwood, Dept. SR, 14830 Alondra Blvd., La Mirada, CA 90638.

• Circle 127 on reader service card

**Boston Acoustics
Home Theater Options**

▶ **Micro Reference Series**

Big theater sound from small, sculpted satellites.

Compact Reference Series

Incredible sound from compact speakers.

Lynnfield VR Series

Audiophile sound with the full impact of Dolby® Digital.

Boston Acoustics THX® System

Dubbing studio quality sound.

Audiophiles are getting into metal.



INTRODUCING THE DIE-CAST ALUMINUM MICRO90 SYSTEM FROM BOSTON ACOUSTICS.

Regardless of your musical leanings, the new Boston Micro90 will alter your view of subwoofer/satellite systems. One reason: The satellites are die-cast from an aluminum alloy, creating a housing of incredible strength and rigidity. So all of the speaker's energy is projected as pure, clean acoustic output instead of being wasted as cabinet vibration. That's how a Micro90 satellite, which fits in the palm of your hand, can fill a room with astonishing sound. Its anodized aluminum tweeter with AMD handles lots of power, yet reproduces highs with virtually zero distortion. And its optional swivel-mount pedestals make for simple shelf or wall mounting. The Micro90's powered subwoofer, with its clean 75-watt amp and 8-inch DCD bass unit, produces enough bass to satisfy fans of both Ozzy and Offenbach. Best of all, the Micro90 is available in a complete home theater package, with a matching die-cast center channel and your choice of direct or diffuse-field surrounds. Hear the Micro90 at your Boston dealer.



This Micro90t Home Theater Package includes: Two die-cast satellites; a die-cast, sonically matched Micro90c center channel; a 75-watt powered subwoofer and a pair of VRS diffuse-field surrounds (available separately).

BostonAcoustics

300 Jubilee Drive, Peabody, MA 01960 (508) 538-5000. www.bostonacoustics.com
Dolby is a registered trademark of Dolby Laboratories, Inc. THX is a registered trademark of Lucasfilm Ltd.

NEW PRODUCTS

▼ ROCK SOLID SOUNDS

Rock Solid's Solid Solutions home-theater speakers include the S100 two-way main or surround (\$199 a pair). It stands 10½ inches tall and has a 4-inch woofer and a 1-inch dome tweeter. The C100 center-channel speaker (\$149) has two of

the same woofers and the same tweeter. The PB100 powered subwoofer (\$449) has a 10-inch driver and a 70-watt amp in a 16-inch cube. Rock Solid Sounds, Dept. SR, 54 Concord St., North Reading, MA 01864-2699.

• Circle 128 on reader service card



▼ SANUS

Sanus Euro modular furniture has black steel supports and wood-composite shelves covered in durable black vinyl. The audio rack at left, 22 inches wide, combines an EFAB base unit (\$90) and individual EFAS shelf units (\$60 each). The 40-inch-wide A/V

rack (\$180), one EFVS shelf (\$80), and a swiveling EFTT top (\$70) that can support big-screen TV's (up to 50 inches). Also shown are Euro Foundation speaker stands (\$89 a pair). Sanus Systems, Dept. SR, 619 W. County Rd. E, St. Paul, MN 55126.

• Circle 131 on reader service card



▼ TRIBUTARIES

The Tributaries SA1.3 Tribute S-video distribution amplifier is said to maintain the integrity of S-video signals sent over up to 500 feet of cable. Its two S-video outputs have dedicated controls for chroma gain, luminance gain, and broad- and narrow-band cable compensation. A fixed-level output is also provided for piggybacking an additional SA1.3, and a pair of composite-video outputs allow connection to TV's that lack an S-video input. Price: \$650. Tributaries, Dept. SR, 1307 E. Landstreet Rd., Orlando, FL 32824-7926.

• Circle 129 on reader service card



▲ MEADOWLARK

Meadowlark's Heron tower speaker has a segmented, time-aligned baffle said to preserve imaging and prevent mechanical coupling of the drivers mounted on it: a ¾-inch fabric-dome tweeter, a 4½-inch midrange, and two 7-inch woofers. The 44-inch-tall cabinet is finished in mahogany, ash, or ebony. Low-end limit is given as 25 Hz. Price: \$4,000 a pair. Meadowlark Audio, Dept. SR, 1611-A S. Melrose Dr., #137, Vista, CA 92083-5497.

• Circle 130 on reader service card



▲ JVC

JVC's F3000 four-component minisystem has an integrated amplifier with Advanced Super-A circuit design rated to deliver up to 35 watts per channel into 4 ohms from 40 Hz to 20 kHz. The CD player has thirty-two-track programming and JVC's proprietary D/A converter. A forty-

preset AM/FM tuner and a double cassette deck complete the package. SX-F300 speakers with 5¾-inch woofers and 1-inch dome tweeters are optional. Prices: F3000, \$830; SX-F300, \$420 a pair. JVC, Dept. SR, 41 Slater Dr., Elmwood Park, NJ 07407.

• Circle 132 on reader service card

**Boston Acoustics
Home Theater Options**

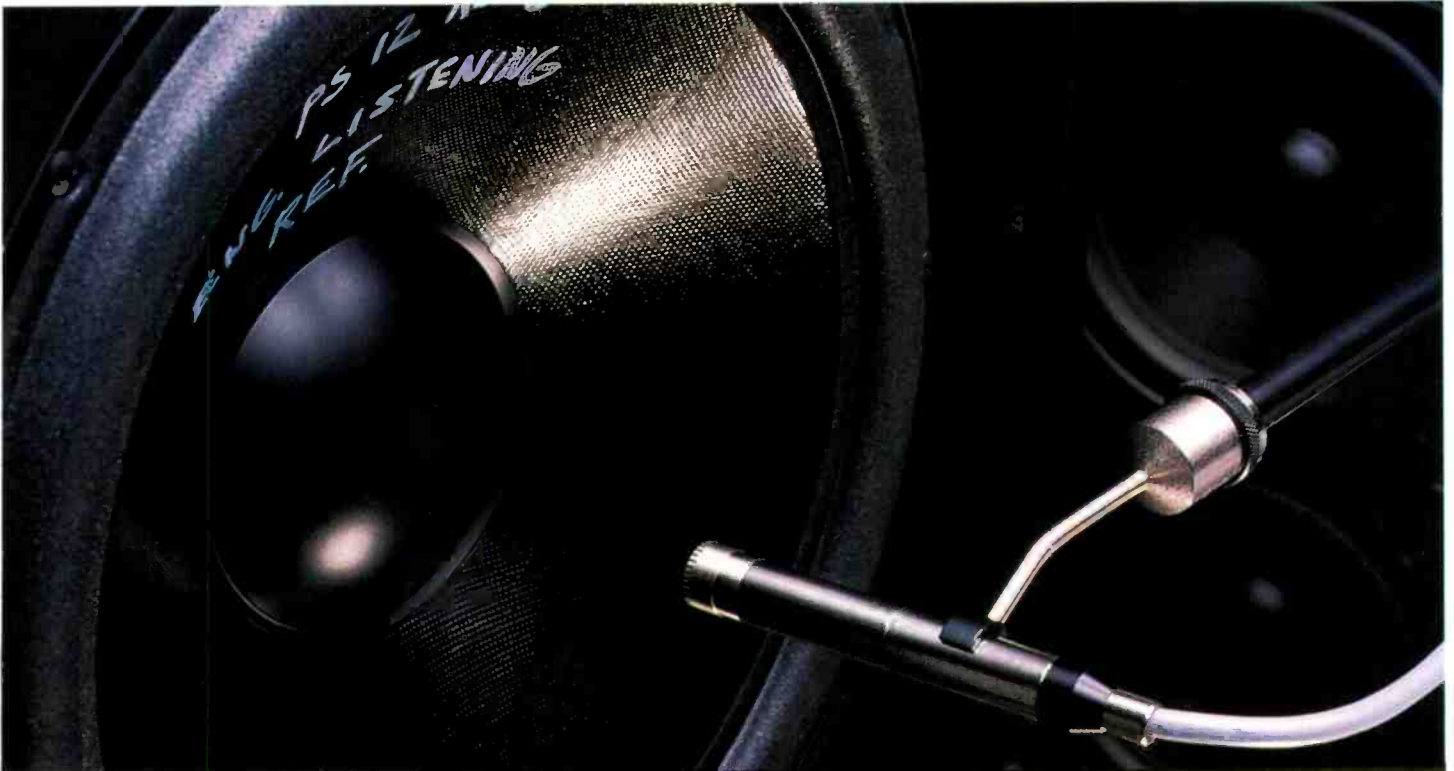
Micro Reference Series
Big theater sound from small, sculpted satellites.

Compact Reference Series
Incredible sound from compact speakers.

▶ **Lynnfield VR Series**
Audiophile sound with the full impact of Dolby® Digital.

Boston Acoustics THX® System
Dubbing studio quality sound.

Dolby Digital really gives speakers a workout. Luckily, we've had time to train.



INTRODUCING THE NEW DOLBY DIGITAL-READY HOME THEATER SYSTEM FROM BOSTON ACOUSTICS.

When we started working with the specs for Dolby Digital, the new digital home theater format from Dolby Labs, two things were apparent: One, Dolby Digital is nothing short of spectacular. And two, to fully realize its advantages, speakers must work a lot harder than before.

First, Dolby Digital's improved definition means if your front stage speakers aren't tonally matched, your ears will know it. That's why both our Lynnfield mains and center channel speakers use identical VR tweeters and matched midranges for uniform tonal balance and dispersion. So they easily reproduce the dialog clarity and stunning front soundstage effects that Dolby Digital promises.

Another consideration: Since all speakers may be fed bass extending to 80Hz, centers and surrounds must play low. Good thing our VR10 and VR12 center channels and new Lynnfield VRS Pro surrounds were built to handle this very spec. Finally, a subwoofer must cleanly reproduce five discrete bass channels, plus the thunderous LFE (low frequency effects) channel – something our new VR2000 350-watt powered subwoofer can do without breaking a sweat. Get the whole scoop on our new Dolby Digital-capable speaker system. Call 508 538-5000. Just remember to do some stretches before dialing.



This Lynnfield VR system includes our award-winning VR40 mains and VR12 center channel, plus our new VRS Pro surrounds and VR2000 350-watt powered subwoofer. (This system reproduces 21–20,000Hz \pm 3dB and an astounding 105dB at normal listening position.)

BostonAcoustics

300 Jubilee Drive, Peabody, MA 01960 (508) 538-5000. www.bostonacoustics.com
Dolby is a registered trademark of Dolby Laboratories, Inc. THX is a registered trademark of Lucasfilm Ltd.

NEW PRODUCTS



▲ CRYSTAL

The CXi 510 5¼-inch coaxial car speaker from Crystal has a steep 12-dB-per-octave crossover that's said to improve power handling. The woofer cone is made from a carbon composite and has a butyl rubber surround, while the tweeter is titanium-laminate. Bandwidth is given as 70 Hz to 21 kHz, sensitivity as 90 dB, and power handling as 100 watts. Price: \$150 a pair. Crystal, JR Speaker Co., Dept. SR, 17521 Railroad St., Unit G, City of Industry, CA 91748.

• Circle 133 on reader service card

▼ SENNHEISER

The Sennheiser RS 6 wireless headphone system uses 900-MHz RF technology to transmit through walls to rated distances of up to 250 feet. The RS 6 features a lightweight supraural design and a volume control; it runs on a small rechargeable battery (two are supplied). The transmitter has an automatic signal-sensing on/off switch, three transmission frequencies, and two battery charging ports. Price: \$270. Sennheiser, Dept. SR, P.O. Box 987, Old Lyme, CT 06371; www.sennheiserusa.com.

• Circle 134 on reader service card



▼ JBL

The JBL ESC300 home-theater system has five satellite speakers and a woofer module containing all required electronics. Each 4-inch-tall satellite has a 2½-inch midrange driver and a ¾-inch titanium tweeter. The woofer module, 13 x 15½ x 14½ inches, has an 8-inch driver; its internal amp delivers 65 watts to the

woofer and 135 watts total to the satellites. The built-in surround processor has two inputs, Dolby Pro Logic and ambience modes, and a credit-card remote control. The ESC300 comes in black or white. Price: \$1,100. JBL, Dept. SR, 80 Crossways Park W., Woodbury, NY 11797.

• Circle 137 on reader service card



▲ ESOTERIC AUDIO

Esoteric Audio's Acculink XLR balanced audio connectors are machined from solid brass and plated with 24-karat gold for high conductivity and strong corrosion resistance.

Insulators are a Teflon dielectric. Price: \$50 a pair (connectors only; cables extra). Esoteric Audio, Dept. SR, 44 Pearl Pentecost Rd., Winder, GA 30680.

• Circle 135 on reader service card



▲ LEXICON

Lexicon's LDD-1 Dolby Digital (AC-3) RF demodulator mates with any preamp/processor or decoder requiring external demodulation of a laserdisc player's Dolby Digital RF output. The outboard design is said to keep interference away from sensitive circuitry, and a laserdisc optimization switch is said to

minimize the data error rate. Optical and coaxial SPDIF digital inputs accept the laserdisc player's stereo PCM outputs and are automatically switched in when no AC-3 signal is present. Price: \$699. Lexicon, Dept. SR, 100 Beaver St., Waltham, MA 02154-8441.

• Circle 136 on reader service card



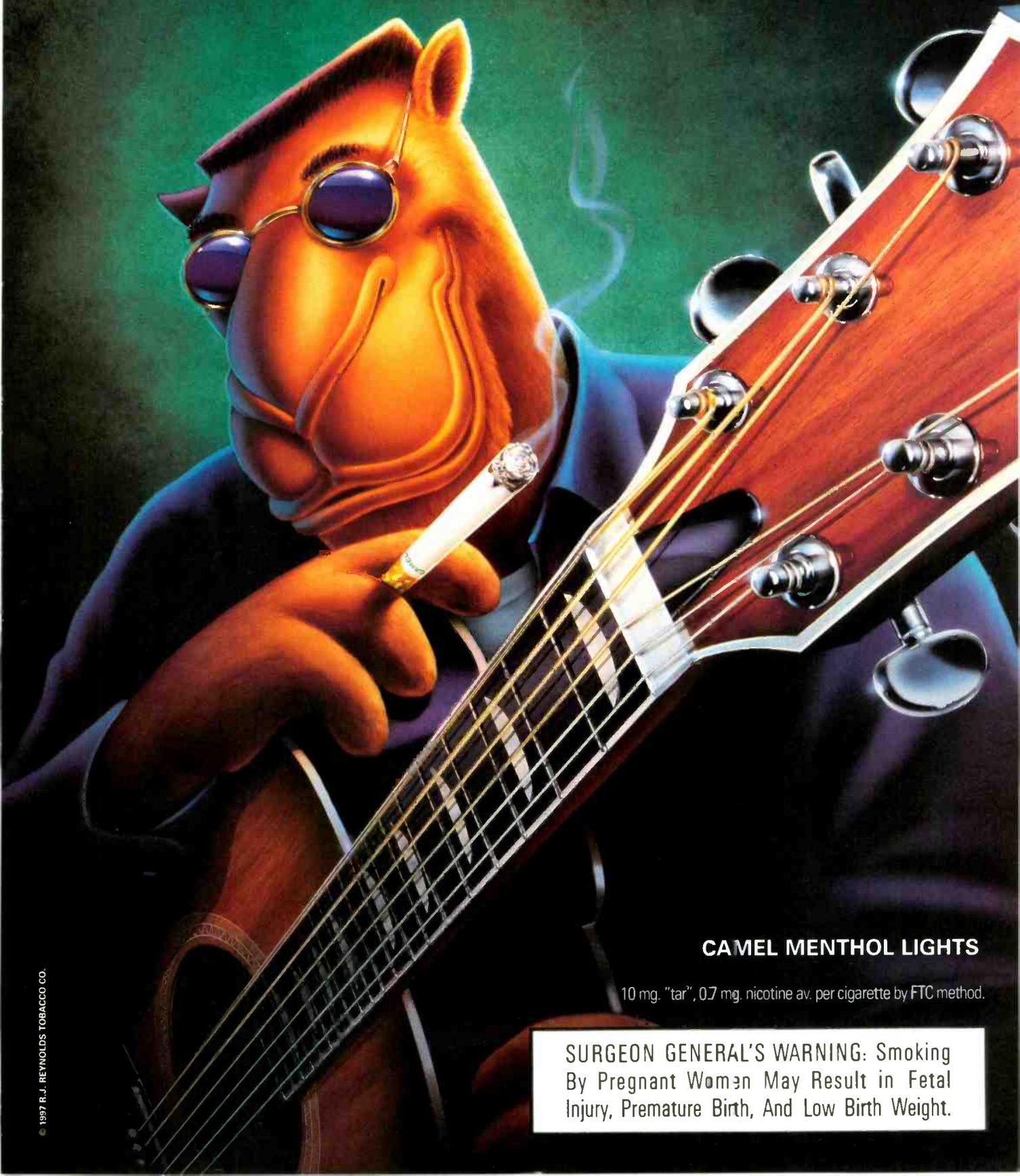
▲ ALTEC LANSING

Altec Lansing's USB46 multimedia speaker system is designed for connection to the digital Universal Serial Bus connector used on many new PC's for streaming real-time audio to peripherals. The USB46 includes two 6-watt powered satellites

with 3-inch full-range drivers, a 20-watt powered bass module with a 4-inch driver, and user-interface software. Price: \$150. Altec Lansing, Dept. SR, P.O. Box 277, Milford, PA 18337; www.altecomm.com.

• Circle 138 on reader service card

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INTEGRATED SYSTEMS

— VS —

COMPONENTS

*We offer both,
but which is best
for you?*

INTEGRATED SYSTEMS

By an integrated system we refer to one in which the electronics and the speakers are engineered together and sold as a unit. If such a system is properly designed it can always outperform a system built from separate components.

The reason is fundamental. In a complete system, the design of the electronics is specific for the characteristics of the speakers and vice versa.

Thus, if you are looking for the best performance, the Lifestyle® 12 home theater system is the best we offer and we believe the best performance available. We suggest you compare its sound to that of any other home theater system, regardless of size or price, to appreciate the difference Acoustimass® system technology makes.

After one minute of listening to the Lifestyle® 12 system you will appreciate why *Home Theater Technology* said, "...everything is included and carefully thought out.... The performance is awesome..."



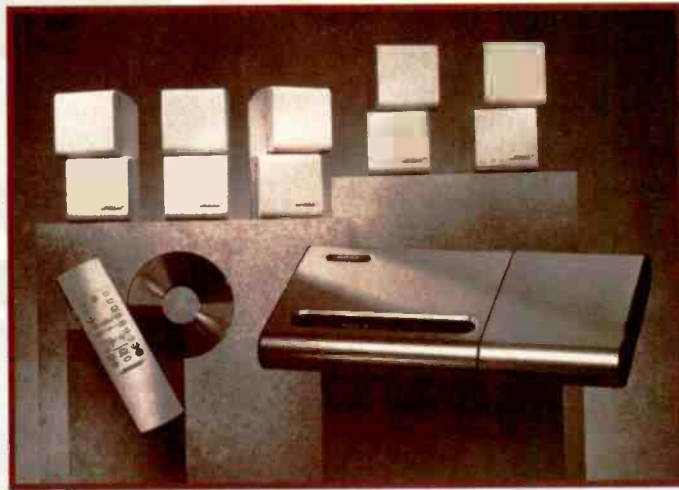
SEPARATE COMPONENTS

If you already own a home theater system with separate components and are looking to improve the sound without replacing all your equipment, we now offer the new Acoustimass 10 home theater speaker system specifically engineered for this purpose.

The key to the performance is Acoustimass speaker technology. Recently there are visual copies of the Acoustimass module called 'subwoofers.' None of them are similar to Acoustimass modules on the inside and none have the performance. Be sure to look for the Acoustimass label on the speakers you purchase.

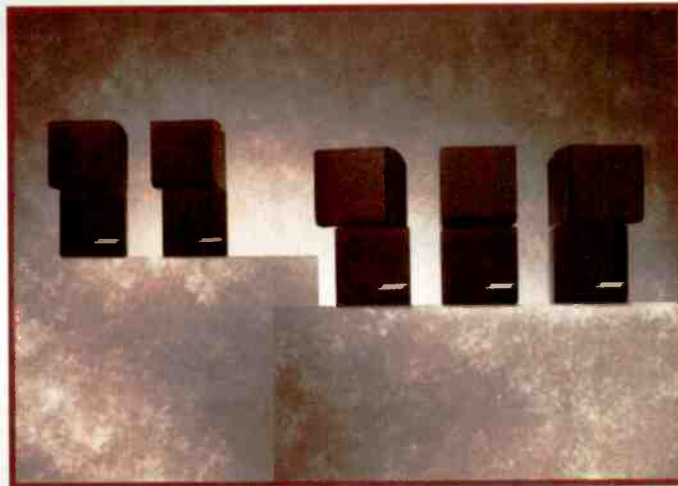
Call for names of selected Bose® dealers where you can hear the Lifestyle® 12 home theater system or Acoustimass 10 speakers. Experience the difference Bose technology makes.

H O M E T H E A T E R S O U N D



The Lifestyle® 12 home theater system. A fully integrated system, engineered to be the best sounding, easiest to use home theater system ever.

[Acoustimass® module not shown.]



The new Acoustimass 10 home theater speaker system. Engineered to maximize the sound quality of your other home theater components.

[Acoustimass® m.]

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PERIPHERALS

PRODUCTS AND TRENDS THAT
GO BEYOND MAINSTREAM AUDIO/VIDEO

One If by Land, Two If by Bus

BY KEN C. POHLMANN

History is populated by the stories of epic conquests: the Greek victory over the Trojans, the sacking of Rome by the Visigoths, the British invasion of the American colonies. Similarly, the history of the audio industry is a story of conquest: the disc record flattening the wax cylinder, the cassette eradicating the eight-track, the CD's annihilation of the venerable LP.

Today the audio industry is preparing to defend itself against the biggest adversary in its 120-year history. This global war will make all previous audio battles seem inconsequential as one of the greatest modern-technology industries prepares to crusade against audio companies everywhere. The conflict will match the computer industry

against the audio entertainment industry, and if the computer industry seizes control of the digital audio future, it will win billions in annual revenue.

The computer industry is a comparatively young one, but it is fast-growing, and its explosive development over the last decade has brought powerful multimedia computers to millions of desktops. For a price less than that of a high-quality stereo system, a PC can perform technological miracles of sight and sound. From a strictly sonic standpoint, however, consumer PC's are inferior audio devices. They suffer from high levels of noise and distortion and would get failing grades from even the most lenient audio reviewer. Although most compact discs are edited and mastered on desktop

**Today the audio industry is preparing
to defend itself against the biggest adversary
in its 120-year history.**



BOB SCOTT

computers, those professional systems are a far cry from their consumer cousins. Relatively speaking, at least from an audio point of view, today's typical PC is about as primitive as an Edison phonograph, and not even Bill Gates would have the courage to pit a PC's sound against that of a modern stereo. But the computer industry is determined to change that, and its forceful entry into the world of high-fidelity sound will challenge the entire consumer audio industry.

At first glance, a PC and a stereo may seem like very different animals. The idea of the computer industry getting into the audio business may seem as unlikely as General Motors selling blue jeans. Certainly, in an earlier age, computers and stereos were indeed quite distinct, but with the birth of the compact disc their evolutionary paths were forever entwined. In fact, a CD player has computer DNA sprinkled throughout its chassis, and we can already forgive future archeologists if they fail to distinguish between CD players and computers. A CD player is nothing more than a computer dedicated to the task of audio reproduction. The digital disc, disc transport, data decoding, error correction, data buses, microprocessor, memory, power supply, and other subsystems are conceptually identical to those in computers. The output stages, including the oversampling filter and the digital-to-analog (D/A) converter, are also found in any computer with a sound card, and many PC's have these parts planted on their motherboards.

It is their clear sonic superiority that makes stereos distinctly different from computers, but Intel, National Semiconductor, Yamaha, Analog Devices, and Creative Labs (maker of the popular Sound Blaster sound cards) are anxious to narrow the gap. Specifically, they have co-developed the Audio Codec '97 component specification, usually called AC '97. This specification describes a two-chip architecture that paves the way for affordable high-quality audio in PC's. The entire computer industry is being invited to use this specification freely to make its hardware and software AC '97 compliant; it is available via a royalty-free reciprocal license to encourage rapid adoption. In fact, anyone can download it from Intel's Web page (www.intel.com/pc-supply/platform/ac97).

AC '97 defines chip-level hardware that is designed to be transparent to the operating system, supporting all

established and announced Windows drivers and bus extensions; in other words, it can be easily incorporated into Windows 95 computers either on the motherboard or as a plug-in. The AC '97 specification represents a huge step over existing computer audio technology. Most existing systems are based on integrated hardware that uses the old ISA bus; analog audio circuitry is consolidated with digitally intensive bus interfaces and digital synthesizer circuits. In contrast, AC '97 uses new buses like PCI, USB, and IEEE 1394 (a.k.a. "firewire") and calls for two chips, one primarily analog and the other digital, to segregate vital analog audio sections from other digital sections. Of course, AC '97 is backward-compatible with the multitude of existing Sound Blaster-type ISA applications.

The AC '97 specification defines the baseline functionality of the analog I/O (input/output) chip and the digital interface to a digital controller chip. This partitioned architecture provides two-chip connectivity while allowing flexibility. The analog chip is purposefully small (forty-eight pins) so that it can be placed near the audio input and output connectors and away from noisy digital buses. The larger (sixty-four-pin) digital controller chip is free from the complexities of analog chip design and can be located near the CPU or the system bus; it is dedicated to interfacing and digital processing.

The digital and analog sections are connected via a five-wire, bidirectional, time-division-multiplexed digital serial link that is impervious to the electrical noise typical of a PC. The specification provides for four analog line-level stereo inputs (line, CD, video, and auxiliary) and two analog line-level mono inputs. It also defines optional support for 18- or 20-bit analog-to-digital (A/D) and D/A resolution, four- or six-channel output, an I²S input port, an SPDIF output port, bidirectional USB and IEEE 1394 ports, a stereo headphone output, a third A/D channel dedicated to a microphone input, and other features, including a "digital loopback" in which audio from any source can be looped through system memory, where it can be processed or digitally output to any internal or external destination.

Interestingly, the AC '97 designers chose a fixed 48-kHz sampling rate instead of the CD's 44.1 kHz. Looking to the future, they felt that it was extremely important to support the higher sampling frequency because DVD

movie soundtracks are coded at 48 kHz. Of course, "old-fashioned" 44.1-kHz recordings can still be played because AC '97 automatically "up-samples" them to 48 kHz. Why not support two sampling frequencies? Because from an audio-fidelity standpoint it is preferable to perform digital sampling-rate conversion and digital mixing at a common rate rather than to operate multiple A/D and D/A converters at different sampling rates and then perform analog mixing.

The AC '97 specification gives considerable flexibility to chip makers so that they can develop a wide range of chips with many different functions

on the horizon, but savvy audio manufacturers should remain cool. There is no law that says that only computer manufacturers may use AC '97. The specification is designed to support chips outside computers as well as chips inside computers. Smart audio manufacturers who are willing to step into the twenty-first century will place AC '97 chips in their own audio components. For example, a manufacturer could develop a very high-end audio I²S peripheral that would employ the PC as a user front end and processing engine. I²S isn't good enough for you? No problem: AC '97 allocates up to six pins for implementation of a hy-

The Audio Codec '97 specification

describes a two-chip architecture that paves the way

for affordable high-quality audio in PC's.

yet retain basic compatibility. For example, a baseline chip set might simply connect the computer to a basic analog I/O section. A more sophisticated chip set might perform digital mixing, filtering, compressing and expanding, reverberation, equalization, room analysis, synthesis, and other DSP functions as well as providing 20-bit conversion, pseudo-balanced analog inputs and outputs, and digital interfacing to other protocols such as the I²S bus that is currently favored by some high-end audio manufacturers.

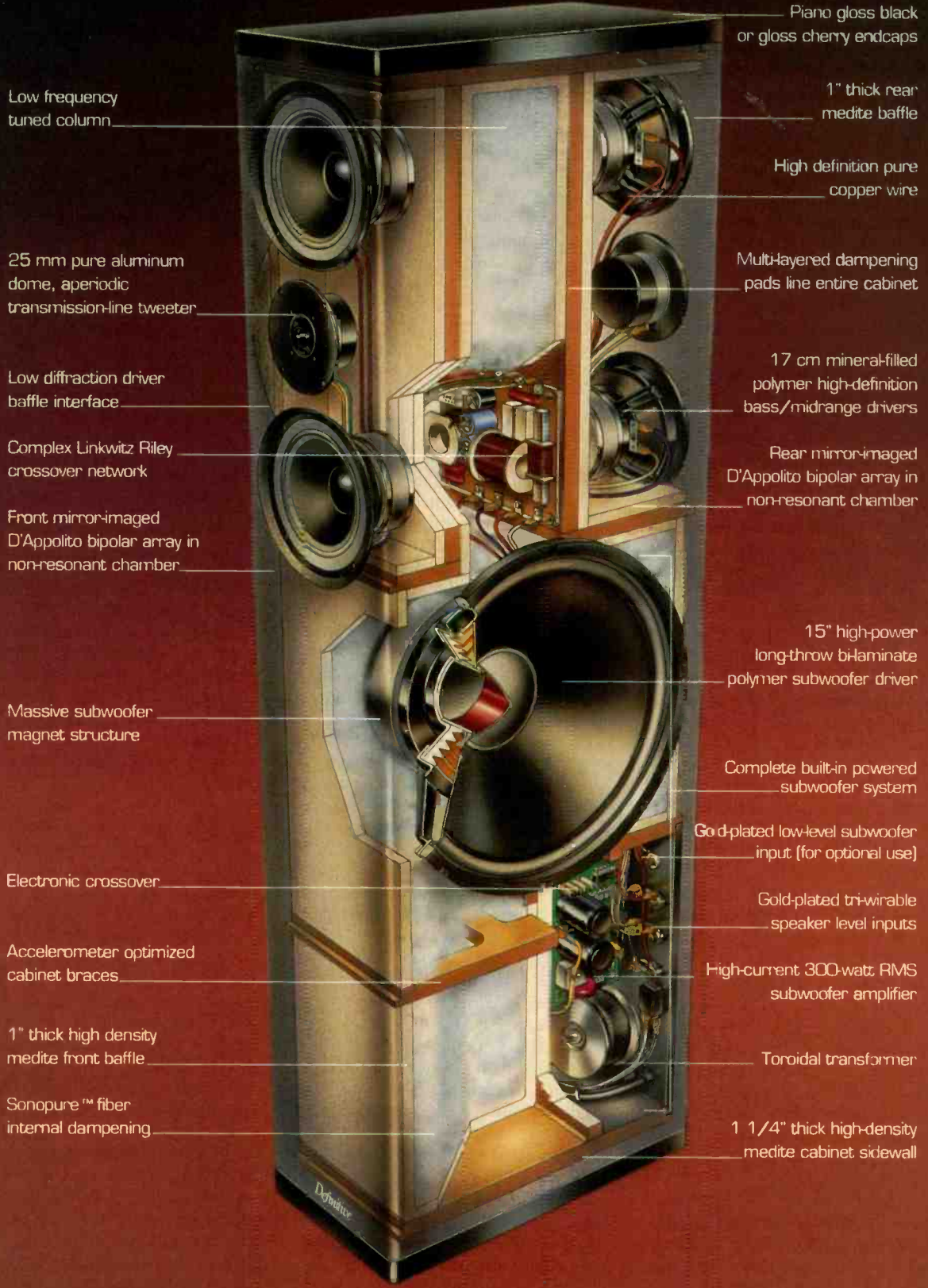
AC '97 encompasses all existing stereo and computer audio applications and will create many more. It can be used for high-quality stereo playback from a computer platform, for two-channel 3D audio playback, for multiplayer gaming, and for interactive music and video. AC '97-compliant PC's may contain DVD-ROM drives, TV tuner cards, CD capture and playback cards, and Dolby Digital (AC-3) decoders. In other words, AC '97 enables computer manufacturers to enter the audio business. Moreover, AC '97 is a link between the worlds of traditional audio design and computer technology, and it provides an easy way for computer manufacturers to begin designing peripheral audio components. Intel's Pentium processor has already captured the computer market; now AC '97 gives computer companies the opportunity to expand their territorial boundaries even farther.

Clearly, an invasion fleet is visible

brid interface. Existing A/V receivers accept stereo or Dolby Pro Logic-encoded analog audio via phono jacks; they could upgrade to a direct digital connection from a PC. In other words, the audio industry can use AC '97 just as advantageously as the computer industry, beginning with the development of digital-ready components ranging from simple sound cards to computer-based audiophile peripherals such as MPEG-2 decoders, ambience processors, room equalizers, and anything else that needs computational horsepower.

Computer enthusiasts know that the recent migration from the ISA bus to the PCI bus brought about startling improvements in PC's; older PC's are antiquated in comparison. Similarly, AC '97 will move PC audio from the ISA bus to the PCI bus and add a host of advantages, including dramatically better sound quality. Given its PCI bus performance, improved audio, and easy aftermarket upgradability, the AC '97 specification is the hitherto missing link between computers and high-quality sound. AC '97 products are supposed to begin appearing in the second half of the year. So if you plan on buying a PC in the near future, check whether it has on-board AC '97 hardware; if not, make sure it has a spare PCI slot so that you can add it yourself. No matter who wins the war, you'll want to share in the spoils. □

Inside Definitive's Revolutionary BP2000



Low frequency tuned column

25 mm pure aluminum dome, aperiodic transmission-line tweeter

Low diffraction driver baffle interface

Complex Linkwitz Riley crossover network

Front mirror-imaged D'Appolito bipolar array in non-resonant chamber

Massive subwoofer magnet structure

Electronic crossover

Accelerometer optimized cabinet braces

1" thick high density medite front baffle

Sonopure™ fiber internal dampening

Piano gloss black or gloss cherry endcaps

1" thick rear medite baffle

High definition pure copper wire

Multi-layered dampening pads line entire cabinet

17 cm mineral-filled polymer high-definition bass/midrange drivers

Rear mirror-imaged D'Appolito bipolar array in non-resonant chamber

15" high-power long-throw bi-laminate polymer subwoofer driver

Complete built-in powered subwoofer system

Gold-plated low-level subwoofer input (for optional use)

Gold-plated tri-wirable speaker level inputs

High-current 300-watt RMS subwoofer amplifier

Toroidal transformer

1 1/4" thick high-density medite cabinet sidewall

"Definitive's new BP2000 absolutely kills most more-expensive speakers!"

~Brent Butterworth, Home Theater Technology

Julian Hirsch Says, "...I Would Choose These Speakers for Myself."

BP2000 is "the first speaker I have been able to audition in my own familiar surroundings that has given me that special thrill that usually costs ten or more times its price..."

—Julian Hirsch, *Stereo Review*

"This slammin' system will probably kill any other you've ever heard or seen."

—Brent Butterworth, *Home Theater*

Speaker of the Decade

The experts agree: Definitive's BP2000s are an amazing achievement! We have literally reinvented the loudspeaker and combined a six-driver dual D'Appolito bipolar array with a built-in (side-firing) 300-watt powered 15" subwoofer. (Yes, a complete powered subwoofer built into each speaker!) The result is extraordinary sonic performance beyond anything you've ever heard.

Both music and movies are reproduced with unequalled purity, transparency and lifelike realism. And the astounding high resolution imaging and awesome bass impact totally envelop you in sonic ecstasy.



Definitive's complete AC-3 ready BP2000 Home Theater System is the perfect choice for ultimate music and movie performance.*

CIRCLE NO. 15 ON READER SERVICE CARD

See our dealer list on page 30

The Ultimate Home Theater

In addition to being an audiophile's dream, the BP2000s are also the main speakers in Definitive's AC-3* ready Ultimate Home Theater System. This astonishing system is absolutely the finest sounding available. It recreates a "you are there" spatial reality that actually puts you into the soundspace of the original cinematic action.

The complete system combines the BP2000s (\$1499 ea.) with a C/L/R 2000 center (\$650 ea.) and BPX bipolar surrounds (from \$399 ea.). Of course, dual 15" powered subwoofers are already built into the sleek BP2000 towers. Truly the ultimate listening experience! Visit your Definitive dealer today.

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SIGNALS

KEN C. POHLMANN

Plato's Cave

Plato ranks among the greatest of philosophers. He lived and died before Christ walked the earth, but his thought has influenced every Western thinker since then and forms much of the intellectual foundation of our civilization.

In *The Republic*, Plato uses an allegory to explore the limitations of our perception. He describes a cave in which prisoners are trapped from birth, living their entire lives with their heads fettered so that they can see only a cave wall. Behind them is a fire and a puppetmaster casting shadows on the wall; the prisoners see only a distorted world of shadows and hear only echoes from the cave wall. The prisoners accept the shadows and echoes as reality and are unaware of the limitations of their cave world.

Now suppose that a prisoner escapes from the cave and emerges into the bright sunlight of the outdoors. At first he will be terrified by the other world and regard it as less real than his cave. But gradually he will discover that the outer world is the real world, and that it is a far richer place than the cave.

This allegory can be interpreted in a number of ways, but perhaps Plato was primarily attempting to show that most people live in an unexamined world and that only through intellectual pursuit can they discover the truth and gain greater awareness of how things really are. Because they are perfectly happy with shadows and echoes, people may at first refuse to undertake such a task, and those who remain in the cave may resent those who have left it. But ultimately, to understand the truth behind our world of appearances, one must leave behind the appearances and seek a higher knowledge.

That lesson is still completely relevant today, and Plato's cave is still the only real place for most people. The struggle to achieve enlightenment is a very difficult one that has not gotten any easier over the last two thousand years. Nonetheless, we easily accept Plato's argument that we must work toward knowledge and truth, in part because so much of our culture is based on his teachings.

Plato would probably feel comfortable in today's United States. For example, the facades of most of our government build-

ings are copied from ancient Greek architecture. And although our elected President is hardly an ideal ruler (a philosopher-king, as Plato envisioned him), at least he's not a malevolent tyrant. Plato would also enjoy seeing his works in bookstores everywhere and appreciate that our universities still teach his ideas. Some things about our existence, however, are no longer the same as in Plato's day. Most prominently, ours is a world of technology. Our technology is so powerful that if Plato were alive today, he might use very different analogies to convey his ideas, and perhaps even have to rethink some of his philosophy.

If, while strolling down the street, Plato ventured into a movie theater, he would immediately see the parallels between the theater and his cave. Both are populated by viewers whose attention is riveted to

**Today's media rooms,
connected to satellite and
cable TV systems, are
a far cry from the cavelike
nature of movies or even
early TV with just
three broadcast networks.**

surfaces showing large, exaggerated images of reality that are selected and shown by a projectionist. Although movies and shadows may be fascinating to watch, no one who understands the nature of reality would confuse truth with the filmed representation of it. For example, whereas in reality, we are free to choose our images, in a movie theater we can only watch what is shown to us. Afterward, Plato might wander home and revise his cave allegory using the analogy of a movie theater instead. The lesson of the allegory would not substantially change.

On the other hand, if Plato happened to look into the window of a stereo shop and went inside to audition a home-theater

system, I'll bet he would hurry home and rethink his cave allegory, very concerned about how that technology influenced his lesson. If a home theater is substituted for the cave, then the fire is replaced by a widescreen television and the echoes by surround-sound speakers. That much is similar to a movie theater. But in a home theater the puppetmaster/projectionist is replaced by five hundred channels of live programming and libraries of videotapes and discs, each easily accessible on demand by the viewer.

With a home-theater analogy, Plato could still argue that the pursuit of enlightenment is noble, but his distinction between imitation and reality would not be nearly as obvious as with his cave analogy. Whereas shadows and echoes are clearly false, forced representations, the images and sounds from a modern electronics system are not nearly so trivial. Although they are not easily confused with actual reality, they are fair representations of it and in many ways offer opportunities not available in the real world, such as the ability to replay the depiction of an event again and again, or to skip over the boring parts.

Most important, the modern technology found in a home theater multiplies our freedom of individual choice. Today's media rooms, connected to satellite and cable TV systems, are a far cry from the cavelike nature of movies or even early television, when viewing choices were limited to three broadcast networks. Today, home theater is a window into many, many realities — each selectable by the viewer. In the same way that a car extends our ability to travel through more of our world, a home theater allows us to instantly look around the world at thousands of realistic sights and sounds.

It is almost impossible now to imagine life without this kind of technology; its absence would shrink our world to a much smaller dimension. Moreover, today's audio systems and televisions are certainly not final achievements. Rather, they are primitive prototypes of devices that will form a new techno-reality, eventually leading to virtual realities that are both indistinguishable from and less confining than actual reality.

For now, few of us would wish to spend our entire lives chained to a television. Shadows on a cave wall cannot rival actual reality, and neither can the best television screens and loudspeakers. The world outside is still a far richer place. But it is certain that tomorrow's media technology will provide even greater personal choice and access, conveying truly lifelike experiences. In time the "real world," when compared with the new techno-reality, may seem as perceptually diminutive and distorted as images on a cave wall. I wonder what Plato would think about *that*. □

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—Brent Butterworth, *Home Theater*

At \$999 ea., the bipolar BP2002 with dual built-in 125-watt powered 12" subwoofers closely rivals the ultimate performance of Definitive's reference flagship BP2000.

“It was literally staggering!”

—Brent Butterworth

When *Home Theater's* Brent Butterworth raved about the BP2000, “This slammin’ system will probably kill any other you’ve heard,” we were thrilled and honored. In fact, since its introduction last year, Definitive’s top-of-the-line BP2000 has clearly established itself as the most highly reviewed speaker of all time.

Now, Brent agrees that our newest breakthrough, the BP2002, incorporates similar cutting-edge technology and achieves mind-boggling sonic performance which closely rivals that of our flagship BP2000. And most importantly, the BP2002’s significantly lower price and more compact size will now allow many more lucky listeners like yourself to own super speakers of this definitively ultimate quality level.



You must hear the BP2002 and experience for yourself the mind-boggling sonic performance which drove Brent Butterworth absolutely wild!

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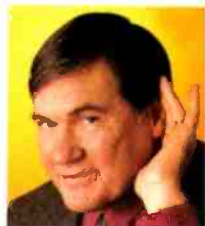
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AUDIO Q & A

IAN G. MASTERS

Recording LP's on CD

Q I'm a devoted CD fan, but I still have a few treasured LP's that I haven't been able to replace in the digital format. For the most part they contain music that will probably never be reissued. It seems to me that there should be a market for a company that would transfer individual LP's to recordable CD's, as there is for converting old home movies to videotape. Do such services exist?

STEVE COLBURN
Largo, FL

A They might, but if so, they're illegal. The images in the home movies you take in to have transferred to tape are your property; the music on the LP's you want copied belongs to its creators, and anybody who copies it for money is engaging in piracy. On the other hand, if you can get your hands on a CD-R or MiniDisc recorder, even temporarily, there's nothing to stop you from making your own archival copies of the LP's you own; just don't sell them.

Breaking In a Subwoofer

Q I have read that you should "break in" a pair of speakers before using them. Is this true of passive and powered subwoofers as well? If so, what does the break-in process entail?

ANDREW J. SMITH
Florissant, MO

A Many audiophiles — and some manufacturers — believe that a speaker will not achieve its sonic potential until it has been operated for a number of hours, sometimes hundreds. There may be something to this: A speaker is mechanical in part, and flexing it for a while may iron out some kinks. If that theory holds for full-range speakers, it should be appropriate for subwoofers, too, and simply playing the speaker for a period of time with some music that exercises the drivers should do the job. I put less credence in other claims, however, such as one company's suggestion that "speaker cables need burn-in to 'form' the dielectrics of their insulation and bring them up to peak performance." That seems a bit of a stretch.

Upgrading Pro Logic

Q I'd like to upgrade my Dolby Pro Logic surround-sound system by switching from a receiver to a preamplifier/processor and separate amplifiers. I'm not ready for Dolby Digital (AC-3) yet, but if I stay with Pro Logic, what would I gain by the change? Should I wait until I can afford a good preamp/processor with both Dolby Digital and

Pro Logic decoding, or should I upgrade to Pro Logic separates now and buy a Dolby Digital decoder later?

DAVE MCDUFFIE
Sumter, SC

A Moving up to an outboard Pro Logic decoder may pay some sonic dividends and give you greater control flexibility, but it's likely to be expensive. The increasing number of laserdiscs with Dolby Digital encoding and the imminence of DVD suggest that you'll want Dolby Digital reasonably soon. Many Dolby Digital decoders will handle Pro Logic as well, so it would seem sensible to hold on to what you have until you're ready for the next technological leap.

Phantom AM

Q There is a small AM radio station whose antenna is about 900 yards from my building. The signal from this station comes through my system quite strongly no matter what source I select on my receiver. In quiet passages of classical recordings, the AM is sometimes louder than the music. I can still hear it even when I disconnect my FM antenna or turn the volume all the way down. Why is this happening? My receiver is about seven years old; would buying a new one help?

NORMAN MCNELIS
Loretto, PA

A Your problem is not uncommon, but it's hard to deal with. Any structure as close to an AM transmitter as your building is awash in electromagnetic energy. Various components in your stereo system can act together as a receiver and cause the audible interference. In extreme cases, the speaker wires can actually pick up enough current to drive the speakers even if the whole system is turned off! That usually results in a low murmur, however, so if your signal is as strong as you suggest, I would guess that it's being accidentally rectified in your receiver — after the input switching (because it affects all sources) but before the power-amplification stage.

One possibility is that the AM signal is being conveyed to the receiver's chassis by the speaker wires, which can act like antennas. A way to check is to disconnect the speaker cables and listen to the receiver through headphones (don't just switch the speakers off; you have to unhook the wires from the back of the receiver). If the interference is still present, the speaker cables are not the problem — or not the whole problem, anyway. If the noise stops, you've at least identified its source.

Getting rid of it is another matter. Chang-

- AK- Alaska Audio: Juneau Pyramid: Anchorage.
- AL- Cohen's Electronics: Montgomery Kincaid's TV: Tuscaloosa Ltkis Audio: Birmingham.
- AR- Custom Audio Video: Little Rock.
- AZ- Jerry's Audio Video: Phoenix, Tucson.
- CA- Access to Music: Lakeside Accurate AV: S. Lake Tahoe Ahead: Los Angeles Audio Concepts: Fresno Creative Hansen: Bay Area Audio: San Jose Boots Camera: Palm Springs Hansen: West LA Coast Satellite: Ascadero Santa Maria: Creative Stereo: Santa Barbara, Ventura David Rutledge Audio: Palm Desert DB Audio: Berkeley Digital Ear: Tustin Dow Stereo Video: San Diego & Suburbs, La Jolla, El Cajon, Chula Vista, Escondido Lee's Home Theater: Visalia Monterey Stereo: Monterey Pacific Coast AV: Newport Beach Paradyne: Sacramento Performance Audio: San Francisco Systems Design: Redondo Beach Videotek: Westminster Westchester TV: Bakersfield Wilson Home Theater: Woodland Hills.
- CO- Audio Visions: Grand Junction: Denver TV: Denver, Boulder, Colorado Springs Soundtrack: Listen & Suburbs, Boulder, Ft. Collins, Colorado Springs.
- CT- Al Franklin's Greenwich Audio Etc. Orange: Carlson's Audio Video: Danbury Roberts Audio Video: New London The Sound Room: Westport Stereo Shop: Hartford.
- DC & Suburbs: Myer-Emco.
- DE- Sound Studio: Newark, Wilmington.
- FL- Absolute Sound: Winter Park Audio Advisors: West Palm Beach Audio Center: Deerfield Beach Audio Video Store: Tallahassee The Audiohouse: Vero Beach Cooper for Stereo: Clearwater Hoyt Stereo: Jacksonville Palm Audio: Destin Sound Components: Coral Gables Sound Ideas: Gainesville Sound Insight: Ft. Pierce Stereotypes: Daytona Beach Stuart AV: Stuart.
- GA- Laser Disc Enterprises: Atlanta Merril TV: Columbia Stereo Connections: Valdosta Stereo Festival: Atlanta Hi Audio Center: Homolity, Walpaha.
- HI- Audio King Cedar Rapids, Des Moines Archer Audio Video: Ft. Dodge Audio Video Long: Des Moines Audio Visions: Sioux City Camera Corner: Davenport.
- ID- Ultimate Electronics: Boise Wise Buy: Idaho Falls.
- IL- United Audio Centers: Chicago & Suburbs Camera Corner: Bloomington Good Vibes: Champaign Jon's Home Ctr.: Quincy Sound Forum: Crystal Lake Sundown AV: Springfield.
- IN- Classic Stereo: Ft. Wayne, Mishawaka Good Vibes: Lafayette Kings Great Buys: Evansville Ovation Audio: Clarksville Indianapolis.
- KS- Accent Sound: Overland Park Advance Audio: Wichita Audio Junction: Junction City, Manhattan.
- KY- Ovation Audio: Lexington, Louisville.
- LA- Alterman Audio: New Orleans Metairie Lake Charles Music: Lake Charles Mike's Audio: Baton Rouge Wright's Sound Gallery: Shreveport.
- MA- Cookin': Chestnut Hill, Saugus Goodwins Audio: Boston Shrewsbury Nantucket Sound: Yhannis Northampton Audio: Northampton Pittsfield Radio: Pittsfield.
- MD- Gramophone: Baltimore, Ellicott City Myer-Emco: Gaithersburg, Beltsville, Rockville Soundscape: Baltimore. ME- Cookin': Portland.
- MI- Pecar's: Detroit Troy Classical Jazz Holland Classic Stereo: Kalamazoo Grand Rapids Stereo Center FRAV: Flint Court St. Listening Room: Midland, Saginaw.
- MN- Audio King: Minneapolis & Suburbs Rochester, St. Cloud Audio Designs: Winona.
- MO- Independence AV: Independence Reference Audio: Sedalia Sound Centre: St. Louis.
- MS- Ideal Acoustics: Starkville McLelland TV: Hattiesburg Players AV: Ridgeland.
- MT- Aspen Sound: Missoula Kalispell Avilert: Bozeman Car & Home Stereo Ctr.: Billings Rocky Mt. Hi Fi: Great Falls.
- NC- Audio Video Systems: Charlotte Audio Visions: Wilmington Now Audio Video: Durham, Greensboro, Raleigh Winston Salem Audio Lab: Wilmington.
- NE- Custom Electronics: Omaha, Lincoln.
- NH- Cookin': Nashua Manchester Newington Salem S. Nashua NE Hal's Stereo Trenton Monmouth Stereo Shrewsbury Sound Waves Northfield Woodbridge Stereo: West Caldwell, Woodbridge.
- NM- Ultimate Elect.: Albuquerque Sound Ideas: Albuquerque.
- NV- Ultimate Elect.: Las Vegas Upper Ear: Las Vegas.
- NY- Audio Breakthroughs: Manhasset Audio Den: Lake Grove Audio Expressions: Newburgh Clark Music: Albany Syracuse Stereo Exchange: Manhattan Hart Elect.: Vestal Innovative Audio: Brooklyn Listening Room: Scarsdale Rowe Camera: Rochester Speaker Shop: Amherst.
- OH- Audio Craft: Akron, Cleveland, Mayfield Hts., Westlake Audio Etc.: Dayton Classic Stereo: Lima Paragon Sound: Toledo Stereo Visions: Columbus Threshold Audio: Heath.
- OK- Audio Dimensions: Oklahoma City Ultimate Electronics: Tulsa Photo World: Bartlesville.
- OR- Bradford's HiFi: Eugene Chelsea AV: Portland Beaverton Kelly's Home Ctr.: Salem Magnolia HiFi: (Portland), Beaverton, Clackamas Stereo Plant: Bend.
- PA- Audio Junction: Pittsburgh Gary's Elect.: State College BH Stereo Lancaster Home Elect.: Blakely Hi Fi House: Abington Broomall Camp Hill Harrisburg Listening Post Pittsburgh Palmer Audio: Allentown Pro Audio: Bloomsburg Stereo Shoppe: Selinsgrove Williamsport Stereoland: Natrona Heights The Stereshop: Greensburg.
- RI- Stereo Discount Ctr.: Providence.
- SC- AV Design: Charleston Custom Theater & Audio: Myrtle Beach Upstairs Audio: Columbia.
- SD- Audio King: Sioux Falls Sound Pro: Rapid City.
- TN- College HiFi: Chattanooga Hi Fi Buys: Nashville Now Audio Video: Knoxville Modern Music: Memphis Sound Room: Johnson City.
- TX- Home Entertainment: Dallas, Houston, Plano Audio Tech: Temple Waco Audio Video: College Station Brock AV: Beaumont Bunkley's Sound Systems: Abilene Bjorn's: San Antonio High Fidelity Austin Krystal Clear: Dallas Marvin Electronics: Ft. Worth Sound Quest: El Paso Sound Systems: Amarillo Sound Towne: Texarkana.
- UT- Alpine Elect.: Provo AudioWorks: Salt Lake City Crazy Bob's: St. George Stokes Bros.: Logan Ultimate Elect.: Layton, Murray, Orem, Salt Lake City.
- VA- Myer-Emco: Falls Church, Tyson's Corner Fairfax Audio Connection: Virginia Beach Audiotronics: Roanoke Home Media Store: Richmond.
- WA- Magnolia HiFi: Seattle & Suburbs Tacoma Silverdale, Spokane Aspen Sound: Spokane Pacific Sight & Sound: Wenatchee Tin Ear: Kennewick.
- WI- Audio Emporium: Milwaukee Absolute Sound & Vision: Sheboygan Hi-Fi Heaven: Appleton Green Bay Sound World: Wausau.
- WY- Puerto Rico: Precission Audio: Rio Piedras.
- Canada- A & B Sound: Calgary, Edmonton Kelowna Vancouver & Suburbs, Victoria Advance Electronics: Winnipeg Bay Bloor Radio: Toronto Canadian Sound: Brampton Ont. Digital Dynamics: Clearbrook Kebecon: Montreal Lipton's: New Market Ont. Peak Audio: Halifax Sound Room: Vancouver StereoLand: Windsor Treble Clef: Ottawa.
- Mexico- Contact Grupo Volumen: Mexico City.

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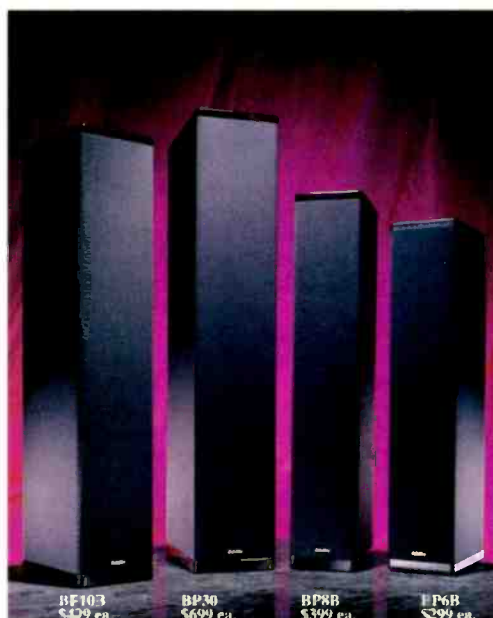
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ipolar (front and rear
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hony of sonic perfec-
bine lush, spacious
ifelike depth-of-field,
lution, pinpoint 3-D
l subwoofer-quality
Hz), high efficiency
amic range for
duction of music
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ing the lengths of the speaker cables might help, as might simply changing the positions of the wires and components. In the end you might, as you suggest, have to spring for a new receiver. Audio components vary widely in their immunity to radio-frequency interference (RFI), so another model or brand might not be vulnerable. But you won't know that until you set up the new receiver in your usual listening area, so make sure the dealer will let you audition it at home before you buy or else exchange it afterward if it picks up the same interference.

Dolby Digital/MPEG Audio

Q I'm not clear on one aspect of the new DVD video format. Can receivers and processors that are equipped with Dolby Digital (AC-3) circuitry, which is the audio standard for the NTSC form of DVD, also be used to decode the MPEG audio used in the European PAL version? REUVEN SHAVIT Herzliyya, Israel

A The answer is no, though you may be a little confused. Dolby Digital is not an NTSC standard but is, in fact, the North American DVD standard. As you suggest, the digital surround sound on some overseas DVD's will be encoded using a different system, MPEG audio, which is incompatible with Dolby Digital. Video on all DVD's here and abroad will be encoded using the MPEG-2 video data-compression system, which can feed a picture signal in any of the worldwide television standards.

Balancing Act

Q I have a turntable that's about twenty years old. The manual is missing, and I'd like some information on balancing the tonearm and adjusting the tracking force. The arm has one adjustable weight at the end and another along the shank. What is the general procedure? JIM WELLEN Haskell, NJ

A Without more detail about your specific equipment I can only generalize. I suspect, however, that the weight on the shaft has to do with antiskating rather than stylus pressure and should just be set to the same value as the rear weight after you've set your stylus pressure.

Your first task is to find out the appropriate pressure for your cartridge. Some manufacturers specify a single weight; others specify a range of weights, in which case you should set your arm for the top end of that range to minimize mistracking, which can damage both stylus and records. If you don't have the instructions for your cartridge, the manufacturer may be able to tell you (it is probably not the same as the turntable manufacturer, so you'll have to look closely). If that doesn't work, your public library may have back copies of audio directories such as our *Stereo Buyer's Guide* that should contain the appropriate information. If there is no way to find out, you can't go too far wrong choosing a setting between 1.5 and 2 grams.

The most accurate way to set stylus pressure is with a stylus-pressure gauge, which allows you to dial up the weight without having to worry about balancing first. Such a device may be hard to come by, however, and you may have to use the arm's own balancing system. On most tonearms you set the scale on the counterweight to read zero, then slide the counterweight backward or forward until the arm is in balance and appears to float. From there you can simply dial up the required pressure. If you do notice mistracking on loud passages or near the center of the record, increase the pressure.

Remote Speakers

Q I recently installed a surround-sound system in my living room, and I would like to add three pairs of speakers in adjoining rooms for use when the video isn't on. I have run the wires and installed a separate volume control for each pair. What's the best way to hook them up to my A/V receiver?

JEFF TODD
Tulare, CA

A It's important to note that even though your A/V receiver may have four or five channels of amplification, only the main front left/right speaker outputs will be suitable for driving your remote speakers. That said, the way *not* to do it is simply to connect all the speakers in parallel to the main outputs, which would present such a low impedance to your receiver's output stages that it would likely damage them.

There are a number of multispeaker switching systems available that claim to keep the impedance constant no matter how many speakers are switched in; most allow you to control volume as well. Even though you have already bought individual controls, I'd recommend replacing them if they don't have safeguards to protect your amplifier.

Impedance Mismatch

Q The surround channels of my receiver are rated at 25 watts into 4 ohms. The speakers I am using for these channels sound great, but they are rated at 8 ohms. Will this mismatch have any negative impact?

ROBERT E. SMITH
Columbus, GA

A It's unlikely. The danger is not in using speakers whose impedance is too high; that might reduce the transfer of power slightly, but you can usually compensate simply by turning up the level a bit. As long as your amplifier can handle the extra output, there should be no problem. What you should always avoid, however, is using speakers (or a combination of speakers whose impedance is *lower* than your amplifier is rated to handle.

If you have a question about audio, send it to Q&A, Stereo Review, 1633 Broadway, New York, NY 10013. Sorry, only questions chosen for publication can be answered.

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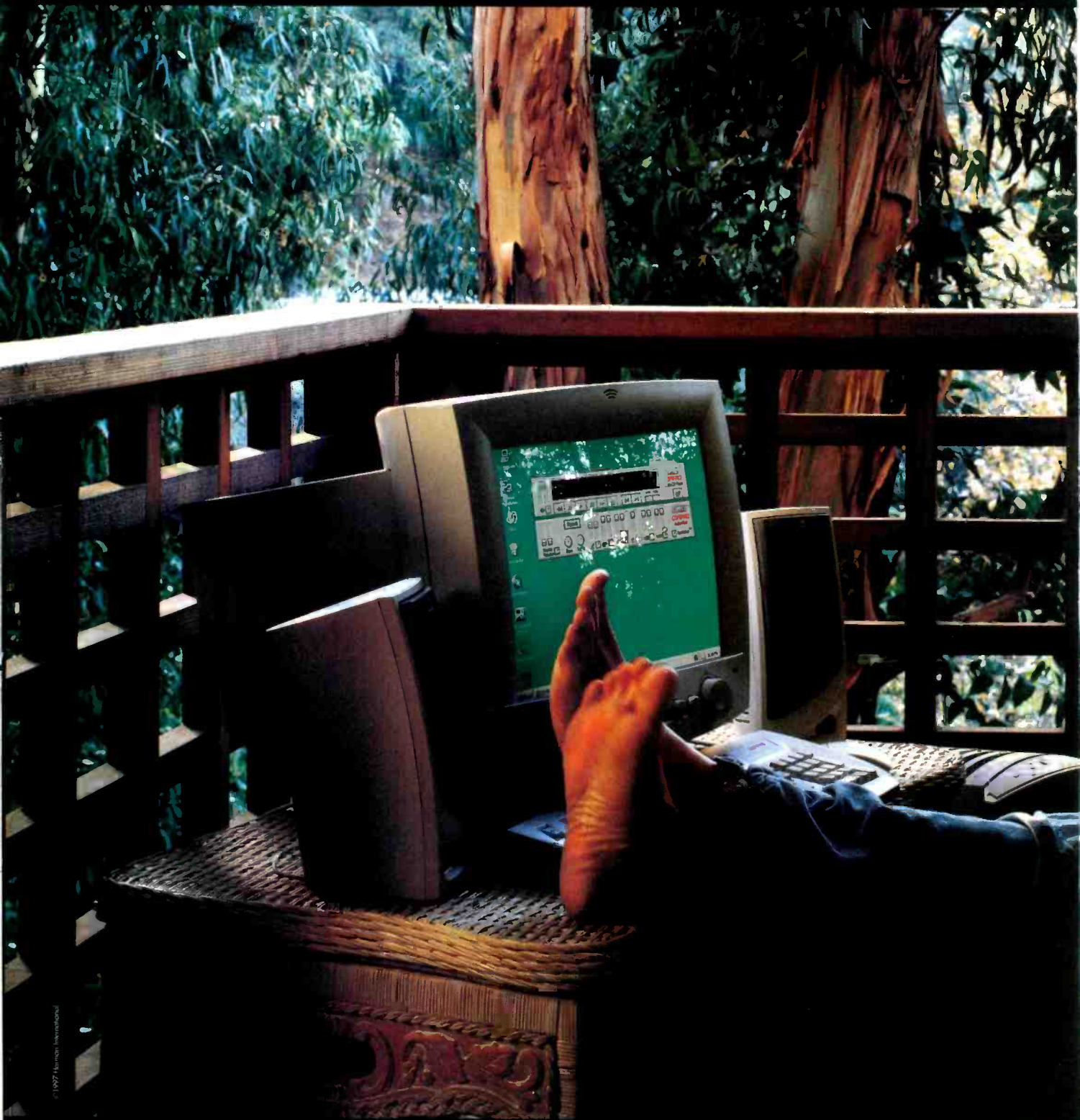
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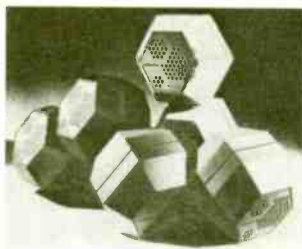
TIME DELAY



Danny Most, 1977

cassette format, with its rigid licensing restrictions, has been developed about as far as it is economical to go." Some of them planned to introduce a new format: the elcaset. New products included Sharp's Optonica RT-3535 cassette deck (\$430), with an "Automatic Program Locate Device," and Tandberg's Fasett speaker (\$160 a pair), with a 5-inch woofer and a 2 1/4-inch tweeter.

Among recordings named Best of the Month were Jackson Browne's "The Pretender" and two versions of Wagner's *Die*



Tandberg speakers, 1977

Meistersinger, one with Eugen Jochum on Deutsche Grammophon, the other with Georg Solti on London. Elsewhere in reviews, the debut album by Donny Most, from TV's *Happy Days*, failed to impress Peter Reilly: "There is evidence here that his voice is in the process of changing — into precisely *what*, I'm not sure."

In a profile of Tatiana Troyanos, the mezzo-soprano told the interviewer that she was no prima donna. "Temper tantrums take energy," she said. "And besides, all that star stuff is passé, old-fashioned, and silly in an American."

10 YEARS AGO

"Industry leaders are trying to decide whether they have found a magic elixir or an evil

curse," wrote Steve Birchall in an "Issues and Answers" feature covering the dawn of digital audio tape recorders. "I'll probably buy one, but I may go shopping with bell, book, and candle."



Among new products was Denon's DR-M07 cassette deck — at \$200 the company's lowest-priced model — and Polk's SDA 1B tower speaker (\$699), with two tweeters, four midranges, and a 12-inch woofer. And in test reports, Julian Hirsch reviewed Ortofon's X3-MC phono pickup (\$140), which he called "a delightful cartridge, the kind that can be enjoyed for hours without creating an urge to listen to something else."



Ortofon cartridge, 1987

"When Teresa Stratas sings these songs," Chris Albertson wrote in a review of "Stratas Sings Weill," the opera star's second such album, "I get the same feeling of uneasiness I experienced when I heard James Earl Jones recite old blues lyrics... a feeling that there has been a terrible mismatch." In another review, Mark Peel commented that listening to Kraftwerk's "Electric Cafe" was like "eavesdropping on a robot in therapy."

— Ken Richardson



30 YEARS AGO

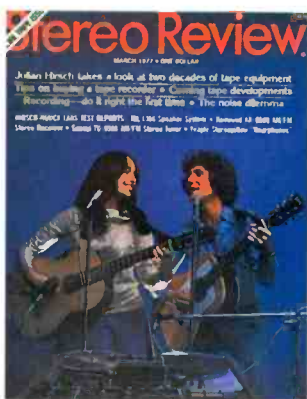
March was for many years the month for all things tape in STEREO REVIEW. In the March 1967 feature "The New Self-Reversing Tape Recorders," Herman Burstein reported that the trend toward bidirectional open-reel decks "has now taken firm hold." And the article "Car Cartridges Come Home" saw mobile tape systems — the Fidelipac four-track, the Lear Jet eight-track — being adapted for the den, noting that another system, using the Philips cassette, also held much promise.

New products included Ampex's combination videotape recorder and TV (\$1,695) and KLH's Model Five (\$180), a three-way bookshelf

speaker. Hirsch-Houck Laboratories tested BSR's McDonald 500 automatic turntable, which had a manufacturer's suggested price of \$75, including base, dust cover, and an Empire phono cartridge.

Critic Rex Reed was on the money when he predicted great things for Judy Garland's daughter in "The Arrival of Liza Minnelli," a review of her album "There Is a Time." But in letters to the editor, readers took exception to his January 1967 pan of the Beatles' "Revolver." Reed replied, "[The Beatles] will be remembered by future generations as songwriters of the Sixties, not performers of the Sixties."

20 YEARS AGO



"Today's cassette recorders far surpass the best home open-reel recorders of a decade or two ago," wrote Julian Hirsch in his March 1977 "Technical Talk." But "Tape Horizons" columnist Craig Stark noted that "a number of manufacturers have concluded that the



Ampex videotape recorder and TV, 1967

Introducing The *Tower*™ Series By Henry Kloss.

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“The soundstage of the Towers was stable, deep, and richly three-dimensional...unfettered, solid bass to below 30Hz...an uncommon value.” *Audio, Jan. 1997*

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The result is somewhat unusual: speakers combining the dynamic presence of high-efficiency studio monitors, and the precise musical accuracy and pinpoint imaging of low-efficiency “reference” speakers.

Tower III by Henry Kloss™

Tower III is a two-way design using a wide-dispersion tweeter and a single 8" woofer. It combines high sensitivity and outstanding dynamic range with the natural, wide-range sound (including terrific bass) of a generously-proportioned cabinet. It has been carefully “voiced” by Henry Kloss for superb tonal balance and precise stereo imaging. These benefits come at a much lower cost than superficially similar models through a combination of Henry Kloss’ design expertise, plus Cambridge SoundWorks’ highly efficient direct-to-the-consumer sales policy. *Tower III* is the most affordable high-performance floor-standing speaker we know of.

Like other models in the series, *Tower III* is magnetically shielded and features removable black grilles, fully-finished cabinets (front and rear) and gold-plated binding posts. Finished in black ash vinyl. **Factory-direct price: \$599 pr.**

Tower II by Henry Kloss™

Tower II is a three-way system substantially larger than *Tower III*. It has two 8" woofers, a 5 1/4"

midrange, and a 1" soft-dome tweeter.

The large cone area of *Tower II*'s drivers contributes to an effortless sound quality, giving music a strong feeling of “presence.” That presence, along with *Tower III*'s smooth, musical octave-to-octave tonal balance and precise stereo imaging, produce what we think is the finest speaker system ever offered under \$1,000.

Tower II is finished in vinyl that simulates black ash or Vermont walnut. Bi-wire/bi-amp capable.

Factory-direct price: \$999 pr.

“Tower II can generate the gut-wrenching bass and do justice to a first-rate music system. To top it off, the price is right!”

Stereo Review

Tower by Henry Kloss™

The flagship of the series is the three-way bipolar *Tower by Henry Kloss*. Bipolar dispersion helps eliminate the “point source” effect of direct-radiator speakers, and ensures a proper stereo effect in many listening positions.

Tower features two forward-facing 8" woofers; a forward-facing 5 1/4" midrange driver; a 1" soft-dome tweeter; and separate rearward-facing midrange and tweeter units identical to those used in front.

Because it has even more cone area, *Tower*'s feeling of “presence” is, if anything, stronger than that of *Tower II*. That presence, when combined with the three-dimensional sound of *Tower*'s bipolar design, results in sound that is nothing short of incredible. Available in lacquered walnut or black ash veneers, *Tower* is one of the finest speakers ever offered. Bi-wire/bi-amp capable. **Factory-direct price: \$1,499 pr.**

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Factory-direct price: \$349

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CIRCLE NO. 6 ON READER SERVICE CARD



TECHNICAL TALK

JULIAN HIRSCH

Is Loudspeaker Performance Measurable?

That may seem like a bizarre question, considering the endless series of loudspeaker test reports that appear in *STEREO REVIEW* and other publications. Actually, there is no simple answer to it. If brevity were important, I would have to say, "Maybe, sometimes, sort of . . ."

To be sure, there are innumerable measurements that can be made on a speaker besides such obvious physical properties as size, weight, magnetic field, and the like. Those are not *directly* related to a speaker's sonic characteristics, although they can have a great deal to do with its suitability for a given application.

But my loudspeaker tests are limited to measuring (and hearing) their actual sonic performance in one particular room. My goal is not to measure or evaluate design properties except as they affect a speaker's ultimate purpose — to reproduce music. And even that goal is limited to a narrow range of placement options in the room, which in the case of mine measures 15 x 20 x 8 feet, is carpeted, and has reasonably good acoustics. Those constraints obviously affect the test results. Nevertheless, acoustic measurements made under very similar, though not always identical, conditions do allow some degree of comparison between different speakers.

There is a sharp contrast between speaker measurements and those made on electronic components such as amplifiers and tuners. The latter, in general, are unaffected by their surroundings, and their performance is normally repeatable within close limits in other environments.

Speaker measurements, on the other hand, are *only* valid for the environment in which they were made. A position change relative to the microphone, the room boundaries, or the listener's ears can — and usually does — have a profound effect on measured output.

The only sure way to deal with this problem is to have the speaker's entire output reach the measurement microphone over a single path, anechoically. But anechoic rooms large enough to permit valid acoustic measurements are extremely expensive.

More than forty years ago, when I first undertook to measure speaker response, I took advantage of the world's largest anechoic chamber, the great outdoors. It worked quite well except for the ambient noise from cars, airplanes, and lawnmowers. For obvious reasons, however, it was not a satisfactory arrangement, and as winter approached I abandoned outdoor measurements.

Fortunately, today we have a better way of meeting the needs of speaker manufacturers (and reviewers) without deep pockets. There are electronic instruments that permit quasi-anechoic acoustic measurements in a normal environment. Each has its strengths and limitations, but on the whole they do a reasonably good

**A loudspeaker lives in
a three-dimensional world,
and ultimately it can be
judged only by the
listener's ears and brain.**

job. The Audio Precision System One, which we use for almost all electronic measurements, has, among its many capabilities, a so-called MLS (multiple length sequence) mode that essentially eliminates room reflections above a few hundred hertz from the measurement.

I have evolved a measurement technique that best suits my own operating conditions and environment. Admittedly, it falls well short of matching the capabilities of a sizable speaker manufacturer, but our goals are somewhat different. My aim is to measure enough of a speaker's characteristics that I can judge its performance compared with competitive products, evaluate the significance of any special features, and judge the validity of any special claims made for it.

For me, a large part of the evaluation (the major part, in fact) is listening to the speaker, either by itself or in an A/B com-

parison with other speakers that happen to be available. If special qualities are claimed for a speaker's sound, and they nearly always are, I try to find them. Occasionally a speaker sounds strikingly good (or, perhaps, simply *different*), which invites more extended listening.

Side-by-side listening comparisons are sometimes possible, but these are rarely as revealing as one might expect or hope. Such a comparison is almost certain to reveal differences, but I find that if the speakers are even roughly comparable, it can be very difficult to rank them in any meaningful way.

As for the measurements that we do make, most of them are aimed at minimizing the effects of the unavoidable room reflections. A close-miked woofer frequency-response curve, combined with the output of any port or vent, does give a valid reading of the system's potential bass performance, although this is certain to be affected in any other environment by the unavoidable interaction with the room boundaries.

A speaker's bass distortion can be measured in a similar fashion. It is strongly affected by both frequency and level, however, and it cannot be judged from a single reading like the distortion of an amplifier, which is primarily affected by level and much less by moderate changes in frequency.

The "bottom line" of the speaker-testing game is that it is very different from testing most electronic components, in both form and detail. A loudspeaker lives in a three-dimensional world, with many variables, and ultimately it can be judged only by the listener's ears and brain.

And that is the final test — listening to the speakers for a period that may be as brief as a couple of days or as long as a month or two, depending on the merits of the speaker and the backlog of components awaiting test. If I am fortunate enough to have two or three *really* noteworthy speaker systems on hand at the same time, as occasionally happens, I try to compare their listening qualities simply for my own information.

There is also the matter of the program material used to judge a speaker. Many reviewers list a number of discs that they use for that purpose. The lists differ widely from one reviewer to another. I do not use "favorite recordings," with a few outstanding exceptions, such as the John Rutter Requiem (Reference Recordings RR-57CD), which has the most room-shaking and spine-tingling bass I have run across.

In general, however, I think that a speaker should not be chosen on the basis of its performance with only a few recordings, unless that is actually all that you listen to. A truly good speaker should sound good with a wide variety of music, and a good number of them do just that. □

"MicroWorks... The Only Speaker You'll Ever Need." PC Magazine

Introducing *MicroWorks*™— Our New High-Powered, High-Output Amplified Speaker System.

MicroWorks is a very powerful, very versatile amplified subwoofer/satellite speaker system. It produces enough natural, accurate, wide-range sound – including deep bass – to fill a living room or a conference room. It's perfect for use with multimedia computers and for making business presentations. It can be the heart of a terrific home stereo system. Or just connect it to a stereo TV or VCR for a simple-but-fantastic two-channel home theater sound system.

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Compared to any other multimedia speaker system we know of, *MicroWorks* has much more power, significantly more acoustic output and deeper, stronger bass. We think it sets a new standard of performance for the product category. Its sound is comparable to that of a very high quality component stereo system.

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The wide frequency range, natural tonal balance and high output of *MicroWorks* make it one of the very best multimedia sound systems you can buy. It's perfect for use with SRS or Dolby's new Virtual Pro Logic® system. And its wide dispersion and high sound level capability make it ideal for computer presentations to

groups of people. Yet its tiny satellite speakers and vertical subwoofer (which goes on the floor) take up very little workspace.

MicroWorks consists of two magnetically shielded cube

MicroWorks comes finished in black or white.



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MicroWorks system with satellite speakers and subwoofer with built-in amplifiers.*

satellite speakers, an in-line volume control, and a subwoofer. The subwoofer cabinet encloses a 6½" woofer, a 3-channel amplifier, an electronic crossover and a control panel with two inputs and a bass level control. The satellite cubes are supplied with desktop stands, plus a velcro kit that lets you attach the cubes directly to a computer monitor.

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Because we eliminate expensive middlemen, we can sell *MicroWorks* for only \$349.99 – about half the price of its best-known competitor.



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compact, affordable, amplified speaker system that produces wide-range, natural, very "big" sound. *PC Computing* named *SoundWorks* "best multimedia sound system over \$100." *Audio* says it's "really amazing...exceptionally good."

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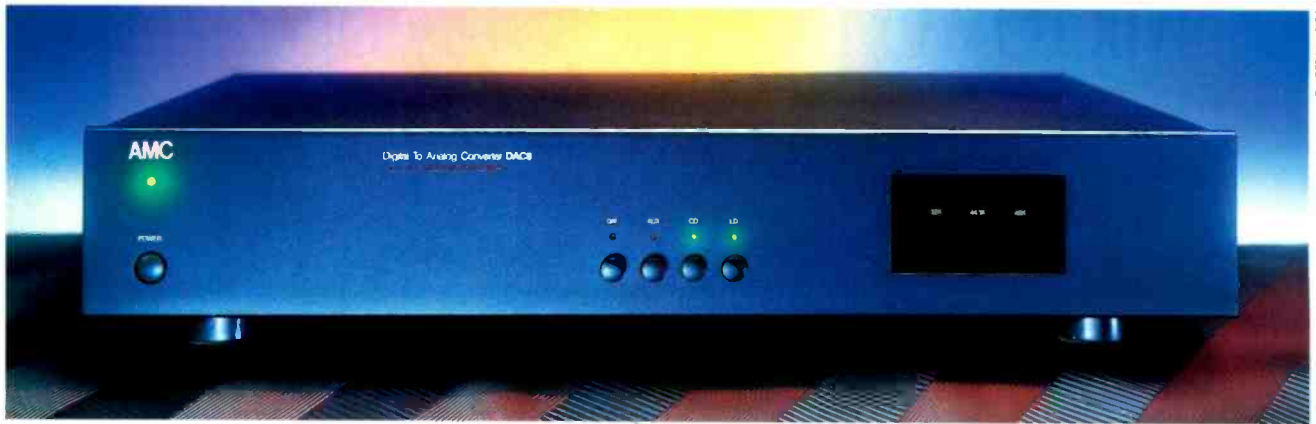
† For a copy of the review, call 1-800-FOR-HIFI.

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* The subwoofers of both systems are designed to be placed on the floor, not on the same surface as the satellite speakers. © 1997 Cambridge SoundWorks.



CIRCLE NO. 6 ON READER SERVICE CARD



JOCK P. LEUNG

AMC DAC8 Outboard Digital-to-Analog Converter

DAVID RANADA • TECHNICAL EDITOR

Outboard digital-to-analog converters (DAC's) are functionally simple devices: They convert digital data to analog audio signals. They are most often used to substitute for the internal DAC stages of such digital sources as CD and laserdisc players should those stages be considered substandard. While an outboard DAC's function is simple, however, it turns out to be rather difficult to do the job well. We've seen outboard DAC's that, in "curing" some malady supposedly congenital to digital audio, used all manner of extraneous processing that actually made the sound audibly worse! Not so with AMC's DAC8 outboard converter. It handles the digital-to-analog signal conversion with a minimum of fuss and a maximum of performance.

Inside, the DAC8 is surprisingly empty, holding only five small circuit boards. The one mounted in the middle of the chassis holds the actual DAC chips, which are Philips Bitstream-type 1-bit devices fed from a digital filter.

Hookup and use of the DAC8 are very simple. There are four digital inputs on the rear panel. Three of them (labeled DAT, aux, and CD) are coaxial RCA jacks, while the fourth (labeled LD) is an optical Toslink connector. Of course, since all the inputs handle standard SPDIF signals, you can feel free to hook up any SPDIF digital

output to any one of them without regard to the labeling.

The input to be converted is selected by a set of front-panel pushbuttons, and the sampling rate of the selected signal (32, 44.1, or 48 kHz) is indicated by a trio of green LED's in the display window. The selected digital signal is also fed to a BNC-type digital output on the rear panel. (BNC connectors are used on some high-end digital components. BNC-to-RCA adaptors are available from Radio Shack.) The converted stereo analog output is delivered via a pair of RCA jacks. Other than the power switch and its nearby indicator, there are no other controls or connections.

On the test bench, the DAC8 performed very well. The first thing we noticed during testing was that its background hum level was extremely low. The worst power-line component (at 60 Hz) was some 124 dB below full output level and far below audibility even at unreasonably high playback levels. Note, however, that this

figure was obtained using the DAC8's optical input, which isolates the unit from ground loops and other interference problems with the source component. Using one of the coaxial inputs sometimes increased the hum level by some 15 dB, depending on the source component, and, curiously, the right channel was more prone to hum than the left. The resulting interference was still below audibility, but its mere presence stands as a testimony to the hum-preventing properties of optical connections. These have gotten an undeserved bad reputation in some circles for their supposedly high "jitter," but we could find no trace of that in the audio output of the DAC8 when we used the optical input. ("Jitter" is a measure of the instability of the high-frequency "clock" signals used to drive and synchronize digital circuits. Its audible significance in consumer equipment has been grossly exaggerated lately by some audio critics.) AMC's use of an optical connector for the laserdisc input also underscores how much contamination by digital and video interference is possible from the coaxial digital output of a laserdisc player.

Our other tests also produced very good to outstanding results. The low hum level allowed us to use an unusually low frequency (21 Hz) during our linearity test without strong interference from nearby power-line harmonics. Compared with the midband frequency usually used in linearity testing, using 21 Hz gives increased measurement accuracy at very low levels by reducing the inherent background noise behind the test signal by more than 12 dB. Measured in this way, the DAC8 exhibited outstanding linearity, with essentially no error at -90 dB and exceeding a 1-dB error only way down at -110 dB. And that error could easi-

DIMENSIONS: 17 inches wide, 3¼ inches high, 12 inches deep

WEIGHT: 10 pounds

PRICE: \$200

MANUFACTURER: AMC, a division of Weltronics, Dept. SR, 1414 Fair Oaks Ave., #7, South Pasadena, CA 91030; telephone, 1-800-321-6396

ly have been caused by the DAC8's 60-Hz hum component being picked up by the test equipment.

Our excess-noise measurements also produced good to superb results at 16-bit resolution and better-than-average performance using quasi-20-bit signals. The background noise level measured with our EN20 test signal showed that the DAC8 has the inherent background noise of something like a 17-bit device, even though it will not correctly handle true audio data of greater than 16-bit resolution (which is all you get out of CD and laserdisc players anyway). The rest of the measurements were fine, including the reference output voltage, which was 0.75 dB below a standard 2-volt output. A slightly too-low output voltage is always more desirable than one that's a bit high because it is less likely to overload the inputs of other circuitry, especially surround-sound processors, on peaks.

The AMC DAC8 sounded as clean as it measured, with an audible reduction in background noise level when special quasi-20-bit program material was used. Units with inferior EN20 results typically show no audible difference with these signals. Hearing these results, however, requires an extremely quiet listening environment — even the mechanical noise produced by a nearby CD player can mask the superior background-noise performance of the DAC8. In all, it's an outstanding product at an understated price. □

MEASUREMENTS

All measurements made through the optical (laserdisc) digital input; dBFS = decibels referred to digital full-scale.

REFERENCE OUTPUT LEVEL
(at 0 dBFS, 1 kHz) 1.84 volts

LINEARITY ERROR
at -90 dBFS (see text) +0.04 dB

EXCESS NOISE (without/with signal)
EN16 (16 bits) +0.9/+0.4 dB
EN20 (20 bits) +11/+11 dB

DISTORTION (THD+N, 1 kHz)
at 0 dBFS 0.042%
at -20 dBFS 0.022%

NOISE (A-wid, re reference output level)
de-emphasis off -94.3 dB
de-emphasis on -97.5 dB

CHANNEL SEPARATION (at 0 dBFS)
100 Hz 103 dB
1 kHz 102 dB
20 kHz 88 dB

FREQUENCY RESPONSE (10 Hz to 20 kHz)
de-emphasis off +0.02, -0.41 dB
de-emphasis on +0.04, -0.28 dB



JOCK P. LEUNG

Infinity Compositions Overture 1 Speaker

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

The Compositions Overture 1, or OVTR 1, an unusual new speaker system from Infinity, represents yet another approach to the age-old problem of getting a gallon of high-quality sound from a quart-sized container.

The OVTR 1 is a remarkably compact system considering its complexity and performance. Unlike the more common "sub/sat" configuration, a three-piece system based on small "cube" satellites and a relatively large bass module (often erroneously referred to as a "subwoofer"), the OVTR 1 consists of a pair of small, narrow high-performance speakers. Each contains a 1-inch high-efficiency dome

tweeter with a neodymium magnet, a pair of 4-inch midrange drivers, and an 8-inch long-throw *powered woofer* (not a true subwoofer considering its operating range) driven by a built-in

DIMENSIONS: 12½ inches high, 5¾ inches wide, 12½ inches deep

WEIGHT: 28½ pounds (each)

FINISH: dark gray plastic cabinet; metal grille covered with black cloth

PRICE: \$1,100 a pair; stands, \$179 a pair

MANUFACTURER: Infinity, Dept. SR, 20630 Nordhoff St., Chatsworth, CA 91311; telephone, 1-800-553-3332; <http://www.infinitysystems.com>

TEST REPORTS

amplifier rated to deliver 150 watts. All of the drivers are magnetically shielded to prevent distortion of a TV picture. The system's rated crossover frequencies are 300 Hz and 3 kHz.

The manufacturer's specifications for the OVTR 1 system include a frequency range of 35 Hz to 20 kHz, a nominal impedance of 8 ohms, a relatively high sensitivity of 92 dB sound-pressure level (SPL) with a 1-watt input, and a maximum peak output of 108 dB SPL on program material. The system is recommended for use with amplifiers rated to deliver between 10 and 100 watts into 8-ohm loads.

The speakers are very compact, though surprisingly heavy for their size. The enclosures are made of a dark gray molded plastic, which is described as a mineral-filled composite. The OVTR 1's can be installed vertically or horizontally on a shelf or similar supporting surface, with suitable mounting feet supplied, or on the optional steel-pipe stands shown on page 41 (\$179 a pair). We chose to install them on the stands, although their assembly was not quite as simple as we would have hoped.

On their stands, the speakers are vertically oriented, resulting in a very narrow profile. Unsnapping the molded-plastic grille reveals the two small midrange drivers (whose plastic cones are a mere 3½ inches in diameter) symmetrically located above and below the single soft-dome tweeter.

The woofer is on one side of the speaker cabinet, behind a black, perforated metal grille. Its amplifier is within the enclosure, out of sight. If the speakers are installed vertically, the woofer can radiate to either side; with a horizontal speaker orientation, it faces upward.

The rear of each speaker cabinet contains input connectors, a bass-level control, and (judging from its moderate warmth) the heat sink for the woofer amplifier. Multiway binding posts, which accept wires, lugs, or single or dual banana plugs, are provided for the signal inputs. Also on the back panel is a protective fuse for the bass amplifier.

The bass-level knob has a detented midpoint, which Infinity suggests using as an initial setting. The detent position results in a well-balanced overall response, although we found that higher settings were sometimes preferable. Obviously, the choice of bass level is a function of listener preference as well as program material.

The OVTR 1 is designed to be plugged into a power outlet like any electronic component. When no signal is present, a red LED on the rear panel glows and the speaker is in standby mode, in which it draws an insignificant 7 watts. The presence of an audio signal at the speaker's input terminals automatically switches on full power, and the red indicator is replaced with a green light. A few minutes after the cessation of program material, the speaker automatically returns to standby mode.

For listening and some lab tests we placed the two speakers on their stands at the front of the room, about 7 feet apart and 3 feet from the wall behind them. The stands tilted the speakers' front grilles a few degrees upward, placing the tweeters about 29 inches above the floor.

The room response was measured from a fixed point about 12 feet in front of the left speaker. We measured

The 8-inch powered woofer in Infinity's compact Overture 1 speaker has a built-in amplifier rated to deliver 150 watts.

the left and right speakers separately and averaged the two curves to form a single response curve — this arbitrary "room response" is measured in the same way for every speaker we test. Although our room-response curve (like most speaker measurements) is far from "flat" in the sense that applies to most electronic components, it does give some clues to the overall output response of a speaker, especially when compared with similar measurements on other speakers (in our case, *hundreds* of others).

The room-response curve for any speaker we test always shows considerable level variation between 20 Hz and 20 kHz, but the variation in the OVTR 1's response was substantially less than most, measuring only ± 6 dB over the full range.

Quasi-anechoic response measurements with the Audio Precision MLS testing program, which is only valid above several hundred hertz, showed a variation of only ± 3.5 dB from 500 Hz to 20 kHz at 1 meter from the speaker

and about ± 6 dB at 2 and 3 meters. The measurements all had their greatest variations above 5 kHz, which is fairly typical behavior.

We measured the bass response with the microphone close to the woofer grille. It was very flat (within ± 0.5 dB) from 200 to 50 Hz and down only 5 dB at 32 Hz. The frequencies above 200 Hz were rolled off at 12 dB per octave. The bass distortion, measured at a drive level corresponding to a moderately high listening level, was under 1 percent down to 65 Hz, rising to 5 percent at 40 Hz and 7 to 8 percent from 20 to 35 Hz. These distortion levels are quite low for a woofer. In fact, distortion readings from 70 to 200 Hz were between a mere 0.4 and 0.6 percent.

The system's impedance, nominally 8 ohms, measured around 5 ohms at most frequencies above 200 Hz. It rose to 11 ohms at 3.5 kHz, presumably because of effects from the crossover to the tweeter at 3 kHz. Since sensitivity measured a high 91 dB SPL (just 1 dB shy of its rating), it should be an easy load for any amplifier to drive.

The narrow shape of the OVTR 1's enclosure and the vertical array of its drivers suggest that its horizontal dispersion should be very good, and so it was. Over a ± 45 -degree horizontal angle, there was only a ± 2 -dB variation in output level with a pink-noise test signal. The drivers' magnetic shielding did its job: Magnetic flux (measured with a gaussmeter) was less than 1 gauss at any point on the enclosure except next to the woofer grille, where it reached 1.5 to 2 gauss (still negligible).

In listening tests, the OVTR 1 generated an exceptionally seamless soundstage that was even less "visible" than the slender profile of each cabinet. It seems likely that the narrow front baffle and driver configuration of each speaker were major contributors to that quality. Spatial imaging was also exceptional.

Infinity suggests using additional OVTR 1 speakers for the center and surround channels of a home-theater installation and a conventional powered subwoofer to handle the deep bass of movie soundtracks. Although this would certainly make a potent A/V system, most audiophiles would probably be more than satisfied with a basic pair of OVTR 1's, which provide a rare combination of system integration, unobtrusiveness, and excellent sound quality at a reasonable price. □

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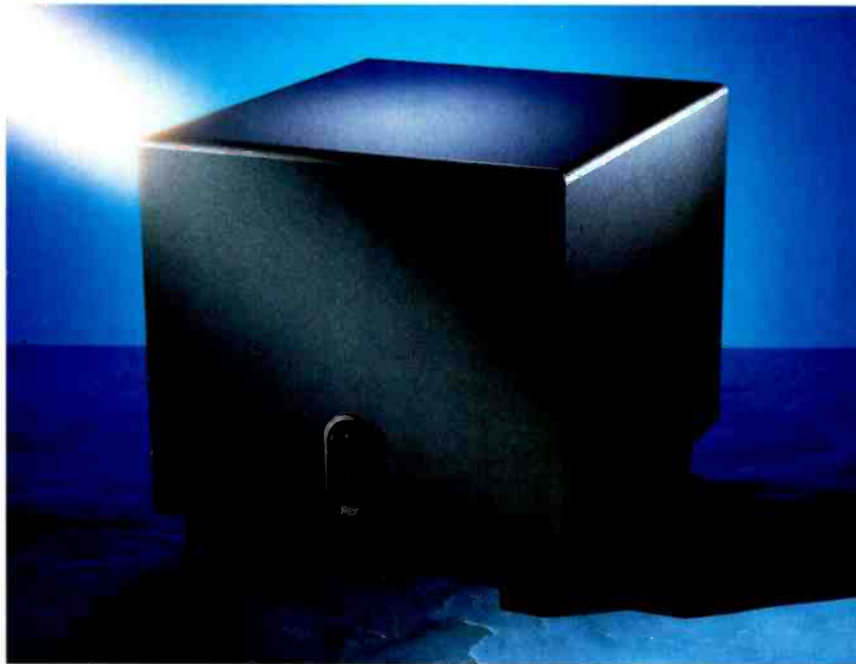
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RALPH MASULLO

MTX PS15 Powered Subwoofer

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

MTX's latest series of powered subwoofers is headed by the PS15. A conventionally styled, roughly cubical black box, the PS15 has a single 15-inch driver, which operates in a sealed enclosure. It is described in the manufacturer's literature as an "acoustic suspension" design. An acoustic-suspension speaker usually has a highly compliant suspension (because a large part of the restoring force behind its cone is supplied by the air in its sealed enclosure), but the PS15's cone suspension feels relatively stiff to the touch. In any event, the cone faces down and radiates over 360 degrees in a horizontal plane. The PS15 is supported 2 inches above the floor on four sturdy wooden feet.

The subwoofer is driven by a built-in amplifier (using a highly efficient Class D switching circuit) that's rated to deliver 200 watts of continuous power. An active equalizer is used to extend the speaker's low-frequency response below 30 Hz (also an unusual feature for an acoustic-suspension design). The woofer's magnet structure is shielded, allowing the PS15 to be

located near a TV without degrading the picture or color quality.

A rare and genuinely useful feature of the PS15 is its provision for remote level control. Although most powered subwoofers have level controls, they are typically on the rear panel, where they are not readily accessible after the subwoofer is installed. Not only is the MTX PS15's level control on its front panel, but it can be operated from anywhere in the room by means of a small infrared remote control furnished with the subwoofer. The motorized front-panel knob rotates as level adjustments are made using the remote's up/down keys; an illuminated dot on its face indicates the relative level setting. The LED glows red

DIMENSIONS: 17 inches wide, 20¼ inches deep, 17½ inches high

WEIGHT: 53½ pounds

FINISH: black vinyl

PRICE: \$600

MANUFACTURER: MTX, Dept. SR,
4545 E. Baseline Rd., Phoenix, AZ 85040;
telephone, 602-438-4545

when no signal is present, changing to green when a signal is applied.

Like most powered subwoofers, the PS15 has a full complement of controls and connectors on its metal back panel, which also serves as a heat sink for its amplifier (it ran only mildly warm during our operation and testing). The PS15 provides a number of options for connection to the main system's amplifier or receiver. These include both line-level and speaker-level inputs via phono jacks and insulated spring clips, respectively. We used the speaker-level inputs.

Like most powered subwoofers, the PS15 has a polarity switch (0 and 180 degrees) to provide the best acoustic match between its output and that of the main speakers. A slide switch is used to select high-pass, 6-dB-per-octave crossover frequencies of 50, 100, or 150 Hz when the speaker-level inputs are used. When the line-level inputs are used, an electronic 12-dB-per-octave crossover (with a fixed 100-Hz frequency) is engaged. A knob near the top of the rear panel is used to set the subwoofer's low-pass frequency at any point between 50 and 150 Hz. This establishes the upper frequency at which the sub's output rolls off, so that it can pick up where the woofers in the main stereo speakers quit.

The pushbutton power switch turns the subwoofer off or puts it into its normal Auto mode, in which it is switched on automatically when a signal appears at one of its inputs. In the absence of a signal, the subwoofer shuts down.

The output level of a subwoofer is normally set for the smoothest possible blend with the output of the main speakers and, of course, to suit the listener's taste. The adjustment parameters are also a function of the program content as well as the subwoofer's design and placement. The result of this ambiguity is that, within wide limits, there are really no "right" or "wrong" operating adjustments for a subwoofer. Whatever best suits the listener's taste is, by definition, "right."

Nevertheless, it is still desirable to protect the subwoofer against damage resulting from overdriving, and MTX has done that with a feature it calls Dynamic Excursion Control, or DEC, which can be switched on or off by the user, but not otherwise varied. DEC is described in the PS15's detailed instruction booklet as "a complementary system of signal reproduction to create and overlay a mirror image of the dis-

torted signal on the source material, thereby restoring the audio to its pre-error condition."

That is a reasonable description of the distortion-reducing process of negative feedback. In any event, we found no audible changes, at any reasonable listening level, from switching the DEC on or off.

We measured the frequency response of the PS15 by simultaneously driving both channels of its speaker-

The MTX PS15's level can be adjusted from anywhere in the room with its infrared remote control.

level inputs from the output of our Audio Precision System One to simulate a typical home music system. The test microphone was on the floor close to the edge of the subwoofer. The response with a 150-Hz high-pass crossover setting was 27 to 150 Hz \pm 4 dB. With the 100-Hz setting, it was \pm 4 dB from 100 Hz to 27 Hz, and with the 50-Hz setting it was \pm 3 dB from 27 to 60 Hz. Subjectively, the effective lower limit of the PS15 was in the vicinity of 25 Hz or so. The distortion of a subwoofer, like that of any other speaker, is a function of frequency and

level. At the levels we would normally use for home listening, the distortion was less than 3 percent above 45 Hz, rising to 10 percent at 35 Hz and 15 to 20 percent in the range of 20 to 30 Hz. Although these figures may seem high (at least in comparison with electronic components), they are fairly typical of subwoofers comparable in size and price to the PS15.

The magnetic flux around the PS15 proved to be very low, less than 1 gauss at any point on its external surface. The flux level was typically 0.5 gauss or less. That confirms this subwoofer's suitability for a home-theater installation — the PS15 could probably be used as a base for a TV without degrading its picture!

It is also worth noting that the instruction manual for the PS15 is exceptionally detailed, including system-connection diagrams for its various configurations, a complete setup and adjustment procedure, operating recommendations, and troubleshooting hints. Although the PS15's rear panel might be more complex than those of other powered subwoofers, MTX's excellent manual compensates for this.

The MTX PS15 is one of the more versatile subwoofers we have tested. Subjectively, it delivered the room-filling, solid bass performance that is the prime reason for using a subwoofer in a home theater or a high-quality music system. It is also an excellent value for the money. □



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TEST REPORTS



RALPH MASULLO

Energy Audissey A3+2 Speaker

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

The Canadian-made Energy loudspeaker line has recently been augmented by a new series, Audissey, that currently comprises three models. The Audissey speakers are described as “asymmetrical bipolar vented systems,” which is a reasonably accurate description of their basic design but is unlikely to convey much information to the average audio enthusiast.

The Audissey speakers are slender columnar systems in the popular tower format. In the A3+2, the middle member of the series, two identical sets of drivers, each consisting of a 1-inch aluminum-dome tweeter and a 5½-inch woofer, are mounted back to back on the front and rear panels of the col-

umn and driven in phase. The resulting bipolar propagation pattern, which Energy refers to as Asymmetrical Bipolar Radiation (A.B.R.), provides broad angular coverage, with substantial radiation to the sides as well as to the front and back. The output of the

DIMENSIONS: 7½ inches wide, 40¼ inches high, 13 inches deep

WEIGHT: 48 pounds

FINISH: black high-gloss base and cap; black cloth sleeve grille

PRICE: \$1,200 a pair

MANUFACTURER: Energy, Dept. SR, 3641 McNicoll Ave., Scarborough, Ontario M1X 1G5; telephone, 416-321-1800

rear drivers is normally reflected from the wall behind the speakers.

The “asymmetrical” part of the system’s name refers to a second, identical woofer, below the other front-panel drivers, that augments the bass response of the upper woofer but has no direct counterpart on the rear panel. A ducted port on the rear panel appears to be common to the front and rear woofers, however — indeed, to the entire volume of the enclosure.

The manufacturer claims that the A.B.R. design, because of its extra front driver, produces a stronger output from the front of the system than from the rear and provides better tonal balance and tighter imaging than conventional bipolar systems. Energy also says that the Audissey A.B.R. design allows the speakers to be placed closer to the room boundaries, taking up less space. Like most columnar speakers, the Audissey speakers are designed for free-standing placement. Energy recommends positioning them at least 15 inches from the wall behind and 6 to 10 feet apart.

The A3+2 occupies less than 1 square foot of floor space. Except for a high-gloss black wood base and top plate (the latter easily removable), the enclosure is covered by a black cloth sleeve that can be rolled down for access to the drivers.

At the top of the front panel is a 1-inch aluminum-dome tweeter, with the two 5½-inch woofers immediately below it. The crossover frequency between the tweeter and woofers is given as 1.8 kHz. The woofer cones are made of carbon/mica polypropylene, with molded rubber surrounds.

On the rear of the enclosure, directly behind the tweeter and the upper woofer, is a pair of identical rear-facing drivers. As mentioned previously, there is no rear-mounted lower woofer. The single ducted vent opens on the rear panel. Recessed into the lower part of the rear panel are two pairs of gold-plated binding-post connectors, normally paralleled by gold-plated jumper strips. Removing the jumpers lets the speakers be used in a biamplified or biwired configuration.

For both testing and listening, we placed the Energy A3+2 speakers as recommended, about 7 feet apart and 3 feet in front of the wall behind them. We did not use the supplied spikes, which are sharply pointed and practical only when the speakers are to be left in a fixed position.

The room response, measured on

the axis of the left speaker and averaged for both channels, was ± 5 dB from 20 Hz to 20 kHz. That is comparable to many speakers we have tested in the same room, although the measurement indicated a substantially stronger response in the vicinity of 30 and 250 Hz than we have typically measured under similar conditions. The rated system frequency response is 30 Hz to 25 kHz, which we confirmed up to 20 kHz (the upper limit of our measurements, not to mention of most people's hearing!).

The close-miked bass response, including the rear port output, was excellent, within ± 1.5 dB from 30 to 230 Hz. The bass distortion, measured 1 meter from the front woofers at a sound-pressure level (SPL) of 80 dB, was under 0.5 percent from 400 to 90 Hz, rising to 1 percent at 75 Hz and to only 2 percent at 35 Hz. The quasi-anechoic MLS frequency response was a good ± 4 dB from 300 Hz to 20 kHz at distances of 1, 2, and 3 meters.

The system's impedance is rated at 6 ohms nominal, with a minimum of 4 ohms. We measured a minimum impedance of 5 ohms at 200 Hz and between 500 Hz and 20 kHz. Over most of the midrange the impedance was 6 ohms or higher.

System sensitivity measured 89 dB SPL at 1 meter, slightly less than the rated 91 dB. Its sensitivity and impedance characteristics make this a very easy system to drive with almost any amplifier. In fact, we were able to enjoy organ and choral recordings at levels up to 105 dB SPL without signs of strain or audible distortion. We were also favorably impressed with Energy's instruction manual, which con-

tains straightforward information on the relationship between the listening room and speaker placement, a vital subject often omitted or glossed over in the literature accompanying many speakers we have tested and used.

The A3+2's slender columnar format resembles that of a number of other recently introduced speakers. Aside from cabinet shape, however, there can also be appreciable sonic differences between speakers that may otherwise seem to be clones.

One recognized benefit of a narrow front speaker panel is wider angular dispersion in the horizontal plane. We have found this characteristic in a number of columnar speakers, and it typically imparts a relatively wide and believable soundstage.

There are, of course, fairly wide variations even among columnar speakers in stereo staging quality, which may or may not be a critical consideration for you (it is only one of many qualities I look for in a speaker). For what it's worth, however, the Energy Audissey A3+2 speakers created what was probably the most believable, stable, and seamless stereo soundstage I have experienced in my room. Unlike most speakers I have used, the soundstage was essentially fixed over an appreciable range of listening positions (no need to sit in one place and rock your head from side to side to obtain a precise stereo image).

I can't guarantee that you will experience a similar effect, but if you're shopping for new speakers, it might be worth auditioning the Audissey series. And soundstage aside, the Energy A3+2 is very reasonably priced for what it offers. □



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"...the MMG is an outstanding value."

^{*}The above quotes reprinted with permission.

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USER'S REPORT



RALPH MASUJO

Aiwa AV-X500 Audio/Video Receiver/VCR

DANIEL KUMIN

Over the years the audio world has seen a number of unusual combos — the CD/receiver, and the TV/VCR, to name just three. The TV/VCR is even showing some real staying power. Now Aiwa has come up with a pairing that to my knowledge is unique: a VHS Hi-Fi videocassette recorder piggybacked on an A/V receiver.

And when I say piggybacked, I mean it literally. Aiwa's new AV-X500 (\$650) stacks a midsize VCR atop an A/V receiver. Aside from sharing front and rear panels and a single power cord, the VCR and receiver sections are fully independent; they're even linked externally by a pair of short A/V cables that patch the VCR's audio and video inputs and outputs to the receiver's Video I inputs and outputs.

The AV-X500's specs are impressive considering its unusually compact chassis, which at just over 14 x 10 x 13 inches occupies less space than many other A/V receivers alone. The receiver section is rated to deliver 120 watts per channel (with both channels driven) in stereo mode and 100 watts

each to the three front speakers plus 50 watts to each surround speaker in surround mode, all into 8 ohms with 0.8 percent total harmonic distortion (THD) at 1 kHz. The left and right front channels are rated for a bandwidth of 40 Hz to 20 kHz. Beyond the power ratings, Aiwa is pretty stingy with published specs.

The VCR section is a four-head VHS Hi-Fi deck with VCR Plus capability and, of course, MTS stereo capability. Video luminance signal-to-noise ratio (S/N) is given as greater than 43 dB (in SP mode); the only other video spec worth mentioning is a fast-forward time of 240 seconds or less for a T-120 cassette.

Around back, the Aiwa stack provides an array of RCA jacks, including two sets of A/V inputs and outputs (a third A/V input-only connector for camcorders and game consoles is on the front panel), audio connectors for phono, CD, aux/TV, and tape, and outputs for a subwoofer and a video monitor. There are no S-video connectors, and all five of the receiver's speaker outputs use light-duty spring-clamp connectors. Except for a large master

volume dial and a small balance knob, all of the AV-X500's front-panel controls are pushbuttons.

I wired the AV-X500 into a high-performance home theater comprising B&W Matrix 803 Series 2 and Matrix HTM front speakers, a B&W 800ASW powered subwoofer, a pair of Citation Model 7.3 surround speakers, and a Pioneer laserdisc player. Hookup required only a few wire changes, though I had to dig out homemade banana-to-wire adaptors for the speaker cables.

The AV-X500's stereo-mode amplifier performance surprised me. The receiver had no problem driving the 803 Series 2's full-range, without a subwoofer. It played loud, clean, and tight, without any flabbiness until it reached very high levels. (A peek inside revealed a power-amp section with two very large composite-IC modules, each presumably deploying two 100-watt outputs.) Bass output was notable: in fact, I felt that with the AV-X500 the system sounded a shade richer and warmer than my everyday setup.

Somewhat atypically for a receiver, the AV-X500 has no tone controls. In their place is a "graphic equalizer" with five preset curves labeled Rock, Pop, Jazz, Classic, and BGM (background music). But the equalizer is not very graphic at all, as it offers no visual representation of the selected EQ curve; worse yet, you can't set your own curve because there are no user controls! The EQ settings Aiwa provides appear to be variations on the classic "smiley-face" curve (boosted bass and treble), and while they might be useful for background music, they didn't do much for my hi-fi world.

Dolby Pro Logic surround performance, however, was quite impressive. The AV-X500 steered sounds smoothly and accurately for the most part, without much in the way of audible artifacts. Center-channel leakage to the left/right front and surround speakers was generally low and quite stable, and there was only a mild degree of dynamic pumping, which was well below audible levels during normal listening. All channels were very quiet, and the surround channel was considerably quieter than with several entry-level A/V receivers I've reviewed. In fact, any noise the receiver produced was not audible from the listening/viewing position, even as the system approached true theatrical listening levels.

In Pro Logic mode with the powered subwoofer connected and the entire system at full cry, the AV-X500

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USER'S REPORT

easily produced enough volume to satisfy most rational listeners. Only at the very top of the scale on full-band transients (bass-heavy explosions and the like) did the receiver momentarily sound less than pristine, and even then its audible limits were beyond what average folks would likely demand. One gripe: The volume control changes the level far too quickly. Even with the B&W speakers, which are only moderately sensitive, the receiver was in full clipping by the time the dial reached 12 o'clock.

Aiwa includes a Super T-Bass mode that lets you switch in three levels of boom 'n' bloat. (Precisely what the "T" stands for is anybody's guess — thunder?) According to the owner's manual, this feature "... enhances the realism of low-frequency sound," but that's open to debate. Using EQ and Super T-Bass simultaneously produced some truly alarming results.

Somewhat more interesting is Aiwa's inclusion of a three-level BBE processing circuit, which appears to be based on the Barcus-Berry Electronics harmonics-enhancing circuit that's

widely used in pop-music production. The owner's manual says only that BBE "enhances the clarity of high-frequency sound" (it also boosts the top octaves by several decibels). With BBE switched in, the treble definitely had more cut and sparkle (that's why such processors are sometimes called "exciters" in the recording trade). Depending on their speakers, room acoustics, and tastes, some listeners will find the BBE processing valuable on the lowest setting even though, speaking from a strictly technical point of view, it does add a sort of euphonic distortion. I left it off for all of my listening evaluations.

Aiwa has also endowed the AV-X500 with four DSP-Surround modes, Dance, Live, Hall, and Arena. Rather unexpectedly, I found them to be less clanky and ping-ponging than the "extra" modes offered in many mass-market A/V receivers. For some reason, selecting a surround mode also automatically activates a corresponding preset EQ curve, which mucks things up considerably; fortunately, you can defeat the EQ. Nevertheless, for serious music listening I stuck with plain stereo and Pro Logic.

FM reception was fair, which is to say it was about on par with a typical budget receiver. Sound quality from strong FM signals was quite good, however. AM reception was mediocre, as it is with most receivers these days, requiring quite a strong local station for listenable tuning.

The AV-X500's VCR section worked fine. Sound quality was equal to that of a typical \$300 hi-fi deck — in other words, very good. The deck's hi-fi audio output had a full frequency and dynamic range, and for the most part it was admirably clean — well up to the task of delivering home-theater surround sound (though no match for laserdiscs or the forthcoming DVD). With a few prerecorded tapes, I heard traces of the sputtering, grainy noise sometimes produced by the VHS Hi-Fi recording system. I tried manually overriding the deck's digital auto-tracking system, but it yielded no concrete improvement in this regard.

Picture quality was good to very good. Definition and color reproduction were fine, but to my eyes the AV-X500 displayed a touch more video noise (both chroma and luminance) than I'm used to seeing from the best VCR's. The deck offers most of the popular conveniences, including two-speed search (the fast mode is selectable only from the front panel), dou-

ble-speed playback, slow motion, eight-event timer recording, and one-touch recording. It is also equipped with the VCR Plus system, which lets you set up a TV recording schedule by simply keying in the numeric codes included in most newspapers' program listings.

Ergonomically, the Aiwa stack gets pretty high marks. The supplied remote control's buttons are generously spaced and logically grouped by function, and the volume up/down rocker is distinctively shaped and easy to use. On the other hand, most of the sixty-plus keys are identically shaped black ovals. Gold and gray backgrounds are used to set off different control groups, but they show up poorly under dim home-theater lighting. There's also a learning routine that permits the AV-X500 to relay infrared commands to other-brand components via a plug-in infrared extender (included) that's about the size of a PC mouse. This unusual extra feature worked well enough, but it's limited in that there are only fifteen programmable keys.

The AV-X500's on-screen menus and displays are plain but straightforward. Unfortunately, calling up certain useful visuals, like the VCR's tape counter, requires a cumbersome two-key "shift" routine, as do several other functions, making them nearly impossible to use in the dark. While the front-panel readouts and controls were intuitive and easy to read, the eight garishly lit source-select keys, which change from green to red to indicate the selected mode, were way too bright. Placing the unit in a cabinet next to the TV was distracting.

But in terms of its basic audio and video performance, the Aiwa AV-X500 is beyond reproach, and it offers a fresh solution to those who have limited rack space. While it would be possible to get similar (or more elaborate) features and similar (or better) performance for close to the same price by purchasing any number of A/V receivers and VCR's separately, the resulting component duo would not be as neatly combined and would take up a lot more space. If you need to conserve space in your home theater but are unwilling to compromise on big-system power or fundamental performance, Aiwa's little combo might be just what you're looking for.

Aiwa, Dept SR, 800 Corporate Dr., Mahwah, NJ 07430; telephone, 201-512-3600

A FEW NUMBERS

A casual trip to the test bench revealed the measurements below (all figures are for performance in Dolby Pro Logic mode, one channel driven into 8 ohms). Given Aiwa's limited specs, my only real question was surround power. The amp delivered about 40 useful watts rather than the 50 watts advertised — not a meaningful difference.

FREQUENCY RESPONSE

front (25 Hz to 20 kHz)	+0, -3.5 dB
surround (70 Hz to 7 kHz)	+0, -3 dB
VCR audio (line out)	+0, -4 dB

POWER OUTPUT

front (20 Hz to 20 kHz, 0.5% THD)	>100 watts
surround (50 Hz to 6 kHz, 5% THD)	>30 watts

POWER OUTPUT AT CLIPPING

(at 1 kHz, 1% THD)	
front	135 watts
surround	40 watts

DISTORTION (THD + noise)

front (20 Hz to 20 kHz, 1 watt)	<0.07%
front (20 Hz to 20 kHz, 50 watts)	<1%
VCR audio (line out, 40 Hz to 15 kHz)	<1%

SIGNAL-TO-NOISE RATIO

(re 1 watt, A-wtd)	
front	74 to 76 dB
surround	73 dB

CHANNEL SEPARATION

left output, center driven	32 dB
left output, surround driven	42 dB
center output, surround driven	43 dB
all others	>45 dB

I N T R O D U C I N G

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SPEAKEasy

by Daniel Kumin

EVERYTHING YOU NEED TO KNOW ABOUT SHOPPING FOR SPEAKERS

THERE ARE something like three thousand different speaker models out there, priced from less than \$100 a pair to — no joke — several times that figure *squared*. Which is your best choice? Well, we can't pick 'em for you (at least, not without a generous consulting fee . . .), but we can offer a few pointers to help you make an informed choice.

To say that speakers are the most important link in the hi-fi chain is a cliché, yet, like many old sayings, it's true. The speakers you choose will largely determine the sonic character of your system — provided, of course, that your electronic needs are well met. Even the best gear in the world can't make a lousy speaker sound good.

Before you start canvassing retail demo rooms, you need to figure out what purpose your new speakers will serve. Will they be dedicated to pure music listening? If so, your shopping strategy can be pretty straightforward: Pick a price range, decide how big a speaker you want, and start auditioning. Or do you plan to buy a good stereo pair of speakers now and assemble a home theater around them in the future? In that case, you'll probably want to restrict your search to brands that offer center-channel and surround (a.k.a. "rear") speakers matched to the regular stereo speakers they sell. That way, when you're ready to add the extras, your upgrade path will be clear.

If, on the other hand, you're determined to buy a full surround-sound setup from the get-go, you'll need to plan (and budget) for three front speakers and two wall- or

stand-mountable surround speakers. Depending on the bass capabilities of the front left and right speakers — and how serious you are about bringing the full cinema experience home — you may also want to make room in your budget for a powered subwoofer to handle the tornado touchdowns in *Twister*.

Once you have a plan of action, it then becomes a question of what kind of speakers to buy. Beyond the ubiquitous bookshelf speaker, there are floor-standing speakers (a growing number of which are bipolar or have a built-in powered subwoofer), three-piece "subwoofer/satellite" systems, in-wall speakers, exotic panel speakers, and more. Never before have there been so many options. Which type you lean toward will probably have much more to do with your home's layout than with the technical virtues of one design or another.

SHELF VS. FLOOR

Size is one of the first issues to address. Do you have the space (or desire) for big floor-standing speakers, or do you have something smaller in mind? Bookshelf speakers are a great place to start if you like the idea of speakers that don't take up much space yet have the potential to deliver excellent overall sound quality. Walk into any electronics store that sells audio gear, and you'll have dozens of models to choose from.

The typical bookshelf speaker is a two-way system combining a 5- or 6-inch woofer and a tweeter in a plain woodgrain-finish rectangular box 12 to 18 inches tall. Because

bookshelf speakers typically use a small woofer in a small enclosure, most are unable to reproduce the bottom octave or two of deep bass; that's the price you pay for small size. If you find you really miss the low bass — and many who listen mostly to pop, folk, or jazz probably won't — you can always add a stand-alone subwoofer.

Bookshelf-speaker prices range from a bargain-basement hundred bucks a pair (or less) to several grand a pair. Entry-level models selling for \$200 to \$300 a pair are most popular and represent one of the best values in audio today.

If you want speakers with more bottom-end oomph, and if floor space is not an issue, check out the larger floor-standing models. Two- and three-way designs with 8- to 12-inch woofers, or multiple smaller woofers, are common. But don't assume that a three-way speaker is inherently better than a two-way model just because it has a separate midrange driver — it's not, any more than a V8 engine is superior to a V6 simply because it has two more cylinders. Both designs are fully capable of delivering excellent sound quality. Part of the rationale behind going with a larger speaker is better deep-bass reproduction, however, so pay extra close attention to the depth and character of its low-bass output.

Most floor-standing speakers today use a tower-style design with a tall, narrow cabinet, 30 to 50 inch-

Infinity's Compositions Overture 3 is a tower speaker with a powered subwoofer section (\$1,400 a pair).





Atlantic Technology's System 350-THX home-theater suite includes left and right Model 354SR surrounds (\$579), left and right 351LR front speakers (\$999), two 352PBM powered subwoofers (\$1,698), and a 353C center-channel speaker (\$599).

es or so high, that occupies minimal floor space yet still provides plenty of internal volume for deep-bass development. Having a slender front panel (or baffle) also promotes good stereo imaging by reducing the reflective surface area around the midrange driver and tweeter. Numerous good-sounding tower speakers are available in the \$800- to \$3,000-a-pair range, and quite a few 2- to 3-foot-tall "minitowers" are available for less than \$800.

TOWER OF POWER

A new species has been gaining lots of attention recently: tower speakers with powered subwoofers built in. Such hybrids are now available from at least a half-dozen manufacturers. Most are relatively large "two-and-a-half-way" (with two mid-woofers) or three-way systems that have a separate subwoofer section in the bottom third or fourth of the enclosure (that's *two* powered subs per stereo pair). The sub section typically has a side-firing driver and is powered by its own onboard amplifier.

I'm of two minds about the tower-of-power approach. On one hand, such speakers offer impressive performance and value. Most are priced in the \$2,000- to \$4,000-a-pair range, which compares quite favorably with the cost of a pair of excellent tower speakers combined with a stand-alone powered subwoofer (let alone two). Also on the plus side, the manufacturer will typically go to great lengths to achieve optimal integration between the subwoofer and the rest of the speaker system, and having powered subwoofers greatly eases the burden on the main system amplifier. On the other hand, the tower-of-power layout loses one of the major advantages of having a sepa-

rate subwoofer: freedom to place it wherever it sounds best.

SPEAKER TRIOS

The three-piece "subwoofer/satellite" speaker system is aimed at music lovers who want their speakers inconspicuous but not at the expense of full-bodied sound. In sub/sat systems, a bass module (many are not true subwoofers, which go down to 30 Hz or below) reproduces low frequencies for both stereo channels, while a pair of smaller "satellite" speakers supply the mids and highs. The satellites are essentially miniature bookshelf speakers, though some boast more progressive styling and a few use a single 2½- or 3-inch driver instead of a separate woofer and tweeter.

Sub/sat systems come in a riot of shapes, sizes, and prices, and among the more compact examples the trend is toward molded-plastic satellites with rounded edges. The \$800 neighborhood seems to be the magic zone for three-piece systems, at least in terms

of popularity. But there are some good values around \$500, and a number of superbly performing trios fall in the \$1,500 to \$2,000 range.

The main attraction of the sub/sat approach is that the satellites are usually small enough to be placed for minimum visual intrusion — perhaps on a mantel or mounted on the wall — while the bass unit can go "anywhere" thanks to the inherent difficulty in localizing deep bass. (In practice, the crossover point between the subwoofer and satellites has to be fairly low for the subwoofer to be completely free of placement restrictions.) Many sub/sat packages sold these days include *powered* subwoofers, which have a built-in bass-optimized amplifier and a crossover circuit that directs low frequencies to the sub and mid/high frequencies to the satellites. Having onboard power greatly simplifies system layout.

Another big attraction of sub/sat systems is expandability. Upgrading to home theater is usually a simple matter of adding three more satellites — one for the center channel and two for surround-channel reproduction. These days many speaker manufacturers offer convenient center/surround upgrade packages as well as the option of purchasing the sub/sat array in an expanded home-theater format from the start, often at a reduced price.

It's important to note that a significant number of sub/sat systems, especially those in the more affordable reaches, are built around bass modules with distinctly limited low-bass extension and output. While such systems are usually carefully balanced to be musically satisfying and natural sounding, they will be hard pressed to handle the 30-Hz rumbles and explosions that define so many of today's movie soundtracks. Keep this in mind if a

The Bose Acoustimass 3 Series III (\$469) features 3 x 3 x 4¼-inch "cube" satellite speakers and a 14¼ x 7½ x 8-inch bass module for maximum placement flexibility.



home theater is in the cards. A better plan might be to start with a pair of top-quality bookshelf speakers and later add a true subwoofer and, eventually, center and surround speakers.

Finally, be aware that some sub/sat systems have trouble reproducing lower-midrange sounds because the satellite speakers' small drivers can't play low enough. The result can be an audible "hole" at the lower end of the male vocal range. Also note that even though the bass modules in sub/sat systems are supposed to be highly flexible in terms of placement (at least when the crossover point is low enough, as noted earlier), the system will usually still sound best when the sub is placed in a corner, which increases output and extension, and not too far behind the front satellites.

THE BIPOLAR OPTION

The overwhelming majority of the speakers on the market today are conventional monopole, or forward-radiating, designs. You'll find variations in how the drivers are laid out on the speaker's baffle (front panel) and in the materials the drivers are made of, but otherwise they all follow the same basic design principle.

In an effort to give sound a more spacious quality, a growing number of speaker makers are embracing *bipolar* designs, which deploy identical sets of drivers — usually a woofer and a tweeter — in the front *and* rear of the speaker cabinet. The driver pairs operate in phase, meaning that both woofers and both tweeters move inward and outward in unison. Having two sets of drivers radiating sound in phase but in opposite directions tends to create a deeper, more spacious stereo image, though usually a somewhat more diffuse one compared with the "pinpoint" imaging produced by good monopole speakers.

Vociferous partisans of both bipole and monopole designs are easy to find. And although these groups may proclaim that one design is "better" than the other, I can say from experience that both are capable of delivering superb sound quality. It's a matter of personal taste, so listen closely.

HOME THEATER SPEAKERS

If you're following the home-theater path, there are two other speaker variants you'll come across: the center-channel speaker, among whose tasks is reproducing the dialogue portion of movie soundtracks, and the surround



Thiel's CS6 (\$7,900 a pair), a 50-inch, three-way tower, has a time-aligned concrete baffle and a real wood finish.



Snell's Type E/IV, a 39-inch-high, two-way tower speaker, features a second tweeter in the back (\$1,099 a pair).

speaker, which is designed to convey ambience and special effects.

The most important part of choosing a center speaker is making sure it matches the system's front left and right speakers in terms of timbre (tonal quality), dynamic range, and power-handling capability. A good match is



The Mirage MC-3 center speaker (\$330) has a 1-inch tweeter and dual 5½-inch woofers in a vented 22-inch-wide box.



The rated low-frequency limit of NHT's SuperOne (\$350 a pair), a small, two-way bookshelf speaker, is 57 Hz.



The Paradigm PS-1200 powered subwoofer (\$619), with a vented 12-inch driver, is rated down to 24 Hz.

essential to recreating the seamless soundstage you hear at a primo cinema. The easiest route, of course, is simply to use three identical speakers across the front. But since that's not always practical, most manufacturers also offer horizontally oriented center speakers that go on top of a TV. The

drivers are arranged laterally in an elongated cabinet that's only a few inches tall; dual small woofers are often used to extend bass response. Prices range from less than \$100 to more than \$500, with most in the \$200 to \$300 range.

On the surround, or "rear-channel," speaker scene, there are a variety of specialized designs to choose from, priced from a couple of hundred dol-

lars a pair on up. A preponderance of these are "quasi-dipole" designs — identical to bipolar speakers but with the front and rear driver sets wired out of phase — that are engineered to create a diffuse sound field by spreading sound forward and back, but not to the sides. The desired result is the "you are there" sense of envelopment experienced in the finest theaters. Yet a pair of small, inexpensive bookshelf mod-

els can also frequently be an effective surround solution.

IN-WALL SPEAKERS

These days most speaker companies offer at least a handful of speakers designed to be mounted flush in a wall, for the ultimate in inconspicuous sound. The typical in-wall is a two-way system fixed to a baffle, without a box, with special brackets that secure the speaker to the wall. This arrangement, known as "infinite-baffle" because the whole wall works as a seamless extension of the baffle, is much like an acoustic-suspension (sealed) enclosure, though performance is less predictable because the designer cannot know in advance the precise volume, composition, or rigidity of the wall cavity behind the speaker. Designers try hard to optimize drivers and crossover circuits for the acoustic effects of typical construction materials and dimensions, and they frequently succeed in designing in-wall speakers that sound surprisingly good. Nevertheless, in-wall speakers aren't necessarily the best choice for primary listening because you never know *precisely* how they will sound until it's too late to change their locations without major wall surgery.

PANEL SPEAKERS

Beyond the vast majority of box-type speakers that employ conventional cone and dome drivers is a small but engaging minority of enclosureless "panel" speakers. There are three main variants on this theme — the electrostatic, the planar-magnetic, and the ribbon — all of which use a large, very thin membrane suspended between two magnetic or charging structures to generate sound. Since the vibrating surface is driven directly, distortion tends to be quite low within each type's normal operating range, resulting in extremely clear and detailed sound.

By their very nature, most panel speakers are true dipoles whose large diaphragms, supported by thin frames, radiate sound to the front and rear — there is no enclosure to restrict the sound. Deep-bass output is typically rather limited because the sound from each side of the panel is out of phase with that from the other side, causing a significant cancellation of low frequencies to occur (the larger the panel, the smaller the cancellation). Consequently, many panel speakers are hybrid designs that employ a convention-



JBL's SC5120 Simply Cinema system includes a 150-watt powered bass module with a 40-Hz low end and five two-way satellite speakers. Price: \$1,399.



The Martin Logan Aerius (\$1,995 a pair) is a hybrid speaker with an electrostatic panel for the upper midrange and highs and an 8-inch woofer for 500 to 40 Hz.



Powered subs are built into Definitive Technology's bipolar BP2002 (right, \$1,998 a pair) and BP2000 (\$2,998 a pair) for response to 20 Hz and below.



Speakercraft's Model 6.2MIT² in-wall speaker (\$370 a pair) has a 6½-inch woofer and a 1-inch tweeter that pivots to aim highs where you want them.

al cone driver to handle the bass frequencies.

Panel speakers are cherished by many a serious hobbyist for their fine sound and extra-spacious, "deep" stereo effect, but there are a few notable drawbacks. First, size: Not everyone is prepared to install speakers the size of room dividers. Next, expense: Panel speakers are far more costly than cone speakers. Finally, panel speakers are usually inefficient and tend to require a lot of expensive amplifier power.

SHOPPING TIPS

Now that we've reviewed the main speaker categories, the job of identifying which type best suits your room, budget, and listening habits should be

a little easier. Choosing a make and model, however, is still a challenge.

It should be self-evident that buying speakers you're unfamiliar with via mail order is not a good idea, however tempting the savings, unless the seller is well established and offers a free exchange or refund if you're dissatisfied. If you can, it's usually better to visit stores with well-appointed demo rooms in which speakers are set up in the appropriate fashion: bookshelf models on shelves or stands, towers spaced rationally on the floor. Also look for a store whose staff is genuinely prepared to spend the time and effort to set up some serious listening sessions for you. Don't hesitate to ask for several direct comparisons.

Another piece of advice: Thanks to the vagaries of room acoustics, speakers rarely sound the same at home as in a retail showroom. So if you do nothing else, look for a source that offers a home trial or, at the very least, full exchange privileges; virtually all audio-specialty stores you'll encounter operate this way.

Most important, bear in mind that hearing is perhaps the most subjective of the senses. It definitely pays to arm yourself with some idea of what natural sound is — live music is the only weapon here. In the final analysis, though, if it sounds good to you it is good. Fortunately, there've never been more excellent speakers and super values to choose from. Have fun! □

THE Art OF Listening

Precisely how a speaker produces its output is, of course, entirely irrelevant. After all, what really counts is the jelly, not how it gets inside the donut. The best way to learn how to evaluate speakers critically is to do a lot of listening. If you can spend hundreds of hours comparing dozens of speakers, you'll get pretty good at hearing the differences. But since most of us don't have that luxury, it pays to have a few ideas going in. Audition speaker candidates using an amplifier or receiver and CD player within hailing distance of your power and price range, but insist on high-quality gear — you want to hear limitations caused by the speakers, not the amp.

Rather than relying solely on the available demo material, take along a disc or two of your own. Choose technically fine recordings, ones you're thoroughly familiar with, that offer a range of sounds and instruments and include plenty of deep bass and dynamic percussion. Try also to include a variety of genres — but concentrate on music that you actually listen to. Evaluating speakers with Bach makes no sense if you prefer R.E.M.

Many dealers offer an A/B switcher, which is a very illuminating way to compare two pairs of speakers. Be absolutely *certain*, however, that the comparator has been carefully balanced to play both speakers at precisely equal volume. It's a psychoacoustic fact that the louder pair will almost

ways be perceived as "better." Also, allow enough time to do plenty of A/B comparisons as well as some extended, one-at-a-time listening before making a final decision.

What should you listen for? What makes a "good" speaker? You'll find as many different answers as there are "experts," but here's my checklist. A few attentive listening sessions should help you balance these criteria on your own scale of values.

☑ "Open" midrange sound on spoken and sung voices. If a variety of different singers all sound a bit nasal, "cupped," "honky," or dry, a speaker has a midrange-response problem. (Joan Baez and Gordon Lightfoot are two famous voices favored for this kind of sleuthing.)

☑ Freedom from midbass errors. Even the smallest bookshelf or three-piece system will offer some bottom-end response. If pop bass guitars sound indistinct, bloated, boomy, or buzzy, or always seem to accentuate a single note or group of notes, the speaker has response problems in the 60- to 150-Hz region. Deep male voices that sound "chesty" or artificially rich are indicative of the same problem.

☑ Natural tone on solo and massed strings, such as string-quartet and string-orchestra recordings. This one is tough to call unless you know what

a live string section is supposed to sound like — in fact, live strings themselves sound a touch harsh or edgy at times. Listen for overly strident, metallic, or "aggressive" tones, as well as unnaturally mellow, rich, or bassy ones. Try a few different recordings to rule out recording problems.

☑ Top-octave troubles. In a good deal of music not much actually happens in the top octave (10 to 20 kHz), but the cymbals on jazz and rock cuts are one reliable exception. Hi-hat rides ("tick-tick-ti-tick-tick . . .") from a crisp, *naturally* recorded disc (more common among jazz CD's) are excellent test fodder: They contain clean transients that conveniently occur over and over again. Listen for dullness (too little top-octave), "spittiness" (too much), and what we audio geeks call "smearing," a sort of vague, lisping, "un-metallic" quality that real-life cymbals don't have.

☑ Deep-bass quality. First, you'll need a recording with some true energy below 40 Hz — big-bass-drum classical music and ultra-low synth-bass lines in pop are your best bets. Keep in mind that it's very hard to judge bass quantity until you get speakers home, because room acoustics have such a profound impact on performance. Even in the demo room, one speaker candidate may be helped and another hurt by location. — D.K.

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★ FORMAT ★ ★ FISTICUFFS ★ ★

RECORDING RIVALRY



★ MINIDISC vs DOLBY S ★

PHOTOS BY DAVE SAGE

Format fights are central to the audio industry. In particular, because audio revolves around storage technology and the great diversity of media, debates about what medium is best for recording music are usually the most exciting. Although the battle of disc vs. cylinder occupied the attention of the earliest audio enthusiasts, today the major confrontation is tape vs. disc. When you combine the elements of analog vs. digital

and uncompressed vs. data-reduced recording, you truly have a title bout.

The analog cassette came from humble origins. It was originally designed as a low-fi recording medium targeted at voice dictation, but around 1966 a few brave souls began using the cassette for music. This led it to great success in the car and home audio markets. Today the analog cassette

is still a powerhouse format, but it is an aging and declining champion, an analog throwback in a digital world.

The MiniDisc was born in 1992, and it was a glitzy, high-tech invention from the start. It was the first consumer product to use magneto-optical recording technology to write, read, and erase digital audio data. To achieve a small disc size (and to sidestep the digital-copy controversies that killed DAT as a consumer music format), the MD format

★ BY KEN C. POHLMANN ★

★ MINIDISC vs DOLBY S ★

In this corner: Teac's V-2030S cassette deck (\$650) with three heads and Dolby S and HX Pro circuitry.



uses data reduction, in which a computer algorithm selectively throws out data deemed unnecessary for high-quality music reproduction.

The MD's designers hoped that it would displace the analog cassette, and the format has enjoyed great success in Japan. Yet success hasn't followed in the United States. In response, Sony — MD's biggest booster — recently redoubled its efforts by introducing more affordable MD components and packaging home recorders with portable players in specially priced bundles.

But is the audio world big enough for two portable, recordable formats? Can these two contenders stand up to the sonic standard set by the CD? How do they compare in terms of user features? To answer those questions, we arranged a bout between the formats, dressed them each in black trunks, and placed our bets.

★ THE CASSETTE DEFENDER ★

Representing the cassette format in this match was the Teac V-2030S. With a suggested retail price of \$650, it sits among the upper middle class of today's consumer cassette decks and is typical of what an audiophile on a budget might choose for recording from CD's or archiving LP's. For a



couple of hundred dollars less you could purchase a recorder that looks very much like the V-2030S; these decks are among the most ubiquitous of audio products. Unlike many other cassette decks, however, the V-2030S has a couple of secret weapons to enhance its performance.

First, the V-2030S features a combination three-head configuration in which separate tape heads for recording, playback, and erasing are placed in two housings. Because the recording and playback heads can be optimized for their intended purposes, a three-head design usually offers better sound quality than less expensive decks that combine the record and play functions in a single head. Having three heads is also welcome because it allows you to expertly monitor a signal from the tape as it is being recorded, instead of listening to the input signal with your fingers crossed.

Second, and perhaps more critically, the V-2030S provides Dolby S noise reduction, a system that is far superior to the older Dolby B and C systems in terms of attacking tape noise. But Dolby S doesn't come without caveats. Since the signal played back from the tape controls the noise-reduction processing, the system's success hinges on accurate recording and playback. To help insure this, Dolby S decks are designed to have a tight head-azimuth tolerance in order to limit deviations in high-end response that occur when the record and play heads aren't perfectly perpendicular to the direction of tape travel.

In addition, when making a recording, the recording circuits must be carefully matched to the type of tape being used.

Thus the V2030-S provides a manually run tape-calibration system. To achieve the very best recordings, you must first turn on a built-in oscillator, then adjust the bias and record-sensitivity levels by watching meters while making a test recording. When you're finished, you can erase the test tone, set your recording levels, and make your tape.

Besides Dolby S, this deck also offers Dolby B and C noise reduction as well as Dolby HX Pro, which is a circuit that increases high-frequency headroom by automatically attenuating the bias signal during high-frequency peaks. HX Pro is strictly a recording enhancement, and tapes recorded with it can be played on any deck. That's good, because the HX Pro circuit cannot be turned off.

Other features found in the V-2030S include independent capstan and reel-drive motors, automatic tape-type selection (the deck sets standard bias and EQ levels for Types I, II, and IV), automatic record mute (to place a 4-second blank section between recorded selections), an MPX filter (to attenuate the 19-kHz pilot tone from stereo FM broadcasts), an electronic tape counter with nominal or tape-time readouts, and a return-to-zero function (to fast-wind the tape to the counter's 0000 setting). There is no azimuth ad-

★ MINIDISC vs DOLBY S ★

justment for the tape heads, nor is there a way to adjust high-frequency EQ in the playback signal. The rear panel contains phono jacks for right and left input and output, and the deck comes with a remote control for transport and counter functions.

★ THE MD CHALLENGER ★

Although the two fighters were stacked together in my office, everyone's attention was drawn to the Sony MDS-JE500 MiniDisc deck. MD recorders are about as rare as cassette decks are common, and everyone wanted to load and unload a few discs and to take a listen.

This MD deck carries a suggested retail price of \$600, making it competitive, in theory, with the \$650 Teac V-2030S. Recently, however, Sony has been promoting the MDS-JE500 as part of its MiniDisc Bundle3, a \$599 package that throws in a free portable MD player and a couple of blank discs. The MDS-JE500 is slimmer than most cassette decks, and it is immediately distinguished by a front loading slot that looks like the front of a computer's floppy-disk drive. It operates like a floppy drive too; MD's are loaded by nudging them into the slot and retrieved by touching an eject button.

As with most other MD decks, this one accepts either analog or digital input signals. Analog levels are set with a potentiometer, while digital transfers do not require any level setting at all. You can choose to record in either stereo or mono. Maximum recording time is 74 minutes in stereo or 148 minutes in mono on the same 74-minute MD. Up to 255 tracks can be recorded on a disc; the deck automatically finds blank space for the data. A counter keeps track of remaining time, and a very handy AMS (Automatic Music Sensor) knob lets you quickly select tracks. Access time is nearly immediate.

The deck offers a number of cool editing features as well. For example, you can delete and rewrite over exist-

ing tracks or parts of tracks, divide tracks into shorter tracks, join tracks together, renumber tracks, and create displayable titles for tracks and discs. If you goof, an undo function cancels your last edit command. The deck also provides track repeat, random playback, and track programming. Still another cool feature: Time Machine Recording lets you continually store 2 seconds of the most recent input signal in memory, so that your recording will contain the last 2 seconds of material that passed through the deck before you hit the record button. If you tend to miss the beginnings of programs, you'll really appreciate this feature.

The MDS-JE500's rear panel contains phono jacks for right and left analog input and output as well as two Toslink optical connectors for digital input and output. Digital inputs are automatically sample-rate-converted from 32 or 48 kHz to the MD's and CD's 44.1-kHz rate. Like other MD decks, this one contains an SCMS (Se-

★ THE EARLY ROUNDS ★

Any contest between Dolby S-encoded tape and MiniDisc will be decided according to what is most important to you in a music-storage format. Fundamentally, both formats are similar in that each allows recording, playback, and rerecording (or rewriting) of audio programs. From a purely physical standpoint, both formats use small, lightweight media enclosed in protective cases. In that respect they are both highly portable and rugged. MD holds an advantage in terms of the life of the medium since tape is inherently more fragile than a disc. Tape will wear out or simply degrade over time, and although the transports in Dolby S recorders are supposedly built to a higher mechanical standard than those of other tape decks, there is always the danger of a cassette tape's tangling or breaking. In comparison, MD's magneto-optical disc technology seems like a safer bet for durability.

And in this corner:
Sony's MDS-JE500 MiniDisc deck (\$600), with instant track access, cool editing features, and ATRAC.



rial Copy Management System) chip; recordings made through the digital input cannot be digitally copied to other MD's or DAT's. The supplied remote control handles transport functions and has buttons to control a CD player, perform CD-Sync recording, and enter or scroll through text labels.

★ MINIDISC vs DOLBY S ★

The cassette format counter-punches with its universal availability of both blank and prerecorded media. In comparison, MD's of both types are scarce and much more expensive. Also, whereas MD is limited to 74 minutes of stereo playing time, cassettes can be reliably configured for 90 minutes. And tape players are about as common as light bulbs; you can always find one when you really need one. Although decks equipped with Dolby S are far less common than those with only Dolby B and C (particularly in the car market), Dolby S tapes can be replayed satisfactorily through a Dolby B or C decoder, or none at all, even if a Dolby S deck is required for the best results. In comparison, MD hardware is quite scarce in the U.S., so if you want to record and play MD's, you'll probably have to invest in wholly new equipment for your home, car, office, or portable use.

Like it or not, one of the principal selling points of any consumer product is its convenience. We generally hate to admit that we're lazy, but we are most attracted to products that are fast and simple to use. Although today's cassette decks are a far cry from their early ancestors, they are still shackled by the simple fact that tape is a very long and thin storage medium. For straightforward listening, there's no real downside to spreading the signal over a long physical distance, but it takes time to skip from one tape point to another. Random-access times are slow, and that is a real pain when you're trying to locate a particular section of music. Similarly, when recording to tape, you must always find the exact physical point where the blank medium begins. It is very difficult to record over existing material or between other recorded selections, and there always seems to be unused tape at the end of a side.

The MD overcomes all of these problems. As with other disc formats, it provides random access to all parts of its content. A user can switch from one piece of music to another without interruption because a memory buffer is used to temporarily hold data entering and leaving the disc. For example, when the playback data stream is temporarily interrupted as the laser pickup moves from one point to another, the buffer still provides a continuous data stream to the digital-to-analog (D/A) converter. When tracking resumes, because the data is read off the disc faster than the buffer feeds it to the

converter, the buffer can be quickly refilled without any loss of output. (That is why MD is resistant to physical shocks that cause the pickup to skip.) This accessibility also means that MD recording is as easy as writing data to a floppy disk. Rather than having to find a section of continuous blank space on the MD, the recorder automatically fits data wherever space is available, whether that space is continuous or discontinuous.

The inherent benefits of disc media (compared with tape) and of a digital signal (compared with analog) make MD a more versatile format than cassette, and one that is far easier to use. If it is simple playback that interests you, then the formats are competitive. But if you want to make your own recordings and edit them in any way — for example, to assemble a compilation recording and periodically rotate new tracks into it — then MD wins the competition with a knock-out blow. In terms of user features and convenience, a random-access digital disc is simply a better way to go.

★ THE LATER ROUNDS ★

There is more to life, however, than ease of use. When it comes to audio storage, we are greatly concerned about the accuracy of the medium. That is, when a signal is recorded and stored, then replayed, how has the storage medium affected the quality of the sound? At first glance, the digital MD would seem to hold all the advantages over the analog cassette. Digital storage is inherently linear. If conversion into and out of a digital medium is handled with care, then the storage itself plays no role in sound quality. In comparison, analog tape is inherently *nonlinear*, altering the input signal in ways that must be accounted for and corrected. Cassette recorders use high-frequency bias and other techniques to iron out the nonlinearities of analog tapes.

An MD, however, is not simply a digital disc, and a Dolby S recording is not simply analog tape. The MD format employs data reduction to decrease the amount of data saved on disc by a factor of five. It calls on Sony's proprietary ATRAC (Adaptive TRansform Acoustic Coding) algorithm to do this. ATRAC applies highly complex digital signal processing according to a model for human hearing, coding the signal so that redundant or inaudible information can be

omitted, thus reducing the number of bits needed to store it. This type of processing is called "lossy" data reduction, in that the digital output signal on playback lacks some (presumably) unnecessary data contained in the original.

Dolby S technology is also complex, but it operates in the analog domain, using dynamic compression and expansion as well as signal filtering to lower the noise floor inherent in analog tape. As with Dolby B and C, the signal is compressed prior to recording and expanded during playback; in the process of expansion, low-level recording noise introduced after compression gets pushed down in level relative to the music. In other words, MD is not as faithful as pure, non-lossy digital storage, and Dolby S is better than plain analog storage.

Of course, no matter what the technology is, the best way to evaluate a product's sound quality is to listen. To do this, I recorded a number of CD's to each medium. To give MD the benefit of the doubt, I used a digital fiber-optic link from CD to MD, thus avoiding D/A and A/D (analog-to-digital) conversion in that path and obviating the need to set recording levels. For Dolby S's benefit, I used metal tape to extract the best possible performance, and I carefully calibrated the deck's bias level and sensitivity using the built-in oscillator. I was also careful to adjust my recording levels to maximize dynamic range without distorting signal peaks. Although it is no real chore to watch levels, you do have to pay close attention, and in several cases I had to go back and rerecord sections to get the best levels — rewinding tape, cueing it up again, and so on. None of that was necessary with the MD; I simply hit the record button. In fact, this little recording exercise simply confirmed that MD is much easier to use, especially with a digital link from CD to MD.

Recording completed. I sat down with a number of diverse playback systems, listening to each format over an extended time and also switching quickly back and forth between formats. It is my opinion that for most listeners, with undemanding music, and over modest playback systems, both formats provide sound quality that is indistinguishable from an original CD's; this is particularly true when listening over portable and mobile systems. With repeated playback, the cassette may begin to audibly degrade

whereas the MD will not, but initially they are equal. This is a tribute to both the ATRAC data-reduction algorithm and to Dolby S noise reduction.

With critical listening on a more sophisticated playback system, however, good listeners will begin to hear subtle differences. With specific musical passages — ones that stressed the recording formats in terms of frequency response, dynamic range, and transient response — I could reliably tell apart the original CD and each recording of it. Moreover, one of the recording formats sounded better than the other. It

Sonograms depict music over time, with frequency on the vertical axis and amplitude denoted by color. Figure 1 represents a demanding passage from a Dire Straits CD. Figure 2 shows the Dolby S recording; aside from a slight haze and hotter high frequencies, it is essentially identical to the CD. Figure 3, the MD sonogram, shows how the ATRAC algorithm cut off the highest frequencies in this passage.



provided crisp transient response and extended high-frequency response that the other format lacked. Specifically, the analog Dolby S cassette format sounded better to me than the digital MD format. In particular, Dolby S was outstanding in its ability to tame the nonlinearities of an inherently nonlinear analog medium, whereas ATRAC contributed significant nonlinearities to an inherently linear digital medium. The only exception was solo piano recordings; compared with CD, both formats were relatively unsatisfactory to my ears. MD blurred transients and dulled high frequencies, whereas the cassette deck introduced a subtle bit of wow and flutter.

★ HOOKS AND JABS ★

Because I am uncomfortable describing purely aural phenomena in words, I usually turn to analytical measurements to help convey what I am hearing. But traditional measurements are not helpful in this case. All data-reduction algorithms, including ATRAC, handle test tones significantly differently than they do complex music signals. For example, whereas a data-reduction algorithm may demonstrate a

FIGURE 1: CD SONOGRAM

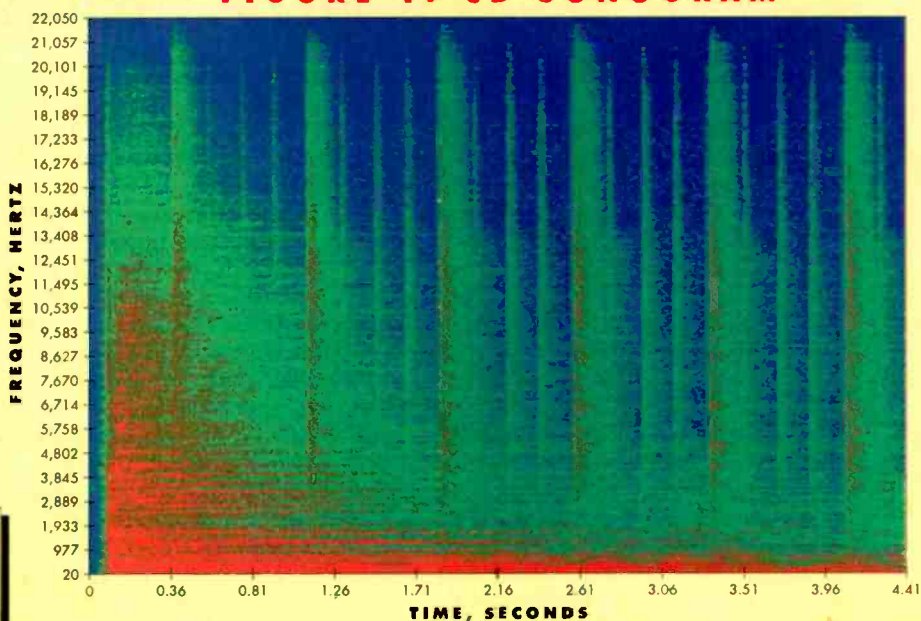


FIGURE 2: DOLBY S SONOGRAM

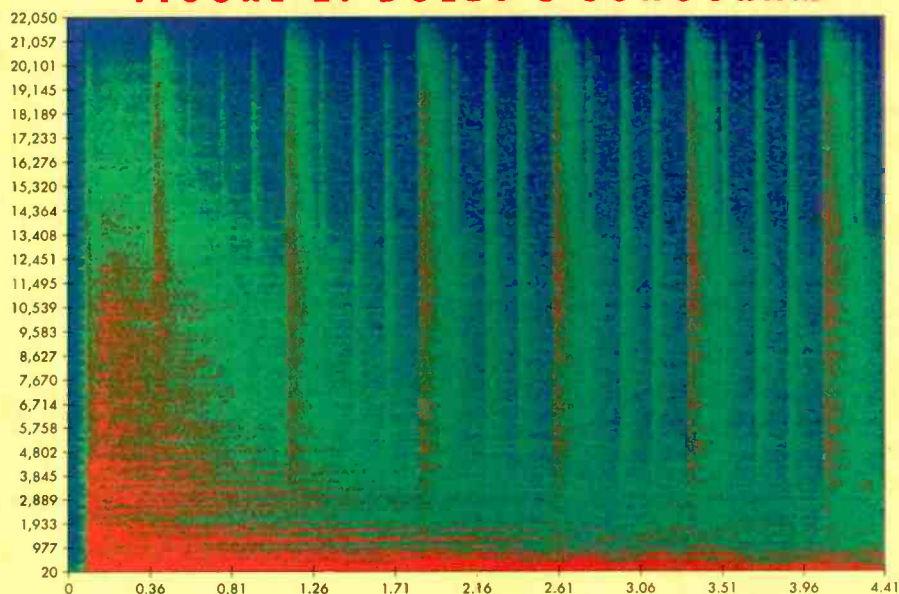
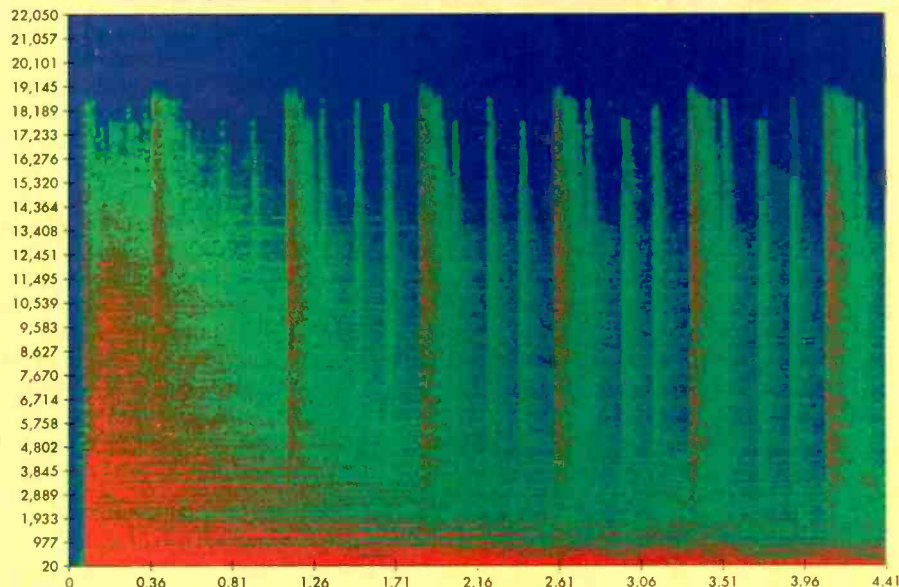


FIGURE 3: MINIDISC SONOGRAM



completely flat frequency response out to 22 kHz with discrete sine waves or noise, it will generate a psychoacoustically shaped response as it codes music — for example, omitting high frequencies when bits are needed to code more important lower frequencies.

To help illustrate the sonic differences between the two formats, I recorded short sections of music from CD to MD and cassette. Then I fed the output from each format into a Pentium PC running Sound Forge, a commercially available recording/editing program. I then ran the three files through identical software processing to generate three sonograms, as shown on the previous page. These sonograms “show” music as it is played in time, from left to right along the horizontal axis. Frequency distribution is shown along the vertical axis, going up the spectrum from bottom to top. The colors illustrate amplitudes; for example, red indicates the highest levels and deep green the lowest. Sonograms thus provide a very efficient, graphical way to “see” what a complex sound consists of. In this case, each figure shows about 4 seconds of

music from the beginning of Track 5 of the Dire Straits album “On Every Street.” If you have the CD lying around, I’ll wait a few seconds so you can play that section.

Okay, now listen again to that short section and look at Figure 1. It shows the reference CD file that you are listening to. Musical events can be seen; for example, the opening chord is easily seen at the start of the file, followed by periodic wide-bandwidth percussion hits appearing as transient impulses. The file ends, incidentally, just before the lead guitar attacks again. Now consider Figure 2, the sonogram of the Dolby S recording. You’ll observe that the differences between the original CD and the tape recording of it are relatively slight — mainly, the tape surrounds the crisp original recording with a slight analog haze. In addition, you’ll see some level changes at various frequencies; for example, the Dolby S recording has slightly hotter high frequencies than the CD. On the other hand, a glance at Figure 3, the MD’s sonogram, shows that the ATRAC algorithm has changed the signal considerably. It has removed all

high-frequency content above 19 kHz and has significantly affected content as low as 16 kHz; notice the difference between the CD and MD sonograms at 16 kHz just after the initial attack. Because of the complexity of this particular piece of music, the algorithm simply did not have sufficient bits to code the entire spectrum.

The sonogram showing how ATRAC has affected the audio signal must be carefully understood. In this case, the figure shows clear differences; less demanding musical selections might not show such differences. And even in this case, it should be clear that these differences are exactly as expected and in line with the entire theory of data reduction. The algorithm’s model calculates that these high frequencies will not be easily audible at that moment and that a listener will not miss them — thus, they can be removed. Whether such assumptions about audibility are accurate determines the success or failure of any data-reduction algorithm. The signal *was* changed — the sonogram shows that. But if you can’t hear the difference, then the changes don’t matter. In this case, however, I *did* hear subtle differences in transient response and high-frequency response in the MD recording.

★ TAPE FORMULATIONS AND DOLBY S ★

We used a high-quality cassette with a metal tape formulation for this test in order to get the very best possible sound from our Dolby S cassette deck. But metal tapes — typically the most expensive cassettes available — are by no means mandatory for Dolby S decks.

In fact, according to Dolby Labs, Dolby S is designed to extract something quite close to its maximum sonic potential from nothing more than a standard (normal) ferric-oxide tape. High-bias tapes and, beyond that, metal tapes are said to provide incremental gains in noise reduction and saturation depending on the type of tape, the biasing circuit used, and even the music being recorded. But none of these gains are akin to the differences that tape

formulation makes with earlier noise-reduction systems. In other words, there’s a small amount of improvement for much additional expense.

So what should you use? The answer really depends on how well your playback equipment and ears can resolve the subtle sonic differences we’re talking about. The best way to decide is to conduct a little test of your own. Record the same program on all three types of cassette and listen to the results. If you can hear the benefits of more expensive tapes, by all means use them. If you can’t, then buy the least expensive formulation in the highest-quality cassette shell and throw the savings into your CD fund — and we don’t mean certificate of deposit. — *Rob Sabin*

★ MIXED DECISION ★

So who is the winner in this title bout between Dolby S and MiniDisc? That decision depends on how you score the punches. MiniDisc is a sexier, more convenient format, and it offers far more editing possibilities for home recordists; indeed, many musicians now use MD recorders for their home-studio work. MiniDisc is also a great portable format. So if it’s convenience and features that you want, then MD is terrific.

On the other hand, in terms of sound quality, at least judging from these two midprice consumer decks, it is my opinion that a well-recorded Dolby S cassette sounds better. Its transient response is quite clean, and its high-frequency response is extended. If you listen to music critically, and your playback system is up to the job, you may be happier with Dolby S’s sonics. So it turns out that the analog cassette, although an aging champion, is still impressive after all these years. Its younger digital disc rival has its own set of impressive skills and may one day beat the champion outright. Until then, the fight will continue. □

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Portland Skyline

When Mark Chussil and his wife, Janice, went house-hunting in Portland, Oregon, six years ago, they set out with music in mind. Chussil, a 43-year-old management consultant and long-time STEREO REVIEW reader, has been buying records since his teens, when he began listening to Peter, Paul, and Mary and the Beatles. Right from the start, he says, he was an avid audiophile. His first system

the living room, kitchen, and dining area. At the system's core is a Marantz AV600 THX-certified A/V preamp/tuner, which Chussil chose for its clean sonics and surround processing. The preamp is mated to five Marantz MA500 THX-certified mono-block amplifiers rated at 125 watts each. The compact amps, each only 3 $\frac{3}{8}$ inch wide, drive a suite of B&W speakers.

The front left and right speakers are B&W 801's, which Chussil fell for after hearing them at a hi-fi shop he used to hang around in. His reference at the time was the Dahlquist DQ-10, a classic speaker in its own right, but when a pair of used 801's came up for sale he jumped. "I love their clarity, dynamic range, and full-range response," he says. "They handle deep bass and really delicate high frequencies with a lot of nuance, they image really well, and they're not strident — they don't sound like they're trying to make a statement of their own."

Matched to the 801's is a B&W HTM center-channel speaker situated atop a Mitsubishi CS-3535R 35-inch direct-view television. A pair of B&W Signature Seven in-wall surround speakers are mounted above and to the sides of the main listening area. Source components include a Denon DCD-1500 CD player, an NAD 6125 cassette deck for mixing car stereo tapes, and a Sony direct-drive turntable that's usually left unconnected. On the video side are a Mitsubishi M-V8000 laserdisc player (Chussil likes its ability to play both sides of a disc without his having to flip it), a Harman Kardon VCD-2000 VHS Hi-Fi VCR for time-shifting, and an aging Sony SL-HF4000 Betamax VCR. Chussil prefers Beta's quality to VHS, but the Sony deck's primary purpose these days is playing back his library of *Soap* episodes. He recorded all eighty-eight episodes of the avant-garde TV series of the late 1970's and early 1980's that helped launch Billy Crystal's career. "Every couple of years I manage to go through the whole

batch," he says. "I still think it's the funniest show ever made."

All this equipment would stand well enough on its own, but what makes the system really special is its cabinetry. The Chussils just happened upon the work of Fritz Mitas, a cabinetmaker in nearby Corbett, Oregon, and were impressed enough to call him in. Mitas took one look out the Chussils' living-room window at the expansive Portland skyline and knew what his theme would be. The series of cabinets he built evokes the urban landscape while



was nothing more than a Tandberg reel-to-reel tape deck with built-in amplifiers that directly drove a pair of speakers; he had to borrow a friend's turntable just to make a few tapes. Later on, he added an Acoustic Research turntable of his own and some Dynaco electronics. "I've always loved music," he says, "but as I listened to records, even as a teenager, I always found that part of my appreciation was in the sound quality."

It's not surprising, then, that by the time the Chussils settled on their three-story, 2,700-square-foot house, they'd already figured out how to get music into every part of it. The main system, for music and home theater, serves a large open space that contains

PHOTOS BY STEPHEN CRIDLAND



providing storage for ten components, four hundred CD's, forty videotapes, and a hundred laserdiscs. Cables are easily routed from cabinet to cabinet, and all the component shelves adjust vertically and slide out — an important feature given that there's no access to the wiring from behind the cabinet. "I knew basically what I wanted, but Fritz contributed all the artistic angles," Chussil says. "I never would have thought of a cityscape. He did a great job, too. The quality of construction is superb."

A system like this ought to be enough for any one household, but in the Chussils' home it's just the beginning. For example, the main system is connected via in-wall wiring to Chussil's home office, where he's running a pair of Dahlquist DQ-10 speakers with a matching Dahlquist subwoofer. Yes, they're the same DQ-10's that used to be his reference speakers, and they still sound great. A Niles in-wall volume control provides level adjustment,



and an RF-remote extender on the Denon CD player's infrared remote allows Chussil to control the CD transport from his office.

There's also a Nakamichi minisystem in the master bedroom that's connected to a Sony portable CD player and a 26-inch NAD TV. A downstairs guest room that doubles as Janice Chussil's office has its own system consisting of a Yamaha receiver, B&W bookshelf speakers, and an NAD CD

player. And an exercise room harbors yet another A/V system. A Yamaha receiver, Monitor Audio bookshelf speakers, a Mitsubishi VCR, and a 19-inch Toshiba TV are there to ease the drudgery of all that NordicTracking and weightlifting. Furthermore, if the Chussils prefer to listen to the main system while working out, it's as easy as turning off the Yamaha receiver. An inexpensive Niles ABS-1 speaker switcher monitors the output of the receiver and connects the speakers to it only when a signal is present. The rest of the time, the speakers automatically default to the main system in the living room, which is connected via in-wall cables and another Niles in-wall volume control.

That's a lot of topnotch sound. But is Chussil satisfied? No way. Now he's eager to add a Marantz Dolby Digital processor and a DVD player. Well, why not? Like the city skyline that inspired it, Mark Chussil's system keeps reaching for new heights. —Rob Sablin



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A/V

FURNITURE

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You know you've become an adult when you suddenly notice that form follows function everywhere in your home *except* where your stereo or audio/video system is concerned. Sorry to break the bad news, but scrap wood straddling cement blocks stopped being cool years ago. If you want to put your system in the grown-up part of the house, it's time to make it fit with its surroundings.

You've pretty much got two options here: You can turn your equipment into a work of art in its own right by spotlighting it in an elegant open rack, or you can make it draw as little attention as possible by hiding it in an attractive cabinet. Either way, you're not dealing just with audio components and speakers these days — storing A/V equipment is a much more involved undertaking. You have to figure out how to minimize or even hide the jumbo TV, and you have to find a place above or below it to accommodate one of those oddly shaped center-channel speakers. And besides storing your components in a way that doesn't restrict function or access, you may need your A/V furniture to provide extra room for CD's, videotapes, laserdiscs, and any manner of spare connectors, wires, and other accessories. Finding a piece of furniture that can do it all may seem too much to hope for.



LOVAN PYRAMID AVR

Fortunately, it sounds a lot harder than it is. In stores as diverse as catalog showrooms, traditional furniture stores, A/V specialty salons and electronics superstores, you'll find an eclectic selection of A/V racks and cabinets in a wide palette of styles. Companies like Bell'Oggetti, Billy Bags Designs, Lovan, Nomi Designs and Sanus Systems offer a contemporary look with black-frame structures complemented by glass, steel, or faux-granite shelves. And for traditional

styles, walk into an Ethan Allen, Drexel Heritage, or Thomsville showroom, where you'll see beautiful cabinets designed to keep A/V equipment under wraps. At A/V specialty stores and superstores you'll find a range of cabinets in wood, laminate, particleboard, and other materials, painted or stained in trendy or more traditional finishes, from such companies as Custom Woodwork and Design (CWD), San Diego Design II, and Bush Industries.

A/V furniture runs the gamut from \$150 ready-to-assemble (RTA) racks and cabinets to cabinets with four-figure prices that are assembled and home-delivered as single units. You know your budget, but you may not know what to look for when shopping. So we shopped for you, not so much to suggest particular units as to give a representative sampling of the market and to point out some features you might like to see in your own home. Our shopping notes will help prepare you to evaluate any cabinet or rack you're liable to encounter in the stores.

Bush Industries AV4411

Everybody has a budget. If yours falls in the under-\$500 range, chances are you're looking at RTA furniture — not necessarily a bad thing. There are lots of solid, well-designed, ready-to-assemble cabinets that come with all the



BELL'OGGETTI WU-810 EVOLUTO

connecting screws or dowels needed to put them together. In most cases you won't require any tools more complicated than a screwdriver or an Allen wrench, and you won't need more than a modicum of skill or time.

One cabinet in particular caught my eye on the crowded sales floor of a catalog showroom. Tagged at \$399 (\$450 list), the Bush Industries AV4411 was short on fancy styling but long on CD and cassette storage and peace-of-mind perks like a six-year warranty and a seven-day, toll-free customer-service number.

There were a couple of other cabinets next to the Bush piece, but they didn't seem as sturdy or as well thought out. The focal point of the AV4410 is a 31½ x 36¾ x 19½-inch TV compartment, which would house most 32-inch sets and maybe some 35-inch ones. I imagine that a 27- to 32-inch set would look right in the compartment without leaving too much wasted space around the TV or too little space for adequate ventilation. I liked the TV shelf's foot-and-a-half height from the floor, which would make for comfortable viewing from the couch in my living room. Some TV cabinets place the screen too high.

Above the TV is a pair of smoked-glass doors with touch latches; behind them is a space with adjustable shelves that can hold four or maybe even five components. Beneath the TV shelf is a compartment with two slots for components or a center speaker. On either side of that compartment are floor-level grille-cloth-covered niches for small speakers.

If being able to hide the front speakers in a cabinet is the difference between having an A/V system and not having one, then putting speakers inside a cabinet like this makes sense. But such placement should be only a last resort. Speaker cabinets that are put inside other cabinets can produce a boxy sound and resonance. At floor level, too, they direct midrange and high frequencies to your shins — not exactly the sweet spot. Bottom line: Except for a center-channel speaker, which is best placed directly above or below the TV, you should leave the speakers outside the cabinet. A cabinet as narrow as this one should be easy to flank with a pair of towers or bookshelf speakers on stands.

The back of the Bush cabinet is made of a cardboard-like material, which put me off until I realized that the cabinet wouldn't cave in thanks to the solid vertical supports. The cardboard is printed with perforated open-

BUSH INDUSTRIES AV4411



ings that can be punched out for wire management. You can choose large or small holes, a nice option.

My favorite part of the Bush AV4411 is its clever storage for recordings. On either side of the main compartment are tall, narrow racks with touch-release slotted plastic holders for CD's (sixty on each side). Even better, though, are the hinged storage compartments *behind* the CD racks, which make excellent use of otherwise dead space in the rear of the cabinet to hold 70 VHS tapes or 240 cassettes.

Make no mistake: The oak-veneered Bush AV4411 is not designer furniture, nor is it meant to be. But it's an ingenious, functional cabinet that should stand up well for years to come.

CWD Woodstock II/Encore

CWD's A/V furniture comes in all sorts of sizes, shapes, colors, and price ranges. The company is known for its modular, ready-to-assemble hardwood cabinets. Recently, however, CWD introduced a line of assembled cabinets sold in specialty audio stores.

I looked at the Woodstock II, a Shaker-style cabinet that's simple and attractive — and completely home-theater-oriented in function. The TV cabinet can hold a set with a screen size of up to 35 inches, and there's a concealed space below for a center speaker or A/V components. Sandwiching the TV unit were a pair of CWD Encore audio cabinets with component shelves and drawers behind glass and wood doors. Trimmed at the top with crown molding, the three modular pieces had interlocking bases for a well-matched appearance. Price assembled is about \$3,000.

Side by side, the Woodstock II and Encore cabinets measure roughly 57 x 97 x 25½ inches. The Woodstock II is 3½ inches deeper than the side cabinets to accommodate a large TV. Those few inches may not seem like much, but they offer relief from the monotony of a two-dimensional face, and it's an appealing look. The ensemble is available in a choice of six finishes: satin blue, hunter green, natural birch, cherry, spice, and mahogany. Trim pieces can be black or in one of the six other finishes.

As in the Bush AV4411, the adjustable shelves in the CWD cabinets rest on metal shelf pins that plug into predrilled holes in the sides of the cabinets. Generally, the wider the shelf pins the better,

because you want as much stability as possible, especially with heavy components like amplifiers. Some pins have plastic attachments that offer additional support. Five adjustable shelves come with the Woodstock II cabinet, while each Encore side column is packaged with three shelves. Cutouts in the back of the units provide invisible access for wire connections and ventilation.

Having a glass door on the Encore's component compartment is important if you want to use the equipment with the cabinet doors closed — infrared signals from a remote control can generally pass through glass. The wooden doors on the bottom compartments of both CWD cabinets can be replaced with sonically transparent grilles, but we've already noted that speakers are happier outside of a cabinet. Short of going to a custom woodworker with specific acoustical and structural requirements, you can't expect A/V furniture to be altogether free of resonances or immune to external vibrations.

Ethan Allen Concept 6

When you go into an Ethan Allen furniture store you already have furniture in mind, and you can be reasonably sure that the only A/V gear you'll see are cardboard mock-ups. That doesn't mean the company doesn't take home-theater systems seriously. In fact, given the selection in my local store, I came away thinking that one of the company's passions is saving home decor from the aesthetic "nightmare" of A/V components.

The Ethan Allen ensemble I examined, called Concept 6, was part of the American Impressions Collection. The system comprises six pieces sold individually to allow for modular expansion over time as you acquire more components and recordings. Maybe as your bank account grows, too, since the complete system tallied up to about \$6,100. The perfectly matched sextet includes a center video cabinet that's designed to hold most 35-inch TV's, a center-channel speaker cabinet to be placed directly above the TV cabinet, two cabinets for A/V components and recordings flanking the center unit, and a pair of side speaker cabinets designed to rest atop the audio cabinets in the same way the center speaker sits above the TV.

Tailored with crown molding and

optional black trim, the Concept 6 ensemble was a very attractive and functional wall unit finished in cherry. I was particularly impressed by how the pocket doors that conceal the TV compartment disappear into the cabinet when the TV is being used. The side audio cabinets have adjustable shelves for components and a glass door with wood latticework that allows remote operation while partially concealing the gear. The speaker cabinets have doors with black, acoustically transparent grilles.

Someone did his or her homework

of the heavier amplifiers found in some stereo and A/V systems. I'd be a little concerned about the long-term effects of installing a huge amp, and I'd also worry about proper ventilation for it. Though there are oval ventilation slots in the rear of the cabinets, I'd imagine that the cabinets could become ovens during a typical exhibition of home-theater muscle. The best solution would have been to provide ventilation on the top and bottom of each cabinet to create a convection air flow in which air is drawn in at the bottom and allowed to escape at the



CWD WOODSTOCK II/ENCORE

before designing the Concept 6 system. Just about any option I could think of was available, from partitions for LP's or laserdiscs to a pull-out tray for a turntable or video-game player. Pull-out universal storage compartments are brilliantly engineered to accommodate up to 48 audio cassettes, 20 VHS tapes, 72 CD's, or 48 game cartridges. There's even a niche in the rear of the side cabinets for a supplied outlet strip/surge protector to help with wire management, though I'd be more inclined to go with a surge protector that comes with a guarantee against damage from electrical spikes.

Despite the A/V accoutrements of the Concept 6, it is first and foremost a well-crafted, handsome piece of furniture. My only concern was whether its shelves could physically handle some



top. Still, I wouldn't expect overheating to be a problem for most components under normal use.

Salamander Designs Archetype

Of course, if you've got a pair or two of huge amps in your system, there's really only one way to go, and that's an open-air design that eliminates the concern about hot-housed compo-



ETHAN ALLEN CONCEPT 6

nents. You've probably seen the well-made black-steel-and-glass designs from such companies as Billy Bags Designs and Bell'Oggetti, which for years have provided great A/V furniture for contemporary-decor rooms.

A slightly different twist comes from Salamander Designs, which uses black threaded-steel beams with nuts for shelf support, and then offers a choice of solid hardwood shelves in various finishes to warm up the steel look. Since the shelves rest on the nuts, which can be moved to any height, the Salamander system is very flexible. The 3/4-inch shelves are available in natural cherry, black MDF, classic oak, black-with-cherry, and hazelnut finishes. They're designed to support up to 150 pounds each, and they're isolated from the supporting hardware by antiresonant neoprene. The furniture comes with the nuts, wrench, and level required for assembly. Salamander estimates that a five-shelf unit will take 40 minutes to construct.

The modular Salamander system I looked at is in the Archetype series. The Archetype Models 5.0 (\$249 in MDF, \$380 in hardwoods), 3.0 (\$179, \$269) and 2.0 (\$109, \$169) are named for their corresponding number of shelves; each is 23 inches wide and 16 inches deep, and they stand 36, 28, and 20 inches tall, respectively. A small but clearly visible Salamander logo appears in one corner on the top surface of each shelf.

Though the Archetype's sparse look

may not be for everyone, the system's real beauty lies in its flexibility. The shelf units can be configured in any number of ways to create attractive custom furniture solutions. Bridges that support TV's in screen sizes up to 40 inches can be used to join any two component racks, and a peninsula-type desk platform is available. Metal arches can be added to any shelf to act as bookends for displayed CD's, videotapes, or laserdiscs. There's also a large drawer on ball-bearing sliders that can be added below any shelf without taking the entire unit apart; each one holds 100 CD's or 100 pounds.

For the base of each Archetype module, Salamander offers a choice of mounting options, including the standard rubber feet, spikes that minimize vibration, and casters (for people who spend a lot of time at the back of the equipment rack). Rear panels for the modules are optional, and they incorporate perforations for wires.

Bell'Oggetti WU-810 Evoluto

With their sleek black finishes and electronic displays, A/V components scream "contemporary." For some people, that's a scream they'd prefer to silence inside a stately armoire or a traditional cabinet. Other people believe A/V components should be dis-

played in an environment that complements their high-tech look. For them, there's Bell'Oggetti, a line of furniture that takes the open feel of the Salamander Archetype to a different (and more expensive) level by blending minimalist Italian design with sturdy, functional A/V storage.

The black-metal-and-glass look is a Bell'Oggetti hallmark, but the materials are cut and shaped in a number of different ways to create a full line of furniture ranging from simple TV or audio-component racks to full-size wall units. Given my constantly changing and expanding home-theater system, the WU-810 Evoluto (\$2,000) system is a prime choice to hold both my 27-inch TV and my stack of electronics and source equipment.

The system consists of a B-710 Evoluto A/V rack, which measures 36 x 22 x 21 inches, and a pair of tall AR-711 Alto Evoluto audio racks, which measure 26 x 60 x 22 inches. The shatterproof shelves are tempered safety glass, and they fit into slots cut in the black metal frame, which consists of tubular columns in an attractive, smooth black powdercoat finish. The B-710 will accommodate TV's of up to 35 inches, but the shelves on the audio rack are limited to 50 pounds; that might not be enough for some amplifiers or giant receivers. Note, too, that despite the audio rack's 22-inch depth, the slotted-column design leaves only 18 inches of usable depth between the front and rear columns. That's more

SALAMANDER ARCHETYPE



than enough for most components, but 18 inches might not cut it with some amplifiers, receivers, laserdisc players, or CD changers.

One leg in the rear of each rack comes perforated with holes through which you can pass A/V cables to keep them out of view. You can't move the units very easily once they're assembled and filled with components, but upgrading your equipment is fairly simple because of the open design. Both racks come ready-to-assemble, and the construction is idiot-proof.

Lovan Pyramid

What would an article on A/V furniture be without a discussion of a classic black rack? The Lovan Pyramid AVR rack (\$549) is a purist's dream with its minimalist design, audiophile accents such as chrome-plated connecting spikes and gold-plated detailing, and its rigid construction. The matte black shelves are constructed of solid New Zealand lake pine MDF, which Lovan says it chose for its superior sonic qualities. The 1½-inch high-carbon-steel tubing can be filled with sand or lead shot to increase the damping effects of the steel spikes and special polymer pads.

All that heavy-duty steel construction makes the Lovan furniture sound very utilitarian, and when you rap on one of the shelves you'll know your LP's would be safe with your turntable resting on the Pyramid. But belying its solid-as-a-rock stability, the Pyramid, like Lovan's audio racks, gives the impression that its shelves are suspended in air. That's because the structural poles in the back support the rack at the mid points of the shelves instead of at the corners. Add to that the interruption of the black poles with steel spikes, and what could have been a very heavy, stodgy structure ends up having an open, airy feeling.

The Pyramid AVR has four compartments, although the line is modular and dealers typically sell extra add-on shelves. Assembly is as simple as securing an end cap at the top of each tube and a spike at the bottom and then placing the spikes on top of the caps. Filling the rack with equipment makes it stable enough to hold the weight of a 35-inch TV.

There's no wire management to speak of with the Lovan racks, but by using wire ties, Velcro, or black tape, you can gather wires and run them behind the support poles with a fair amount of success.

San Diego Design II Fairbanks

Given the constantly changing nature of home-entertainment technology, you never really know what equipment you'll buy in the future or where you'll want to put it. For that reason, modularity, or the ability to add more units later on, is crucial for an A/V storage system.

So what do you do when you have a cabinet for a 27-inch TV and then decide to step up to the big-sound, big-picture experience of home theater? After all, upgrading a cabinet can often be more expensive than upgrading a TV. That's why San Diego Design II's adjustable home-theater cabinets,

ter unit measure 31 inches wide, 78 inches high, and 22 inches deep — deeper than many other audio cabinets. That's a plus. More than one frustrated enthusiast has found out too late that a favorite component is too deep for a just-purchased cabinet. Therefore, a word to the wise: Measure all the equipment, accessories, and recordings you plan to store before you go furniture shopping.

The San Diego Design II Fairbanks unit comes assembled; customers need only attach the shelf below the light bridge. The can lighting comes with a touch dimmer control. The cabinets on the outside of the unit slide out to re-



SAN DIEGO DESIGN II FAIRBANKS

like the whitewash-lacquer-finished Fairbanks, make a lot of sense.

The three-piece Fairbanks system carries a \$3,300 suggested retail price, but you can find it in A/V stores for as little as \$2,650. It features an adjustable light bridge, which can transform the TV opening from a space designed to hold a 35-inch TV to one that will comfortably hold most 60-inch rear-projection sets. Just loosen the screws on the light bridge above the TV and extend it outward to widen the cavity. The TV cart can be removed (and used in another room as a stand for a smaller TV) and replaced with a big-screen projection TV whose base fills the space left by the cart. The light bridge can also be adjusted downward to eliminate any gaping holes that might result from the change in screen size.

The audio cabinets flanking the cen-

tral side-mounting storage cases that can hold 148 CD's, 60 VHS tapes, or 88 audio cassettes. Additional storage is provided by pull-out storage drawers below the TV.

As you can see, you won't lack for options when you start your search for home-entertainment furniture. To help narrow the field, first determine your needs based on your existing equipment and decor, then factor in future purchases of hardware and software. When you find something you like in the stores, kick the tires to check stability, and make sure there's adequate ventilation for your equipment. You've made a significant, long-term investment in your home-theater system. Now it's time to dress it in style. □

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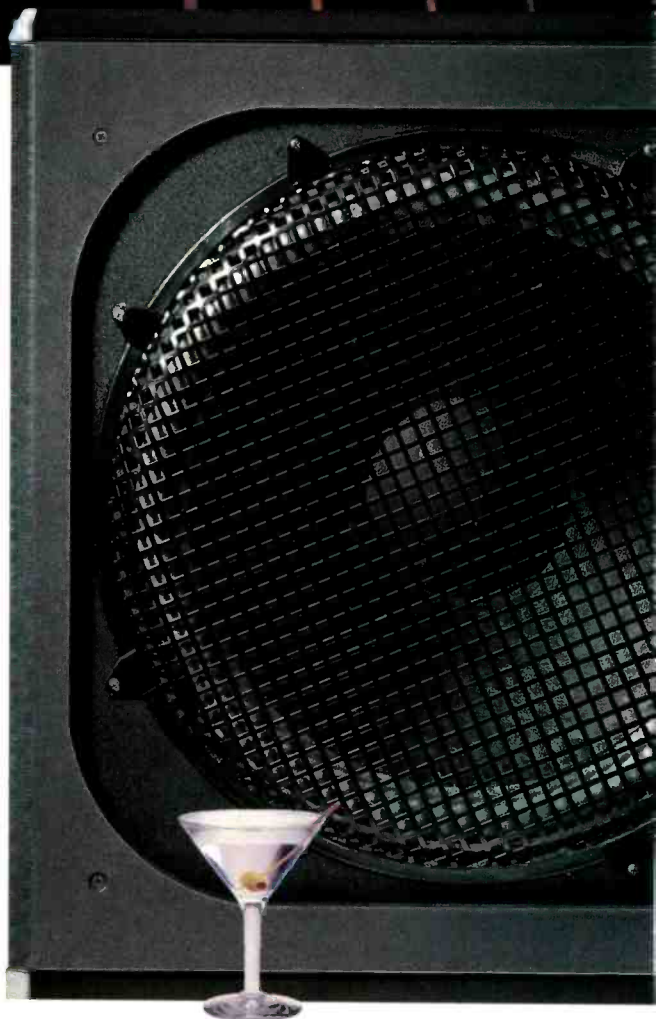
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BEST OF THE MONTH

**STEREO REVIEW'S
CRITICS CHOOSE THE OUTSTANDING
CURRENT RELEASES**



JOHN HALPERN/NONESUCH

Värttinä: Huck Finns Grow Up

Eight years ago, the rock scribe Chuck Eddy wrote, "I can't help believing this world-pop fad is getting silly." To some extent, he was — and still is — right. What began as a judicious trickle has become an almost indiscriminate flood, as ever more esoteric recordings crowd the marketplace. To be sure, there is a great deal of world music to enjoy, but faced with album after album featuring uilleann pipes or digeridu, sometimes you just gotta slap on the Ramones. Then comes a transcendent record like Värttinä's "Kokko," and all you can do is surrender.

Stars in their native Finland, the ten members of Värttinä — who include four female singers — come across in some

ways like a Super Size version of neighboring Sweden's ABBA. But Värttinä sticks with its mother tongue (English translations are provided in the CD booklet) and occasionally adapts traditional verse. This attention to heritage recalls that of *Le Mystère des Voix Bulgares*, as does the multilayered vocal approach. Then again, Värttinä has none of the Bulgarian women's tendency toward costumed recitalesque. This band is not an archaeology show but a living, galloping group, full of its country's arctic vistas and human drives.

In fact, the inseparable themes of nature and family permeate "Kokko," Värttinä's first album for Nonesuch after three fine releases on Green Linnet. "Kokko"

means "Eagle," and the record also teems with swifts, swallows, and hawks. But these aren't just birds; they're intimate messengers, bringing news to a lonely girl or spiriting something away: "Take my sorrows, dearest raven / Black and with a heavy heart / Fly them to a distant treetop / Leave them on a lofty twig." This is a land where a young woman — a "delicate flower, little fledgling" — chooses not among mere suitors but rather among a "man of iron," a "man of brass," and a "forest bridegroom." Swirling through these stories is an intoxicating brew of wind instruments, keyboards, guitars, fiddles, and percussion, at once otherworldly and downtown. The players have become a crackerjack ensemble, and the singers have learned to balance the youthful herky-jerkiness of their earlier recordings with measured drama and a certain swing.

Värttinä's new maturity is best heard in three songs written by one of the singers, Sari Kaasinen. *Iro* builds to a mesmerizing climax as the vocalists joust frantically, almost taunting a maid who never finds a husband. The girl of *Pojaton*, in a captivating drone that merges the traditional with the modern, laments that she will never bear a child. Ah, but are marriage and parenthood all they're cracked up to be? Maybe not, a mother warns her daughter in *Emoni Ennen*: "Sing, lass, while still a child / With not a care in the world / Leave all your worries until later / In your husband's house and home." This closing a cappella track allows the four voices to shine in all their bright beauty, perfectly showcasing the wonder of Värttinä, whose world pop is truly a music for all nations.

Ken Richardson

VÄRTTINÄ: Kokko.

Tiulilta Tuleva: Kokko; Ottajat; Korppi; Pyry; Halla; Iro; Merten Kosijat; Omani; Pojaton; Emoni Ennen. NONESUCH 79429 (41 min).

Bryn Terfel Sings "Something Wonderful"

During my syndicated radio interview with Bryn Terfel late in 1995, he commented enthusiastically on the Rodgers & Hammerstein songs he had just recorded, calling them "real dramatic scenes." And that is exactly what he offers in "Something Wonderful," a CD of songs and scenes from Broadway musicals created by that remarkable pair. In a program of twenty selections — including a first recording from the underappreciated show *Allegro* — Terfel does not limit himself to the masculine songs. He takes on such num-

BEST OF THE MONTH

bers as *It Might as Well Be Spring* (from *State Fair*), *June Is Bustin' Out All Over* (*Oklahoma*), and even *Bali Ha'i* (*South Pacific*), recreating them in his own virile and large-scale image.

Terfel is a *natural*, an outdoorsy Welshman with an innate gift of song. Although he brings to these show tunes the emotional range and artistic discipline needed in opera and in art-song recitals, there is no artificiality in his presentation. His command of dynamics ranges from a whispered *mezza-voce* to a roaring fortissimo, and his exceptional breath support allows him to phrase in a way that most other singers in this field cannot. He can also build a strong dramatic scene from the seemingly simple ingredients of *The Surrey with the Fringe on Top*, lull you with a caressing head-tone in *Edelweiss*, and bowl you over with a rambunctious, chorus-supported *There Is Nothin' Like a Dame*. Above all, he sounds *American*, and every word is superbly enunciated.

Everything about the production is outstanding: the recorded balances, the chorus, the orchestra, and the informative notes by Ethan Mordden. I would have

welcomed details on the orchestrations, which reminded me of the original scorings, somewhat fortified but authentic-sounding. *George Jellinek*

BRYN TERFEL:

Something Wonderful — Songs and Scenes from Broadway Musicals by Rodgers & Hammerstein.

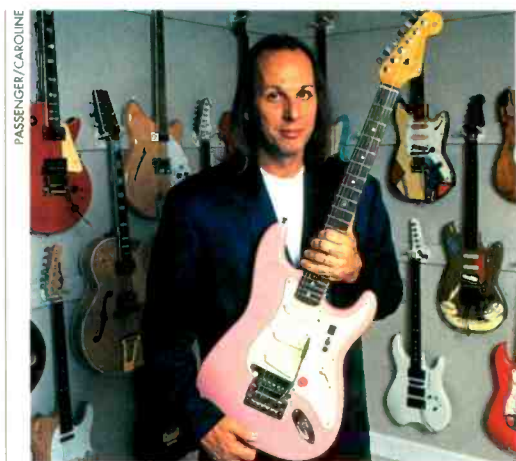
Bryn Terfel (bass-baritone): Chorus of Opera North; English Northern Philharmonia, Paul Daniel cond. DEUTSCHE GRAMMOPHON 449 163 (75 min).

Belew: The Axman Returneth

Adrian Belew is one of the few musicians who's equally adept at Beatlesque pop and progressive/art rock. But his solo career got sidetracked when he apparently decided to focus on his most commercial tendencies. Beginning with 1987's "Mr. Music Head," his albums got more catchy and less adventurous; by the time of 1993's "Here," Belew was sounding suspiciously like the Electric Light Orchestra. Every so often he'd also release a willfully strange instrumental record, but his best work — notably his early disc "Lone Rhino" and nearly everything he has done as a member of King Crimson — always came when he could successfully combine his pop savvy with his experimental streak.

He's never done that better than he does on "Op Zop Too Wah," a dazzling mix of sonic flights and pop invention. There's a lot to explore here, as Belew pulls the old art-rock trick of making the whole album a continuous segue. Abstract instrumentals bridge into straight-ahead pop moments: bits of tunes recur in different settings. Initially it all seems somewhat dense and chaotic, but repeated listenings reveal how well the pieces fit together. If there's less outright whimsy than there was on "Lone Rhino," there's still evidence of Belew's convincing romantic/optimistic streak. And some terrific songs poke through, including the hymnlike *On*, the solid mainstream rocker *Something to Do*, the frantic and Crimonesque *Modern Man Hurricane Blues*, and the soaring *Six String* — one of the few noncheesy love songs ever addressed to a guitar.

That's an appropriate song for "Op Zop Too Wah," since the album finds Belew taking up the guitar-hero mantle again,



Adrian Belew, string-driven guy

dispensing with the keyboard/computer sound he has favored lately. The record opens with a blaze of lead guitar (in *Of Bow and Drum*, an unlikely mix of James Burton-type swamp licks and tribal percussion), and he pours it on throughout; the stacks of axes on the title track are a guaranteed jaw-dropper. As usual, he records in his home studio and plays everything himself, and he's finally gotten the knack of making numerous overdubs sound like a real band — a remarkably versatile band, considering the shifts from tricky fusion to twelve-string jangle and back. Belew remains a first-rate pop vocalist and a capable hook-crafter, but this time he pushes himself further. "Op Zop Too Wah" is either an unusually deep pop album or an unusually warm and accessible disc of avant-rock. It's a career peak either way. *Brett Milano*

ADRIAN BELEW: Op Zop Too Wah.

Of Bow and Drum; Word Play Drum Beat; Six String; Conversation Piece; All Her Love Is Mine; I Remember How to Forget; What Do You Know (Part 1); Op Zop Too Wah; A Plate of Words; Time Waits; What Do You Know (Part 2); Modern Man Hurricane Blues; In My Backyard; A Plate of Guitar; Live in a Tree; Something to Do; Beautiful; High Wire Guitar; Sky Blue Red Bird Green House; The Ruin After the Rain; On. PASSENGER/CAROLINE 9503 (56 min).

Richard Goode's Mozart

Richard Goode's new Nonesuch disc of two Mozart piano concertos with the Orpheus Chamber Orchestra is a refreshing throwback. At one time, musicians and recording companies did not feel obliged



JORDAN DOONER/DC

Bass-baritone Bryn Terfel

always to record "integral" cycles by various composers but were content to preserve their performances of the works they had really lived with, the music they had performed in public, the pieces about which they had thought and felt deeply and for which they had developed special insights. More refreshing still, happily, is the actual disc at hand, on which Goode and the Orpheus perform the Concertos No. 18, in B-flat Major (K. 456), and No. 20, in D Minor (K. 466), with such genuineness of spirit and such unbounded joy that I'm at a loss for words to praise them.

Praise, indeed, seems almost beside the point here, for these performances call attention to nothing but the glory of the music itself. There are no big interpretive statements, no musical points hammered home, no heretofore hidden sociological or philosophical meanings revealed, no condescension to the charm that bubbles over in the B-flat Concerto, no gratuitous underscoring of the dramatic character of the famous (and frequently abused) D Minor



Pianist Richard Goode

freshly invigorating . . . effervescent, sparkling." Tempos are generally a bit faster than what has been the norm, but the music always has room to breathe, and every note is formed with beauty; the marvelous tunes have never been more persuasively phrased. Goode and his splendid companions combine and respond with the spontaneity usually reserved to the most intimate level of chamber music, and with an elegance as unforced as the vitality. In a word: irresistible — and the more so with repeated hearings.

Goode plays Mozart's surviving cadenzas in No. 18, the familiar one by Beethoven in the first movement of No. 20, and a tasteful one of his own in that work's finale. The natural, well-balanced sound does full justice to the performances, as

do Harris Goldsmith's exceptionally illuminating notes. *Richard Freed*

MOZART:

Piano Concertos Nos. 18 and 20.

Richard Goode (piano); Orpheus Chamber Orchestra. NONESUCH 79439 (58 min).

Concerto. The music simply takes wing and delights in itself.

These are brisk readings — not terse, mincing, or choppy, by any means, but brisk in the truest sense, which my dictionary defines as "full of life, keenly alive or alert; energetic . . . sharply or

NOW ON CD

POPULAR

THE CONGOS: Heart of the Congos.

BLOOD AND FIRE 009 (two CD's), available from Ernie B.'s Record Mail Order, 916-939-0691. Contemporaries of Bob Marley and Burning Spear in reggae's heyday, the Congos made classic recordings with producer Lee "Scratch" Perry in 1976 and 1977. They're all here, with rare 12-inch and dub mixes plus unreleased tracks.

JOHN FAHEY:

The Legend of Blind Joe Death.

TAKOMA/FANTASY 8901. A 75-minute set of tracks from the "American primitive" guitarist's 1959 debut and its 1964 and 1967 rerecordings. Includes new liner notes as well as those from the 1964 LP, which were "full of lies, in-jokes, obscure references, and absurdities" concocted by Fahey.

LYNYRD SKYNYRD:

One More from the Road.

MCA 11533 (two CD's). The double live set, newly remastered, has been expanded with three bonus tracks: *Simple Man* and *Gimme Back My Bullets*, from other compilations, and a previously unreleased alternate version of *Sweet*



Home Alabama. All songs have been resequenced to correspond with the original running order of the famed 1976 Atlanta shows.

SUSANNAH McCORKLE: Over the Rainbow — The Songs of E. Y. Harburg.

THE JAZZ ALLIANCE/CONCORD 10033. One of the cabaret singer's finest albums, unavailable since shortly after its 1981 release on Inner City and now reissued in time for next year's centenary of Harburg's birth. McCorkle delivers the standards but also unearths lesser-known treasures from the lyricist's catalog.

cond. EMI 69506 (two CD's). ". . . this is piano playing of the highest order" (December 1968).

HOLST: The Planets.

New York Philharmonic, Leonard Bernstein cond.

WALTON: Façade.

Philadelphia Orchestra, Eugene Ormandy cond. SONY 62400. "Bernstein has pulled off an elemental musical miracle with his new recording of Holst's *Planets*" (January 1974).

MOZART: Four Horn Concertos; Rondo in E-flat Major.

Dale Clevenger (horn); Franz Liszt Chamber Orchestra, Janos Rolla cond. SONY 62639. "Clevenger carries off the solo role flawlessly. . . and the orchestral support is superb" (February 1988).

R. STRAUSS: Der Rosenkavalier.

Elisabeth Schwarzkopf, Christa Ludwig, Teresa Stich-Randall, Otto Edelmann, others; Philharmonia Chorus and Orchestra, Herbert von Karajan cond. EMI 61132 (three CD's). Mono, from the original 1956 masters, and with greater clarity and detail than the early stereo mix of this legendary recording.

CLASSICAL

BEETHOVEN: Piano Concertos Nos. 1-4.

Emil Gilels; Cleveland Orchestra, George Szell



POPULAR MUSIC

NEW RECORDINGS REVIEWED BY CHRIS ALBERTSON, FRANCIS DAVIS,
WILL FRIEDWALD, PHYL GARLAND, RON GIVENS, BRETT MILANO,
ALANNA NASH, PARKE PUTERBAUGH, KEN RICHARDSON, & STEVE SIMELS

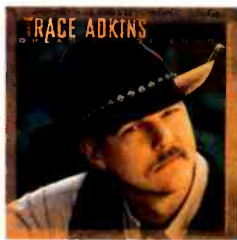
TRACE ADKINS: *Dreamin' Out Loud*.

CAPITOL NASHVILLE 37222 (35 min).

Performance: Hit man

Recording: Very good

A big strapping fella with a deep baritone, a surly countenance, and a couple of hits already under his belt (including *Every Light in the House*). Trace Adkins is a honky-tonker with a sensitive side. He wrote one of his debut's strongest songs, *There's a Girl in Texas*, as well as the sturdy, Haggardesque closer, *That's a Bad Way*



of Saying Goodbye. He may not have much personal star power, and no one will accuse him of being a hunk. But when Adkins learns to put more nuance into his delivery, he'll be worth all the hype he's gotten as the first signing of Capitol Nashville's new head, Scott Hendricks. In the meantime, he's settling for hits. *A.N.*

BLIND MELON: *Nico*.

CAPITOL 37481 (39 min; enhanced CD).

Performance: Unfortunate

Recording: Haphazard

One hates to speak ill of the dead, so let's have some respect for Shannon Hoon, the Blind Melon frontman who died of an apparent cocaine overdose in 1995. He left behind a wife and a two-year-old daughter, for whom this album is named.

Sympathy for Hoon's family, friends, and fans is certainly in order, but so is a little honesty — and the truth is that Blind Melon was a mediocre band whose career was already on the wane at the time of

Hoon's death. Given the spotty quality of its two official albums, the prospect of a disc of outtakes wasn't too appealing. In fact, the only bright moments on "Nico" are *John Sinclair*, a cover of the John Lennon song, and *Glitch*, an instrumental.

The saddest thing about "Nico" is the air of exploitation hanging over it. A few barrels were likely scraped to come up with enough material to fill the disc. Considering the circumstances of Hoon's death, it was also borderline tasteless to start the album with a cover of *The Pusher*. Hoon sounds like he has barely learned it, and crediting Steppenwolf as writers (Hoyt Axton wrote the song) shows how little care went into "Nico." The multimedia content of this enhanced CD includes interviews, plugs for the back catalog, and other frills that, though well-designed, aren't quite appropriate to the occasion. *B.M.*

BUSH: *Razorblade Suitcase*.

TRAUMA/INTERSCOPE 90091 (61 min).

Performance: Just alright

Recording: Vivid

Plenty of eyebrows were raised last year when word got out that Steve Albini, Mr. Indie-Rock Integrity, was producing Bush's second album. After all, he had done "In Utero" for Nirvana, and now he was working for a band with a justifiable critical rep as Nirvana Lite. But hearing "Razorblade Suitcase," you'll wonder what the fuss was about. If there's any Albini influence here, it's in the live details that most producers would smooth out — the way Gavin Rossdale's voice cracks at the beginning of *Cold Contagious* or the way the guitars keep threatening to feed back during the tense, drumless *Bonedriven*.

Bush sounds more serious than it did on its hit debut, "Sixteen Stone," and that's a mixed blessing. It means there are a few too many plodding numbers, when the punkish ones are what the band does best. The more focused songs, including *Swallowed* and *Personal Holloway*, have as much venom as

you could ask for. But the more Rossdale grapples with the meaning of success as the band slows down to a metal dirge, the more they're going to earn those unfavorable comparisons to you know who. *B.M.*

JOANNA CONNOR: *Big Girl Blues*.

BLIND PIG 5037 (52 min).

Performance: Formidable

Recording: Excellent

She has been likened to Bonnie Raitt and called a soprano Johnny Winter, but there are also times when Joanna Connor recalls both the gut-wrenching and the soft-as-butter-in-July sides of Janis Joplin. Connor was seven when someone gave her a guitar, an instrument she now masters with facility and authority. Whether sliding across strings with locomotive force or



stretching notes as far as our mood allows, she is compelling, and when you add her voice, she can be awesome. Given all that, her path simply had to lead to Chicago one day — and so it did, in the mid-Eighties.

A dozen years and several records later, Connor has made her finest album to date, "Big Girl Blues," a potent excursion that should once and for all establish her as a major blues writer and performer. I love this record, but I must admit that the inclusion of the final song puzzles me. Labeled a "special bonus track" featuring Josie Dread and Her Blue Clouds of Joy, *Smoke It Up* is a pop-flavored novelty that stands in sharp contrast to the eleven real joys that precede it. *C.A.*

DASH RIP ROCK:

***Dash Rip Rock's Gold Record*.**

NAKED LANGUAGE/ICHIBAN 6502 (52 min).

Performance: Ripsnorting

Recording: Varies

Of course, this is not Dash Rip Rock's Gold record, although if a knack for playing primal rock-and-roll counted for anything at this late date, it would certainly deserve that status. The band's seventh record is messy, a goulash of rerecorded old songs, frantic Cajun country-punk covers, and a smattering of new tunes. The idea, I guess, is to provide an overview of this untamable Louisiana trio for those just catching up, but the album is somewhat disjointed, with songs recorded all over the place, and the stitching shows.

But so what? Life itself is messy — and, besides, the album rocks like mad. The redone *Johnny Ace* is even more uptempo than the original, with guitarist Bill Davis whipping off a hyper-rockabilly solo. Other remade favorites of the Dash Rip Rock cult are as irresistibly high-energy as they are

politically incorrect, although the new versions don't improve on the originals (but then the originals are out of print). The album closes with *(Let's Go) Smoke Some Pot*, a crudely funny bit of reefer madness set to the tune of *At the Hop*. Hang on for a silent ten minutes, however, because Track 15 resumes with a priceless classic-rock parody, *Stairway to Free Bird*. P.P.

EVITA

(original motion-picture soundtrack). WARNER BROS. 46346 (two CD's, 109 min). Performance: Respectable Recording: Fine

In the original libretto of Andrew Lloyd Webber and Tim Rice's *Evita*, the newly coronated Eva Perón is described as "a New World Madonna." In Alan Parker's film, the line becomes "a lady of the New World." Considering that this allegory of Argentine political demagoguery presaged an era in which Michael Jackson dressed like a

South American dictator, it was a foregone conclusion that a pop star would eventually immortalize Señora Perón for the movies. That said, Madonna — though not in the same class vocally as previous Evitas, particularly the first one, Julie Covington — handles the singing admirably.

There's a tradition of double-disc recordings of *Evita*, starting with the première studio recording from 1976 (just reissued on CD by MCA), all of which tend to stretch Lloyd Webber's meager melodic material rather thinly. The composer takes his two most memorable hooks (*Buenos Aires* and *Don't Cry for Me, Argentina*, the second based on a folk song) and repeats them incessantly. It's easy to see why his genre of jingle opera — which combines the sound of rock, the conventions of musical comedy, and the pretensions of the Met — has dominated Broadway for so long, and it's no surprise that his domain has extended to Hollywood. You might call the

new production, in the words of Patti LaPone (the most famous pre-Madonna *Evita*), "The ArgenTina Turner Revue." W.F.

KATY MOFFATT: *Midnight Radio*.

WATERMELON 1054 (41 min).

Performance: Spirited Recording: Folkie good

On "Midnight Radio," her second collaboration with singer/songwriter/producer Tom Russell, Katy Moffatt moves to the more eclectic end of her folk-and-blues repertoire. Some of her story songs seem autobiographical (the title track, about growing up in Texas mesmerized by the magical, black bedside box), while others are culled from her imagination (the delightful *Hank and Audrey*, based on the perpetually fighting musical Williamsses). Moffatt and Russell craft thoughtful, often poetic lyrics. With her voice and guitar at center stage, however, Moffatt is laid bare as a singer, and several songs are in keys too high for her sometimes fragile soprano. Still, there's a lot to recommend, especially to those who care about the power of language. Twenty years into her career as both a mainstream and a fringe performer, Katy Moffatt continues to follow her own circuitous but fascinating path. A.N.

NUNO: *Schizophrenic*.

A&M 0593 (59 min).

Performance: The Sybil of rock Recording: Chummy

Let's get this out of the way pronto: Nuno Bettencourt is the guitarist from Extreme. Slings and arrows! Hue and Cry! Well, do your worst, but it won't change the fact that "Schizophrenic" is one of the best solo debuts you're likely to hear this year.

I've heard the album five, maybe twelve times, and still I ask myself: How can Nuno make sitar, rap, Bo Diddley, and Nirvana sound so fresh? Maybe it's in the juxtapositions: sitar growing from synth bass (*Fallen Angels*), rap exploding into choppy rock (*Gravity*), Diddley squatting between soft refrains (*What You Want*). And maybe *2 Weeks in Dizkneelande* works so well simply because I'm happy to compare it with Nirvana. Yes, there's some great guitar on the record, but this isn't a guitar album. The guy's right, he's schizophrenic, with vivid personalities in pop, funk, metal, and more. Not a bad song among the fifteen. Killer choruses everywhere. And it all seems so effortless that it makes a lot of trendy stuff sound overcalculating and overwrought.

But wait. I am a hip rock critic, and I should not enjoy this album. I am a hip rock critic, and I should not enjoy this album. I am . . . oh, dash it all, pass the Nuno! K.R.

JOHNNY PAYCHECK: *The Real Mr. Heartache — The Little Darlin' Years*.

COUNTRY MUSIC FOUNDATION 023 (62 min).

Performance: Seminal Recording: Raw 'n' reelin'

Long before his career highlights — raising a middle finger in 1978 with the anthem *Take This Job and Shove It* and later going to prison for aggravated assault — Johnny Paycheck was a quintessential hill-

WHERE DID 2 GO-GO'S GO?



MARINA CHAVEZ/DOC

As a public service, we identify two former Go-Go's who are keeping relatively low profiles in new bands. That's Go-Go bassist Kathy Valentine circled at left. She has switched to guitar and become one of the Delphines with Dominique Davalos; their self-titled debut is on Fountainsbleu (91-38 114th St., Richmond Hill, NY 11418). In the cool top hat is guitarist Jane Wiedlin, who was "Tangled" on the last of her just-okay solo albums but is now at the

helm of Frosted; their debut, "Cold," is on DGC, and Wiedlin co-wrote some of the songs with a third Go-Go, Charlotte Caffey (top left). Both Valentine and Wiedlin have returned to the parent group's early bar-band sound, and the beat they've got this time around is as much punk as it is pop. Or as Jane sings in *Dis-integrated*, "I just get drunk and think about the people I'd like to kill / Cuz look what being nice got me."

— Ken Richardson



LISA JOHNSON/COLUMBIA

The Presidents of the United States of America: second inaugural ball

billy honky-tonker, recording in the Sixties for the indie label Little Darlin', which he cofounded. He was also a genuine rough-and-tumble character, and the protagonists of his songs — marked by women, booze, drugs, crazy spending, and almost every dark obsession known to man — lived in the virtual spare rooms of his house.

That's the Paycheck preserved on "The Real Mr. Heartache," spanning 1964 to 1968. A far smoother singer here than he would become, Paycheck trod the same boards — literally and figuratively — as George Jones and Buck Owens. Their vocal inflections show up here and there, Jones especially in *A-11*, Hank Cochran's classic about the emotional wounds inflicted by a jukebox, and Owens in *I'm Barely Hangin' On to Me*. Not just a potent seller of songs, Paycheck also made a reputation as a writer, turning out *Apartment #9* for Tammy Wynette and *Touch My Heart* for Ray Price.

These recordings capture the "anything goes" atmosphere of Sixties Nashville. Country would do well to get back to its eccentric creativity. As "The Real Mr. Heartache" suggests, Paycheck — back from prison now and doing cameos in bad movies — could probably still lead the pack. *A.N.*

THE PRESIDENTS OF THE UNITED STATES OF AMERICA: II.

COLUMBIA 67577 (42 min).

Performance: Rocks!
Recording: Rocks!

Any group in the Nineties that titles an album with a Roman numeral is either completely clueless or playing the genre for laughs. Because this album is by the Presidents of the United States of America — a band whose guitarist and bassist play five strings between them — there's no doubt you're supposed to chuckle along to this goofy lampoon of arena rock.

The fun starts with the first track. Among the hoariest conventions of the heaviest bands was the ham-handed rock-and-roll call to arms, strategically placed at the beginning of a record or a concert. The Presi-

dents oblige with *Ladies and Gentlemen Part I*, which asks the musical question "Are you prepared to rock?" with as much bombast as can be mustered by a trio missing half their strings (and all their marbles).

Froggie, a jazzy vamp whose lyrics compress the rise and fall of some fictional rock star into three wickedly witty minutes, concludes with his fatal drug overdose, descent into hell, and eulogy in *Rolling Stone*. Given this unsentimental debunking, maybe "II" isn't as funny as it might seem at first. But the canniest thing about the album is that the Presidents, while ostensibly celebrating pop culture, surreptitiously topple the columns supporting it. Some listeners will surely catch the band's sardonic drift, and others will rock along mindlessly, oblivious to the joke that's on them. Which itself is hilarious. *P.P.*

(THE ARTIST FORMERLY KNOWN AS)

PRINCE: Emancipation.

NPG 54982 (three CD's, 180 min).

Performance: He's done better
Recording: Ditto

A straight-down-the-middle R&B album may be the last thing anyone expected from the former Prince these days, but that's exactly what he's delivered. Commemorating his contractual release from Warner Bros. (a flimsy premise for a triple album if ever there was one), "Emancipation" supposedly celebrates his freedom to release whatever music he wants. So the surprising thing is how reined-in he sounds. If you're in a low-key, retro-soul mood, the album has its charms, but there isn't enough stretch to justify three hours of music.

It was strange enough when he chose a faithful version of the Stylistics' *Betcha by Golly, Wow* as the advance single: the song has been covered enough, and it's Prince's first use of outside material (the album has an even stranger choice in Joan Osborne's preachy *One of Us*). But the infatuation with smooth Seventies soul goes beyond that cover to infuse the whole set. "Emancipation" has almost no lead guitar, only one

real rocker (and a good one, *Damned If I Do*), and only one hint of the psychedelic "Purple Rain" sound (*In This Bed I Scream*). And there's a softening of the usual sex/spirituality themes; even the more daring numbers, *Sex in the Summer* and *Joint 2 Joint*, are downright tame.

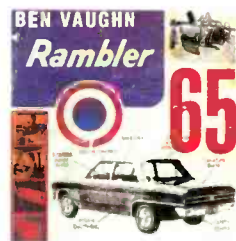
As usual for double or triple albums, there's enough material for a first-rate single disc. *The Holy River* is movingly devotional, and Prince's falsetto soars in the set's third cover, the Delfonics' *La La Means I Love You*. Disc 3 is the strongest, with a trio (*Slave, New World, Human Body*) recalling the stripped-down funk of "Sign o' the Times." Mostly, though, "Emancipation" sounds like a veteran showing that he can buckle down and be commercial. *B.M.*

BEN VAUGHN: Rambler 65.

RHINO 72484 (43 min).

Performance: Talk about driving music!
Recording: Low-fi

You've just got to love the premise: an album recorded entirely in a car, Ben Vaughn's 1965 Rambler American, to be exact. Vaughn is a retro-rocker who can shift stylistic gears with ease, from the neo-rockabilly of *7 Days Without Love* to the neopsychelia of *Levitation*. The first of these, a motorvatin' hunk of pop whose key line makes an inspired double-entendre ("7 days without love makes one weak"), is worthy of Nick Lowe in his prime. The electric sitar solo in *Levitation* is a hoot, as is the Farfisa organ bounce of *Boomerang*. There's even a trenchant matter-of-factness amid the laughs in *Rock Is Dead*.



The problem is that "Rambler 65," while engagingly lightweight, doesn't resurrect the rock-and-roll spirit despite Vaughn's best intentions. He just knows too much. Overarching cleverness is the enemy of spontaneous invention here, no matter how casually he tries to play it from the confines of his car. Another bone to pick: Just what kind of auto addict would issue a deliberately low-key, low-fi album on CD only? "Rambler 65" deserves to be mass-produced on cheap cassettes — or, better yet, eight-track tapes — and given away with a cheeseburger, fries, and a large Coke. *P.P.*

WILCO: Being There.

REPRISE 46236 (two CD's, 77 min).

Performance: Eleven
Recording: Ditto

To fully appreciate what Wilco did on its woolly two-CD set, I guess you had to be there. Still, for those of us who can only experience "Being There" secondhand, there's a lot to enjoy.

The best songs capture the anxiety of the loveless, the shiftless, the rootless. Sometimes the tunes are in a country-fried Neil Young mode. Other times, they're in a revved-up Rolling Stones mode — which I prefer, because the country stuff seems way too ironically delivered, and that's one smart-ass move too many. Jeff Tweedy, the guy who sings, writes the songs, and plays a few instruments, can be a little too clever for his own good. Sincerity becomes him best — in the unabashed valentine *I Got You (at the End of the Century)* and in *The Lonely I*, an aching dead-on depiction of isolation in the showbiz limelight — but he doesn't show that sincerity enough.

It may seem like a truism that any two-CD set can be improved by editing it down to a single disc, but it sure is true in this case. Wilco shows a devil-may-care attitude toward musicmaking that approaches sloppiness. With a little discipline — in the tunes, the lyrics, the performances, the song selection — these guys could have come up with one killer of an album. And then we'd all be there with them, having the time of our miserable lives. *R.G.*

DAVID WILCOX:

The Nightshift Watchman.

KOCH 7921 (38 min).

Performance: Mellow

Recording: Pleasingly quiet

David Wilcox owes a lot to James Taylor, since he mines a similar mix of hope, humor, and observation set to jazzy pop and acoustic-guitar meditations and delivered in a mellow baritone. On "The Nightshift Watchman," Wilcox bonds with his father (*That's Why I'm Laughing*) and sings a poem about his small town (*High Hill*). He hits his stride in *Come to Santa Fe*, the true story of his liberation by the right woman and the right environment: "When I'm walking with Sarah / I feel I'm set free / Like she could walk past all the guards / And say, 'This man's with me'."

There's something dated and limited about Wilcox's style, and some of his lyrics come uncomfortably close to greeting-card sentiment, so it's difficult not to think he's making the most of an essentially small talent. Still, he knows how to transport you back to the very core of emotions you may have hoped would stay buried. . . . On second thought, maybe David Wilcox isn't such a small talent after all. *A.N.*

Collections

NASHVILLE, THE OTHER SIDE

OF THE ALLEY —

INSURGENT COUNTRY, VOL. 3.

BLOODSHOT 014 (55 min).

Performance: Exciting

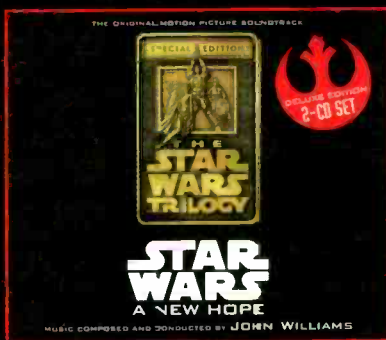
Recording: Crummy to good

Tired of Nash-Vegas glitter? Weary of cookie-cutter crap? Then you've come to the right place. "Nashville, the Other Side of the Alley" is as hip as country ever gets. An anthology of artists you've most likely never heard of (except maybe Dan Baird, late of the Georgia Satellites, and Ja-

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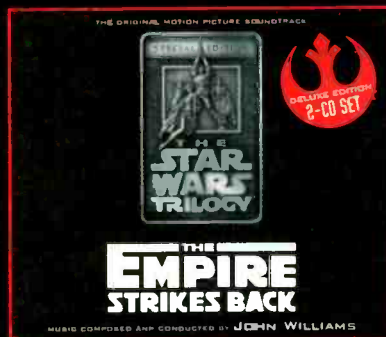
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POPULAR MUSIC

son and the Scorchers), this is the stuff that underground legends are made of — except that it's above ground and obscure.

Take, for example, Tom House. He starts things off with *The Hank Williams Memorial Myth*, a monologue in which he boasts of sharing the spotlight with the Legend, and



then returns with *Cole Durhew*, a riveting song about a laborer accused of murder. In between those two cuts, all hell breaks loose with Tim Carroll's honkin' *Open Flame*, Phil Lee and the Sly Dogs' desperate *Daddy's Jail* (a place you really, really don't want to go except in song). Duane Jarvis's Mick Jaggerish *Cocktail Napkin*,

Herrmann Monsters

Back in the days and especially the nights of freeform FM radio, it was no surprise to hear, say, something by King Crimson segue into *Journey to the Center of the Earth* — and I'm not talking Rick

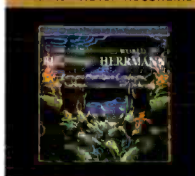
Wakeman but rather Bernard Herrmann, who wrote the soundtrack for that Fifties movie classic. Terrific suites from *Journey, The Seventh Voyage of Sinbad, The Day the*

Earth Stood Still, and Fahrenheit 451 appeared in 1974 on "The Fantasy Film World of Bernard Herrmann," and 1975 saw *Mysterious Island, Jason and the Argonauts,*

and *The Three Worlds of Gulliver* on "The Mysterious Film World." Both are now on gold CD's from Mobile Fidelity Sound Lab, as is "The Four Faces

of Jazz," Herrmann's adaptations of Weill, Gershwin, Stravinsky, and Milhaud. The excellent sound of the original London Phase 4 LP's is deepened and sharpened in MoFi's remasters. — Ken Richardson

ORIGINAL MASTER RECORDING



ORIGINAL MASTER RECORDING



ORIGINAL MASTER RECORDING



and Hayseed's ultra-quirky *God-Shaped Hole*, which mates Fifties country with lyrics like "I've got a God-shaped hole in my soul . . . when I was put together, I was made to lose control." Just call it existential angst, down-home style.

The record industry has largely ignored these guys, but you won't forget 'em. This is music for folks who like their country raw, blunt, and bleeding. Did I mention original? A.N.

RASPBERRIES PRESERVED (A TRIBUTE).

GINGER 6317 (71 min). 2234 N. Hamilton, Chicago, IL 60647.

Performance: Smashing
Recording: Fine

The best thing of its kind since "Sing Hollies in Reverse" two years ago, "Raspberries Preserved" is an almost unalloyed pleasure, paying tribute to the still underrated kings of early-Seventies pop revivalism. The bands here are, primarily, alterna-rock rumors, but there are a couple of names you'll recognize (Bill Lloyd, the Rubinoos), and most of the performances are either faithful and entertaining (the Hushdrops' version of *Overnight Sensation*) or wonderfully reimagined (Alex Ballard and Sugarfoot's rockabilly redoing of the sublime *I Wanna Be with You*). Best bets: latter-day Raspberry Scott McCarl's Lennon-esque *Nobody Knows*, the Rock Club's Harrisonesque *Rose Coloured Glasses*, and Lloyd's Townshendesque blitzkrieg through *Goin' Nowhere Tonight*. Take my advice and acquire this one immediately. S.S.



JAZZ

BILL EVANS:

Turn Out the Stars — The Final Village Vanguard Recordings, June 1980.

WARNER BROS. 45925 (six CD's, 398 min).

The Secret Sessions — Recorded at the Village Vanguard, 1966-1975.

MILESTONE 4421 (eight CD's, 556 min).

Performances: One essential, one not
Recordings: One consistent, one not

Arguably the most influential jazz pianist after Bud Powell, Bill Evans embodied a contradiction: Despite his introspective style and almost Glenn Gould-like bearing, he seemed to do his best playing before an audience. "Turn Out the Stars," a six-CD set from Warner Bros. (also available on ten audiophile LP's by mail only from Mosaic, 203-327-7111), catches Evans in astonishing form at the Village Vanguard over a five-night engagement in the summer of 1980, three months before his death at age 51. The set suggests that Evans was about to turn another corner; he responds to the aggressive playing of bassist Marc Johnson and drummer Joe LaBarbera with a newfound aggression of

his own. It goes without saying that Evans's solos are beautifully sculpted, but as the discs play on, the ear is increasingly drawn to the emphatic figures he plays behind Johnson's solos — little works of art in themselves as well as springboards to group improvisation.

Milestone's "The Secret Sessions," eight CD's of tabletop recordings made by a devoted fan at the Vanguard over a ten-year period beginning in 1966, offers its share of pleasures, not the least of which is the opportunity to trace Evans's changing approach to a handful of familiar tunes and his deepening rapport with bassist Eddie Gomez (Philly Joe Jones is the best of the several different drummers who completed Evans's trio during those years). But the inconsistent sound is a drawback, and even with a musician of this stature, you have to wonder how many performances of *Waltz for Debby* and *Who Can I Turn To?* you absolutely need to hear. Whereas "Turn Out the Stars" is an essential purchase (if your budget won't allow it, go for the single-disc set of highlights), "The Secret Sessions" is for Evans completists only. F.D.

DIZZY GILLESPIE: Groovin' High.

SAVOY 64994 (38 min).

Performance: Bop till you drop
Recording: Clean 20-bit transfers

By today's CD standards, 38 minutes is a skimpy serving, but there's an abundance of fine performances on the reissue of "Groovin' High." These recordings, originally made for 78's between 1945 and 1947 and now digitally remastered, demonstrate how easily the walls of style crumble when professionalism prevails. Young bop pacesetters like Dizzy Gillespie, Charlie Parker, Dexter Gordon, Milt Jackson, and Ray Brown play seamlessly with Slam Stewart, Cozy Cole, and Big Sid Catlett, who made their mark in the swing era. The Modern Jazz Quartet came out of Gillespie's band, and here we get a suggestion of how it started. A must. C.A.

DEXTER GORDON:

The Complete Blue Note Sixties Sessions.

BLUE NOTE 34200 (six CD's, 422 min).

Performance: Seven hours of pure joy
Recording: Excellent

In recent years, numerous "complete" jazz collections have appeared. Some have not quite lived up to the tag, and others have gone overboard and included meaningless session scraps and dialogue. "The Complete Blue Note Sixties Sessions" of saxophonist Dexter Gordon falls into neither category. It is, in fact, exemplary: this is how an extensive reissue should be done. Yes, you get all fifty-eight titles from Gordon's four years at the label, beginning on May 6, 1961 — but, no, you don't get every single track he made. Still, no worthwhile performance has been omitted, and each entry is complete, with no breakdowns or false starts and with only one alternate take.

Blue Note founders Francis Wolff and Alfred Lion were perfectionists, and their finely tuned ears and attention to detail come through in these enduring perfor-

mances. And there is splendid work by impressive supporting casts that include Freddie Hubbard, Donald Byrd, Tommy Turrentine, Dave Burns, Bud Powell, Sonny Stitt, Horace Parlan, Sonny Clark, Barry Harris, Kenny Drew, and Bobby Hutcherson.

Extracts from interviews that were conducted while Gordon lived in Denmark are sensibly placed as the final tracks on four of the discs; they offer an insight into the person behind this marvelous music, as does the exchange of letters between Gordon, Wolff, and Lion reproduced in the set's sixty-page booklet. Also included are rare photos, discographical information, reminiscences by Blue Note's Bruce Lundvall and Michael Cuscuna, and a commentary on the music by Dan Morgenstern. All in all, an exquisite, well-thought-out package. C.A.

JACKIE McLEAN: Hat Trick.

BLUE NOTE 38363 (54 min).

Performance: Lunging
Recording: Excellent

JACKIE McLEAN: New and Old Gospel.

BLUE NOTE 53356 (42 min).

Performance: Ardent
Recording: Okay

Here we have two Jackie McLean Blue Notes — the first one new, the other a reissue from 1967 — and it says something about the state of jazz today that the vintage recording is the more adventurous.

Not that there's much wrong with "Hat



Trick." But as with many other recent albums of Japanese origin, this one has a retrospective air about it, as McLean is called on to reinterpret several numbers he recorded in the Fifties and Sixties, including his own *Bluesnik* and *Little Melonae*. Still, he never sounds like he's retracing old ground. He plays with penetrating fury, saving his best for the ballads; this *Cottage for Sale* is every bit as moving as the version with which he stole the show from Sonny Rollins at a still-talked-about New York concert in late 1995.

The long-out-of-print "New and Old Gospel" captures McLean's only studio encounter with Ornette Coleman, who limits himself to trumpet but contributes both the walloping *Old Gospel* and a rough-hewn dirge called *Strange as It Seems* that elicits especially ardent blowing from McLean. Never counted among McLean's classic Blue Note albums of the Sixties, "New and Old Gospel" deserves a more charitable hearing than it received in its own day —

and not just for presenting Coleman in a more or less conventional setting. It offers some of the most riveting McLean available on disc. F.D.

BOBBY PREVITE: Too Close to the Pole.

ENJA 9306 (72 min).

Performance: What the drums are saying
Recording: Excellent

The latest effort by drummer Bobby Previte's Weather Clear, *Track Fast* septet demonstrates the extent to which the jazz avant-garde has absorbed elements of both classical music and rock. The most consistently breathtaking of the six pieces here is *The Countess' Bedroom*, in which Previte borrows a phrase from Tchaikovsky's *The Queen of Spades* and "undresses" it in a manner reminiscent of Gil Evans elaborating on one phrase of a popular song.

An earlier edition of *Weather Clear, Track Fast* was a veritable avant-garde all-star band. This edition's members are less familiar, but they interpret Previte's music robustly, with trumpeter Cuong Vu and trombonist Curtis Hasselbrug making an especially strong impression. Given Previte's fondness for compound meters, it also helps his cause as a composer that he has the services of a great drummer, one whose patterns suggest not only rhythmic directions but harmonic colors.

Be warned: "Too Close to the Pole" has a surprise ending, or a series of them, starting about three minutes after Track 6 has fin-

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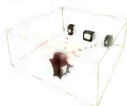
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John Sunier,
Audio Magazine April 1996

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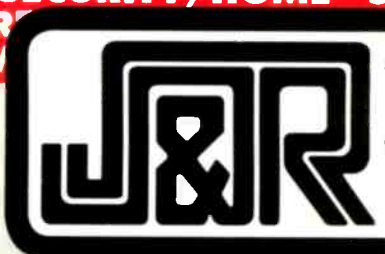
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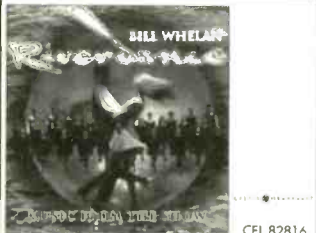
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QUICK FIXES

NATALIE COLE: *Stardust*.

ELEKTRA 61946 (79 min).

A collection of choice standards with some lesser-known gems, "Stardust" covers an exceptionally broad range of moods and styles. Only a versatile singer could handle this rich a mix, and Cole proves she's fully up to the challenge. *P.G.*

BILL DEARANGO: *Anything Went*.

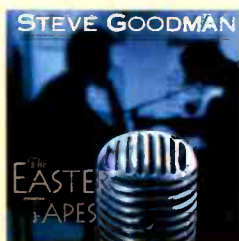
GM 3027 (64 min).

Before sinking into oblivion, DeArango was a pacesetter in bop guitarism — a sideman with Dizzy Gillespie in 1944. Turns out he's been expanding his horizons in Cleveland, borrowing from both rock and free jazz. He now explodes notes into shards of pure sound, and his tussles with tenor saxophonist Joe Lovano make for rewarding listening. *F.D.*

FLAMIN GROOVIES: *Supersneakers*.

SUNDAZED 6077 (59 min).

The nascent Groovies cut this at their own expense in 1968 and pressed 2,000 copies; essentially, it's the original alternative-rock indie EP (to which Sundazed has appended a live show from the same period). The sound is mono and a little crude, and the Groovies come across more like a Sixties bar band than the brilliant power-pop machine they evolved into. Still, a fascinating time capsule. *S.S.*



STEVE GOODMAN: *The Easter Tapes*.

RED PAJAMAS 009 (76 min). 1-800-521-2112.

There's a wonderful intimacy about these solo-acoustic recordings, made in the Seventies during Goodman's annual Easter Sunday appearances on New York disc jockey Vin Scelsa's show. Nearly 13 years after Goodman's death from leukemia, this CD brings back his insouciance with warmth and joy. *A.N.*

MILA MASON:

That's Enough of That.

ATLANTIC 82923 (34 min).

Mason is an intensely pleasing country-pop singer with a bit of grit in her soprano and an involving delivery. It's clear from these songs that she knows the importance of getting on the radio but hasn't forgotten the way to a listener's heart. *A.N.*

CHARLES MINGUS:

Charles Mingus and Friends in Concert.

COLUMBIA/LEGACY 64975

(two CD's, 131 min).

There's exciting music in this 1972 concert featuring Mingus compositions, but there's also a lot of plain sloppy chaos. Perhaps there was an overabundance of stars: Gene Ammons, Lee Konitz, Gerry Mulligan, Charles McPherson, James Moody — and those were just the saxophonists. Mingus obviously knew. When Sy Johnson, who wrote the charts, asked him what he thought of the concert, he replied, "Too many friends." *C.A.*

KEVIN SHARP: *Measure of a Man*.

ASYLUM 61930 (38 min).

Kevin Sharp, a cancer survivor, proudly displays his bald head as both a badge of courage and a reminder to live every day as if it's the last. Not surprisingly, he sings the same way on his earnest debut. But L.A. producer Chris Farren makes this country too slick for Sharp's core audience. Maybe next time. *A.N.*

JIMMY SMITH:

Angel Eyes — Ballads and Slow Jams.

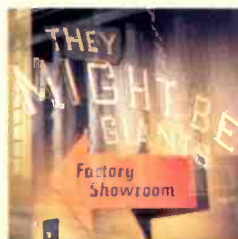
VERVE 632 (55 min).

Arguably the man who put the Hammond organ on the jazz map in the Fifties, Smith returned in 1995 with "Damn!" The same players are back again: this time, the mood is decidedly laid-back. A pleasant album, mostly for swaying and percolating. *C.A.*

THE SPITFIRE BAND: *Virtual Reality*.

ALANNA 5566 (42 min).

With cunning, this Canadian group has managed to recreate the sound of Forties big bands, playing such treasured megahits as *Elmer's Tune*, *Two O'Clock Jump*, *Frenesi*, and *Saturday Night Is the Loneliest Night of the Week*. As Mel Tormé (who has performed with the group) says, "The good old days never sounded this good!" *William Livingstone*



THEY MIGHT BE GIANTS:

Factory Showroom.

ELEKTRA 61862 (43 min).

When a band starts an album today with a disco parody, it's running short on ideas. "Factory Showroom" is better once you get past that opening *S-E-X-X-Y*, but suspicions remain that They Might Be Giants might be past their peak. One classic: *XTC vs. Adam Ant*, which XTC fans will love like Beatles fans love the Rutles. *B.M.*

ished. I guess Previte means us to use the intervening silence to mull over what we've just heard — not a bad idea. *F.D.*

SLIM AND SLAM:

The Groove Juice Special.

COLUMBIA/LEGACY 64898 (54 min).

Performance: Solid surrealism

Recording: Very good

When guitarist Bulee "Slim" Gaillard and bassist Leroy "Slam" Stewart met in Harlem in 1937, the rapport was immediate. Both were superb musicians, and they shared a vivid imagination and an offbeat sense of humor. Soon they were taking their infectious rhythms and zany lyrics downtown, performing on New York's famed 52nd Street as Slim and Slam. Fortunately, they also recorded, and "The Groove Juice Special" contains twenty wonderful sides they made for Vocalion and Okeh between 1938 and 1942, including three that have never been issued before.

The set begins with the duo's most famous tune, *The Flat Foot Floogie*, but that's just the start of the glib gibberish and solid swing. Often delivering songs in foreign tongues that no foreigners understood, Slim and Slam invented in the process a vocabulary that was readily picked up by hipsters of the day. The music, however, needed no interpretation. Gaillard's marvelously fluent guitar and Stewart's unique style of humming an octave above his bowed bass were a great combination. Then, too, they usually worked with impressive associates; trumpeters Al Killian and Henry Goodwin stand out, but the lineup also includes Chico Hamilton, Jimmy Rowles, Kenny Clarke, and Ben Webster. It's a remarkably fresh-sounding set by masters of the genre. *C.A.*

STEVE WILSON: *Four for Time*.

CRISS CROSS 1115 (55 min).

Performance: Excellent

Recording: Ditto

Saxophonist Steve Wilson is a fine young player whom the *New York Times* recently selected to exemplify the hard-working sideman. Sure, he has played that role more often than not (in the Eighties group O.T.B. as well as in the American Jazz Orchestra and the Mingus Big Band), but only a handful of musicians can say that they haven't — jazz, after all, is for the most part a collective endeavor. Yet Wilson is also emerging nicely as a leader, and on "Four for Time," his third CD for Criss Cross, he's in front of a quartet completed by pianist Bruce Barth, bassist Larry Grenadier, and drummer Leon Parker.

There are no throwaways, no straight blues fillers, just a well-mixed program of fine music expertly played. Wilson's alto tone is robust and well suited to his forceful style, but he also has a keen sense of dynamics and a rugged sort of gentleness when handling a ballad like *Everything Must Change*. He is well served by his "sidemen" here, for they make that tag a misnomer, especially in the real gem *Perdido*. Look forward to more, and keep up with Wilson (and other musicians) on the Web at www.jazzcorner.com. *C.A.*

Iris DeMent

BY ALANNA NASH

Merle Haggard, angels, a wall in Washington, and a dream of writing songs and singing them for people



ROCKY SCHENCK/MANNER BROS

When Iris DeMent was about 12, her family traveled to Redding, California, to visit one of her brothers. One night, the brood — 14 children in all — was sitting in a motel room when the brother casually mentioned that Merle Haggard lived in town.

"It was like, 'Oh, my God!'" remembers DeMent, who, unbeknownst to her largely musical family, idolized Haggard beyond all other singers. "Redding was a pretty small town at the time, so I spent a week thinking I was going to see Merle on the street. It was like, 'Where does Merle live?' And 'Has Merle ever seen this motel that we're in?' So he's been a big thing in my mind for a long time," says the folk-country singer/songwriter, now 35 and revered for her own literate lyrics and straight-from-the-heart vocals.

DeMent's obsession with Haggard was, of course, fate. In 1994 she recorded his *Big City* for "Tulare Dust: A Songwriters' Tribute to Merle Haggard" (HighTone), prompting the country legend to go out and buy her albums and to pronounce her "the best singer I ever heard." Soon he was arranging a meeting, asking her to play piano on a two-week tour with him, and, eventually, co-writing *This Kind of Happy* for her third album, "The Way I Should" (Warner Bros.). "You sort of lose yourself for a while after that," she admits. But the experience had a profound effect on the entire album, from the Haggardesque melody of *I'll Take My Sorrow Straight* to DeMent's newly liberated vocals and the fleshier, less old-timey sound of the disc, produced by Randy Scruggs.

The most surprising change, however, is DeMent's thematic veering from the starkly personal to the sociopolitical. *There's a Wall in Washington* confronts the national wounds of the Vietnam War that have yet to heal, *Wasteland of the Free* skewers America's deceitful leaders and topsy-turvy values, *Quality Time* issues a scathing warning to parents too busy acquiring status symbols to get to know their children, and the definitely-not-autobiographical *Letter to Mom* is a painfully intimate song about child sex abuse. DeMent says she wrote *There's a Wall in Washington* before she met Haggard and just couldn't figure out how to get the song on record, but she does credit his famous sociopolitical songs for giving her the courage to vent her own angry conscience on the rest of the album.

Not that DeMent has ever had trouble standing up for what she believes. At 16 she left the Pentecostal Church — a large part of her life — because her minister gave her a choice of wearing nylons or quitting the choir. "I knew there was no rule in the Bible about nylons," she explains. "I realized that meant it was all right for the minister to think for himself and make up new rules, but it wasn't all right for me to do the same." That sense of questioning led her to quit school at 17 and get a GED. A string of K-Mart-type jobs followed until, at 25, she finished her first song, *Our Town*, which propelled her to follow her lifelong dream "to write songs and sing 'em for people."

From the start, DeMent's material has reflected not the California upbringing of her teenage years but instead her Arkan-

sas origin and farm-family heritage. The songs on her 1992 debut, "Infamous Angel" — including *Mama's Opry*, *These Hills*, and *After You're Gone*, a remarkable tribute to her dying father — sound older than they are, partly because she grew up on Haggard, Johnny Cash, and Loretta Lynn, not listening to much contemporary country. Her songs also sometimes resemble church hymns, which has prompted some of her fans to believe she leads a calm, serene life.

"The opposite is true," she answers, sounding vulnerable and utterly uncalculating. "The only reason I write is because I'm rattled." And contrary to one review — which asserted that if *Leave It to Beaver's* Ward and June Cleaver had a daughter, she'd be Iris DeMent — she admits to a mean streak. Once, she got a letter backstage from a man who asked her to sing *Hotter Than Mojave in My Heart*, adding he intended to propose to his girlfriend during the song. "So I thought about not doin' it," she told an *Austin City Limits* audience, which roared. "But in the end, I did do the right thing."

Doing the right thing can have an unexpected outcome, however. The day before our interview, DeMent and her husband, Elmer McCall, attempted to help an old lady "carrying two big ol' bags" across the street in Kansas City, Missouri, where DeMent now lives. "We saw her, and I thought about stopping, but then we drove around a few blocks and came back. I said, 'Ma'am, would you like me to help you with your bags?' She turned around and told me to f— off. I couldn't believe it!" DeMent admits to hurt feelings, but she sees the incident as emblematic of the sad fact that many Americans expect to be mugged rather than offered a helping hand, and it's a story that may work its way into a song someday.

Despite glowing reviews, DeMent's records aren't likely to chart high in *Billboard*. For a while, she struggled with that, but she realized — as reflected in the title song of "The Way I Should" — that her job is not to meet industry expectations but to make the best, most honest music she can. "In that reality," she says, "I have fulfilled my expectations."

DeMent's larger sense of reality includes the belief that she is occasionally "visited" by unseen forces. Several of her older songs mention angels, and the word "ghost" pops up in two new songs. "I don't want to make too much of that," she says, "and I don't want it to sound weird. But I do feel that what I do is connected with the past, with everything that came before me, and to way far in the future, to everything that'll come after I'm gone. Something inside me knows that it matters. It's nice to have someone like Merle Haggard confirm that for you, but I would have known it anyway. A good song has something to say to people." □

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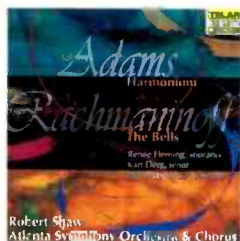
NEW RECORDINGS REVIEWED BY ROBERT ACKART,
RICHARD FREED, DAVID HALL,
JAMIE JAMES, GEORGE JELLINEK, AND ERIC SALZMAN

ADAMS: Harmonium.
RACHMANINOFF: The Bells.

Renée Fleming (soprano); Karl Dent (tenor); Victor Ledbetter (baritone): Atlanta Symphony Chorus and Orchestra. Robert Shaw cond. TELARC 80365 (74 min).

Performance: Impressive
Recording: Very good

John Adams's 1981 choral masterpiece, *Harmonium*, and Rachmaninoff's quintessentially Russian version of Edgar Allan Poe's poem "The Bells" may seem odd discmates, but that consideration fades in the light of the power of each work.



Adams chose to set three challenging poems: John Donne's fascinating "Negative Love," followed by two sharply contrasted Emily Dickinson pieces, "Because I Could Not Stop for Death" and, without pause, "Wild Nights." The minimalist aspect of Adams's musical idiom is most evident in his treatment of the Donne — two huge crescendos rising out of an almost imperceptible pulsation, eventually punctuated by what can best be described as booming cosmic pedal points. The first of the Dickinson sections — moving from death to eternity — is a quietly awesome study in suspended time. I sense a whiff of late Sibelius here, and perhaps a touch of the Stravinsky of the *Symphony of Psalms*. The conclusion brings on an orchestral interlude that bursts into the untrammelled passion of "Wild Nights," which plays itself out in a vision of "rowing in Eden" that musically regenerates the barely perceptible pulsation with

which the work began. Robert Shaw, the 200-voice Atlanta Symphony Chorus, and the Atlanta Symphony Orchestra deliver a performance of telling eloquence and power. Don't miss this if you love choral settings of great poetry.

In Rachmaninoff's "cradle to the grave" choral symphony, Shaw makes an impres-

sive case for the alternative English version of the text, a retranslation from the Russian version of Poe that the composer actually set, and he has the benefit of fine soloists, including the redoubtable Renée Fleming. The performance can stand up to any of the other English versions on CD. The full-bodied recording packs plenty of punch throughout, especially in the Adams. *D.H.*

BEETHOVEN: The Consecration of the House, Overture and Incidental Music; Leonore Prohaska, Incidental Music.

Sylvia McNair (soprano); Bryn Terfel (baritone); Marie-Pierre Langlamet (harp); Sascha Reckert (glass harmonica); Berlin Radio Choir; Berlin Philharmonic. Claudio Abbado cond. DEUTSCHE GRAMMOPHON 447 748 (63 min).

Performance: Excellent
Recording: Good

Beethoven's brilliant, ceremonial overture *The Consecration of the House* ("Handelian" was his own description) was composed for the opening of Vienna's rebuilt Josefstadt Theater in 1822. Of the remaining eight numbers he provided to accompany an allegorical spectacle celebrating the event, only the fifth was new; the rest were recycled from his 1811 score for the play *The Ruins of Athens*, including such chestnuts as the Chorus of Dervishes and the Turkish March. The second number, a lovely duet, is sung here by Sylvia

Connecticut's Own

Fairfield County in southwestern Connecticut, home of the famous and infamous — Paul Newman, Martha Stewart, and Leona Helmsley, to name a few — is an area of great natural beauty within an hour of Lincoln Center in Manhattan. It is also the home of the Orchestra of the Old Fairfield Academy, an ensemble of leading period-instrument performers from the New York metropolitan area, and as far away as Boston, that was founded in 1986 by its music director, Thomas Crawford.

The Old Fairfield Academy's latest CD, which was released in January by MusicMasters, is the first of three

volumes devoted to the complete wind concertos of Mozart. It features the Clarinet Concerto, the composer's last major work, and in this performance the soloist, Eric Hoeprich, uses a "basset clarinet," an instrument with an amazingly extended lower range that he reconstructed based on an engraving in a 1794 concert program. Volume I also includes the Bassoon Concerto, Mozart's first for solo wind, with Dennis Godburn as soloist, and the Oboe Concerto, with Marc Schachman. Volume II in this series, the first of such scope by an American period-instrument ensemble and conductor, is due later this year.

Thomas Crawford conducting the Old Fairfield Academy



STEVE J. SHERMAN/FAIRFIELD ORCHESTRA

McNair and Bryn Terfel, who also does handsomely with the next-to-last number, for baritone and chorus.

The music for *Leonore Prohaska*, an 1815 play about a heroine in the Napoleonic Wars, is even more of a rarity. There is an



opening *a cappella* chorus — a rarity in Beethoven's output — followed by a romance for soprano accompanied by a single harp, after which there's a recitation by an actress backed by the eerie sounds of a glass harmonica. The *Prohaska* music concludes with Beethoven's own orchestration of the Funeral March from his Piano Sonata No. 12 — by all odds the most impressive music on the CD other than the much-recorded *Consecration of the House* overture.

All concerned give of their best, backed by excellent sonics. I'm not sure, however, that the quality of most of the music is worthy of all the expensive talent. *D.H.*

BERLIOZ: Roméo et Juliette.

Olga Borodina (mezzo-soprano), Thomas Moser (tenor), Alastair Miles (bass); Vienna Philharmonic Orchestra. Colin Davis cond. PHILIPS 442 134 (two CD's, 96 min).

Performance: Lovely
Recording: Bright but cough-ridden

Shakespeare was a particular obsession of Berlioz: he wrote an opera based on *Much Ado About Nothing* (*Béatrice et Bénédict*) and incidental music for *King Lear* and *Hamlet*. Yet his greatest work based on Shakespeare is the sprawling, fervidly Romantic vocal symphony *Roméo et Juliette*. Scored for a large orchestra, chorus, and three vocal soloists (mezzo, tenor, and bass),



it has never found the place that it deserves in the repertoire. It's too close to being a stage drama for most symphony orchestras, and it's too symphonic for the opera stage. Yet it's perfect for home listening, and this is a beautifully performed version by the Vienna Philharmonic, led by the great Berlioz conductor Colin Davis.

Davis has recorded practically the entire Berlioz canon (including an earlier version of *Roméo et Juliette* now deleted), and no one shapes this music with greater delicacy,

warmth, and sensitivity. The soloists are fine, too, particularly Olga Borodina, whose rendition of the famous aria "*Premiers transports*" in the prologue is vibrant and emotionally exalted. The live recording is all right, though the vocalists are thrust forward a bit too much, and the audience in the Vienna Musikverein intrudes with coughing at some inopportune moments. *J.J.*

BRUCKNER: Symphony No. 8.

Berlin Philharmonic, Daniel Barenboim cond. TELDEC 94567 (77 min).

Performance: Uneven
Recording: A little fiery

Daniel Barenboim recorded all of the Bruckner symphonies for Deutsche Grammophon back in the 1970's with the Chicago Symphony Orchestra, long before he became its music director. Now that he holds that position, he is going through the cycle again, but this time in live recordings with the Berlin Philharmonic. For the Eighth, the mightiest of Bruckner's symphonic edifices, he favors the Haas edition, as do most serious Brucknerians now, and he manages to get it onto a single CD.

The opening movement surely benefits from the purposeful directness with which it unfolds here, and the scherzo is bracing in its energy without sacrificing any of its essential breadth. The last two movements, both much larger in design, are dealt with more expansively, and in the event somewhat less persuasively. The great adagio simply fails to ignite because it is taken so slowly, without the intensity needed to hold it together at such a pace. The finale, similarly unhurried, does hold together, but the curiously uninvolved adagio will put this Eighth out of the running for most listeners, and the recording itself is no help, being a little fiery here, a little gritty there. *R.F.*

G. GABRIELI:

Music for San Rocco (1608).

Gabrieli Consort and Players, Paul McCreesh cond. DEUTSCHE GRAMMOPHON ARCHIV 449 180 (78 min).

Performance: Wonderful
Recording: Very good

A sumptuous collection of Venetian music by Giovanni Gabrieli, "Music for San Rocco (1608)" was recorded at the Scuola Grande di San Rocco, famous today mainly for its Tintoretto paintings. The program, based on an early seventeenth-century English visitor's fantastic account of a performance there, includes music for vocal and instrumental ensemble and organ solo as well as the inevitable brass. Not all the music is even by Gabrieli; there are two virtuoso solos composed by one Bartolomeo Barbarino, a countertenor (or, as he's styled here, falsettist) of the period. There is also a bouquet of Gabrieli sonatas — for violins as well as cornets and sackbuts — and a series of exquisite motets for men's voices, strings, brass, and organ.

The CD culminates in a reconstruction of the once famous *Magnificat à 33*, a Renaissance tour de force in thirty-three independent contrapuntal parts! Gabrieli, finally liberated from the label of Big Brass Com-

DVORAK FOR TWO

Violinist Gil Shaham has made quite a name for himself at the ripe old age of 25. Lately he has joined forces, first in recitals and now on a duo recording for Deutsche Grammophon, with his 21-year-old sister, pianist Orli Shaham. Their debut CD, titled "Dvorak for Two," which was scheduled for release in February, offers three works for violin and piano by the nineteenth-century Czech composer: the Sonata in F Major, the Four Romantic Pieces, and the



JORDAN DONEY/DEUTSCHE GRAMMOPHON

Violinist Gil and pianist Orli Shaham

Sonatina in G Major. The Shahams are to appear together in duo recitals around the country in late February and March. While Orli is new to disc, Gil has been acclaimed for his recent DG recordings of Vivaldi's *Four Seasons* and concertos by Prokofiev (a 1997 Grammy nominee), Barber, and Korngold as well as "Romances," where he solos with the Orpheus Chamber Orchestra.

poser, surprises us with his scope, technique, and quality of invention. The Gabrieli Consort and Players under Paul McCreesh sound astonished and pleased at what they have found, and they communicate that pleasure. *E.S.*

HOIBY: Piano Concerto No. 2; Schubert Variations; Narrative; Violin Sonata.

Daniel Heifetz (violin); Lee Hoiby, Stanley Babin (piano); Slovak Radio Symphony, Robert Stankovský cond. MMC/ALBANY 2038 (72 min).

Performance: Very good
Recording: Good

Lee Hoiby, born in Wisconsin in 1926 and trained at the Curtis Institute in Philadelphia, has composed in a variety of genres, including five operas (but no sympho-

CLASSICAL MUSIC

nies). Besides the Second Piano Concerto (1979), this varied and interesting CD offers two solo piano works, the *Schubert Variations* and *Narrative*, both performed by the composer, and a violin sonata. None of it is very profound, but the elegantly crafted music falls pleasingly on the ear.

The *giocoso* element is very much present throughout the first movement of the concerto. Its slow movement is lushly romantic, and the finale is bubbly and Poulencian. Soloist Stanley Babin is thoroughly in command as interpreter and technician, and he gets good support from conductor Robert Stankovsky and the Slovak Radio players as well as good, well-balanced sound.

Hoiby shows himself to be a fine pianist in the other three works. The *Schubert Variations* (1981) is based on an oddly melancholy tune taken from the third of Schubert's seventeen German Dances. Hoiby responds to its inherent chromaticism with variations ranging from the dreamy to the overtly virtuosic, concluding the set with a singularly lovely coda. The 9½-minute *Nar-*

rative (1983) is musically stimulating and resourceful in its exploitation of a post-Rachmaninoff idiom in free-variation format. The Violin Sonata (1952, revised 1979), with violinist Daniel Heifetz, has a tuneful opening movement, a somewhat Prokofiev-like scherzo, an intensely lyrical slow movement, and a virtuosic and highly rhythmical rondo-finale. The recorded sound is just fine throughout the CD. *D.H.*

OFFENBACH: *Les Contes d'Hoffmann*.

Roberto Alagna (Hoffmann), José van Dam (Lindorf/Coppelius/Dr. Miracle/Dappertutto), Natalie Dessay (Olympia), Leontina Vaduva (Antonia), Sumi Jo (Giulietta), others: Chorus and Orchestra of the National Opera of Lyons. Kent Nagano cond. ERATO 14330 (172 min).

Performance: Refreshingly idiomatic
Recording: Fine

Few operas in the repertoire present a knottier assortment of problems than Jacques Offenbach's *The Tales of Hoffmann*, a strange, almost hallucinatory omnibus of one-acters built around the life and

work of the legendary storyteller E. T. A. Hoffmann. Offenbach died before he could finish it, leaving behind a complicated tangle of scores, sketches, and summaries — a musician's nightmare, and therefore a musicologist's dream. The Michael Kaye edition used for this recording, based on a success-



ful stage production in Lyons, lays claim to being the most authoritative available; it is certainly the most inclusive, extending the music more than half an hour beyond that heard in previous recordings based on the Fritz Oeser edition.

Scholarship aside, the new recording has much to recommend it. How refreshing — and rare — it is to hear French opera sung by a talented cast composed mostly of native speakers. Tenor Roberto Alagna (who is French despite his Italian name) sings the title role with gleaming warmth and dramatic urgency. The three soprano heroines are brilliantly cast. Natalie Dessay, as the singing doll Olympia, makes light work of the role's fancy coloratura passagework and gives the Korean Sumi Jo, the reigning queen of this repertoire, who portrays the courtesan Giulietta, a fair run for her money. Leontina Vaduva (who's Romanian) sings the tragic role of Antonia with a thrilling, throbbing intensity.

The villains are expertly portrayed by bass-baritone José van Dam, whose voice has taken on a burnished, autumnal patina that is very seductive, if not quite as menacing as one might expect in these evil roles. Conductor Kent Nagano brings out all the sparkle and brilliance this music has to offer. The sonics are colorful but voice-heavy, as in so many new opera recordings. *J.J.*

PURCELL: *Dido and Aeneas; Music from Plays and Masques*.

Nancy Maultsby (Dido), Susannah Waters (Belinda), Russell Braun (Aeneas), Laura Tucker (Sorceress), others: Boston Baroque, Martin Pearlman cond. TELARC 80424 (70 min).

Performance: Breathless, beautiful
Recording: Very good

Martin Pearlman's excellent Boston Baroque ensemble here gives us an extravagantly beautiful and rather breathless *Dido and Aeneas*, with a very expressive use of vocal and violin tone, phrasing, and ornament, and a wonderful sense of forward motion. The edition is the traditional version with a strong mezzo Dido, a meek baritone Aeneas, female Witches, a sizable chorus, a full string complement, and no speculative additions to the text, but lots of delicious performance practices.

Nancy Maultsby is an intense and vocal-

KANSAS CITY CHORALE SINGS RACHMANINOFF

Hearing it blind, without seeing the CD label or packaging, you'd swear that the Nimbus recording of Rachmaninoff's 1910 *Liturgy of St. John Chrysostom* was sung by one of the ranking choirs of St. Petersburg, Moscow, or Sofia. Certainly no one would immediately associate the Kansas City Chorale with such a gripping realization of this masterpiece of Russian Orthodox liturgical music, surpassed only by the same composer's incomparable *Vespers* of five years later. Nonetheless, the Chorale, directed by Charles Bruffy, has released two other outstanding CD's — "Nativitas," a collection of American Christmas carols, and "Fern Hill," a program of twentieth-century American works by Corigliano, Barber, and others, both on the British Nimbus label. Bruffy's association with the Robert Shaw Festival Singers explains much about the tonal beauty and expressive qualities of his remarkable Kansas City group. For the Rachmaninoff, its twenty-four singers have been reinforced, to superb effect, by three additional basses.

In contrast to the single-disc recordings of the *Liturgy*, which omit some of the purely ritualistic numbers, this performance offers the complete Orthodox service. The main burden of the solo work is carried by the magnifi-

cent bass voice of Father Andre Papkov as Protodeacon, accompanied by the excellent tenor and baritone voices of David Adams and Todd E. Berry as celebrants.

While the musical inspiration throughout the 95 minutes of a *cappella* choral writing is not quite as sustained as in Rachmaninoff's *Vespers*, there are breathtakingly lovely individual numbers, among which I would single out No. 2, *Bless the Lord, O My Soul*; No. 12, *We Hymn Thee*, with soloist Pamela Williamson; the bell-like No. 16, *Praise the Lord from the Heavens*; and the jubilant No. 19, *Blessed Be the Name of the Lord*.

The beauty and power of this music are supported by recorded sound that enhances the choral sonority with a cathedral-like ambience without in any way blurring the words or the musical line. As singing and production, this Anglo-American set is a superb achievement,

even compared with the half-dozen or so recordings of the work by Slavic singers and choruses. — *David Hall*

RACHMANINOFF: *Liturgy of St. John Chrysostom*.

Father Andre Papkov (Protodeacon); David Adams, Todd E. Berry (Celebrants); Kansas City Chorale, Charles Bruffy cond. NIMBUS 5497/8 (two CD's, 95 min).



Conductor Charles Bruffy

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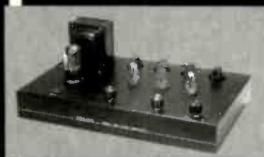
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ly rich Dido who has, rather inexplicably, fallen in love with Russell Braun's somewhat dispirited Aeneas. My cast favorite is Susannah Waters, whose Belinda tosses off those ever-fresh Purcell tunes with spirit, bright vocalism, and fearless ornamentation. Chorus and orchestra are trained to perfection, and Pearlman gives the work tremendous impetus with lively tempos, superb phrasing, dynamic pacing, and neat apoggiaturas, double-dotting, ornamental passage work, overlapping numbers — the works. The CD ends with a bonus: a nicely performed suite of Purcell stage music. *E.S.*

REUBKE: Piano Sonata in B-flat Minor.
SCHUMANN: Kreisleriana.

Till Fellner (piano). ERATO 12710 (63 min).

Performance: Very good
Recording: Bright and clean

Viennese-born Till Fellner, now in his mid-twenties, seems well on his way to international stardom. He has already made fine recordings of solo and concerted works by Beethoven and Mozart, and here he tackles the high-Romantic repertoire. The CD stands out especially for what appears to be a first-ever recording of the Sonata in B-flat Minor by Julius Reubke, a brilliantly gifted pupil of Franz Liszt; the sonata was completed in 1858, the year of his tragically early death at age 24. Why it should have languished so long is baffling. Cast in three uninterrupted movements, it does show the influence of Liszt's great B Minor Sonata not only in pianistic style but in the use of Lisztian thematic transformation. Even so, the music is powerful, built largely around a striking "ur-motif" and adding lyrical and quasi-chorale material along the way in highly effective fashion. Declamatory episodes in the first and last movements heighten the drama. Fellner plays with fiery conviction and displays topnotch musicianship in his command of both the musical materials and the overall structure.

He also captures, with pianism of elegance and brilliance, both the mercurial and the tender aspects of the eight wayward, fascinating pieces that make up Schumann's *Kreisleriana*. I would have liked a bit more impulse and aggressiveness in the opening, but otherwise the reading compares well with any of the other versions on CD. Sonics throughout are solid and crystal clear. Get this CD for the Reubke! *D.H.*

SCHUBERT: String Quintet in C Major.
BOCCHERINI: String Quintet in E Major.

Isaac Stern, Cho-Liang Lin (violins); Jaime Laredo (viola); Yo-Yo Ma, Sharon Robinson (cellos). SONY 53983 (76 min).

Performance: Superb
Recording: Excellent

While the idea of "all-star" chamber music may suggest the possibility of various large-scale egos in collision at the expense of the music, there is nothing ad hoc about this ensemble. These five splendid string players have had the advantage of touring and recording together for a number of years now, and their performance of the Schubert (actually taped back in April 1993)

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DVORAK: Symphonies Nos. 8 and 9. Staatskapelle Dresden, James Levine cond. DEUTSCHE GRAMMOPHON 447 754 (76 min). James Levine's way with the Eighth Symphony is decidedly on the *rubato espressivo* side, but not excessively so. If you don't mind the gearshifts, you'll like this reading — the finale is wonderfully red-blooded. I was surprised at how straight — as in Toscaninian — his new version of the "New World" is. Very good sound all the way through except for the trumpets in No. 8, which seem a bit recessed. *D.H.*

SAINT-SAËNS: Symphony No. 3 ("Organ"); Phaëton; other works. Anthony Newman (organ); Pittsburgh Symphony, Lorin Maazel cond. SONY 53979 (59 min). Lorin Maazel's stylish account of the seldom-heard *Phaëton* suggests that Sony missed a bet in not offering all four of Saint-Saëns's tone poems instead of the *Danse Macabre* and the *Bacchanale* from *Samson and Delilah*. The Symphony No. 3 is marred by an overindulgent slow move-

ment and a rather perfunctory scherzo and finale. The impact of RCA's classic Munch/Boston recording of 1959 remains unparalleled in respect to both musical logic and sonic splendor. *R.F.*

SCHUMANN: Piano Trios Nos. 2 and 3. Fontenay Trio. TELDEC 90864 (54 min). Like the Fontenay Trio's earlier account of Schumann's D Minor Trio (Op. 63), the performances on this new disc of the less



frequently heard Trios in F Major (Op. 80) and G Minor (Op. 110) are warmhearted, sensibly paced, well balanced, and never less than agreeable. But they do not match the effortless expressive power of the Beaux Arts Trio in its integral set on Philips, which has the further advantage of clearer definition in a somewhat firmer sonic focus. *R.F.*

SURINACH: Three Chansons et Danses Espagnoles; Three Cantares; Hollywood Carnival; other works.

Bronx Arts Ensemble. NEW WORLD 80505 (51 min). All of the pieces on this CD, except for the light and amusing *Hollywood Carnival*, are sets of Spanish songs and dances by Carlos Surinach, mostly written in the 1950's. They are heard in lively performances by the excellent Bronx Arts Ensemble under the capable direction of the Uruguayan-American pianist and conductor Pablo Zinger. New World deserves credit for giving us this charming, neglected music, but demerits for the too-scant information about the composer and the lack of full song texts. *E.S.*

QUARTETTO GELATO: Rustic Chivalry. MARQUIS/ALLEGRO 601 (60 min). The versatile Canadian classical cabaret artists who make up Quartetto Gelato mix the beauty and virtuosity of their music with dashes of campy humor. This program of pretty salon pieces by the likes of Ibert, Mascagni, and Ponchielli arranged for accordion, English horn, guitar, cello, mandolin, oboe, tenor, viola, or violin makes sly references to the current tango revival and to the macho swagger of those Three Tenors. Delightful! *William Livingstone*

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is radiant evidence of their having developed the fully functioning collaborative character that suits such an enterprise — and is indeed indispensable to it.

The straightforward and uncluttered performance shows a noble balance of fastidiousness and compassion, embracing flexibility while avoiding the slightest gratuitous underscoring of Schubert's superhuman inspiration or sentimentalizing his very genuine warmheartedness. The sinuous second theme of the opening movement is allowed to spin itself out on its own terms, as is the heartstopping one of the adagio. The subdued vitality of the two concluding movements comes through with the same directness and apparent spontaneity.

Although the big first-movement exposition repeat is taken (and has never seemed more welcome or more downright essential), there is room for another work on the disc, and the most winsome contrast is provided in the form of Boccherini's Quintet in E Major, Op. 13, No. 5 — the one with the famous minuet. This, too, is a remarkable performance. If the Schubert is noble, the operative term here is *elegant*: not a trace of condescension or anything less than the most serious regard for the music and the most thorough preparation. The sound is ideally focused in both works. *R.F.*

SHOSTAKOVICH: Symphonies No. 5 and No. 9.

St. Petersburg Philharmonic, Yuri Temirkanov
cond. RCA VICTOR 68546 (71 min).

**Performance: Tightly controlled
Recording: Good**

Yuri Temirkanov's reading of the most popular, yet enigmatic, of the Shostakovich symphonies, the Fifth, recalls to my mind the many photos and drawings of the composer himself, tense and tight-lipped. But I hear no attempt to play up sentiment — or, for that matter, to underline a political subtext. Temirkanov gives us a classical symphony, and his absolute control of line and texture lets us hear how everything works in terms of polyphony and thematic transformation from movement to movement. Only in the great slow movement is there a measure of relaxation. The controversial closing pages are done according to the Soviet tradition established by Yevgeny Mravinsky, with a relentlessly slow tempo that for some bespeaks a hollow triumph.

If the Fifth Symphony seems a bit on the heartless side here, Temirkanov and his orchestra respond wonderfully to the sweet-and-sour Ninth. The sassy first movement goes at a terrific clip that serves to heighten the bittersweet element of the ensuing moderate. There is fine first-desk clarinet work here, and the savage sarcasm of the central presto harks back at various points to the corresponding movement of the Sixth Symphony. The somber brass recitatives of the large movement make way for a haunting elegy on solo bassoon, followed by the unsettlingly acrid finale, which Temirkanov takes at a rock-steady allegretto, as marked, accelerating to presto only at the very end.

The slightly hard and bright sonics are just about ideal for the Ninth Symphony,

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but I would have liked a shade more elbow room and depth illusion for No. 5. *D.H.*

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JANE EAGLEN:

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Jane Eaglen (soprano); Orchestras of the Age of Enlightenment and of the Royal Opera House, Covent Garden, Mark Elder cond. SONY 62032 (78 min).

Performance: Mixed
Recording: Very good

Sopranos do not, as a rule, embrace Bellini's *Norma* and Wagner's *Isolde* simultaneously, the unique Lilli Lehmann (1848-1929) notwithstanding. Maria Callas wisely abandoned her Wagnerian adventures early on, and Jane Eaglen may be advised to follow the same wisdom regarding Bellini. This does not mean that her achievements are unimpressive. She exhibits a full tone, secure intonation, and a respectable command of the florid passages, though the "turns" in "*Casta diva*" (*Norma*) are not cleanly negotiated. But that aria and the scenes from *Il Pirata* and *Bianca e Fernando* lack the poignancy and verbal nuances that come naturally to real Bellinians.

With Wagner, the situation is different. There is ample sound, security throughout the range, and signs of a limitless reserve. What Eaglen brings here to the *Liebstd* (*Tristan und Isolde*) and Brünnhilde's Immolation Scene (*Götterdämmerung*) is beyond the capacities of any other Wagnerian soprano before the public today, and her work commands admiration.

The orchestral support is less than ideal. After the anemic-sounding *cor anglais* of the Age of the Enlightenment orchestra in the Bellini arias, the richness of the Covent Garden forces in the Wagner enchants the ear, but conductor Mark Elder's languid tempos fail to build tension. *G.J.*

KALICHSTEIN-LAREDO-ROBINSON TRIO: Legacies.

Zwilich: *Piano Trio*. Part: *Adagio*. Kirchner: *Trio No. 2*. Silverman: *In Celebration*.

Joseph Kalichstein (piano); Jaime Laredo (violin); Sharon Robinson (cello). ARABESQUE 6676 (63 min).

Performance: Authoritative
Recording: First-rate

Composed between 1987 and 1993 for the musicians who perform them on this disc, these four works for piano trio all allude to the past in one way or another.

Arvo Pärt's 6-minute *Adagio* in memory of the violinist Oleg Kagan is built entirely on the slow movement of Mozart's *Piano Sonata in F Major*, K. 280; as we might expect, it is a good deal more than a mere transcription, rather more of a free elaboration in Pärt's own very distinctive style. Leon Kirchner advises that his recently completed *Music for Cello and Orchestra* served as "the explicit foundation of" his *Trio No. 2*, which is in a single extended movement, incorporating stylistic allusions to Bach, Wagner, and Mahler but no direct quotations. Stanley Silverman describes his

four-movement *In Celebration* as "an homage to the generation of Americans" represented by Kirchner, who was his teacher, and including not only figures from the world of music, theater, and dance but also legendary baseball players, who personified for him "the energy of the post-Second World War era." Despite citations of popular dance rhythms here and there, though, the work is more pervasively ruminative and nostalgic than overtly animated. Ellen Taaffe Zwilich's especially substantial trio,

the earliest of the four works (Kirchner's is the most recent), is the most conventionally structured, observing Classical principles in three movements that share various common materials, and many listeners will find it especially accessible.

All this adds up to a very effective program, and one that could not have had more persuasive advocacy. What comes through uniformly in the four performances is an exhilarating sense of profound and utter belief. The sound itself is first-rate. *R.F.*

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Maxim Vengerov

BY K. ROBERT SCHWARZ

In a world that's grown accustomed to the acrobatics of teen and preteen violinists, 22-year-old Maxim Vengerov is no longer considered a prodigy. And in a classical-music ghetto that's filled with doom-saying pessimists and smooth-talking cynics, Vengerov's youthful optimism and beguiling sincerity are downright startling. For example, just listen to his extraordinarily confessional analysis of the act of solo performance.

"What I'm doing is a spiritual art," he told me during a recent visit to New York City. "Playing the violin for me is like praying because I believe in it so strongly; it's a religion. And when I hear this praying, then the audience doesn't have to understand Brahms or Beethoven in order to like it. After all, music is unique because you can speak and everyone can understand, since the message is delivered spiritually."

Pretty high-flown rhetoric, but it's offered without any pretentiousness. Even the phrase "spiritual art," which might seem dangerously close to New Age psychobabble, has its source in a deeply personal mysticism. According to Vengerov, when he's onstage in the midst of a successful performance, an inexplicable yet blissful transformation sometimes occurs. "I no longer seem to be *performing*. Technique is no longer an issue. The music is not a subject for thought; I just play it."

Undoubtedly many soloists have had this practically out-of-body experience during the exhilarating rush of a superlative performance. But how many will talk about it? Vengerov displays that same ingenious honesty onstage as well — in playing that is guileless, unmannered, and directly expressive.

Born in 1974 in Novosibirsk, Siberia, Vengerov was always surrounded by music. His mother was a choir director, his father an oboist with the Novosibirsk Philharmonic, and as a small child he began to play the violin. What followed was one of those giddy ascents that fuel the prodigy legend. At 5 he played his first concert with orchestra, at 11 he won his first major competition, and at 12 he gave an unofficial recital

(with another prodigy, pianist Evgeny Kissin) at the International Tchaikovsky Violin Competition in Moscow — "unofficial" because he was too young to participate in the competition.

He always knew that music was his calling, so he never needed parental good-



THOMAS MULLER/TELDEC

Maxim Vengerov, 22, is one of the last heirs to the glorious Russian violin tradition, so filled with expressive fervor and throbbing lyricism.

ing. "When I started, before the age of 5, I felt that this was going to be my bread and water, that this is what I'm going to do for the rest of my life. I chose this way from the beginning, since I knew music was how I could express my soul."

Vengerov's transition to adulthood occurred during years of nonstop touring,

hardly the most auspicious of circumstances. In 1989 his family left the former Soviet Union and emigrated to the West, where his career began in earnest; his American debut took place in 1990, at age 16, when he appeared with the New York Philharmonic.

Since then it's been one triumph after another: an exclusive recording contract with Teldec, a schedule crammed with 130 concerts per season, and — early last year — a chance to enter the living rooms of more than a billion people. As a last-minute substitute for Itzhak Perlman, the boy from Novosibirsk got to play on the globally televised Grammy Awards. But if the experience went to his head, he doesn't show it.

As a youngster in Novosibirsk, Vengerov's principal teacher was Zakhar Bron, a student of David Oistrakh's. So Vengerov grew up immersed in the warm, full-bodied romantic, soulful approach to music-making. Mere technical matters, no matter how challenging, were never a stumbling block. The passage of time has led him to temper some of the romantic excesses of his younger days, but Vengerov remains one of the last heirs to the glorious Russian violin tradition, so filled with expressive fervor and throbbing lyricism.

Although based in Amsterdam, Vengerov is almost always on the road. Yet he hasn't soured on the daily grind of a violinist's life — certainly not the performing and recording, and not even the relentless touring and self-promotion. His Teldec catalog has grown to seven discs, and this year it will be enlarged by recordings of the Second Violin Concertos of Shostakovich and Prokofiev (with Mstislav Rostropovich), the Dvorak concerto (with Kurt Masur), and the Brahms concerto (with Daniel Barenboim). With partners like these, it's no wonder that Vengerov often winds up the season having played many more concerts than he had intended.

"I have engagements and recordings with wonderful orchestras and the greatest conductors, like [Claudio] Abbado, Barenboim, and Rostropovich. To work with such maestros cannot be refused. I am gaining spiritual things from these concerts, which are important for me, so I'm developing myself, I'm keeping my soul alive. And if that's not happening, then I wouldn't be happy."

K. Robert Schwarz, a free-lance writer based in New York City, is the author of *Minimalists* (Phaidon Press).

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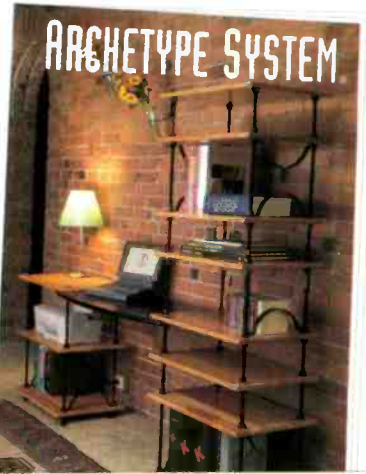
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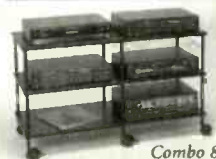


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THE HIGH END

COREY GREENBERG

DVD-Audio: Sound Without Vision

Without question, the biggest news in high-end audio right now is DVD, the next-generation 5-inch optical superdisc. By the time you read this, the first DVD movie players and discs might even be on your local dealer's shelves. After the official "Early '96!" launch got bumped to "Mid-'96 you betcha!" which then got bumped to "Late '96 we swear!" and then further bumped to "Early '97! If we're lyin' we're dyin'!" even this rabid fan of the new digital format began wondering if he'd still be able to hear the word "Grampa" in his good ear by the time DVD finally hit the market.

But all that's behind us now. The DVD era is here, and it's time to start enjoying the new format's better-than-laserdisc picture quality and 5.1-channel Dolby Digital (AC-3) surround sound, the same audio format used in the world's finest movie theaters. DVD will be the first consumer format (aside from the 12-inch laserdisc, which never grew beyond a niche market) to bring the stunning experience of discrete-digital surround sound home, bringing with it the potential for an even greater leap forward in sonic realism over the two-channel CD than the move from mono LP's to stereo.

But lost in the current hoopla is the pounding drumbeat of audio purists who claim that the audio side of DVD represents a step *backward*, not forward. Ever since DVD was announced in early 1995, there's been a growing call from the recording industry and the high-end audio community for an audio-only DVD (called DVD-Audio) that takes sound quality several steps beyond CD. While both of these groups accept Dolby Digital as an improvement over Dolby Pro Logic for movie soundtracks, they believe that its data compression — selectively throwing away low-level audio signals to squeeze 5.1 channels of audio into a bit pool smaller than just one channel of a CD — diminishes sound quality to the extent that they'd rather stuff a cactus up their bloomers than listen to AC-3-encoded music.

Instead, DVD-Audio proponents are

calling for an alternative version of the DVD movie format that uses its entire 4.7 gigabytes of data capacity to deliver up to eight discrete channels of *uncompressed* 24-bit audio sampled at a rate of 48 kHz or higher. A number of DVD-Audio proposals have been floated, including one from Britain's Acoustic Renaissance for Audio (ARA), a group led by Meridian's Bob Stuart. The ARA proposal covers a seemingly endless range of possibilities for the number and quality of audio channels, and it is designed to insure backward compatibility with DVD movie discs as well as standard music CD's. The ARA's proposal strikes me as being the most sensible and forward-thinking (the proposal is on the Web at <http://www.meridian.co.uk/ara/araconta.htm>).

**The DVD will bring
the potential for an even
greater leap forward
in sonic realism over the
CD than the move
from mono LP's to stereo.**

But do we really need DVD-Audio when DVD-Video already has Dolby Digital 5.1-channel audio from the get-go? I'm of two minds about this. On the one hand, I don't think we've had the chance to experience the full sonic potential of AC-3 yet. We've mostly heard how it works with movie soundtracks, which tend to lean more toward irritating over-brightness and special-effects bombast than a natural, musical sound. Even the best-sounding Dolby Digital laserdiscs in my collection fall annoyingly short of the sonic mark set by even run-of-the-mill music CD's these days, and it's got little or nothing to do with AC-3: The uncompressed, CD-quality Dolby Surround soundtrack on these same laserdiscs usually exhibits the same shortcomings.

With few exceptions, movie sound-

tracks just aren't being produced with as much attention to audio quality as music recordings routinely are. But as the recording community (especially the telephone houses that transfer movies to home video) begins to understand that AC-3 is a much more neutral and revealing audio format than analog Dolby Surround and rethinks its mastering methods, I think even hard-core audiophiles will be surprised at how most if not all of their current objections to data-compressed audio simply vanish.

Even so, I wholeheartedly support an audiophile-approved DVD-Audio format. Why? For the simple reason that it will sound better than any consumer audio format that's come before it, and that's what high-end audio is all about. Every improvement in sound quality brings us that much closer to the illusion of live music. And the fact is, the whole business of data-compressed audio is merely a stopgap to tide us over until shorter-wavelength blue lasers and even higher-capacity DVD's make compression-free consumer A/V formats possible.

But there's another reason I support DVD-Audio, and it's got nothing at all to do with sound quality. When I was younger and just getting acquainted with the magic of music, I would listen to my favorite records with my eyes closed in private rapture, my imagination painting a brilliant canvas of the musicians caught up in the fire and passion of the music or a fantastical swirl of colors and textures dancing in time to the music, or recalling the way Linda Santelle's robin's-egg-blue socks bunched down around her ankles as she crossed and uncrossed her legs under the desk in front of me in study hall. Even now, I can listen to a favorite recording from the past and instantly be reminded of those same feelings and mindscapes I used to conjure. There is no way to describe the multiple dimensions of pleasure contained in that experience — it is a very different thing from watching a live performance.

DVD promises to supplant the current paradigm with a multimedia presentation that includes surround sound and a video image to go along with it. And that's undoubtedly the next step toward higher fidelity to the live experience. But if the beauty of the high-density DVD is that you can use the bits any way you like, then we should by all means have a DVD-Audio standard too — one that meets the needs of the pro recording and audiophile communities, and, even more important, lets me sit back, close my eyes, and conjure new memories for when I'm old and gray and dictating a column into my wristwatch PC on the subject of the new Terrabyte Optical Anything Disc, due to hit the market in early '34. You betcha! If I'm lyin' I'm dyin'!

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