SIX-SPEAKER SHOWDOWN!

$500 - $600 SPEAKERS FACE THE MUSIC

"20-BIT" CD'S: HOW GOOD ARE THEY?

SOUNDPROOFING SOLUTIONS

TESTED
Sony A/V Receiver,
Audio Control
Equalizer,
Optimus Speakers,
And More
At Bose, we believe the truest measure of an audio system is how much it increases your enjoyment of music.

To that end, the Lifestyle® music system uses advanced Bose technology to achieve a new standard of performance.

To reproduce sound with lifelike clarity and definition, without the complexities of conventional systems.

Small enough that your home won't look like a recording studio, although it may sound like a concert hall. And uncomplicated enough for the least technically interested. For example, even the remote has fewer buttons. And it works right through walls so you control the system from anywhere in your home.

Granted, it's easy for us to believe all of this represents a new standard. But apparently others believe it as well. That's why Time magazine selected the Lifestyle® system as one of the Ten...
Best Products of 1993, and the only audio product chosen.

And why Stereo Review said it is an "...attractive, easy to use, and thoroughly listenable [system for] households in which a stack of black-finished components and prominent speaker cabinets would not be appreciated."

We could tell you the Lifestyle® system is more than a better sounding stereo. We believe it represents a new era in music enjoyment.

But there are some things no one can tell you. Because there are some decisions you just have to make for yourself.

For more information, and for demonstration locations near you, call 1-800-444-BOSE Ext. 427.
Monday - Friday 9am-9pm, Saturday 9am - 5pm (ET)
Cinema DSP blurs the line between watching a movie and actually being in one.

Yamaha Cinema DSP gives dialogue more definition. Music, more dimension. And sound effects, far greater realism, more graphic detail and superior placement. This breakthrough in realism is no small feat.

It's accomplished by multiplying the effects of Digital Sound Field Processing and Dolby Pro Logic®.

Digital Sound Field Processing is Yamaha's unique technology that electronically recreates some of the finest performance spaces in the world.

While Dolby Pro Logic places sound around the room, precisely matching the dialogue and sound effects with the action on the screen.

Together, these two technologies allow Yamaha to offer a complete line of home theater components that outperform other comparatively priced products on the market.

After reading this ad, if you get the feeling that watching a movie with Cinema DSP makes a world of difference, you're absolutely right.

But don't just take our word for it. Hear it for yourself. Stop by your local Yamaha dealer for a demonstration today. It's one demo that's bound to change the way you look at movies forever. Or at least for a very, very long time. For the dealer nearest you, call 1-800-4YAMAHA.
The six floor-standing speakers in this month's showdown: from left, the Klipsch KG-3.5, DCM TF-400 Series Two, KEF Q30, Paradigm 7ae MkIII, Infinity RS 525, and Advent Laureate. How do they compare? See "Stand Up and Be Counted." beginning on page 54.

Photograph by Roberto Brosan
VATICAN CONCERT

A/V ACTION

Mitsubishi has unveiled the industry's first 50-inch tabletop projection TV. It's slated to hit stores in August with a $3,100 price tag. A number of new Magnavox and Philips TV's include a nifty Remote Locator feature. When you lose the remote control (and you know you will), you simply press the set's power button and the remote chirs for 30 seconds. . . . PBS TV stations across the country are broadcasting a date/time signal that automatically sets the clocks on specially equipped VCR's.

Sony, with the introduction of the $599 SLV-770HF and the $699 SLV-920HF, is the first company to kiss the notorious flashing 12:00 goodbye. . . . Fisher has added its popular Studio 24 twenty-four-disc CD changer to four new rack systems priced from $600 to $1,000. . . . Philips says that CD-I format movies released after May conform to the "White Book" standard, which means they will now be playable on Video CD players, the first of which are due out this fall.

VATICAN CONCERT

On April 7 at the Vatican a landmark Papal concert was held to honor the memory of the six million Jews who were victims of the Nazi Holocaust during World War II. It was the Vatican's first commemoration of the Holocaust and the first time the Chief Rabbi of Rome had been an official guest there.

The cellist, Lynn Harrell, was a soloist, and the conductor, who led the Royal Philharmonic Orchestra at the event. The actor Richard Dreyfuss read the Kaddish, the Jewish prayer for the dead, to music by Leonard Bernstein. Other works were by Bruch, Beethoven, and Schubert.

LONG LIVE THE KING

Cinema experts predict that the thirty-second full-length animated feature from Walt Disney Pictures, The Lion King, will be an even bigger success than Aladdin. Beauty and the Beast, or The Little Mermaid. The soundtrack for The Lion King was issued on CD and cassette shortly before the film's release on June 15. Included are five songs by Elton John with lyrics by Tim Rice. Among the performers (in addition to John) are Jeremy Irons, Cheech Marin, Robert Guillaume, and Whoopi Goldberg.

NEW NATIONWIDE REPAIR NETWORK

Looking for a shop to fix your ailing electronics gear? By the end of the year, Radio Shack says, all of its 6,600 outlets will provide out-of-warranty repair service for a variety of major-brand home electronics equipment, including stereo systems and components, VCR's, and personal computers. All repairs will be backed by a ninety-day guarantee, and "most repairs should be completed in fifteen days or less," according to the company. For more information, call 1-800-482-6399.

ROAD WATCH

Velodyne is developing a line of servo-controlled car subwoofers that it hopes to market under the Velomotive moniker in the "near future." The first will be a 12-inch driver said to deliver "very high output with ultra-low distortion.

MUSIC NOTE

Engines that pull trains through the recently opened underwater Channel Tunnel that links England and France are being named after famous opera singers. The first carries the name of the tenor Luciano Pavarotti. Can the Placidio Domingo and the José Carreras be far behind?
PUT US ON THE STAND AND WE'LL TELL THE WHOLE TRUTH.

Ask any other company what they’re doing about loudspeaker distortion and they’ll take the fifth. But we object.

That’s why Velodyne’s engineered the new DF-661, a remarkable loudspeaker that reduces distortion by a factor of ten.

So what’s reproduced is purely music, with all the integrity and beauty the artists intended you to hear.

Check out the evidence. Audition a pair today. Call 800-VELODYNE for the location of a convenient Velodyne dealer.

Velodyne
1070 Commercial St., Suite 101 San Jose, CA 95112 (408) 436-7270

CIRCLE NO. 41 ON READER SERVICE CARD
NOTHING DEFINES AN INDIVIDUAL, A GROUP OR A COMPANY LIKE ITS ACCOMPLISHMENTS.

Introducing the Premier Optical Digital Reference System, the result of a passionate pursuit of performance.
Since its inception, Pioneer Electronics has been inspired by the dream of reproducing music with all the passion and integrity of the original performance. For four years, Pioneer has diligently pursued a goal no other manufacturer had ever accomplished: pure and natural sound quality in the car.

The Premier Optical Digital Reference System is the result of that pursuit. It is simply the finest system of advanced, integrated audio components ever crafted for the automobile. But more importantly, it represents what is possible when a company dedicates itself to a quest for the absolute best.

From the moment you first see the Premier Audio Commander, you get the sense the Optical Digital Reference experience is like nothing else. It gives you unprecedented, total digital control of the sound, including precision sound field correction and 31-band EQ adjustment. In fact, your fingertips are more audio control capabilities than are found in many studio recording studios.

Every component in this system has been meticulously engineered to provide the purest sound quality ever experienced in a car. For starters, the optical digital link provides a connection that's impervious to a car's electrical interference. Moreover, Pioneer engineers have extended the optical digital connection further than it has ever gone before—from the source up to the output stage of the power amplifier.

The Optical Digital Reference System introduces the first digitally-integrated, "pure" Class A amplifier, which gives the CD sound a lifelike quality uncommon to digital sampling. The system also includes speakers that apply performance technology from Pioneer professional drivers, as well as innovations developed exclusively for this system. In short, the Optical Digital Reference network makes absolutely no compromises.

It's not surprising that Pioneer would go to such lengths to realize a dream. Because Pioneer wants the same thing from a car entertainment system that you do. Sound that stirs the emotions. And now that Pioneer has realized its dream of making the Optical Digital Reference System, it's time for you to realize your dream of experiencing the ultimate car audio system for yourself.

For more information or the Premier dealer nearest you, call 1-800-PIONEER ext. 01.
Looks like this.

Nothing this small has ever sounded so big, rich, and full. Introducing the Bose® Wave® radio. You won’t believe sound like this can come from a radio small enough to fit anywhere. The secret is its patented acoustic waveguide speaker technology. Available directly from Bose, the full-featured Wave® radio even has a remote control. Call toll free or write for our free information kit. And learn all about a small wonder.

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Stereo Review®
PRES PENTS
THE BASIC REPERTORY ON COMPACT DISC
A CRITICAL DISCOGRAPHY
NEW 1994 EDITION

Noted critic Richard Freed has chosen the best available CD recordings of the most often performed music in the classical orchestral repertory. Hundreds of recordings of symphonic works from Bach to Wagner!

To receive your copy of this useful pamphlet, send a self-addressed business-size (#10) envelope, stamped with 52¢ postage, and a check or money order for $3 payable to Stereo Review (no cash, please), to The Basic Repertory, Stereo Review, 1633 Broadway, New York, NY 10019. Orders from outside the U.S.A. must be accompanied by a self-addressed envelope and $4 (payable in U.S. funds).
Here's a great way to build a collection of your favorite movies—on laserdiscs! Just tell us which 3 laserdiscs you want for $1.00 each, plus shipping and handling. In exchange, you agree to buy four more selections (at regular Club prices) in the next two years, at $7.50 each, plus shipping/handling, which I'm adding to my $7.50 payment (note: $28.93). I then need only buy 3 more (instead of 4) in the next 2 years.

Send me these 3 laserdiscs for $1.00 each—plus $1.50 shipping and handling (total $7.50).

BUT YOUR FIRST SELECTION NOW— AND HAVE LESS TO BUY LATER!

Yes, please enroll me under the terms outlined in this advertisement. As a member, I own buy only the first 3 selections, at regular Club prices, in the next 2 years.

Send me my first selection for only $19.95, plus $1.50 shipping/handling, which I'm adding to my $21.45 payment (note: $30.93).

Please Check How Paying:

\[ \text{I own a Personal \ Computer (1) \hspace{2cm} I own a PC with a CD-ROM (2) } \]

For fastest service, use your credit card.

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**LETTERS**

**Digital Chaos**

David Ranada’s well-written “Digital Chaos” in May was the final blow to what should have been digital heaven for amateur recordists. First there was the unnecessary near death of DAT. Then there was the birth of MiniDisc, which has been miniaturized beyond common sense and is not quite as good as digital should be. And at the same time there was the revival, from a forthcoming well-deserved retirement, of an obsolete tape format by a clever piece of technology (DCC) that leaves us with all the problems of tape as a recording medium. Now we learn that the perceptual coding built into both MD and DCC makes these formats useless for dubbing, for editing or mixing down from a master tape, and even for recording off the radio (which itself will be digital before long).

What we need is very simple: a recordable compact disc. No new formats. No old formats prolonged beyond their time. And no perceptual coding. Just one format for both prerecorded and homemade recordings. I’d rather wait a few years for the legal and copyright issues to be worked out than use half-baked compromise formats. We’re talking about the standard we’ll have to live with for the next decade or more. It had better be right.

Anthony C. Lunn
Princeton, NJ

Mark Elson’s article “It’s Unpacked. Now What?” in May gives some excellent advice for tackling the kind of RF interference problem Ian Masters discussed in his “Q&A” column in the same issue. Mr. Elson says that “the trick is to identify the source and then isolate the point of entry into your system,” but he doesn’t elaborate on how one might go about that. A technique that often works well is to disconnect everything from the amplifier or receiver except the speakers, then listen for interference while the radio amateur is transmitting. If interference is audible, disconnect the speakers and listen through headphones.

No interference? Then the speaker leads are the culprits (or one of the culprits). A 0.01-microfarad capacitor connected between each speaker terminal and the metal chassis of the amplifier or receiver will often entirely cure the problem.

Interference? If you’re lucky, it’s getting in through the power line, and you may be able to head it off with a plug-in RFI filter. If you’re not, then the amplifier or receiver is so poorly shielded that the most sensible thing might be to replace it.

Now begin reconnecting the other components in your system one by one. First connect the cable, then set the input selector to that input and listen for interference. Interference? Try reorienting the cable, neatly rolling up the slack, and twisting the plugs around in the jacks at both ends. As a last resort, try a more upscale cable. No interference? Turn on the power to the source component. Interference? Try a plug-in RFI filter on the component’s power cord. No interference? Plug in the next component and continue the process.

Obviously, having the cooperation of the radio amateur will make this procedure a lot easier. And you’ll be a lot more likely to get that cooperation if you approach the operator from the standpoint that you have a problem with your equipment, not a problem with his or her radio transmissions.

Al Lotze
Brookdale, CA

Our best guess right now is that laser disc players with Dolby Surround Digital capability will be available sometime next year. “A Video Standard” is available from many laser disc dealers, and you can also order it directly from Reference Recordings (P.O. Box 77225-x, San Francisco, CA 94107; telephone, 1-800-336-8866 [toll-free] or 415-355-1892). The only way you can get “Wow!” is to buy Home THX equipment; it is not available separately.

**Who’s a Wuss?**

Regarding Steve Schwartz’s assessment, in “How to Make Good Tapes” (March), of people who tape entire LP’s, a number of us tape symphonic works and operas to get rid of annoying side breaks. Unless done for purposes of passage-by-passage comparison, only a “wuss” of some kind would tape 3½ minutes of one performance, 5 minutes of another, and so on.

Leroy W. Southers, Jr.
Meredith, NH

**Learning the Lingo**

Where can I get a good book on audio terminology? I already have more than one reference book on electronics, but I can’t find many of the terms used in Stereo Review in any of them.

Rick Smithson
Burbank, CA

Understanding Audio & Video, available from Pioneer for the asking (while supplies last), includes explanations of all the terms used routinely in Stereo Review; call 1-800-746-6337. Our annual Stereo Buyer’s Guide, which comes out in the fall, also includes a glossary of audio terminology. And the latest edition of the Consumer Electronics Product Terminology Dictionary is available for $4.50 from the Electronic Industries Association, Consumer Electronics Group, 2002 Pennsylvania Ave. NW, Washington, DC 20001-1813; telephone, 202-457-4986.

**Correction**

In June “Letters” we erroneously stated that all DAT portables had been discontinued. Sony actually introduced some new ones recently.

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.
No compromise in a GMC Truck. Industrial strength or handy take-home size, you get full strength. As it has been through nearly a century: GMC Truck, delivering the strengths of trucks.

What have we done for you lately? The 1994 GMC Sierra. It’s got something you probably don’t expect from a truck—refined road manners.

Skeptical? Understood. But put Sierra through its paces.

A vibration-eating balance shaft in Sierra’s standard engine quiets your fears.

Independent front suspension smothers road shock before it can reach you. While a commanding view of the road makes Sierra decidedly uncar-like.

When you look into your next truck, look into luxurious, take-home-sized industrial strength. To learn more about GMC Sierra, call 1-800-GMC TRUCK.

CIRCLE NO. 20 ON READER SERVICE CARD
At home in the great outdoors, the All Weather M3 and M5 won't be damaged by the sun or the rain.
Great Sound for the Great Outdoors.
The Polk All Weather M3 and M5.

The Polk All Weather M3 and M5 are truly speakers for all seasons. They are at home in the great outdoors. The heat won’t warp, fade or damage them. Rain won’t rust or corrode them. Go ahead, turn up the volume! They’re just as rugged in operation and extremely efficient which means they will be easily powered by your existing equipment. And thanks to Polk Audio’s Dynamic Balance® Technology, you and your friends will be impressed by their great sound.

You won’t be at a loss for where to mount them. The AW/M3 and AW/M5’s compact design*, unique shape and integrated mounting brackets enable them to fit anywhere. The possibilities are endless. And their sleek, low profile shape complements any architectural style.

Check them out at any authorized Polk Audio dealer or call us for more information at 1-800-377-POLK. Better hurry, summer’s just around the corner.

The AW/M3 and AW/M5’s compact designs, unique shape and integrated mounting bracket enable them to fit anywhere.

The All Weather Series. From the Speaker Specialists of Polkaudio

*AW/M3 dimensions: 11.25” H x 6.5” W x 8.25” D
AW/M5 dimensions: 13.25” H x 8.75” W x 9” D
Carver separates. The essence of total control.

Enticed by the sweetness of separates for your home theater system?
But a nightmare image of a bazillion boxes and unruly wires has given you the heebie jeebies?
Re-lax.
Now you can obtain a powerful home theater command center, combining the musical brilliance of separates with the ease of a receiver, all in one versatile package: Carver's CT-27v Dolby Pro Logic™ A/V Preamplifier/Tuner.
The CT-27v pairs flawless sound with exceptional Dolby processing, including a generous selection of DSP effects (wait till you experience an old movie like *Casablanca* on our "Matrix" mode), yet without the extraneous gimmicks that undermine aural integrity.
When matched with a Carver amplifier (models from basic stereo to multi-channel), the CT-27v lets you direct power to any array of speaker combinations - a task for which a mere receiver is woefully undermanned. So you'll achieve wider frequency response and have the dynamic headroom necessary for those explosive moments in great movie soundtracks.
In sum: the CT-27v is the heart (and soul) of the most uncompromising home theater system. For more of the story, contact Carver today for a feature length brochure.
**NEW PRODUCTS**

**B&K COMPONENTS**
Designed for surround-sound and multiroom systems that require power for multiple channels, B&K's AV6000 amplifier is rated to deliver 105 watts each to six channels. It has three pairs of RCA-type audio inputs and a level control for each output; balanced inputs are optional. The AV6000 is said to be capable of driving "typical" speakers of 90-dB efficiency to sound levels in excess of 110 dB. Distortion is given as 0.09 percent at 1 kHz.


**SAUDER WOODWORKING**
Sauder's Model 960 entertainment center, which has a pedestal base, is said to hold most 27-inch TV's. The 57% inch-wide, 45% inch-high cabinet has two adjustable component shelves behind a glass door, a pop-out rack that holds forty CD's, and a side storage compartment for VHS tapes. Finish is oak vinyl.


**CANON**
Looking more like a prop from a Star Wars movie set than the bookshelf speaker that it is, Canon's 10½-inch-tall S-35 embodies an unusual wide-dispersion design. Two S-35's are said to produce a soundstage far wider than can be produced by a pair of conventional speakers.

The dome-mounted woofer and tweeter fire down onto a curved "acoustic mirror" that disperses the sound. The low-frequency limit is given as 70 Hz.


**AUDIOSOURCE**
AudioSource's SW Four subwoofer combines a downward-firing 12-inch driver, an adjustable active crossover, and a 150-watt amplifier in a ported cabinet measuring 19½ x 12½ x 15¾ inches. Rated down to 20 Hz, it accepts both speaker- and line-level inputs and has two 150-Hz high-pass speaker returns.

NEW PRODUCTS

**ABKE DESIGN**

CD jewel boxes are cantilevered at a 10-degree angle in the 1¼-inch-thick Bakrak storage unit from Abke Design. The wood rack, finished in walnut, natural, or black, comes in two versions, for 125 discs (left, $69) and 50 discs (two shown at right, $49 each). Available factory-direct (plus shipping) from Abke Design, Dept. SR, 1573A N. Milwaukee Ave., Suite 427, Chicago, IL 60622; 312-278-7827.

**COUTSIC**

Coustic has two new factory-replacement 6 x 9-inch car speakers: the two-way HS-92v (left, $95 a pair), featuring a coaxially mounted 2½-inch cone tweeter, and the three-way HS-93v (right, $110 a pair), which adds a ½-inch dome tweeter to the coaxial configuration. Both models require 2¼ inches of rear clearance for installation and are rated to handle up to 90 watts of power. Coustic, Dept. SR, 4260 Charter St., Vernon, CA 90058-2596.

**KLH**

KLH's Model 610/66 speaker system includes two 7½-inch-tall, two-way satellites and a 9½ x 11½ x 19-inch ported subwoofer with two 6½-inch drivers. The satellite cabinets have integral mounting brackets and are made of black aluminum, the bass module is finished in black vinyl. System bandwidth is given as 45 Hz to 20 kHz. Price: $560. KLH, Dept. SR, 11131 Dora St., Sun Valley, CA 91352.

**PROTON**

Proton's AP-2000 preamp features six stereo inputs, a subwoofer output with a switchable 75/150-Hz crossover, a Bass EQ button for use with compact speakers, separate record and listen selectors, and a high-gain phono section. All connectors are gold-plated. Price: $300. Proton, Dept. SR, 16826 Edwards Rd., Cerritos, CA 90701.

**GO VIDEO**

Go Video's GV-3090WS is a unique dual-well VCR with two four-head VHS Hi-Fi recording decks, a Dolby Pro Logic decoder, and a 900-MHz wireless transmitter that sends the surround signal to a pair of powered two-way speakers (included). The transmitter's range is given as 150 feet. Price: $1,599. Go Video, Dept. SR, 14455 N. Hayden Rd., Suite 219, Scottsdale, AZ 85260-6949.
NEW PRODUCTS

**POLK AUDIO**

Polk's AB705 in-wall speaker combines a 6½-inch woofer and a 1-inch tweeter in a 7½ x 11-inch frame. Installation requires a 6¼ x 9½-inch cutout and a rear clearance of 3¼ inches. The low-frequency limit is given as 32 Hz and maximum power handling as 100 watts. Price: $400 a pair. Polk Audio, Dept. SR, 5601 Metro Dr., Baltimore, MD 21215.

**LIFT DISPLAY**

Lift's Combo Cabinet holds 160 CD's in eight slide-out trays and 52 cassettes in four trays. The cabinet, made of steel, has rolling casters. No assembly is required. Available by mail order for $250 plus shipping from Lift Display, Dept. SR, 115 River Rd., Suite 105, Edgewater, NJ 07020. 1-800-543-8269.  • Circle 129 on reader service card

**ESOTERIC AUDIO USA**

The Aliante Model One is cable maker Esoteric Audio USA's first speaker. The Italian-designed system combines a 6½-inch woofer and a metal-dome tweeter in a 15¾-inch-tall cabinet featuring a rear-facing port and 1½-inch-thick red walnut side panels. Bandwidth is given as 45 Hz to 32 kHz ±3 dB, sensitivity as 87.5 dB, and power handling as 100 watts. Price: $3,000 a pair. Esoteric Audio USA, Dept. SR, 44 Pearl Pentecost Rd., Winder, GA 30680.  • Circle 130 on reader service card

**MARANTZ**

The Slim Series from Marantz includes (from top to bottom): the SR-1020 receiver ($499), which delivers 45 watts per channel and includes a unified remote control, the CD-1020 CD player ($399), and the SD-1020 cassette deck ($399). The 3-inch-tall components connect with a single-wire bus and are controlled by one remote. Marantz America, Dept. SR, 440 Medinah Rd., Roselle, IL 60172.  • Circle 131 on reader service card

**JVC**

JVC's RX-815VTN A/V receiver features a digital Dolby Pro Logic decoder, an ambience processor with four settings, a programmable seven-band equalizer, a subwoofer output, and a remote control with "self-illuminating" keys—only the keys that operate the selected source component light up. Power output is 70 watts each to the three front speakers and 20 watts each to the surrounds. Price: $630. JVC, Dept. SR, 41 Slater Dr., Elmwood Park, NJ 07407.  • Circle 132 on reader service card
We'll start you on the job circuit.

The Army can teach you everything from microwave technology to micro-processors. Not just the theory, but how to test and repair electronic systems. We'll teach you how to spot a problem and solve it. Whether it's in a computerized guidance control system, or a fiber optic laser range finder.

Qualify, and you could plug into a civilian career circuit that can take you anywhere in automotives, electronics, or communications.

Find out how you can get an edge. Call 1-800-USA-ARMY.

ARMY. BE ALL YOU CAN BE.
NEW PRODUCTS

ONKYO
The TX-SV414PRO, Onkyo’s lowest-price Dolby Pro Logic receiver to date, is rated to deliver 50 watts each to the three front speakers and 15 watts each to two surrounds, or 60 watts per channel in two-channel mode. It features audio/video switching, an AM/FM tuner with forty presets and a six-category memory for classifying stations by format, a sleep timer, and a line-level subwoofer output. Remote control included. Price: $400. Onkyo, Dept. SR, 200 Williams Dr., Ramsey NJ 07446.

RING-A-LITE
For fans of loud music, Ring-a-Lite’s namesake product provides a visual cue when the phone rings. The device connects to any phone and lamp. Available by mail order for $39.95 (plus $5 shipping) from the Telus Group, Dept. SR, P.O. Box 9362, Kansas City, MO 64133; 816-229-5688.

HIMARK
The Sight & Sound CD 100 Plus storage rack from Himark Enterprises is made of high-impact black plastic and holds up to 104 CD’s on four fold-down shelves. Each shelf holds one double CD. The rack, which measures 16¼ inches wide and 25 inches tall, comes fully assembled with legs that are removable for wall mounting. Price: $25. Himark Enterprises, Dept. SR, 155 Commerce Dr., Hauppauge, NY 11787.

ASC
Wall Panels from ASC (Acoustic Sciences Corp.) are said to help create a more natural-sounding listening environment by using an alternating pattern of absorbers and reflectors to control room reflections instead of merely soaking them up. The fabric-covered panels are made of rigid fiberglass and have a notched frame for wall hanging with picture-frame hangers. Each panel weighs 3 pounds and measures 15 x 37 x 1 inches. Available in light and dark gray, black, and quartz. Price: $399 for eight panels. Acoustic Sciences Corp. (ASC), Dept. SR, P.O. Box 1189, Eugene, OR 97440.

WRIGHT AUDIO
Conceived as an extension speaker, Wright Audio’s wall-mount Surround-Ambience 10 has a plastic-lined 4-inch recess on top that can hold a plant. Its 11¼-inch-square, solid-redwood cabinet contains a 6-inch full-range driver. Frequency response is given as 60 Hz to 14 kHz ±3 dB. Mounting hardware is included. Available factory-direct for $165 a pair (plus shipping) from Wright Audio, Dept. SR, 3088 W. 15th Ave., Unit 17, Eugene, OR 97402; 503-343-1413.

STEREO REVIEW JULY 1994
How Do You
"... The Best Value"

Cambridge SoundWorks Introduces New Ensemble, New Ensemble II

Audio Magazine once said that our Ensemble speaker system may be "the best value in the world." Dozens of critics and thousands of customers have applauded our Ensemble and Ensemble II speaker systems. Designed by Audio Hall of Fame member Henry Kloss, (founder of AR, KLH and Advent), these systems have become best sellers by offering very high quality construction and accurate, wide-range music reproduction with precise stereo imaging—all at factory-direct prices, with no expensive middlemen.

We are now pleased to introduce new versions of our Ensemble and Ensemble II systems, as well as our new, ultra-compact Ensemble III system.

The New Ensemble

New Ensemble is an improved version of our original, dual-subwoofer/satellite speaker system. New Ensemble maintains the dual subwoofer design of Ensemble, which allows for maximum room placement flexibility. Placement of bass and high-frequency speakers in a room—and how those speakers interact with the acoustics of the room—has more influence on the overall sound quality of a stereo system than just about anything. New Ensemble's two ultra-slim subwoofers give you more placement flexibility than any speaker system we know of, and is most likely to provide the performance you want in the real world...in your room. Having two, compact subwoofers lets you move them around, experiment, and find that placement that gives you exactly the sound you want. This is one of the reasons Esquire described Ensemble by saying "you get 30 days to return the speakers or keep them, but you'll keep them."

So What's New?

New Ensemble maintains the tonal balance, frequency range and quality of construction of the original. There are two basic differences.

1. New "long throw" subwoofer speakers with built-in heat sinks.
   New Ensemble uses the 8" long throw woofer designed for our Powered Subwoofer II. The woofer's extremely long "throw" (almost 1") provides for more linear cone excursion for more accurate bass. A unique integral heat sink provides improved power handling.

2. New frequency balance controls.
   New Ensemble's satellite speakers use the same high quality 1 3/4" tweeter, 4" midrange driver and crossover as the original Ensemble, but with newly designed midrange and high-frequency balance control switches.
   A two-position midrange switch on each satellite lets you choose the same output in the key 800-1600 Hz octave as in the original—or you can flip the switch to emphasize that octave by 2 dB. The original Ensemble's response was tailored to avoid the "boxy" characteristic typical of many speakers. This results in an "open" sound on large-scale musical works. For some music, switching to the higher output position provides a "warmer" sound that some listeners may prefer.

A second, high-frequency switch has three positions:

A) The same balance as original Ensemble.
B) A 2 dB high-frequency increase.
C) A 2 dB high-frequency decrease.

Rather than affecting tonal balance as does the midrange control, the high-frequency switch can subtly increase the system's "airiness" (increase) or it can reduce any tendency towards "edginess" (decrease).

Real Life Performance, Real Value.

In terms of "real life" performance (your music, your listening room), we believe our New Ensemble system competes head-on with speakers selling for hundreds of dollars more. Available factory-direct with black vinyl-clad subwoofers for $549, or with black-laminate subwoofers for $629.

The New Ensemble II

New Ensemble II is an improved version of our best-selling speaker system, Ensemble II. It's more affordable than New Ensemble because it uses one cabinet to house both subwoofer speakers. Its satellite speakers are identical in every way to those used in the New Ensemble, including the new high-frequency and midrange balance controls.

So What's New?

New Ensemble II maintains the overall tonal balance, frequency range, power handling and quality of construction that have made the original Ensemble II one of the country's most popular speaker systems. There are two basic differences. The first is
Improve On In The World”?

- and a new member of the family, Ensemble III.

that its satellite speakers use the same high-frequency and midrange balance controls as our New Ensemble system (see previous description). The satellites also use the same gold-plated 5-way connecting posts as New Ensemble. The second difference involves a redesigned subwoofer cabinet.

**New flared subwoofer port.** New Ensemble II’s subwoofer cabinet encloses twin 6 1/2” long throw woofers mounted in a sealed “acoustic suspension” chamber. They project into a second chamber fitted with a single, flared port. The new port provides smoother air flow, virtually eliminating the generation of any extraneous noise on strong, low bass notes.

The satellite speakers used in the New Ensemble and New Ensemble II include midrange and high-frequency tonal balance controls, and gold-plated 5-way binding posts.

$40-$50 Discount Certificate With New Ensemble.

$30 Discount Certificate With New Ensemble II.
Purchase New Ensemble II before August 31, 1994 and get a $30 Discount Certificate towards a purchase of any item in our catalog.*

$20 Discount Certificate With Ensemble III.
Purchase Ensemble III before August 31, 1994 and get a $20 Discount Certificate towards a purchase of any item in our catalog.*

**Cavity acts as acoustic band-pass filter.**

**Flared port.**

“...Beyond Its Price And Size Class

*You may not apply the discount to the Ensemble speakers you are buying.

Surprising Accuracy and Musical Range at a Low Price.

Compared to our New Ensemble II system, Ensemble III gives up a little in the way of power handling, low bass range, and efficiency. Unlike the “cube” satellite speakers you’d expect to find in similarly priced systems, Ensemble III’s satellites are true two-way speakers with a 3 1/2” midrange driver, a 3/4” tweeter and a crossover. Ensemble III’s 6 1/2” woofer uses two separate voice coils (one for each channel) in a cabinet using a special flared port for smooth air flow.

With most recordings Ensemble III will sound virtually identical to New Ensemble II. It simply won’t play quite as loudly, its construction quality matches that of our other Ensemble speakers. With a factory-direct price of only $329, Ensemble III is perhaps the best speaker value of all time.

**Risk Free, Satisfaction Guaranteed.**

All Cambridge SoundWorks speakers are backed by a 30-Day Total Satisfaction Guarantee. So you can audition your speaker the right way — in your home, with no salesman hovering nearby. If within 30 days you’re not happy, return your system for a full refund. We even reimburse original UPS ground shipping charges in continental U.S.

The satellite speakers used in the New Ensemble and New Ensemble II include midrange and high-frequency tonal balance controls, and gold-plated 5-way binding posts.

For A Free Catalog, Call 1-800-FOR-HIFI

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154 California Street, Suite 10211, Newton, MA 02158
1-800-367-4434 Fax: 617-332-9229
Canada: 1-800-525-4434

CAMBRIDGE SOUNDWORKS

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In The Mid ‘70s We Now We’ve Created

The people who work at Cambridge SoundWorks - including our cofounder Henry Kloss (who also founded AR, KLH and Advent) - have been involved with the concept of home theater from the beginning. In 1969 (years before VCRs and cable TV), Henry Kloss founded Advent, the company that introduced the first home theater audio/video systems - complete with big-screen TVs and digital surround sound. We have had an ongoing relationship with the people at Dolby Laboratories, creators of Dolby Surround Sound, since Henry Kloss introduced the first consumer products with Dolby noise reduction over 20 years ago. And now at Cambridge SoundWorks we believe systems factory-direct, with no expensive middlemen, you can save hundreds of dollars. We believe the products on these pages represent the country’s best values in high performance home theater components. Audio critics, and thousands of satisfied customers, agree. Stereo Review said “Cambridge SoundWorks manufactures loudspeakers that provide exceptional sound quality at affordable prices.” Audio suggested that we “may have the best value in the world.”

Our Center Channel Speakers

Cambridge SoundWorks manufactures three speakers for use as center channel speakers in Dolby Pro Logic home theater systems. All three are magnetically shielded so they can be placed near a TV or computer monitor. Model Ten-A is a small, affordable two-way speaker. $75. Center Channel is identical to a Cambridge SoundWorks Ensemble satellite (but with magnetic shielding). $149. Center Channel Plus uses an ultra-low, ultra-wide design that is ideal for placement above (or, with optional support stand, below) a TV monitor. $219.

Surround Speakers

Cambridge SoundWorks makes two “dipole radiator” surround sound speakers. Dolby Laboratories recommends dipole radiator speakers for use as surround speakers. The Surround has a very high power handling capacity and is often selected for “high end” surround sound systems. Audio, describing a system that included The Surround said “In many ways the surround sensation was every bit as good as far more expensive installations.” $399 pr. The smaller The Surround II is arguably the country’s best value in a dipole radiator speaker. $249 pr.

Our Popcorn

Cambridge SoundWorks - including our cofounder Henry Kloss (who also founded AR, KLH and Advent) - have been involved with the concept of home theater from the beginning. In 1969 (years before VCRs and cable TV), Henry Kloss founded Advent, the company that introduced the first home theater audio/video systems - complete with big-screen TVs and digital surround sound. We have had an ongoing relationship with the people at Dolby Laboratories, creators of Dolby Surround Sound, since Henry Kloss introduced the first consumer products with Dolby noise reduction over 20 years ago. And now at Cambridge SoundWorks we believe systems factory-direct, with no expensive middlemen, you can save hundreds of dollars. We believe the products on these pages represent the country’s best values in high performance home theater components. Audio critics, and thousands of satisfied customers, agree. Stereo Review said “Cambridge SoundWorks manufactures loudspeakers that provide exceptional sound quality at affordable prices.” Audio suggested that we “may have the best value in the world.”

Our Surround Speakers

Cambridge SoundWorks Ensemble satellite (but with magnetic shielding). $149. Center Channel Plus uses an ultra-low, ultra-wide design that is ideal for placement above (or, with optional support stand, below) a TV monitor. $219.

Surround Speakers

Cambridge SoundWorks makes two “dipole radiator” surround sound speakers. Dolby Laboratories recommends dipole radiator speakers for use as surround speakers. The Surround has a very high power handling capacity and is often selected for “high end” surround sound systems. Audio, describing a system that included The Surround said “In many ways the surround sensation was every bit as good as far more expensive installations.” $399 pr. The smaller The Surround II is arguably the country’s best value in a dipole radiator speaker. $249 pr.
Created Home Theater.
A New Way To Buy It.

Powered Subwoofers
The original Powered Subwoofer by Cambridge SoundWorks consists of a heavy-duty 12" woofer housed in an acoustic suspension cabinet with a 140-watt amplifier and a built-in electronic crossover. *Stereo Review* said it provides "deep powerful bass...31.5 Hz bass output was obtainable at a room-shaking level... they open the way to having a 'killer' system for an affordable price." $599. Our Slave Subwoofer uses the same woofer driver and cabinet, but does not include the amplifier or crossover. It can only be used in conjunction with the Powered Subwoofer. $299. The new Powered Subwoofer II uses a 120-watt amplifier with an 8" woofer. $399.

Our EXO-1 electronic crossover can be used with either of our powered subwoofer systems, or with powered subwoofers made by other companies. Its high pass filters keep strong, low bass signals out of the main stereo speakers, and directs them to the powered subwoofer. $299.

Home Theater Speaker Systems
We have assembled a number of home theater speaker systems that consist of center channel, surround and main stereo speakers. The combination we show here is our best seller. It includes our New Ensemble subwoofer satellite speaker system (with dual subwoofers), our Center Channel Plus and a pair of our best surround speakers, The Surround. You could spend hundreds more than its $1,167 price without improving performance.

For information on other home theater speaker systems – or on any of the products we make and sell – call 1-800-FOR-HIFI for your free color catalog. Thanks.

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CIRCLE NO. 6 ON READER SERVICE CARD
The Lowdown on Surround

Q I have read several times recently that surround speakers should be placed at the sides of the listening area. This comes as quite a surprise, as every surround decoder or A/V receiver I have ever seen has outputs for "rear" speakers. I have my surround speakers in the back of the viewing/listening area and have been pleased with the results. Is that not correct?

A It's true that the surround outputs on most decoders are labeled "rear" even though DOLBY Laboratories, developer of the Dolby Surround system, recommends that surround speakers be placed at the sides of the listening area, especially in the case of Home THX setups that use dipole surround speakers. "Rear," in this case, should be taken as meaning "not in the front." Ideally, the surround field should be diffuse enough that listeners cannot localize the speakers. Whatever speaker placement can achieve that goal in your system is the one to use. I have configured my system both ways (side and rear) at various times, and the differences have been pretty small.

Multiroom Amplifier

Q I have wired my house extensively for sound, as I enjoy music in every room. Speakers playing everywhere at medium volume fill the house with the mood—even my guest bathroom has a pair. In looking for a new amplifier to power my house system, I was drawn to the multichannel capability of an A/V amp, although I'm not interested in a home theater setup. I soon learned, however, that the typical A/V amplifier can't support the sort of setup I have—sound quality goes from adequate to awful. Do I have to buy separate amplifiers, or is there such a thing as an amp with eight channels that is not meant for A/V applications?

A Driving many channels from a single power supply can be a problem if they are all running at high levels, but in surround-sound applications that's less of a concern because some of the channels—the surrounds—tend to be at a much lower level most of the time. Also, you don't say how the speakers were connected to the A/V amplifiers you tried. I would expect most to be fine with one speaker per channel, but if you're trying to run more than one from each, that might be more than many amplifiers can take gracefully. There are some multichannel amplifiers with adequate power supplies, and they may suit your needs (the eight-channel McIntosh MC7108, for instance, might work well). But except for a possible saving in shelf space, there isn't much advantage in having all your power on a single chassis.

Disappearing Bass

Q When I play my surround-sound system in the normal two-channel stereo mode, the subwoofer provides more than enough bass. But when I switch to any of the surround modes, the bass nearly disappears. What have I done wrong?

A My guess is that it's a simple matter of switching your Pro Logic decoder's center-channel mode from "wide" to "normal." In most setups, the center speaker is smaller than the others and thus somewhat deficient in the bass. While Dolby Pro Logic extracts signals that are in phase and at equal levels from the left and right channels and reroutes them to the center speaker, in normal mode it performs this extraction and rerouting only above about 100 Hz. Thus, even when the low bass is virtually mono (as it often will be), it stays in the left and right channels. For systems that use a full-range speaker in the center, however, Pro Logic's wide (for wideband) mode treats the lowest frequencies like the others and steers them to the center channel when appropriate. If your system is like most, your subwoofer is fed from the right and left channels, not the center; so when you switch to surround mode, the bass is removed from the left and right—and the subwoofer—and fed to the center speaker, which in many cases can't handle it.

Magnets and Music

Q I've heard that using a wand-type head demagnetizer within 6 feet of recorded tapes could cause dropouts, as could storing them near a television set. Yet I have noticed that the tape-storage areas in many entertainment centers are fairly close to the equipment shelves. Is that safe, or are the warnings correct?

A Magnetism doesn't usually cause what we normally call dropouts—short gaps in the signal caused by missing bits of oxide. Its effect is more subtle, showing up as a reduced overall level, restricted high-frequency response, or increased noise, all of which can affect a whole tape or only parts of it.
parts of it. It's a form of partial erasure, so you should keep your precious recordings well away from anything with magnets (although 6 feet might be a bit excessive).

In an A/V system, the television and the transformers in power amplifiers generate the most electromagnetism, so storage facilities should, ideally, be at least a short distance from those components. A head demagnetizer is only a problem when it is actually working, but if you use one regularly, it's probably a good idea to store your cassettes away from the tape deck.

Even worse than electromagnetic fields are the fields produced by permanent magnets, so you should make sure your tapes are as far away from your speakers as possible, unless they are shielded (as many A/V speakers today are). And steer clear of any sort of cabinet with magnetic door latches that might come close to your tapes.

Multiple Phones

I have a pair of cordless headphones that receive their signal by infrared radiation. I would like to add one or more pairs of similar phones. Can I use multiple phones with just a single infrared transmitter, or would that degrade the stereo signal or the overall sound quality?

GONZALO MANRIQUEZ
Parral, Chile

Fear not. Virtually any number of headphones can be fed from one infrared transmitter without trouble, just as any number of eyes can watch a television without degrading its picture.

Long-Range FM

I live on a barrier island where the land is level and there are no tall buildings around. I would like to get an indoor FM antenna to pick up stations about 80 miles away. I can't have one on the roof or in the attic. What would work for me?

MARY L. HEALEY
Ponte Vedra Beach, FL

At 80 miles, FM reception can be a problem, particularly if, as in your case, mounting a very high antenna is not an option. Still, I assume that the distance is all over water, so there's nothing to block the signal except the curvature of the earth. If the broadcasting tower is high enough that your ground-level antenna can "see" a bit of the signal, a high-gain antenna might capture enough of it to make it listenable. An amplified antenna may help as well. Either way, you may find that the signal has a tendency to waver sometimes, but that's probably better than no signal at all.

Next of Speaker Kin

I am putting together a home theater system and am ready to buy speakers for it. I already own a pair of speakers, but an audio salesman told me I should use models all made by the same manufacturer in order to maintain the "same sound quali-

A

As sounds move around on the soundstage, they shouldn't change in tonal character. It's particularly important that the center speaker match the other two front speakers, at least in the midrange and highs; otherwise, dialogue and other things will sound unnatural when the action moves from, say, the center to the side. And when you're listening to a soundtrack in Dolby Pro Logic mode, it's often the center speaker you hear most. The surround speakers are not quite as critical, but if their tonal character differs radically from the others, front-to-back movement of effects will sound very peculiar.

While you can find speakers from different makers that sound similar, it's often easier to choose speakers from one source.

If you have a question about audio, send it to Q&A, Stereo Review, 1633 Broadway, New York, NY 10019. Sorry, only questions chosen for publication can be answered.
Rocket Science

M any years ago, radio and television broadcasting was strictly a terrestrial affair. Towers built near populated areas sent sound and pictures into people's homes. By transmitting from tower to tower, it was possible to convey programming across the country; networks were formed. The business of broadcasting was well defined. Each local broadcaster knew exactly what his market was and competed only against other local broadcasters. The arrival of satellites, at least initially, did not greatly complicate things. Even though TV and radio programs could be beamed across the world via satellite, competition was still strictly local.

The advent of cable TV changed all that. Cable operators set up satellite receiving stations around the country and passed on a diverse selection of programming to their wired customer bases. Access to thirty or more cable TV channels instead of a handful of local stations spawned a new generation of remote-control-wielding couch potatoes. Cable-TV superstations were formed to deliver programming into millions of homes. And premium channels were created to provide nonstop, commercial-free entertainment in exchange for a monthly fee. As more households became wired for cable TV, fewer people tuned into locally originated broadcasts. But, although satellite distribution made it possible for radio stations to expand their programming base, the commercial backbone of radio remained local.

Then along came the cable-based music services. Digital Cable Radio (DCR) and Digital Music Express (DMX). For a monthly fee, subscribers received a decoding box that gave them access to thirty channels of near-CD-quality music. 24 hours a day. Classical, jazz, blues, hip-hop, rock, country, contemporary, and more—all delivered in the frequency space that would be occupied by just one conventional AM and FM radio station. For the first time, local radio stations had to compete with national cable-delivered programming.

Now radio and TV broadcasters, as well as the cable companies, will have to contend with the nation's first direct broadcast satellite (DBS) delivery system, a billion-dollar venture that's being spearheaded by DirecTV, a subsidiary of GM Hughes Electronics. As of this writing, the all-digital system was slated for rollout in late May in Arkansas, Louisiana, Mississippi, Oklahoma, and New Mexico (not necessarily in that order). A national rollout is planned for the fall, following the launch of a second satellite, which will bring the system's total channel capacity up to 150.

In addition to lots of channels, including many popular cable networks like the Disney Channel and pay-per-view movies and special events, DirecTV promises near-laserdisc picture quality and CD-quality audio. To tune in, viewers have to buy a $699 Digital Satellite System (DSS) hardware package from RCA—which includes an 18-inch satellite dish, a TV-top receiver, and a remote control—and pay a monthly subscription fee to DirecTV or United States Satellite Broadcasting (USSB), which also offers programming packages.

Three cable-TV-like programming options will be offered to DirecTV subscribers later this year, but only the $21.95-a-month Personal Choice I package is available through DirecTV only in areas where it is not available via broadcast.

A wide array of movies, sports, and special-event broadcasts will be available through DirecTV's Direct Ticket service, which is expected to deliver about forty channels of pay-per-view movies into subscribers' homes; hit films will be available every 30 minutes. DirecTV says that movies, priced from $1.95 to $3.95 each, will show up on Direct Ticket before they appear on premium cable-TV services.

Programming originates from a broadcast facility in Castle Rock, Colorado, and is transmitted in compressed digital form (in accordance with the MPEG standard) to the satellite, which in turn beams high-power signals back down to the miniature satellite dishes on earth. The digital signal goes from the satellite dish to the TV-top receiver, which converts it to conventional analog audio and video signals.

DirecTV will present a direct challenge to local over-the-air radio broadcasters when DCR's thirty music channels become available later this year. Suddenly, conventional AM and FM radio, with their commercials, reception problems, and other limitations, will seem mighty antiquated next to the sleek, new Music Choice system. About 125,000 households currently subscribe to DCR, but when it is piggy-backed onto DirecTV, that number could very well shoot to a half-million or more in the first year. In addition, with cable and satellite delivery secured, DCR is looking at home delivery over existing telephone lines.

Clearly, the way we receive radio and television signals in our homes is changing dramatically as broadcasters, cable operators, and now direct satellite broadcasters compete for market share. The only constant in all of this is the car. It's still locked into terrestrial-broadcast radio. But the rocket scientists are working hard to change that, too.
"Nothing less than a steal."
—Robert Harley, *Stereophile*

There’s something in this review of our GDA-600 digital-to-analog converter that the competition doesn’t want you to see. Maybe it’s the fact that the GDA-600 makes digital formats sound richer and more musical. Or that it has advanced 20 bit conversion architecture and a Class “A” analog output stage. But what they really don’t want you to see is that the GDA-600 costs much less than you might expect. For the full review see *Stereophile*, Volume 17, No. 3, (March ’94). Or, if your copy has been stolen, give us a call.

[Image: ADCOM details you can hear]

CIRCLE NO. 2 ON READER SERVICE CARD
Only JVC keeps 100 CDs...
out of sight...

The JVC XL-MC100 is the only 100 Disc CD Changer that combines beauty and brains while delivering a level of audio performance that others can't touch.

The flexible design of the XL-MC100 lets you place the Controller comfortably in your existing rack or stack of components, while the high tech Storage/Transport unit can be placed wherever is convenient—on the floor, a shelf, in a closet, even in another room.

And while you're enjoying the music, the XL-MC100 is doing the thinking for you. The smart remote control spells out in words your program choices—and remembers the exact location (and names) of each disc even when you forget. A bound booklet is also provided to hold your CD liner notes. And, the XL-MC100 uses JVC's cutting edge P.E.M. DD 1 Bit technology for flawless digital performance.

To see and hear why the XL-MC100 is the best way to keep 100 CDs out of sight but well in hand, visit your local JVC retailer.

JVC. We bring the music to you.

but well in hand.
THE WINNER!

The 10th Annual Rodrigues Cartoon Caption Contest

All hail Ron Haynes, of Nashville, Tennessee! Mr. Haynes is the winner of the tenth Rodrigues Cartoon Caption Contest, and his winning entry is printed under the drawing.

As we did in previous years, in our issue of January 1994 we published a drawing by our regular cartoonist, Charles Rodrigues, and invited readers to submit captions for it. The prize for the one the judges considered to be the funniest is $100 and the original drawing.

The editors of STEREO REVIEW thank Mr. Haynes and the thousands of others who entered the contest. Entries came from as far away as Stuttgart, Germany; Ramat-Gan, Israel; São Paulo, Brazil; and Quezon City in the Philippines. Across North America they ranged from Siena College Friary in Loudonville, New York, to Mr. Anderson’s sixth-grade class at Marshall Elementary School in San Bernardino, California.

We are grateful to our previous winners, who served as judges: Thomas Briggle (Wadsworth, Ohio), Michael Binyon (Weaverville, California), Bruce Barstow (Philadelphia, Pennsylvania), Matthew Mirapaul (Evanston, Illinois), Marc Welenteckich (Richmond, Virginia), Douglas Daughthee (Birmingham, Alabama), Kelly Mills (Raleigh, North Carolina), Diane Sullivan (New Brunswick, Canada), and Brian Hoffman (New York City).

This year Rossini’s William Tell Overture edged out Tchaikovsky’s 1812, which had been the composition mentioned most frequently in past contests. In addition to the usual big names in audio—Julian Hirsch, Amar Bose, Matthew Polk—the persons mentioned most often this year were President and Mrs. Clinton and Al and Tipper Gore. Madonna disappeared, superseded by Howard Stern, Rush Limbaugh, Nirvana, Pearl Jam, Beavis and Butt-head, and—

Many entries voiced concern about possible luxury taxes on audio equipment, and others expressed worries about new foreign competition (“The Mexicans are coming!”). Some were apprehensive about new technology (“Fiber optics are coming!”), the return of the old (“Quadraphonics are coming back!”), or low-fi formats such as rack systems and boomboxes.

This year’s winner, Mr. Haynes, works in the security-electronics business. A long-time fan of multichannel stereo, he still has quadraphonic equipment from the 1970’s, and he wants to install a home theater system. He listens mostly to current popular music and jazz.

If your entry is not among the runners up below, well, better luck next time. We will announce next year’s contest in the issue of January 1995.

—William Livingstone

RUNNERS UP

“You think this looks odd? My wife’s on Trigger, and she’s got the widescreen.” —Ken Alakel, Carefree, AZ

“They’re throwing Japanese stereos overboard in Boston Harbor.” —Bill Cronquist, Palo Alto, CA

“Honey, that’s the ninth time he’s gone by. . . . Maybe you should get involved.” —Geoff Knight, Eugene, OR

“Get out while you can! These new homes have no acoustical treatment whatsoever!” —Jason Boesch, St. Louis, MO

“Flee! Grab your tweeters and flee! Ampzilla has returned, and he’s out of phase!” —Jim Rolando, Missoula, MT

“My son’s moved back home!” —Peter Delasanta, Cranston, RI

“Five minutes until the ten-day trial period ends!” —Jason Williams, Oxford, PA

“Run for your lives! Ross Perot has a new country CD, and he’s sending you a free copy.” —David Sorenson, Redwood City, CA

“Bring out your dead and your analog.” —Pat Milewski, Blaine, MA
There are over 1,000 prizes including the Grand Prize trip to this year's JVC Jazz Festival in Newport, Rhode Island, August 12, 13, & 14.

Hurry, all calls and entries must be received by 7/31/94. Good luck!

GRAND PRIZE (1)
A trip for 2 to the 1994 JVC Jazz Festival in Newport, Rhode Island. The 4-day, 3-night trip includes deluxe accommodations, backstage VIP passes, and more. Prize also includes a JVC Home Theater and a Fender® Stratocaster. Total approx. retail value: $12,000.

Featured Performers:
- George Benson
- Dave Brubeck
- Buddy Guy
- Manhattan Transfer
- Wynton Marsalis
- David Sanborn
- and more!

1st PRIZE (20)
A JVC portable CD changer and a JVC cellular phone. Total approx. retail value: $1,045.

2nd PRIZE (50)
The JVC X'EYE multi-entertainment system including Compton's Interactive Encyclopedia, SEGA Prize Fighter CD, a Karaoke CD and a professional microphone. Total approx. retail value: $550.

3rd PRIZE (1,000)
1994 JVC Jazz Festival t-shirt, and either a pair of Suncloud Sunglasses or a JAZ fashion watch. Total approx. retail value: $80.

ENTER TO WIN! Official 2nd Chance Sweepstakes Entry Form

(Please print)

Name: ____________________________________________

Address: __________________________________________

City: _______ State: _______ Zip: ___________

Home phone #: ________________________________

Official Airline of the JVC Jazz Festival USA Tour:

Continental

No purchase necessary. Void where prohibited. Sweepstakes open to legal US residents. 18 years of age or older, except employees and their immediate families of JVC, its agencies and service providers. Sweepstakes subject to Official Rules. Available by signing a self-addressed stamped envelope to JVC Jazz Festival Sweepstakes Official Rules, P.O. Box 5596, New Milford, CT 06776-5596, for receipt by 7/31/94. Odds of winning any prize depend on number of entries received. DMV residents only may obtain a list of winning numbers by sending a self-addressed stamped envelope to JVC Jazz Match & Win Numbers, P.O. Box 5581, New Milford, CT 06776-5581, for receipt by 7/31/94. DMV residents only may mail 2nd Chance Sweepstakes entry to JVC Jazz Festival 2nd Chance Sweepstakes, P.O. Box 5570, New Milford, CT 06776-5570, for receipt by 7/31/94. ©1994 JVC Company of America. Elmwood Park, NJ 07407.
Hi-Fi Bargains

No, I am not referring to cut-rate or closeout sales of audio components, which can indeed be (but are not always!) bargains. If you are aware (and who isn't?) of the trends in the global economy, and specifically the ongoing inflation of prices in most of the developed industrial countries, you have probably noticed how the prices of most basic audio products—amplifiers and receivers, CD players, tape decks, speakers, and so forth—have been maintained for a number of years. In terms of constant dollars, in fact, most audio components sold in the United States now cost considerably less than their equivalents of a decade ago. Furthermore, their performance generally far surpasses that of their predecessors, including, in many cases, products that were actually at the state of the art in their day.

Quite apart from global economics (a subject about as familiar to me as the technicalities of high-fidelity audio components would be to the average economist), this situation appears to have its roots in technological advances. That fact was strongly impressed on me during a recent tour of the Matsushita Electric Industrial Company manufacturing facilities in Fukushima, Japan, and a day-long technical seminar for audio-equipment reviewers at the company's Osaka headquarters. (Matsushita products are sold under the Technics, Panasonic, and Quasar brands.)

The thrust of the visit was twofold: to show us the advances in automated (robotic) production techniques that are at the heart of this achievement and to introduce the new Technics audio and video products that are its final result. I believe that my colleagues, as well as myself, came away from this experience with a sense of amazement, bordering on awe, in some respects.

The technical features of, for example, the newest Technics audio/video receivers are not the subject of this column (that will come when we review production units). Instead, I will concentrate on one basic engineering problem, how it was solved, and the benefits, both acoustic and financial, to the consumer.

Modern A/V receivers usually include five or more power amplifiers, often with rather high power ratings; it is not uncommon for such a receiver to provide 400 watts or more of power from its combined amplifier channels. These amplifiers, with their massive heat sinks and power supplies, account for much of the receiver's cost and weight. In addition to creating an undesirably warm cabinet exterior, the receiver's high internal temperature may also shorten its life by causing premature failure of circuit components. And in some installations, it may be difficult to achieve adequate ventilation.

Assuming that high power is a must, there are only a few ways to keep heat buildup reasonably low. Extensions of existing methods, such as larger heat sinks and chassis size, are costly and inconvenient and do not answer the objection of excessive cabinet temperature. The ideal answer is higher amplifier efficiency, concentrating its output into audio watts to drive loudspeakers instead of joules of wasted energy to heat up the listening room.

Technics engineers have taken just that approach, developing a high-efficiency amplifier design (a substantially improved version of Class H that they call Class H+) that substantially reduces heat-dissipation requirements. Furthermore, each pair of outputs, rated as high as 125 watts each, comes from a single compact hybrid module, less than 3½ x 1 ¼ inches and only ¾ inches thick, which includes four output transistors, two control transistors, protection and driver IC's (integrated circuits), and several dozen more tiny surface-mount components. This compact amplifier module replaces a large number of discrete components and produces more power at low distortion with less heat dissipation than conventional amplifiers.

Impressive as that is, however, it is overshadowed by the way the amplifier modules are manufactured. They are assembled at the Fukushima plant by robots on a completely automated line. Similar machines (PanaRobots) are also used for nearly every step of final product assembly. It is amazing to see the amplifier modules being mounted to heat sinks and screwed into place with no human assistance. Technics can now assemble almost any of its home audio products with just a handful of people.

But that seems almost routine (which it definitely is not!) compared with the clean-room power-module assembly. In that area (entered by humans through an "air bath" compartment while wearing special outer clothing and shoes), a row of robots operates tirelessly. Each is larger than a man, with an "arm" whose "fingers" can move in almost any direction and manipulate nearly invisible parts with uncanny precision and control. As a row of small baseplates for the power modules moves along on a belt, the robotic "hands" move down and mount components on them, often faster than the eye (mine, at least) can follow. Some steps cannot be observed clearly without the aid of a magnifying lens or microscope.

The assembly takes place through a succession of robotic operations (people are present only for maintenance purposes) until the finished modules emerge at the end of the line. At that point, a test robot makes a complete electrical measurement of the module's performance, listing the various measured characteristics on a CRT display, followed by "PASSED" or "OK" in large letters. During the time I was in this fabrication area, I did not see any failures, nor do I imagine that they occur very often.

The bottom line to this level of automation is the creation (presumably with a satisfactory profit for the manufacturer) of better and more reliable products at lower prices. How low? Would you believe a full-featured 100-watt-per-channel stereo receiver for $199? And that is in 1994 dollars! Wouldn't it be wonderful if automobiles and houses could match the economic miracles of electronics?
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In its early years, Linn Products was best known for its high-quality turntables, tonearms, and phono cartridges. As the company has grown, however, so has its product line, which now also includes amplifiers, CD players, digital-to-analog (D/A) converters, tuners, loudspeakers, and even a sophisticated multi-room control system. Linn's products are made at factories in and around Glasgow, Scotland, where the company is headquartered. Although small by the standards of the giants that dominate the audio electronics market, Linn employs some of the world's most advanced manufacturing technology. The circuits for recent electronic products, such as the Majik-I amplifier reviewed here, make extensive use of surface-mount components, for example, and parts are delivered directly to assembly workstations by a fully automated robotic inventory system.

There are no assembly lines, however. Assembly, testing, and packing of each unit that goes out the door is the responsibility of a single person. Thus, a worker in a Linn factory will normally build a number of complete units each day rather than merely having a hand in the assembly of a much larger number. Linn's outspoken and entertaining founder, Ivor Tiefenbrun, feels very strongly that this "single-station build" system yields both high-quality products and greater worker satisfaction.

An interesting idiosyncrasy of Linn products is that (with one minor exception) each has an unusual name containing the letter k. The new Linn Majik-I is a compact, modestly powered stereo integrated amplifier (Linn calls it a control amplifier) whose numerous novel or unconventional features greatly enhance its overall functionality and ease of operation. The Majik-I's preamplifier section normally has six line-level inputs. In the phono-option version that we tested, however, one of the auxiliary inputs becomes a phono input, switchable via a jumper on the circuit board for either moving-magnet or moving-coil cartridges. The power amplifiers are rated at 33 watts per channel into 8 ohms and 66 watts into 4 ohms. There are no published distortion or frequency-response specifications for the Majik-I (or most other Linn products, for that matter), reflecting the company's view, not as heretical as it might seem, that many of the usual audio performance specifications have little correlation with the final sound of a music system.
TEST REPORTS

The Majik-I is smaller than most preamplifiers, to say nothing of integrated amplifiers. It has no knobs, the front panel containing only a power button, a headphone jack, a small display panel, and six control keys. The keys are for muting, volume (up/down), source selection (stepping sequentially in either direction), and recording source selection, which channels any selected input to the tape-out terminals on the rear apron, independent of the source being listened to. For some operations two keys are used simultaneously. For example, pressing the two volume keys simultaneously displays BAL in the window, after which pressing either one shifts the balance in one direction or the other, displaying numbers from -9 to +9 in the window (0 indicates equal levels from both channels). Similarly, you can switch the speakers off for headphone listening by pressing the two center keys simultaneously. Although such procedures can seem confusing when you just read about them, they are amazingly simple and logical in actual use. The Majik-I is a very easy-to-use component.

While any adjustment or selection is being made, appropriate numbers or letters appear in the display window. The instruction manual (one of the best we have seen) is clear and explicit—and even has a section, “Getting Unstuck,” that guides the user out of any unexpected situation he might encounter. It is a model of what manuals should be but rarely are (at least in my experience).

The Majik-I’s rear apron is well populated with inputs and outputs, all of which are standard RCA-type phono jacks. In addition to inputs for CD, tuner, and phono (or a second auxiliary source), there are two pairs of tape input and output jacks and a pair of pre-out/main-in jacks, normally joined by removable jumpers, that enable the insertion of an external active crossover (such as the Linn Kaber Aktiv) in the signal path or the use of an external power amplifier or signal processor (a surround-sound decoder, for example).

The Majik-I has two pairs of speaker outputs, suitable for driving two sets of speakers or for biwiring a single pair if they have the necessary terminals. The output jacks accept standard single banana plugs, but their spacing does not permit use of dual banana plugs (a requirement for electrical products sold in Great Britain, where AC-line plugs have the same connector shape and spacing as our dual banana plugs).

The Majik-I is actually more than an integrated amplifier, for it contains an expansion slot that will accept what Linn calls a Sneaky module. For example, a Linn Kudos FM tuner board could be installed, converting the Majik-I into a receiver. Or you could substitute a Knekt board to make the amplifier the heart of a highly versatile multiroom Linn audio system. And, of course, you can always add larger power amplifiers to your system without making any part of your investment obsolete.

But we are concerned at this point with the “bare bones” Majik-I. Compared with most similarly priced amplifiers sold in the United States, it is relatively low-powered. Delivering in our tests just over 30 watts at the clipping point into 8-ohm loads. On the other hand, power into 4-ohm loads was nearly double the 8-ohm reading (though slightly shy of the rated 66 watts), indicating that the amplifier was very close to being a true voltage source. That is a desirable quality for an amplifier that might be faced with the task of driving speakers with impedances falling well below 4 ohms at some frequencies—a not uncommon situation.

Linn says that even 2-ohm loads will not damage the amplifier and that its sophisticated protection system enables it to be pushed well beyond its design limits without damage or excessive distortion. Although we did not venture continuous-output measurements with less-than-4-ohm loads, our dynamic-power measurements showed that the Majik-I does indeed pack a healthy punch into 2 ohms under realistic listening conditions. Moreover, at no time during our testing or use of the amplifier did any part of its exterior become more than faintly warm. Another notable test result was the amplifier’s exceptionally low noise.
level through both the high-level and phono inputs. The phono-overload measurements were not as good as we would have expected for a moving-magnet input, indicating that any cartridge used with this amplifier should have a relatively low output. In fact, at first we suspected that the phono stage had been set for moving-coil cartridges, but the sensitivity and input-impedance measurements clearly indicated that it was set for moving-magnet pickups.

Nonetheless, our use of the Linn Majik-I (which did not include input from a phono source) was an unalloyed pleasure. The smoothness and silence with which its controls operated were striking (every change of control function occurred smoothly and silently over a period of a second or two). The Majik-I comes with a small system remote control compatible with other Linn products. It worked with all the amplifier's front-panel functions, controlling volume, balance source selection, and so forth.

We could not resist opening up the Majik-I. Its interior can only be described as gem-like: All the amplifier circuitry was on a single circuit board. Nonetheless, our use of the Linn Majik-I (which did not include input from a phono source) was an unalloyed pleasure. The smoothness and silence with which its controls operated were striking (every change of control function occurred smoothly and silently over a period of a second or two). The Majik-I comes with a small system remote control compatible with other Linn products. It worked with all the amplifier's front-panel functions, controlling volume, balance source selection, and so forth.

The Linn Magik-I amplifier is surprisingly easy to use, with just half a dozen buttons and amazingly simple and logical control procedures. and the only visible wires were those to the power supply and its switch and to the front-panel display. A large toroidal power transformer occupied a good part of the amplifier's interior. Most of the circuit elements were surface-mount devices, adding to the elegant appearance. It was also interesting to find the name of the person who built the amplifier inscribed on its bottom plate.

At a time when a growing number of audio amplifiers can deliver 100 to 200 watts per channel and when operating controls are becoming increasingly difficult to understand and use, it is refreshing to see that a really good amplifier of modest power can easily hold its own (and then some) with any of them for listening enjoyment. The Linn Majik-I is most aptly named!

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The Optimus PRO-7, sold through Radio Shack stores, is a true minispeaker, small and light enough to be held in the palm of one's hand. It is also a true two-way system, with a 4-inch "woofer" in a vented enclosure and a 1-inch soft-dome tweeter. The manufacturer's specifications for the system cover only the basics: a frequency range of 100 Hz to 20 kHz (no tolerance given), a nominal impedance of 8 ohms, and a suggested maximum amplifier power rating of 50 watts.

The PRO-7 is housed in a metal case, available in black or white. A perforated metal grille protects the drivers. The enclosure vent, which is 11/16 inches in diameter, is on the back of the case with the input connectors, which are effectively flush with the rear panel. The connectors are spring-loaded and accept only stripped wire ends. Also on the back panel is a fitting for wall-mounting the speaker.

We placed the Optimus PRO-7 speakers on stands, several feet from the walls, for both measurement and listening. The close-miked woofer response varied only ±3 dB from 100 Hz to 2 kHz, falling off rapidly above and below those frequencies. Although the crossover frequency was not specified, it appeared to be about 2 to 2.5 kHz.

The averaged room response of the two speakers, using a sweeping warble tone, fell off below 200 Hz at about 12 dB per octave. It was quite uniform from 300 Hz to 3 kHz, varying only ±1.5 dB over that range, with an increase of 2 or 3 dB at 4 kHz and a downward slope at higher frequencies.

A separate close-miked measurement of the woofer response (which excluded room effects) indicated a ±2.5-dB variation from 120 Hz to 2 kHz. The output dropped sharply at lower frequencies. Although the lower octaves were present in the port output, their level was far below that of the woofer cone and did not contribute significantly to the overall response.

The PRO-7's composite frequency response, formed by splicing the close-miked woofer curve to the averaged room curve, closely matched what we actually heard from the speakers. It was flat within ±2 dB from 130 Hz to 3 kHz, with a broad 3-dB rise at 4 kHz before returning to the average midrange level. The output above 7 kHz remained quite flat to about 13 kHz, dropping slightly at higher frequencies to -5 dB at 20 kHz. Clearly, this pint-size speaker can do a reasonably good job of radiating the middle and high frequencies, but, barring magic or miracles, it cannot be expected to match that performance at lower frequencies.

Our quasi-anechoic MLS frequency-response curves revealed that the PRO-7's on-axis output was very flat from 300 Hz (the lower limit of this measurement) to almost 15 kHz, with one exception that may not be audibly serious. There was a pronounced response "hole" between 3.5 and 7 kHz, ranging in depth from 10 to 15 dB depending on the distance between the speaker and the microphone (1 to 2 meters). The same effect appeared in every MLS measurement and appears to be a cancellation between the outputs of the two drivers, possibly related to the crossover between them. Strangely, however, the dip was completely absent from normal room measurements, which actually showed a slight peak in output at 4 kHz. In listening tests, too, we could not detect any anomaly in that range.

Impedance dipped to 5.1 ohms at 80 and 300 Hz, with maximum readings of 32 ohms at 30 Hz, 44 ohms at 120 Hz, and 18 ohms at 1.7 kHz. The actual minimum impedance was 5 ohms from 5 to 7 kHz. Despite the PRO-7's 8-ohm rating, these low impedance readings are of little importance since the speaker is relatively efficient over most of the audio range. With a 2.83-volt input of pink noise, the sound-pressure level (SPL) was a rather high 92 dB at 1 meter.

With a constant input of 2.26 volts
(equivalent to a 90-dB SPL in our sensitivity measurements), the PRO-7’s woofer distortion was less than 1 percent over most of its effective range, from 130 Hz to 2 kHz. Even at lower frequencies the distortion remained under 10 percent, although that is irrelevant since the output in that range was largely inaudible.

As would be expected from the small drivers in the PRO-7, its horizontal dispersion was good, though it did not match the range of some larger systems with smaller and more sophisticated tweeters.

Despite its small drivers, the PRO-7 was able to absorb considerable power during short (single-cycle) tone bursts without damage. At 100 Hz, the 4-inch driver began to sound raspy with about 50 watts input (its rated maximum), but that is of little practical importance since no one in his right mind would attempt to drive a 4-inch speaker to such levels. The raspiness increased gradually as we raised the power, and we stopped at 160 watts (into the speaker’s 15-ohm impedance at that frequency) since destruction was not our goal. The speaker suffered no permanent harm from this outrageous treatment that we could detect. At higher frequencies the amplifier clipped (at 530 and 1,200 watts at 10 kHz, respectively) before the system became intolerable.

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Obviously, no one buying this speaker would expect it to deliver room-shaking acoustic levels or to match the sound quality of speakers several times its size and price. But if you understand its limitations, the Optimus PRO-7 can do a credible job of playing music. In the usual hi-fi sense, it has virtually no bass output. On the other hand, higher frequencies are reproduced, for the most part, without serious distortion.

It should be obvious that comparing the PRO-7 with a top-ranking speaker system selling for ten or twenty times its price is like judging a Model-A Ford against a modern luxury automobile. Nonetheless, we made that comparison, placing the Optimus PRO-7 on top of the "reference" speakers. With most program material, the minispeaker’s lack of bass was only too obvious when switching between systems, though after a period of listening the PRO-7 began to sound more "normal." With music having little or no content below 100 Hz, the difference was greatly diminished, and the PRO-7 acquitted itself quite well. Often the difference was virtually unnoticeable—so long as the music didn’t go into the bottom octaves.

If the Optimus PRO-7 is used in relatively uncritical applications such as a den or child’s room, it should do a fine job. Another possible application might be as a surround speaker in a low-cost home theater installation.
Audio Control C-101 Series III Equalizer/Analyzer

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Audio Control, true to its name, is a specialist manufacturer of products for controlling or modifying the frequency response of audio systems. For home and car audio, it produces a number of graphic equalizers, signal processors, and real-time spectrum analyzers. The C-101 Series III is the latest incarnation of a home product initially introduced in 1979.

The C-101 Series III combines a ten-band octave equalizer with a real-time spectrum analyzer whose frequency bands correspond to those of the equalizer. The gain in each band is adjusted by a vertical slider control, of which there are twenty for the two channels. The display window shows the instantaneous program level in each of the ten bands, which are centered at frequencies of 32, 60, 120, 250, and 500 Hz and 1, 2, 4, 8, and 16 kHz. The levels are indicated by vertical rows of red LED’s; the level intervals can be set at 2 or 4 dB by a front-panel control.

The C-101 Series III is normally installed in the signal path to the power amplifier, typically through a tape-monitor loop of a preamplifier or receiver (the C-101 III provides a replacement tape loop). Several alternative configurations are also shown in the instruction manual. If you use the equalizer in a home theater system, it should be placed in the signal path after the surround-sound decoder.

Except for the small Display Level knob and the vertical sliders, all the front-panel controls of the C-101 Series III are pushbuttons. Operating with a light touch and a short “throw,” the buttons trigger electronic switches located close to the controlled circuits, minimizing crosstalk and noise pickup.

There are buttons for selecting a slow or fast LED time constant (display decay rate) and for activating an internal pink-noise generator for use in speaker/room equalization. (Pink noise, a random signal having equal power in each frequency octave, ideally shows as flat on the analyzer display.) Other buttons switch on the equalizing function, equalize the tape-recorder outputs, activate the tape-monitor loop, and insert a “subsonic filter” (more accurately, an infrasonic filter) into the signal path. There is even a button to disable the display if it is too distracting.

In addition to its program-equalization functions, the C-101 Series III can be used for room and loudspeaker equalization and for optimizing speaker placement in the room. For this purpose, it is furnished with a small microphone (apparently an electret type) that plugs into a jack on the equalizer/analyzer’s front panel. The microphone’s frequency response, though not specified, is said to be “very flat,”
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TEST REPORTS

and image rejection, on the other hand, as well as selectivity, were appreciably better than rated and quite impressive. The AM frequency response was somewhat wider than average, with slightly better high-frequency response than most AM tuners and an unusual rising output at the lowest audio frequencies.

The preamplifier's frequency response with tone controls centered was very flat over the audio range and down only 3 dB at 150 kHz. Tone-control characteristics were good, with the treble variation limited to frequencies above 2 kHz and the bass to frequencies under 250 Hz. The loudness compensation affected only frequencies below 500 Hz, with a maximum boost of 10 dB at low and moderate volume settings.

The RIAA phono EQ was also exceptionally accurate, and the phono-overload margin was excellent over most of the audio range, with a reduced limit at the highest frequencies that was still quite satisfactory. Phono-input impedance was nearly ideal.

We used the PT2300 in a system with a high-quality stereo power amplifier, and the results were just as good as its bench performance would lead one to expect. The tuner/preamplifier format, which for some reason has never enjoyed the acceptance it deserves, is ideal for anyone who would like the convenience of a receiver combined with true high-power capability. Although there are some receivers with 100-watt-per-channel amplifiers (or even bigger ones), they tend to be rather large and heavy, as well as posing heat-dissipation problems in a limited-space installation. Separating the power amplifier from the rest of the "receiver" provides the best of both worlds, especially if the amplifier (like the one we used when listening to the PT2300) turns on automatically when a signal is applied. Unfortunately, the PT2300's pair of switched outlets are rated for a total of only 180 watts, a bit skimpy for a powerful amplifier.

Overall, the PT2300 acquitted itself admirably in all phases of our testing. The design concept is a good one, and Harman Kardon has executed it very effectively.
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Sony STR-G1ES Audio/Video Receiver

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Recently we have seen a trend toward integration of audio components and computers, especially in complex products such as audio/video (A/V) receivers and signal-processing accessories whose circuits are heavily digital. In the new Sony STR-G1ES, a remarkable and unusual A/V receiver, the union of home audio component and computer may have been carried to its practical limits.

The STR-G1ES is large and heavy (the manual gives its "mass" as 30 pounds, 14 ounces). Its front panel, mostly covered by a thick, clear plastic faceplate, gives no hint of its true function. The panel's visible features are limited to a horizontal row of ten buttons, a large volume-control knob, a power button, and a protrusion labeled VisionTouch, about which more later.

So far, the STR-G1ES would appear to be merely a large and handsomely styled power amplifier. But a door along the bottom of its front panel hinges down to reveal several push-button switches and jacks that indicate some nonamplifier capabilities. The buttons are marked Speakers On/Off, Preset Tuning (+/-), and Soundfield (On/Off). The jacks include one for a 1/4-inch headphone plug and a group identified as Video 4 (video and audio inputs, including an S-video socket). A glance at the STR-G1ES's rear apron (well populated with connectors) finally confirms that it must be an A/V receiver. But where are the numerous front-panel controls usually required to operate such a product?

This would be the time to read the instruction manual. Without that often-neglected step, you may not be able to operate the STR-G1ES at all. In the manual you'd find that the key to operating the STR-G1ES is a strange black plastic object, resembling a sliced-off egg, with a single pushbutton. This is the receiver's Remote Commander, a unique radio-frequency controller powered by two AA cells loaded into the flat end of the egg. A small dipole antenna, which connects via a cable to the rear of the STR-G1ES, carries the Commander's signals to the control circuits in the receiver. This antenna must be hooked up and properly located (away from metal surfaces, for example) for the receiver to work. Also, to see what you are doing, a TV receiver or monitor with a video input jack must be connected to a monitor output on the rear of the STR-G1ES (both composite and S-video outputs are provided).

The Remote Commander is actually the only control used during normal operation of the STR-G1ES. When the controller, which stands on its flattened end when not in use, is picked up, pressing its button will turn on the receiver and any devices connected to its three switched AC outlets. You don't have to aim the egg at the receiver, or even at the antenna if you are close enough to it.

You probably won't be able to turn on your monitor from one of the AC outlets. They are rated for only 120 watts each. Besides, all the outlets are two-prong jacks, while many components now come with three-prong
WHERE DOES THE TWEETER OF A HIGH FIDELITY LOUDSPEAKER BELONG?

Q SERIES

This question may confuse those who believe that the measure of a loudspeaker is the number of its drivers. It will also elude those who have never bothered to question conventional driver placement, which always separates the woofer from the tweeter.

In fact, the most acoustically correct location for the tweeter is precisely at the center of the woofer. This strategic placement creates a single sound source, allowing high and low frequencies to reach your ears at the proper time, regardless of where the speakers are placed or where you are sitting. (No wonder KEF's patented Uni-Q® is the technology of choice for advanced Home Theater applications.)

Perhaps the greatest benefit of the KEF Q Series speakers is that they sound as good in your home as they do in the showroom.
plugs. But if your monitor or other component has an infrared remote control, Sony has provided a way for you to command it. In this case the receiver, not its remote, "learns" the necessary infrared codes. To program it, you aim the auxiliary component's remote control at the receiver's front-panel VisionTouch protruberance and press the appropriate buttons. When activated subsequently by a proper sequence of Remote Commander operations, the receiver sprays the memorized infrared command into the room to be picked up by nearby components. In case they do not pick up the emissions, the receiver also comes with an infrared repeater that plugs into a rear-panel socket and can be located up to 12½ feet away (the length of its cord, which I imagine can be easily augmented by a headphone extension cord).

The STR-G1ES is preprogrammed with the infrared commands for Sony components, and it can also be programmed to emit up to eighty infrared commands for non-Sony equipment. Up to ten commands can be strung together in a "macro" sequence activated by a single push of the Commander button, and two different macros can be stored.

In any case, when you first pick up the Remote Commander and press its button, the monitor screen will display the main menu, from which you can select a series of other menus. Along with the menu, the screen displays a movable cursor, or pointer. Simply moving the Commander with your wrist positions the cursor on any desired portion of the displayed menu. You can activate the function pointed to by pressing the button.

Among the functions provided are input-source selection, volume control, FM or AM tuning (including memorizing as many as thirty presets), digital parametric equalization for the midrange frequencies, and digital bass and treble tone controls. Since this is an A/V receiver, you can also control the Dolby Pro Logic decoder and adjust ten different synthesized sound environments, including such parameters as hall size and wall "hardness," listener position, reverberation time, reverb level, and so forth. All of these parameters are displayed graphically and numerically on the TV screen during the adjustment process.

The receiver's inputs include, in addition to the built-in AM and FM tuners, phono, CD, DAT/MD, laserdisc, and four other video sources (two of them playback only, such as the front-panel camcorder input). On the rear panel, all the speaker outputs (two front, one or two center, and two surround) are insulated binding posts that accept wire ends or single or dual banana plugs. If you use two center speakers, be advised that those outputs are connected in series (as in other A/V receivers we've seen with this feature), which can cause frequency-response changes due to speaker-to-speaker impedance interactions. It's usually best to use a single center speaker.

For driving external power amplifiers, the front-channel preamplifier outputs can be separated from the main amplifier inputs by removing a pair of jumpers, and there is a line-level mono output for driving a powered subwoofer or a subwoofer amplifier. A switch on the rear apron inserts a low-cut filter in the signal path to the front speakers to remove the low bass from them when a subwoofer is used (ideally, you should also have a subwoofer crossover to remove the high frequencies from the subwoofer output).

The key amplifier ratings include a power output of 85 watts each into 8 ohms for the three front channels, or 80 watts into 4 ohms. The two surround outputs are rated at 20 watts each. In two-channel mode, the front amplifiers are rated (by the EIA standard) to deliver 80 watts each into 8 ohms from 20 Hz to 20 kHz with no more than 0.04 percent total harmonic distortion (THD). A switch on the rear apron changes the amplifier voltage for safe operation into 4-ohm loads.

For our use and listening tests of the Sony STR-G1ES we teamed it up with a small TV monitor/receiver and a pair of good speakers. We made laboratory measurements of its two-channel oper-
The magazine that knocks you on your ear

I used to be simple. You had a car. It came with a radio. You listened. Period.

Now you've got options. So many options, it's easy to get blown away just trying to find components that fit together—and fit your budget too.

So what do you do when it's time to upgrade your car stereo?

Tune in to CAR STEREO REVIEW!

Whether you like your sounds big and boomy or tight and well controlled...whether you own a Ferrari or a Hyundai, CAR STEREO REVIEW lets you drive away with a system that's custom built for the way you like to listen.

You'll get head-to-head comparisons of CDs, players and changers, cassette decks, tuners, amplifiers, crossovers, speakers, equalizers, security systems, cellular phones, and more, in every price range.

Plus, every issue brings you complete test reports. User's evaluations. Reviews of the hottest, state-of-the-art equipment. A do-it-yourself course on installation. And there's a bonus: the most complete, up-to-date buyer's guide available anywhere in the world.

So, if you're ready to treat your ears to great sound at a price that's right for you, check out CAR STEREO REVIEW.

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So don't delay. Make tracks for the best possible audio system at the best possible price by entering your subscription to CAR STEREO REVIEW. Do it today!
SONY'S STR-G1ES PROVIDES A STUNNINGLY INNOVATIVE APPROACH TO THE NOT INCONSIDERABLE PROBLEM OF MANAGING THE MULTIPLE COMPONENTS OF A HOME THEATER SYSTEM. WITH THE VISIONTOUCH SYSTEM AND ITS RADIO-FREQUENCY REMOTE COMMANDER, THIS RECEIVER TRULY BECOMES THE CENTRAL CONTROLLER OF A SYSTEM, GOING SO FAR AS TO EMIT FROM ITS FRONT PANEL THE INFRARED COMMANDS FOR THE OTHER COMPONENTS IN A SYSTEM.

ON THE WHOLE, I FOUND THE COMBINATION OF REMOTE COMMANDER AND ON-SCREEN MENUS WORKED EXCEPTIONALLY WELL. THE REMOTE COMMANDER FITS COMFORTABLY IN THE HAND, AND WITH ONLY ONE BUTTON HOW CAN YOU MISS, EVEN IN THE DARK? ON THE OTHER HAND, THERE ARE SOME ERGONOMIC DIFFICULTIES WITH WHAT THE ON-SCREEN MENU SYSTEM ALLOWS YOU TO DO, RANGING FROM MINOR TO CONSIDERABLE ANNOYANCES.

BEYOND A DOUBT, THE MOST BOTHERSOME ASPECT OF THE MENU SYSTEM IS THE VOLUME ADJUSTMENT ON LEVEL AWAY FROM THE MAIN MENU AND EVEN FURTHER AWAY FROM OTHER MENUS. IT CAN TAKE SEVERAL SECONDS OF CONFUSED BUTTON PUSHING, POSSIBLY WHILE YOU'RE BEING DEATED, TO GET TO THE VOLUME MENU, WHERE THE 20-DB MUTE CONTROL ALSO RESIDES. IT WOULD HAVE BEEN EASY FOR THE RECEIVER'S POWER CAPABILITIES EXCEEDED ITS RATINGS, WITH 110 WATTS AVAILABLE AT 1 KHZ INTO 8- AND 4-OHM LOADS. ADDITIONAL SHORT-TERM POWER RESERVES WERE MINIMAL, HOWEVER. THE RIAA EQUALIZATION ERROR WAS RATHER HIGH COMPARED TO WHAT WE'VE BEEN MEASURING LATELY, BUT THAT MATTERS ONLY IF YOU ARE GOING TO PLAY LP'S. THE FM SECTION'S PERFORMANCE WAS SATISFACTORY, ALTHOUGH (AS WITH VIRTUALLY ALL RECEIVERS) IT FELL SHORT OF THE QUALITY OF MANY SEPARATE COMPONENT TUNERS.

A PERIOD OF USE IN A MUSIC-ONLY SYSTEM LEFT US WITH A MIXED VERDICT ON THIS REMARKABLE RECEIVER (AND "REMARKABLE" IS THE MILDEST ADJECTIVE WE CAN APPLY TO IT). BASICALLY, IT WORKED WELL, AND IT IS CERTAINLY IMPRESSIVE IN THE WAY IT ENABLES YOU TO SET A MYRIAD OF CONTROLS WITH A SINGLE BUTTON. ON THE OTHER HAND, SOME OPERATIONS THAT WITH A CONVENTIONAL RECEIVER NORMALLY REQUIRE ONLY THE TURN OF A KNOB OR A SINGLE TOUCH OF A BUTTON BECOME MULTIPLE STEPS WITH THE SONY STR-G1ES, REQUIRING YOU TO RE-AIM THE COMMANDER AND PRESS ITS BUTTON REPEATEDLY.

IN A FULLY EQUIPPED AUDIO/VIDEO SYSTEM, SUCH A PROCESS MIGHT BE JUSTIFIABLE, AND EVEN ADVANTAGEOUS COMPARED WITH USING A CONFUSING MANY-BUTTONED PROGRAMMABLE REMOTE HANDSET. FOR AUDIO ONLY, HOWEVER, IT WAS A SOURCE OF FRUSTRATION AND ANNOYANCE. HAVING TO HOOK UP AND TURN ON A TV MONITOR FOR THE SIMPLEST AUDIO OPERATION—SUCH AS CHANGING VOLUME WITH THE REMOTE CONTROL—IS HARD TO JUSTIFY.

HOW MUCH THE STR-G1ES APPEALS TO YOU, THEREFORE, WILL PROBABLY DEPEND ON YOUR SPECIFIC AUDIO OR AUDIO/VIDEO ORIENTATION AS WELL AS YOUR LEVEL OF PATIENCE WITH MENU-DRIVEN COMPUTER INTERACTIONS. FOR AUDIO/VIDEO SYSTEMS, THE STR-G1ES'S CONTROL SYSTEM IS Intriguing, AND THE RECEIVER IS NOT UNREASONABLY PRICED FOR WHAT IT CONTAINS AND DOES. BUT IF YOU WOULD USE IT PRIMARILY FOR AUDIO, I COULD NOT RECOMMEND IT, UNLESS YOU INSIST ON BEING THE FIRST ON THE BLOCK WITH THE LATEST TECHNOLOGY.
TAKE A TRIP. NEVER LEAVE YOUR CAR. THE JENSEN 10-CD CHANGER CARRIES YOU FROM CHICAGO BLUES TO SEATTLE GRUNGE WITHOUT EVEN A STOP FOR MUNCHIES. AND WITH THE WIRED REMOTE YOU NEVER HAVE TO TAKE YOUR EYES OFF THE ROAD. 8X OVER-SAMPLING GIVES YOU EVERY NOTE WHILE FULL SHOCK AND VIBRATION PROTECTION LETS YOU JAM WITHOUT ANNOYING SKIPS. DON'T LIKE THIS TRACK? USE THE HIGH SPEED ALDIBLE SEARCH TO DISC-SURF AND NEVER MISS A BEAT. NEXT STOP: WHO KNOWS? FAST FORWARD AND LET THE REST OF THE WORLD CATCH UP. FOR INFORMATION ABOUT JENSEN PRODUCTS AND YOUR NEAREST DEALER, CALL 1-800-67-SOUND.
82 Hz, a 5-dB boost at 2.3 kHz, and a 2-
dB cut at 18 kHz. Even the Opera mode
receives a default 1-dB boost at 435
Hz—curiously, the same as the Jazz
mode. There is also no equalizer in/out
control enabling you to instantly
compare equalized with nonequalized
settings.
So as soon as you hook up this
receiver, you should go through all the
surround modes and reset their equaliza-
tion settings to flat, then change them
only when the recorded sound quality
demands it. And while you're practicing
with the Remote Commander you can
also correct another operational fault:
Setting the speaker balance in the Dolby
Pro Logic mode does not also set the
balances for the other surround modes.
I recommend that you first set balances
using Pro Logic and its built-in test tone,
then immediately go through the rest of
the modes and adjust their "rear"
(surround) speaker level and (where
appropriate) the center-speaker level to
match those you obtained for Dolby Pro
Logic.
Three other features I'd have liked:
1) an RF video output that would enable
the menu screens to be seen on a cheap
B&W TV (even though the "gray"
screen setting still has some lettering in
possibly illegible color); 2) a left-right
balance control (I couldn't find one in
any of the menus); and 3) a stereo/mono
control for the FM tuner to help tune in
weak stations.
The manual ain't Shakespeare. It
barely mentions such sound-affecting
features as the default bass boost
(DBFB). It is also misleading in critical
descriptions of how to use the remote.
It says, "When using the Remote
Commander, keep the button parallel to
the floor." But using the remote requires
you to tilt its "nose," and thus its button,
up and down to move the on-screen
pointer vertically. What Sony means is
that the handset's button should be on
top when you hold it. The remote will
also work when the button is on the
bottom or side, though it takes more
hand-eye coordination in those positions
because the cursor movements will be
counterintuitive. The Quick Start Guide
fails to point out the critical importance
of hooking up the Remote Commander
antenna. And when the manual or the
screen tells you to set the remote down
("Place the commander on
someplace flat"), set it on its flat side, nose-
up, not button-up.
The artsy tilt of the Remote
Commander when set on "someplace
flat" makes its removable battery door
internally asymmetrical, so its reinstalla-
tion is a bit awkward. But if the batteries
should suddenly die, you won't have to
reprogram the remote-control codes for
non-Sony components since they are
stored in the receiver, not the handset.
And you will still be able to activate a
set of core functions from the receiver's
front panel: power, input selection,
volume, and surround-processing on/off
(no surround-mode selection, though).
The VisionTouch infrared-code
memorization procedure that is essential
for turning the STR-GIES into a
system-wide control center is easy if you
follow the manual's directions precisely.
The requirement for a monitor has one
decided benefit: The on-screen display is
always visible, even in a completely
dark room. But to my taste, the menus

DOLBY PRO LOGIC PERFORMANCE

<table>
<thead>
<tr>
<th>Frequency response</th>
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<tbody>
<tr>
<td>left, right</td>
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<td>center</td>
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<tr>
<td>surround</td>
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<tr>
<th>A-weighted noise</th>
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<tr>
<td>left</td>
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<td>center</td>
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<td>surround</td>
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<th>Distortion</th>
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<td>left, right</td>
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<td>center</td>
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<td>surround</td>
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<tr>
<th>Surround decoder input overload</th>
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<tbody>
<tr>
<td>levels</td>
</tr>
<tr>
<td>(at 1 kHz)</td>
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<tr>
<td>left, right</td>
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<tr>
<td>center</td>
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<tr>
<td>surround</td>
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<th>Surround-channel noise-reduction</th>
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<tr>
<td>calibration error</td>
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<td>re Dolby spec</td>
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<td>re Home THX spec</td>
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<tr>
<th>Channel separation</th>
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<tr>
<td>(100 Hz to 7 kHz)</td>
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<tr>
<td>left output, right driven</td>
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<td>left output, center driven</td>
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<td>left output, surround driven</td>
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<tr>
<td>center output, left driven</td>
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<tr>
<td>center output, surround driven</td>
</tr>
<tr>
<td>surround output, left driven</td>
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<td>surround output, center driven</td>
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remained on screen too long, obscuring
all or part of the picture, shutting off
only after the handset had been put
down for almost 5 seconds. A menu-off
control would have been nice.
The receiver's front-panel infrared
detector did work for a couple of nearby
components, but I had to hook up the
infrared repeater to control the TV
monitor (which was in a separate
cabinet). If your components are behind
tinted glass doors, you might want to
check on whether the receiver's infrared
detector can penetrate two layers of
glass (to get out of the receiver's cabinet
and into that of the other components)
without using the repeater. The
repeater's trailing black cord might
detract from your room's decor if it can't
be hidden.
Electronically, the surround system
performed well. Dolby Pro Logic
decoding was accurate in steering and
low in background noise level. The
surround-channel noise-reduction cali-
buration accuracy was unusually good
(when judged by Dolby's spec).
Surround-channel frequency response in
Pro Logic operation also matched
Dolby's standard curves very well up to
1 kHz and deviated from them sub-
stantially only at higher frequencies, where
they rolled off somewhat in comparison
(by approximately 2 dB at 4 kHz), a
common characteristic. There was
ample amplifier power to cleanly drive a
set of Home THX speakers (with an
external subwoofer amplifier) to very
loud levels.
Although my recitation of the STR-
GIES's ergonomic deficiencies might be
intimidating, only one of them is truly
significant—the "remoteness" of the
volume menu. The receiver's overall
ease of use—a result of its logical and
consistent menu system—is a remark-
able achievement in a first-generation
product of such obvious complexity. Its
other shortcomings could be considered
high-tech teething pains that I would
expect Sony to clear up in future
VisionTouch products. Home theater is
so important in today's audio market
that other manufacturers of A/V
receivers must be struggling with the
system-control problem. The egg-shaped
Remote Commander of the VisionTouch
system in Sony's STR-GIES points the
way to a solution. And that's no yolk!
—David Ranada
WE'D LIKE TO INTRODUCE YOU TO YOUR NEXT SET OF SPEAKERS

Your next set of speakers should be ready for the day when every recording is digital and all video has surround sound. New Optimus® multispeaker systems meet this challenge and provide superb sound while saving space.

Place a powerful subwoofer out of sight and feel the bass around you. Position swivel-directable satellites to deliver incredibly lifelike sound over the widest listening area. Experience the realism of Dolby Pro Logic® movie sound with a center-channel speaker for crystal-clear dialogue.

Optimus speakers are top performers, yet cost much less than competitors’. You can buy (and give!) with confidence because they include a 5-year limited warranty honored at 6600 stores.

Come in and get acquainted with your next set of speakers today. Optimus: Sound Value in Audio. Exclusively at Radio Shack.
We compare half a dozen medium-price floor-standing loudspeakers.

Floor-standing, or tower, loudspeakers have a certain intrinsic appeal to most audio enthusiasts. We all appreciate small, easy-to-place, unobtrusive speakers, but one that boldly asserts has always carried with it a presumption of higher performance. We dare a "bookshelf" speaker to prove its worth, and though we're happy when it can, deep down inside we yearn for big, tough loudspeakers that make no compromises.

Today, high-definition drivers together with sophisticated, computer-assisted measurement and modeling techniques are helping loudspeakers perform better than ever before in every part of the audio spectrum. Excellent-sounding speakers are available in every size and shape—those pantywaist minimonitors that are hidden on shelves in living rooms and media rooms seem to dc everything except strong, deep bass.

In fact, a common and very effective strategy is to place minimonitors or bookshelf speakers on stands well out in the room, away from walls, to enhance imaging and reduce blurring early reflections. Usually a subwoofer is employed in such systems to provide full bandwidth, because even the best small speakers have increasing difficulty in producing adequate loudness as they are pushed down below 80 Hz or so.

But if you're putting small speakers on stands, you're giving up floor space to them anyway, so why not just use it for floor-standing speakers?
in the first place? A good question, especially since the same techniques used to reduce the size of bookshelf speakers have also reduced the overall bulk of typical floor-standing speakers. Which brings us to this six-pack of compact floor-standing speakers priced from $500 to $600 a pair and requiring only half to slightly less than a full square foot each of floor space to deliver clean bass down to around 50 Hz (or even below).

**The Speakers**

**Advent Laureate** ($550 a pair). The original Large Advent bookshelf speaker was one of the great loudspeakers of all time. It sounded good, cost little, and sold like crazy. The Laureate seeks to follow in that tradition. Its classy traditional styling includes a solid oiled-pecan top and front, black textured-vinyl sides, and a brown cloth grille on a snap-on plastic frame. Spring-clip amplifier connectors are on the rear.

Size-wise, the Laureate is about average for this group, standing 32¾ inches tall, weighing 46 pounds, and taking three-quarters of a square foot of floor space for its 9 x 12-inch footprint. It uses dual 6½-inch woofers in a sealed enclosure, crossing over at 3 kHz to a 1-inch parabolic soft-dome tweeter with magnetic-fluid cooling.

**DCM TF-400 Series Two** ($598 a pair). The TF-400 is in the middle of DCM's Time Frame line of speakers, which share certain styling and design characteristics. In particular, they all employ staggered transmission-line woofer loading (terminated in a port in the rear panel), mirror-image driver mounting, magnetically shielded drivers (enabling use close to a television set), rear-firing Ambient Field tweeters, and auto-reset circuit-breaker protection. In addition to the rear tweeter, the TF-400 uses a ¾-inch soft-dome tweeter up front, mounted coaxially with a 6½-inch midbass driver, and a 6½-inch woofer.

DCM's Time Frame speakers are distinguished by their relatively wide, thin cabinets. The TF-400's is 14¾ inches wide by 38 inches high and leans backward slightly, tapering in from 7¾ inches deep at the bottom to a 3-inch-deep dark-oak or black-oak top plate. The entire 38-pound cabinet is wrapped in attractive nonremovable black grille material, and there is a small swing-out foot at the rear of the base to insure stability. Amplifier connections use a pair of color-coded five-way binding posts on handy 3/4-inch centers. The RS 525 employs a 6½-inch IMG (injection-molded graphite) woofer augmented by two 6½-inch IMG passive radiators. A 1-inch Polycell tweeter with magnetic-fluid cooling takes over at frequencies above 2.8 kHz.

**KEF Q30** ($500 a pair). The Q30 is based on KEF's Uni-Q driver technology, which puts a tweeter in the space normally occupied by the bass driver's dust cap (the small dome at the center of most woofer cones)—in this case, a 1-inch dome tweeter in a reflex-loaded 6½-inch woofer. KEF says that this innovative coaxial arrangement matches the directivity of the woofer and tweeter at the crossover point, improving both imaging and coverage of the listening area.

Whatever its sonic benefits, the Uni-Q driver is one slick-looking transducer, even if it is normally hidden behind the gently curved snap-on grille that covers the top half of this smallish (20½-pound) loudspeaker. Available in gray, oak, or black ash, the Q30 is 26 inches tall, 7½ inches wide, and 10¾ inches deep, and it requires only half a square foot of floor space. It comes with a small base (plinth) and spiked feet, which add 2⅛ inches to the speaker's height if used. Signals are routed to the speaker via a pair of five-way binding posts that are too widely spaced to accept standard dual banana plugs.
Klipsch KG-3.5 ($599 a pair).

Essentially an update of and replacement for the KG-3.2, the KG-3.5 uses an 8-inch woofer married to a horn-loaded tweeter in a 34 1/2-inch-tall, bass-reflex cabinet. Measuring 10 1/2 inches wide and 11 inches deep, the enclosure consumes a mere three-quarters of a square foot of real estate and weighs in at 32 pounds. It is available in medium oak, light oak, walnut, or black satin finish. Signals reach the speaker through ultra-handy dual five-way binding posts on standard 3/4-inch centers.

Paradigm Ise MkIII ($599 a pair).

Interesting in more ways than just its complicated model number, the Paradigm Ise MkIII is a two-way, three-driver system using two 6 1/2-inch polypropylene-cone woofers with die-cast chassis. They are reflex-loaded via a quasi-third-order resistive port and mated through a second-order (12-dB-per-octave) crossover at 1.8 kHz to a 1-inch cloth-dome tweeter with magnetic-fluid cooling.

Saddle the 7se MkIII with the biggest shoes on campus and it still claims less than a square foot of media-room carpet with its 8 1/4-inch-wide, 15-inch-deep footprint. With its adjustable spiked feet, the 7se MkIII reaches just over 34 1/2 inches tall. The 43-pound speaker is available in an attractive oak or black-ash finish. It has separate pairs of gold-plated five-way binding posts (both on 3/4-inch centers) for its woofer and tweeter sections, enabling biamping or biwiring when the gold-plated straps that normally link the posts are removed.

Evaluation Process

We evaluated the performance of these six speakers in three phases, one measurement and two listening. The lab-test phase started with measurements of each speaker's frequency response at a distance of 0.5 meter (about 1.5 feet) both directly on the axis of its tweeter and 30 degrees off-axis. We made these measurements in my 22'/4-foot-long, 12-foot-wide listening room with the speaker being tested located 3 feet from the nearest side wall and 5 feet from the wall behind it. Although the MLSA instrumentation we used for these tests is capable of essentially anechoic measurement with time-windowing and close-microphone techniques, we wanted to emulate performance in a real working environment. Consequently, the measurements include the effects of my listening room, especially the floor, on each loudspeaker's output. We also measured each speaker's impedance and voltage sensitivity (output from a 2.83-volt pink-noise input, equivalent to 1 watt into an 8-ohm resistive load).

The first listening phase of the evaluation was a round-robin blind bake-off (or R2B2, as I like to call it). Five listeners, either individually or in pairs, subjectively rank-ordered sets of three stereo pairs in eight listening sessions, followed up with two face-offs in which the top-ranked speakers from the initial comparisons were compared head-to-head.
listeners to compare speakers evaluated in previous sessions more easily.

We asked the listeners to rank and rate each speaker on a ten-point scale in terms of spectral uniformity (naturalness of frequency response), spatial rendition (placement of sounds in space), and dynamics (how clear and distortion-free the speaker sounded when played very softly and very loudly). The music for these sessions consisted of four tracks, including a heavily processed studio recording of a female vocalist backed by common electric instruments, the same singer with acoustic instruments, and two dynamic big-band cuts with loud acoustic instruments. Organs, cannons, and explosions were omitted from the basic bake-off sessions, as none of these speakers pretends to subwoofer-class bass. Listeners were free to adjust volume and change tracks whenever they liked and to use additional program material if they wanted (none did). There were no time limits, and each set of bake-offs took between 1 1/2 and 2 hours.

Following the bake-offs, I compared each set of speakers, one pair at a time, with the anchor speakers using the same programs plus a selection with very loud low-frequency information to fine-tune the dynamics rankings. Finally, I pitted the two speakers that boiled to the top of every bake-off session head to head, back to back, and belly to belly. The cumulative results of the listening tests are shown in the table on page 60.

Results

Basic measured performance can be found in the table on the facing page, which shows the speakers' minimum impedance, sensitivity, and in-room frequency response at 1/2 meter: the graphs show their room response on-axis (green curves) and 30 degrees off-axis (yellow curves). All these speakers are rated at 6 to 8 ohms nominal impedance, but their minimum impedances were all near 4 ohms. Consequently, care should be used when driving any of them in parallel with another set of speakers.

All six speakers performed to 20 kHz with ease on-axis and had excellent response up to at least 30 degrees off-axis. All were capable of an honest 60 Hz at the low end, the best still pumping down to 40 Hz, and even the least sensitive could nail 91 dB SPL (sound-pressure level) when driven with pink noise in a real room. In short, all the speakers had very good to excellent measured performance. There were, nonetheless, significant differences among them.

Advent Laureate. The Laureate had the widest response variance, mainly because of a large suckout at 2 kHz, near the crossover region. Tweeter output was elevated about 3 dB above 5 kHz relative to the woofer output. Off-axis response was a mirror image of the direct radiation, except that the tweeter’s response dropped rapidly above 12 kHz. At the other end of the spectrum, the Laureate's twin woofers led the pack, delivering bass to about 40 Hz, although there was a slight elevation around 500 Hz. Sonically, the Laureate had a warm, pleasant sound with good detail at moderate levels. Played more softly, the speaker had some coloration in the lower registers and a bit less detail. The Laureate sounded most balanced when played fairly loud. Imaging was very good, with a smaller, tighter soundstage than presented by the better contenders. Dynamics were average for this group, and the speaker tended to blare when driven excessively, but it made no rude noises when severely overdriven.

The Advent Laureate placed middle-of-the-road in the listening comparisons, finishing near the top in some first-round competition, with listeners reporting “natural” sound and “good soundstage” performance.

DCM TF-400 Series Two. Overall, the TF-400 had the flattest, tightest frequency response of any speakers measured, with only minor roughness anywhere in the audible range. Bass extension was average, and there was a small response notch at 125 Hz, probably caused by the spacing between the floor and the woofer. Off-axis response was nearly identical to on-axis response, with even smoother performance above 2 kHz.

Sonically, I felt that the TF-400 had better low-bass performance than the
two top-performing speakers in the bake-off. Its overall tonal balance was very natural with a female voice, but there was a slight muting of low-level detail. The TF-400 excelled in delivering a big, open ambience (an apparent advantage of its rear tweeter), although placement was somewhat less precise than provided by some of the other speakers. The system played with less "blat" and "holler" than the average competitor when driven into moderate overload, but there was significant doubling and distortion when it was driven into extreme overload.

Listeners generally seemed impressed by the DCM TF-400, as it scored a first and two seconds in the first-round bake-off, but ultimately it couldn't get by the top-ranked KEF and Klipsch speakers.

**Infinity RS 525.** The RS 525's measured frequency response was nearly as good as that of the top-performing DCM speaker, with excellent midband performance but elevations above 10 kHz and below about 100 Hz. Off-axis response was virtually identical, except that the high-frequency rise was lopped off as tweeter output fell above 12 kHz. Woofer output was solid to just below 50 Hz, about average for this group. Sensitivity was outstanding.

Sonically, the RS 525 gave an impression of solid deep bass and relatively natural overall character, with some muting of breath tones and low-level detail. It produced a tightly focused but relatively narrow soundstage. The speaker became shouty and hollow as it moved into overload.

Although I found the Infinity RS 525 pleasing, it never finished first in the bake-off sessions. Listeners said it sounded "warm" or "muddy" with "tons of bass."

**KEF Q30.** On-axis the Q30 had one of the flattest measured responses from 60 Hz to 10 kHz, but with a peculiar sharp peak at 13 kHz (perhaps a byproduct of the coincident-tweeter design). Its off-axis measurements looked even better, with the high-frequency peak ameliorated as the tweeter level began sloping off at 16 kHz. Overall, the response had a gently rising characteristic with good bass extension to 55 Hz. Sensitivity, although the lowest of the group, was still quite respectable.

The Q30 had the cleanest, clearest, and most natural sound of any speaker in the comparison, marred only by a
LISTENING COMPARISONS

<table>
<thead>
<tr>
<th>Speaker Type</th>
<th>Number of Times Ranked</th>
<th>Average Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEF Q30</td>
<td>6</td>
<td>1.25</td>
</tr>
<tr>
<td>Klipsch KG-3.5</td>
<td>6</td>
<td>1.25</td>
</tr>
<tr>
<td>DCM TF-400 Series Two</td>
<td>1</td>
<td>2.13</td>
</tr>
<tr>
<td>Advent Laureate</td>
<td>2</td>
<td>2.25</td>
</tr>
<tr>
<td>Paradigm 7se MkIII</td>
<td>1</td>
<td>2.38</td>
</tr>
<tr>
<td>Infinity RS 525</td>
<td>0</td>
<td>2.50</td>
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</tbody>
</table>

The listening panels agreed, putting the KEF Q30 first or second in every blind comparison. In face-offs with the Klipsch, they tended to prefer it about half the time, noting a wide, deep soundstage with natural sound and excellent ambience.

Klipsch KG-3.5. The KG-3.5 had respectable but not spectacular measured response. Overall, the curve was fairly smooth, about average, but it tilted upward at about 1.5 dB per octave on-axis. Thirty degrees off-axis, it followed pretty much the same pattern, with a small notch in the crossover region and a somewhat reduced tweeter level. Its sensitivity was spectacular.

A gradually rising frequency response often makes a loudspeaker sound thin, but that was not the case here. The KG-3.5 sounded nicely balanced, especially at high output levels, sharing the clear, open character of the KEF Q30. The high-frequency emphasis added just a touch of extra sizzle to the sound, which usually masked as increased detail and personality but sometimes added a trace of spit to vocals. At very high volume levels, the KG-3.5 tended to go shiny, with some percussive tearing. On the other hand, there was no doubling or woofier rattle on serious overload.

The listening panel just loved the Klipsch KG-3.5, picking it over the KEF Q30 about half the time in face-offs; it easily overmatched everything else in the comparisons. Listeners cited the KG-3.5 as "easiest to listen to across all volume levels" and "great sounding, but the high highs are a little unnatural."

Paradigm 7se MkIII. The 7se MkIII had the smoothest, best-hitting frequency response, although it was worse statistically than that of the DCM TF-400 because of a mild crossover notch and a peak at 12 kHz. Off-axis response was almost dead flat between 100 Hz and 10 kHz, with little midband raggedness. Bass response extended down to 44 Hz, second only to the Advent, although there was mild peaking between 60 and 80 Hz. Sensitivity was quite good and, like everything else, dead on-spec, indicating tight engineering and quality control.

Conclusively, the Paradigm 7se MkIII represents a definite choice in style, being much heavier in character than the KEF or Klipsch and thus sometimes preferable on electric bass. Soundstage presentation was thicker, but very deep, and voice reproduction was actually the most natural among all the models tested at moderate volume. At louder levels, however, the powerful bass thundered and droned, making the 7se MkIII bend to the muddy. Bass distortion remained low even at extreme levels, but horns became overly brash and biting.

Although it placed first or second in several first-round bake-offs, the Paradigm 7se MkIII, like the DCM, just couldn't best the KEF or the Klipsch in head-to-head competition. Listeners noted that it sounded "most natural at lower levels" but sometimes "muted and muddy." On the other hand, one listener called it "a very close second to Speaker 5" (which was the Klipsch KG-3.5 in this instance).

Appearance

Styling is even more a matter of taste than sound quality. As it turned out, none of our participants favored the same speaker for both sound and appearance, which was a disappointment to some of them. One listener thought the DCM TF-400 was one of the best-looking loudspeakers he had ever seen and labeled all the others "uninteresting." On the other hand, everyone else saw the DCM's tall, wide front panel as a "larger" speaker, even though it took up only an average amount of floor space.

The one woman in the group and two of the men favored the tall, slender cabinets and traditional natural-wood finishes of the Advent and Infinity, but they split between the Advent's stand-off grille and Infinity's flush grille. Two listeners appreciated the trim, sleek, modern KEF Q30, but neither liked its looks the best: One (the woman) didn't want to trade wood-grain for a smaller footprint, whereas the other (male) saw the Q30 as "too small for my system."

Me? I liked the Paradigm's monolithic slab styling and dark finish. The double pair of gold five-way binding posts grabbed my attention too. I like the idea of biamplifying loudspeakers (biwiring, I think, would be more accurately labeled "buy-wiring").

Final Thoughts

All these speakers represent excellent value and sound for the dollar. The KEF Q30 and the Klipsch KG-3.5 were clearly preferred in our blind listening comparisons, but styling preferences just as clearly failed to follow suit. Overall, the Klipsch may be the better choice for many applications, as its 3-dB sensitivity advantage is equivalent to a doubling of amplifier power (and in a comparison with unmatched levels will almost always give it the edge).

But I don't think it's possible to make a big mistake with any of these speakers. Each is well-engineered, carefully assembled, and a good example of how to make a high-performance speaker within the limitations imposed by their size and price class. They all deliver superb, extended highs and decent bass, but don't expect any of them to double as a subwoofer. Actually, that would be an excellent first upgrade.
PRACTICALLY SINCE their introduction, compact discs have been superheroes of the audio industry, known for their amazing sonic powers—and an astonishing ability to generate record-industry profits. Recently a new breed of challengers has arisen: the super CD's. Because of the special signal processing used to make them, these discs are said to be endowed with even greater sonic capabilities than their comparatively mild-mannered predecessors. The processing, which can be different from label to label and even from disc to disc, goes under several trademarks—Super Bit Mapping (Sony), 4D (Deutsche Grammophon), and Telarc 20-Bit, among others. Do any of these pretenders to auditory super status live up to what has been promised for them? The answer is in the numbers.

One of the first CD's made with Sony's Super Bit Mapping (SBM) process was a MasterSound STEREO REVIEW sampler disc (no longer available) containing selections from Sony Music's MasterSound pop and jazz remasterings/repackagings of material that originally appeared on Columbia and related labels. The discs represented in the sampler, and others in the MasterSound series, have gone on to receive widespread critical acclaim, much of it focusing on the revamped sound.

On the basis of the MasterSound releases, some critics have attributed powers to the SBM process that it does not—and cannot—have. The use of Super Bit Mapping alone can't account for the relatively large improvements in sound quality that have been noted in many MasterSound reissues. As Sony has explained in technical presentations and in its U.S. patent on SBM (No. 5,204,677), the process is designed to produce a very specific effect. That effect is subtle enough that, by itself, it would probably be inaudible with MasterSound series discs, which originate from relatively noisy analog master tapes.
Then what does account for the differences? It's the other steps employed in MasterSound disc production, primarily the use of a different master tape from the one used for earlier issues of the same material. That alone can lead to a diminished tape hiss, flatter frequency response, lower distortion, and less audible wow and flutter. Furthermore, the new CD master doesn't have to undergo equalization and other processing for now-irrelevant LP reproduction, as previous master tapes did. With some MasterSound CDs, there is also a slight level shift: The new discs are higher in overall volume, a characteristic that will nearly always throw a comparison in their favor.

Two of these effects—the level shift and the change in frequency balance from the use of a different master tape or re-equalization—are easily measured. Figure 1 shows the difference in frequency content between the old and the MasterSound versions of the first few minutes of *Until the Night* from Billy Joel's *52nd Street* (CBS/Sony CK 35609, MasterSound CK 52858). The graph, produced by spectrum averaging over identical sections of the music, shows the approximate equalizer frequency response necessary to transform the sound of the old release into the MasterSound version. In addition to the broad peaks at 80 Hz, 600 Hz, and 6 kHz, note the overall rise in level of about 3 dB. Try approximating this curve with your equalizer, and you'll be surprised how close the old and new discs can be made to sound.

Other MasterSound comparisons show different frequency-balance and level shifts. Since SBM as presently implemented is a fixed, nonadjustable process, it cannot be responsible for such varying alterations.

Yet you'd be quite wrong to conclude from this discussion that there is nothing to SBM but advertising hype. Sony's description of the process as "revolutionary" is justified. To find where the 20-bit revolution is taking place, though, we have to explore other aspects of the audio signal and use different music; let's look at the bottom of the dynamic range with the classics.

Figure 2 shows various theoretical limits to the background noise and distortion levels of digital audio recordings. For simplicity, I will sometimes refer just to "noise" even though "noise and distortion" is always meant. And although the graphs in this article are consistent, the actual level calibrations vary depending on how the calculations and measurements are done.

The yellow line is the theoretical minimum noise level of a 16-bit recording made with perfect 16-bit analog-to-digital converters (ADC's) and the proper amount of distortion-eliminating "gaussian dither." In practice, the noise content of a typical 16-bit mastered CD will be higher than the yellow trace, which represents the best performance possible from a CD made by traditional means (not counting the noise-reduction effects of using the CD system's optional pre-emphasis). With CD's made from older analog master tapes, like many MasterSound discs, the noise levels can be high enough to float off the top of the graph. Even 16 bits would be overkill.

The green line near the bottom of Figure 2 is the calculated minimum noise for a perfect 20-bit recording. It is some 24 dB lower than the 16-bit minimum, a huge difference that could be clearly audible with the right music under the right listening conditions. Even a perfect 16-bit recording does not have a low enough noise level to record the full perceptible dynamic range of live sounds—not counting explosions and gunshots. Recordings made with a full 20 bits of resolution do meet this stringent requirement. That's one good reason for record companies to start making 20-bit master tapes, and labels such as Sony Classical, Deutsche Grammophon, Telarc, and Dorian are doing so.

The tricky part is turning such a master tape into a 16-bit CD. You can't simply drop the four "least significant" bits, because you'd end up with a recording with worse noise and distortion than a correctly made 16-bit master tape. One simple 20-bit to 16-bit conversion process is virtually the same as the procedure you'd follow if you had to convert dollars and cents into just dollars. With $1,995.95, for instance, you'd first round off the cents to the nearest dollar ($1,996), then truncate that number by lopping off the cent digits ($1,996). In performing this round/truncate operation with 20-bit audio data, you'd have to add a few niceties such as "triangular PDF dither," and you'd end up with noise and distortion no lower than the red line in Figures 2-5, an important theoretical limit. This line represents the minimum noise level of a 16-bit recording directly generated in
the digital domain, as from a 16-bit digital sound synthesizer or from simple dither/round/truncate operations on audio data recorded at greater than 16-bit resolution. The red-line limit is only 1.1 dB lower than the yellow line. You don't gain much of an improvement in background noise by making a greater-than-16-bit recording if you use such simple processing to convert your master tape to 16-bit CD data.

But the red-line noise level shown in Figures 2-5 is special. While the amount of noise is irreducible, digital signal processing can move it to where it is less audible. "Squish" down the red curve at the frequencies where the ear is most sensitive to low-level sounds (around 4 kHz, placed here at the middle of the graphs in Figures 2-5), and "squeeze" the resulting noise "bulge" up to where the ear is quite insensitive at low levels (above 15 kHz), and you haven't changed the total amount of noise, but you have redistributed it so that it is far less perceptible. This squish-squeeze process, which is performed by a digital filter, is called noise shaping, and if it is properly incorporated into the dither/round/truncate sequence, from a good 20-bit master you can create a 16-bit CD with a noise "floor" that is tailored to the sensitivity of the ear. At the frequencies where noise would be most audible, it disappears! The dashed blue curve of Figure 2 represents the residual noise that a high-quality 20- to 16-bit processor produces. At 4 kHz it's a great improvement over the red-line limit.

That is what's revolutionary about the principle behind Super Bit Mapping. With noise-shaped 16-bit CD's, for the first time a signal-reproduction technology available to the consumer could, theoretically, come very close to equaling the human perception of dynamic range. In comparison, film and video don't even get halfway to reproducing the full range of perceivable light levels.

As the different types of super CD's indicate, there are different noise-shaping processes available to recording studios. Although it was the first of the breed, Sony's SBM is now considered by some recording professionals to be less effective at noise shaping than other processing, such as the Gambit device graphed in the dashed line of Figure 2. Meridian has also made some outstanding contributions in this area and produces its own 20- to 16-bit mastering processor. Has any of this theory produced improvements in practice, where the signals come not from calculations but from real-world microphones?

Figure 3 shows the residual noise spectrum, measured digitally directly from the audio data stream, of the only super CD I've yet found, out of around forty different labels, to show a noise floor unmistakably below the 16-bit red-line limit. It's a Sony Classical SBM disc of a solo piano (Emanuel Ax playing Liszt, SK 48484) recorded with just two mikes, a preamp, and the digital recorder—a minimalist setup if there ever was one. The rise in noise down toward 1 kHz is part of the low-frequency "room tone," the sounding the outputs of main and spotlight mikes can improve musical clarity while maintaining stereo image depth.

The principal reason that the noise levels of all these recordings are much higher than the dashed noise-shaped residual in Figure 2 derives from early in the signal chain. In particular, microphone noise can sometimes be higher than the 16-bit limit, and it grows with the number of mikes that are used (yet another argument in the case for minimalist recordings).

Being able to process microphone signals digitally gains you nothing in dynamic range if the mikes are already too noisy to provide a 20-bit output. That processing might even lead you to digitally clip the signal inadvertently, producing a "compressed" sound on the loudest peaks, something that happens with unusual regularity in certain 4D recordings. Figure 6 shows an oscilloscope "freeze frame" of waveform-flattening clipping of the digital data during Stravinsky's Firebird (Deutsche Grammophon 437 850). So the bottom line with super CD's is what it has always been for recordings: Buy for the music, not the technology. When remastering from analog tapes is involved, as it is in the MasterSound series, any improvements you hear are likely to arise from the use of different master tapes.

Even if "20-bit" CD's did have better than 16-bit noise levels—and with new low-noise mikes, mike preamps, and ADC's many of them eventually will—you cannot get the full benefit of any noise shifting unless the digital-to-analog converters (DAC's) in your CD player are of near 20-bit accuracy, even if they are only 16-bit devices. The various output-voltage steps from a 16-bit converter have to be as close to perfect as a 20-bit converter's are, which suggests several new test criteria for digital products. So although it may take some time for super CD's to live up to their potential (even Superman had to grow up), as a result of noise-shifting technology and new test criteria we may eventually see better-performing CD players. That should please any superhero.

**Noise-shaping lets a 16-bit CD have a near-20-bit dynamic range.**
When music is recorded in a studio, great care is taken to isolate the microphones from extraneous noise. The last thing a recording engineer wants to put on tape is the clanging of a nearby rail line, the rumble of an aging air conditioner, or, God forbid, the clickity-clack of heels on the wooden floor upstairs. That's why professional recording studios are soundproofed to the hilt. Of course, soundproofing also reduces the level of noise traveling beyond studio walls and into adjacent rooms or buildings.

Soundproofing can also be a worthwhile pursuit at home if you dream of kicking back in a noise-free listening room—one in which the Eagles don't have to compete with the rumble of a passing garbage truck. Soundproofing is not the same as the use of sound-absorbing wall panels and other interior treatments designed to tame reverb and otherwise enhance room acoustics. Rather, the idea is to create a barrier that inhibits the flow of unwanted sound (noise) through the walls, floor, windows, and ceiling of your listening room. Of course, eliminating noise also means putting a muzzle on those annoying buzzes and rattles that occur when you crank up the volume. Contrary to conventional wisdom, there's a lot more to soundproofing than simply slapping some cork or fuzzy material on your walls.

What Noise?

The first step on the path toward a quiet listening room is to determine exactly what it is you're trying to accomplish. Do you want to isolate your listening environment from an external noise source—perhaps the roar of jets at a nearby airport or the din of a city street? Or are you simply trying to be a good neighbor and keep your penchant for loud music to yourself? (No matter how good the jamming is on the inside, it's noise to those on the outside.) Or maybe it's a whooshing ventilation system or an elusive rattle that's putting a damper on your music enjoyment. Whatever the offending noise source may be, you have to zero in on it before you can devise an appropriate strategy for dealing with it.

A Sound Survey

Before you even think about tearing down walls or messing with the structure of your listening room, conduct a thorough survey of the space. Walk around and really listen. Are there any "leaks" that can be plugged up without too much trouble? It's quite common for sound and vibration to travel between rooms via what acousticians refer to as "flanking paths"—back-to-back electrical outlets, electrical conduits and pipes, ventilation ducting, and other wall cavities (see Figure 1, page 67).

Pay particular attention to electrical outlets that are aligned with outlets in adjoining rooms—you'd be surprised how much noise can leak through such a small opening. You can achieve a noticeable reduction in noise by simply placing a piece of sheetrock between the outlets, although offsetting them by 18 inches or so will provide even better isolation. (These may be jobs for an electrician.) If there are any exposed electrical conduits or pipes, make sure the entry and exit points in the floor or wall surrounding them are sealed; you can use fiberglass or foam to fill in open spaces. Wrapping foam insulation around exposed pipes will also help cut down on extraneous noise.

Disturbing Ducts

Air-conditioning and heating ducts are another common source of noise. The movement of air through ducts that are too small, or have sharp bends, produces a "chuffing" sound that can be quite intrusive. And the closer your music haven is to the A/C equipment or furnace in your house or apartment, the louder the noise and vibration.

A quick fix for a noisy ventilation system is to install a homemade duct silencer, whose job is to quiet the flow of air
in much the same way that a muffler mutes a car's exhaust. Remove the register (grille cover) and line the last 18 inches of the duct with foam that's an inch or two thick. Fiberglass will also quiet a noisy duct, but I don't recommend using it because it's a pain to handle (it makes most people itch) and can shed particles into the air.

If the noise level is still too high, try wrapping a damping material like Illbruck's ProSPEC Barrier around the outside of the duct—if you can get to it. That will stop noise and vibration from passing through the duct's thin walls. ProSPEC Barrier is a 54-inch-wide, high-density vinyl sheet that ranges in price from $180 for a 20-foot roll of nonreinforced material to $695 for a 60-foot reinforced roll.

**Shake, Rattle, and Buzz**

Many of us are so busy tweaking system components and worrying about things like flat frequency response that we fail to notice noise that's caused by "spurious resonators" within the listening room. Chattering furniture, rattling glassware, and buzzing wastepaper baskets are a few common offenders.

Eliminating such sonic annoyances is relatively easy. Pop in a test CD, like Pierre Verany's "Digital Test," and play the sinewave-sweep or frequency-response track. As the test tone moves across the frequency spectrum, listen for sympathetic resonances. Repeat the sweep at increasingly higher volumes if necessary (not too loud, or you may damage your speakers or your ears). Zero in on each noise source, and then "destroy" it by placing felt or some other damping material between the vibrating surfaces. Allsop makes a rubbery material called Navcom that's good for this purpose. It's widely available in the form of 2-inch-round Audio Isolators; a package of four costs about $30.

**Through the Wall**

If after having tried smaller fixes you're still unhappy with the level of noise that's invading your listening room, you may have to resort to more drastic soundproofing measures, some of which could require the services of a contractor.

First off, you can pretty much forget about the old handyman remedy of loosely stuffing fiberglass in your walls. The slight reduction in mid-frequency noise you'll gain will hardly be worth the effort—even though it may be worthwhile if used in conjunction with other structural treatments.

The standard textbook solution for reducing the transmission of sound and vibration is to add another layer of material to the existing walls. The trick is to use a different material (add wood paneling to sheetrock, for example), or, if you must use the same material, at least use a different thickness (¼-inch sheetrock if the existing wall is ½ inch, for example). Why? Varying the density of the layers creates an "impedance mismatch" that makes it harder for sound to pass through.

To pick up a few more decibels of isolation, you can put a layer of damping material between the existing layer of sheetrock and the one you're adding. Retro-Rock from Greenwood Forest Products, an adhesive-backed visco-elastic material, is designed specifically for this application. In addition to reducing noise transmission, it also controls annoying wall resonances. Retro-Rock is generally sold in large quantities to contractors.

Bulking up your walls will produce an audible improvement, but it won't solve severe noise problems—especially those involving substantial low-frequency energy (like 757's roaring overhead or a neighbor who owns a huge subwoofer and loves rap music). To combat problems of that magnitude, I recommend constructing a wide-frame wall with staggered studs and a flexible noise barrier (like Illbruck's ProSPEC Barrier) running through the middle (see Figure 2). Because there's a gap of several inches between the studs on either side of the wall's inner surface (and the flexible barrier), sound that's picked up by one side does not pass directly to the other side. (In a conventional wall, the sheetrock on both sides is attached directly to all of the studs, which makes it easier for sound to travel from one side to the other.) As a result, a staggered-stud wall provides about 10 dB more isolation than a conventionally studded wall (see Figure 3).

For the ultimate in wall isolation, you can always build two separate staggered-stud wall frames and sepa-
There's a lot more to soundproofing than slapping some cork or fuzzy material on your walls.

rate them by a few inches. The results will be superb, but it will cost a bundle and you'll have to give up lots of precious listening space. While we're on the subject of construction, one quick word of advice: Consult your local building code before you begin any structural work.

A Leaky Ceiling

If there's a noise source directly above your listening room—rambunctious kids in the upstairs bedroom, partying neighbors in an apartment, and so on—the ceiling will figure prominently into your soundproofing plans. The easiest way to mitigate the flow of noise through the ceiling is to install carpeting with thick under-padding in the room above. You can expect more than a 6-dB reduction in noise from this step alone. Unfortunately, it is not a practical solution for most apartment dwellers.

The other option is to hire a professional to install a secondary sheetrock ceiling that attaches to the primary ceiling by means of special resilient brackets. The U-shaped brackets create a 1-inch gap between the two ceilings, effectively isolating them from one another. Also, a space is left around the perimeter of the secondary ceiling to prevent wall vibrations from

Sound passes easily from room to room via "flanking paths" like electrical outlets and ducts, increasing noise in an adjacent room by 10 dB. A secondary ceiling secured by special resilient brackets can provide 10 dB of isolation.

Sound travels more readily through a conventional wall (top) than one built with a wide frame and staggered studs (below).

You can expect to gain about 10 dB of isolation by building a staggered-stud wall instead of a standard wall, or by using damped plywood instead of regular plywood for subflooring.

An effective way to reduce the flow of noise through windows is to install a sliding sound barrier behind drapery.
Proudfoot's Quilted Sound Screens, sold under the Noisemaster brand name, create an effective sound barrier when used behind drapery.

Illbruck's ProSPEC noise barriers can help with many kinds of noise problems. Shown here, top to bottom, are ProSPEC Composite, ProSPEC Barrier, and ProSPEC Acoustical Foam.

<table>
<thead>
<tr>
<th>COMMON SOUND LEVELS (DECIBELS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>THRESHOLD OF FEELING</strong></td>
</tr>
<tr>
<td>jet takeoff (60 meters)</td>
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<tr>
<td>construction site</td>
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<tr>
<td>shout (1.5 meters)</td>
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<tr>
<td><strong>DEAFENING</strong></td>
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<td>city street</td>
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<td><strong>VERY NOISY</strong></td>
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<tr>
<td>car interior (55 mph)</td>
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<td>normal conversation (1 meter)</td>
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<td><strong>NOISY</strong></td>
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<tr>
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<tr>
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</tr>
<tr>
<td>broadcast studio</td>
</tr>
<tr>
<td><strong>QUIET</strong></td>
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<tr>
<td>rustling leaves</td>
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</tbody>
</table>

Through the Floor

As I've noted, carpeting with thick underpadding will do a pretty good job of keeping the music in and the noise out of your listening room. But if you're grappling with an extraordinary noise problem and have money to burn, you could hire a professional to install a "floating floor." It's the ultimate noise-barrier structure, which is why you'll find it in big-time recording studios like New York's legendary Electric Lady Sound Studios, which for some bizarre reason is located above a subway station. Typically, concrete is poured into a floating steel frame with spring supports. Other commercial techniques involve the use of floor supports made of a vinyl-coated metal mesh or compressed fiberglass.

If you're planning a construction project, here are a few tips to keep in mind: 1) Subflooring boards should be nailed and glued to prevent creaking. 2) Consider using damped wood panels for the subflooring instead of regular plywood (see Figure 3). Greenwood Forest's dB-Ply is engineered to reduce noise transmission without compromising structural integrity; a 4 x 8-foot 3/4-inch-thick sheet costs about $90. 3) If you want to put a noise barrier beneath marble, ceramic tile, or parquet flooring, seek professional advice on what type of material to use or you'll wind up with cracks in the floor. Soundcoat's DYAD 601 with pressure-sensitive adhesive, for example, is a commercial subflooring material specifically designed to reduce impact noise on marble floors.

Out the Window

No matter how thick or well-isolated your walls are, sound can still pass into (and out of) your listening room through the windows. I remember visiting a "work in progress" home studio where the owner proudly showed off his ambitious wall-construction efforts, yet the window panes were only 1/16-inch thick. That's like building a submarine with a double hull, but forgetting to close the hatches!

You can expect a noticeable improvement in sound isolation by increasing glass thickness from 1/8 inch (very thin) or 1/4 inch (typical) to 3/8 inch. For best results, the glass should...
Many of us are so busy tweaking our systems that we fail to notice resonant noises within the listening room.

float in a Neoprene rubber gasket, which will further reduce the sound and vibration picked up by the pane and reduce its transfer to the window frame as well. There are a few outfits, including Overly Manufacturing, that specialize in precision-made "acoustic" windows, and many more supply the double-glazed "thermal" windows (which have two closely spaced panes of glass in the same frame).

Acoustic windows are very effective at reducing noise transmission, some by more than 50 dB, but they’re also very expensive (about twice as much as comparable premium-quality standard windows). Double-glazed windows cost less, but they’re also less effective because they’re really designed to reduce your heating bill. If you’re looking to get the most bang for your buck (that is, the least “bang”), you can simply install a lowly storm window—it will outperform a double-glazed window and be much cheaper than any acoustic window.

While storm windows can provide adequate relief in many settings, they won’t provide enough isolation if you live at the end of an airport runway or have some other colossal noise problem. In such cases, I recommend installing a sliding sound barrier in front of the window or, even better, across the entire length of the offending wall. Such a scheme can be extremely effective at keeping noise outside. There are two ways to go. Put the barrier behind the drapery (see Figure 4), or have it covered in fabric so it can double as drapery. Either way, leave about 6 inches of space between the barrier and the window/wall to achieve the best possible isolation.

A variety of acoustical barriers—from lead- and fiberglass-lined “quilts” to foam panels—are available from Proudfoot, United, and Ilbruck. Proudfoot, for example, sells Quilted Sound Screens under the Noisemaster brand name. The 4-foot-wide fiberglass-filled screens are available with a vinyl or lead core and have eyelets for hanging. Prices range from $3.50 to $6 per square foot, depending on size and thickness.

To reduce noise leakage from windows in less severe environments, you can create a foam barrier behind the drapes using a product like Ilbruck’s ProSPEC Acoustical Foam. It should be positioned a few inches from the wall and mounted to a sliding frame—unless you don’t mind looking at a foam wall.

Reducing the noise leakage from doors can become rather involved. Specialized “acoustic” doors, similar to the acoustic windows discussed above, are available from Overly and other companies. A less extreme and expensive measure, though also less effective, is to install a gasket of flexible material around the entire inner frame of the door to seal it off when closed.

Finally, it’s always a good idea to consult local fire officials before installing a sound barrier of any kind.

Now it’s time to put on your acoustician’s hat and pour a glass of wine. If you’re planning to build a new home or add on a room, you now have an arsenal of soundproofing tips to ponder. If new construction isn’t in the cards, perhaps the simple solutions offered in the first part of this article will provide all the sonic isolation you need. On the other hand, a few subtle improvements may whet your appetite for an even quieter listening room. Next thing you know you’ll be consulting a loan officer and calling in the construction crews to turn your dreams of sonic solitude into reality. Or maybe you’ll decide to take a completely different route and move to the desert.

The following companies offer a wide variety of soundproofing materials and devices.

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P.O. Box 23, Bellingham, WA 98227; telephone, 1-800-426-4303 (toll-free) or 206-734-9090.

**GREENWOOD FOREST PRODUCTS INC.**
16704 W. 75th Place, Golden, CO 80403; telephone, 303-431-0862.

**OVERLY MANUFACTURING CO.**
574 W. Otterman St., Greensburg, PA 15601; telephone, 412-834-7300.

**THE PROUDFOOT CO., INC.**
P.O. Box 276, Monroe, CT 06468; telephone, 1-800-445-0034 or 203-459-0031.

**SOUNDCOAT CO., INC.**
1 Burt Dr., Deer Park, NY 11729; telephone, 516-242-2200.

**UNITED PROCESS INC., SOUND SEAL DIVISION**
P.O. Box 545, Agawam, MA 01001; telephone, 413-789-1770.
Home theater is all well and good, but music—pure and unadulterated—is really what it’s all about as far as Soren Laursen is concerned. A loyal reader of Stereo Review since the beginning (when it was called HiFi & Music Review), the fifty-eight-year-old insurance executive would just as soon slip a Wagner or Dvorak opera into his changer as fire up his hi-fi VCR, even though his modest system is endowed with plenty of surround-sound accoutrements.

“We’re not TV people,” says Laursen, whose longstanding love affair with audio began back in the Fifties when he built his first Heathkit amp and preamp. “Ninety-five percent of the time, my wife Ellie and I simply play music. The theater part of the system is for when we rent a video or record an opera, which amounts to a couple of hours a week.”

Enter the den of the Laursen residence in Mahwah, New Jersey, and your eyes are immediately drawn to the magnificent floor-to-ceiling A/V cabinet and room divider built by Laursen, who modestly refers to his carpentry skills as “a hobby.” The divider features built-in lighting, eleven adjustable shelves, a TV compartment, bookshelves on each side, and shelving for CD’s as well as audio and video tapes. There are even a couple of nooks for subwoofers, one hidden and one exposed. Full-length louvered doors in the rear provide easy access to the components’ back panels.

The electronics side of Laursen’s A/V rig is Sony all the way. The CDP-C335 five-CD carousel changer is the only one of his three audio source components that gets a regular workout. “I like being able to change four discs while one is playing,” he says, noting that his PS-LX520 turntable is in mothballs along with his collection of classical LP’s (which he’s thinking of selling). “I’m gradually replacing everything with CD’s because they’re so convenient to use and the sound is just so much better. Once in a while I want to hear something on LP that I can’t find on CD, so I hook up the turntable and record it onto videotape.”

The third audio source is a TC-RX470 cassette deck, used mainly to make tapes for playback on the eleven-speaker, 120-watt Infinity Spatial Imaging System in his Chrysler Concorde.

The hub of Laursen’s home system is a Sony STR-AV970X A/V receiver, featuring a Dolby Pro Logic decoder. Power output in the surround mode is 100 watts each to the front left and right speakers and 15 watts to each surround speaker, or 100 watts per channel in two-channel mode. The receiver’s center-channel line-level output feeds the TV speaker. “That’s a decision I regret,” Laursen admits, “but I wanted to make use of what I already had.” To handle the occasional video-cassette or Metropolitan Opera broadcast, a Sony SLV-696HF VHS Hi-Fi VCR feeds the 25-inch Sony KV-25XBR TV.

Sound is conveyed by a four-piece Cambridge SoundWorks Ensemble speaker system, comprising a pair of compact satellites and two subwoofers, each with an 8-inch driver. “I was really impressed by the thirty-day guarantee offered by Cambridge SoundWorks,” Laursen says. “To be able to test a speaker in your home is just so logical.”

The satellites are bracket-mounted on the ceiling and aimed toward the listening area. When Laursen engages the receiver’s surround mode, a pair of Cambridge SoundWorks Surround II dipole speakers kick in. They’re mounted on the side walls about a foot below the ceiling and a couple of feet from the back wall. As with the ceiling speakers, all wiring is meticulously concealed.

For casual listening at poolside, or wherever else he wants music, Laursen bought two pairs of Recoton W100 wireless speakers. “The signal is carried via the household electrical wiring from a transmitter in the main cabinet,” Laursen explains. “You plug one of the speakers into the wall outlet and run a wire from it to the other speaker. They sound pretty good.”

While Laursen is quite happy with the performance of his system, which cost only about $2,500, like most enthusiasts he’s always eyeing new acquisitions. His wish list includes a dedicated center speaker and a large, powered subwoofer. “I’ve heard some low organ-pedal notes in my car that I don’t hear at home, so I think it’s time to see if I can get better bass at home.”

—Bob Ankosko
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CIRCLE NO. 23 ON READER SERVICE CARD
WHERE HAVE ALL THE TENORS GONE?

BY JAMIE JAMES

Last summer Luciano Pavarotti gave a free concert in Central Park that drew an audience of close to half a million people—the sort of massive turnout ordinarily associated with pop stars such as Diana Ross and Paul Simon. The concert came on the heels of the spectacular success of London Records’ “Three Tenors,” a recording of a 1990 concert at the World Cup soccer competition in Rome by Pavarotti, Placido Domingo, and José Carreras. To date, it has sold more than 11 million CD’s, cassettes, and videos worldwide—a figure that Michael Jackson or Barbra Streisand might envy. On the sixteenth of this month, again at the World Cup competition, the three singers will be reunited for a second “Three Tenors” concert, at Dodger Stadium in Los Angeles, with a top ticket price in excess of a thousand dollars.

All that has prompted record executives and other music-industry professionals to dream of a new golden age of classical music, reviving memories of Enrico Caruso, the legendary tenor who was the first great star of the phonograph. The only flaw in this rosy vision is that when you reach from the superstar level down to the second tier, in terms of popularity and commercial success you are going from the Rocky Mountains to Death Valley.

There are many talented and accomplished young (and not-so-young) lyric tenors on the scene now, but they do not carry even a fraction of the impact of Domingo and Pavarotti. Jerry Hadley, Richard Leech, and Neil Shicoff, to name just three, are fine artists with very successful careers, but they are known primarily to classical-music aficionados, and their recording careers are not in the ballpark with the two megatenors. (While Carreras continues to perform on the opera stage from time to time, his career has shifted strongly into crossover.)

Yet Domingo and Pavarotti, who are fifty-three and fifty-eight years old, respectively, are nearing the ends of their singing careers: Ten
years from now, who will there be to attract half a million people to Central Park to listen to classical music? Does anyone believe that a Hadley-Leech-Shicoff concert will ever sell even a tiny part of what “Three Tenors” has done?

Domingo and Pavarotti are most closely associated with Italian opera, but the situation is even grimmer in the German repertory. Many works that were formerly staples of the opera stage and record catalog are centered around parts for heldentenor (German for “heroic tenor”), a voice of outstanding power, brilliance, and endurance. Some of those works simply cannot be performed now, for there is no one to sing the tenor roles. The Metropolitan Opera has not programmed Wagner’s Tristan und Isolde in ten years and, for lack of a Tristan, has no immediate plans to do so. “We can’t do Tristan,” Ray Minshull, the Decca artist-and-repertoire director who produced many of Pavarotti’s most successful recordings, told me ruefully before he retired earlier this year. “I don’t see a heldentenor anywhere. We’d love to find somebody, but there isn’t anyone.”

Thirty years ago, record producers and opera-company directors had many star tenors (if still only a few heldentenors) to choose from, including Carlo Bergonzi, Franco Corelli, Nicolai Gedda, Mario Del Monaco, Giuseppe di Stefano, Richard Tucker, and Jon Vickers. Today, thanks to digital recording technology, orchestras have never sounded better, but the record labels face serious problems in coming up with casts of singers who will sell.

In the past it was usually the soprano who provided the star quality—and the commercial appeal. A recording of Aida, say, sold because of the singer in the title role: Maria Callas, Leontyne Price, and Renata Tebaldi were hugely popular, and their names on the album covers insured strong sales. Yet in two recent recordings of Aida, the stars were the tenors: In London’s 1990 recording, Pavarotti is paired with the relative unknown Maria Chiara in the title role, and in Sony’s 1991 set, Domingo partners Aprile Millo, a soprano who has a following at the Met but is not that well known outside New York.

The Sony Aida was Domingo’s fourth, and there is now talk of him doing it for a fifth time. When I spoke with him, the tenor was almost apologetic: “Personally, I think they should give someone else a chance. But if they ask me, what am I supposed to do—say no?” He says that he would much rather record something new than a fourth or fifth version of one of the repertory warhorses.

“I ask them, why don’t you do La Battaglia di Legnano, or I Masnadieri, or I Due Foscari [three early Verdi operas]. But if I think I can do another Aida well, that I can bring something interesting, something different to my performance, then I will do it.”

Much of the blame for the situation must go to the recording companies, which often seem to be excessively timid about programming and casting. Domingo is always a safe choice for a new recording of Aida—but why not give someone new a chance? Why not opt for a lesser-known Verdi opera instead of one of the old favorites already well represented in the catalog?

The answer, of course, is to be found on the bottom line. Left to their own devices, the marketing numbers-crunchers will always insist on recording a popular piece with a big name in the cast. Nonetheless, there are hopeful exceptions. An artist of Domingo’s stature can convince the major labels to record lesser-known repertory, such as DG’s recent premiere of El Gato Montés, an early-twentieth-century opera by the Spanish composer Manuel Penella, which featured Domingo
and the young Chilean soprano Verónica Villarroel.

Sony Classics has also shown a penchant for innovation by issuing live opera recordings, which are far cheaper to produce, with fresh young singers in big parts. Sony's new La Traviata, for example, a live recording from La Scala conducted by Riccardo Muti, has as its Alfredo the young French tenor Roberto Alagna, who at moments sounds remarkably like Pavarotti. Teldec has done much the same thing with a new set of Wagner's Ring cycle, recorded live at the Bayreuth Festival with conductor Daniel Barenboim and a cast of seasoned but not very well-known singers.

Yet the recording companies are dealing in a luxury commodity that is expensive to produce, and they simply cannot afford to take big risks. A consumer on a budget isn't likely to look twice at a recording of an unfamiliar opera with a cast of singers he has never heard of. As Domingo pointed out, "Today recording is so expensive. The record companies aren't philanthropies; they have to make a profit." For the moment, it seems that they can only do so by using big names like his.

Exactly how do names like Domingo's and Pavarotti's get made? Certainly talent is essential, but it takes two additional ingredients: star magnetism and towering ambition. As Decca's Ray Minshull noted, other tenors had voices as compelling, but not superstar careers: "Jussi Bjorling and Giuseppe di Stefano had everything that Pavarotti has [vocally], but they lacked Pavarotti's magnetism."

Ardis Krainik, general director of the Lyric Opera of Chicago, believes that the impetus to extend a singing career beyond the opera stage to a larger public is something distinct from musical talent. "Some people are ambitious to be a great singer," she told me, "and some are ambitious to be more than that, to become a public phenomenon. Those two boys [Pavarotti and Domingo] are [like] that. Jon Vickers never was, and he was one of the great singers of all time. It's not just singing; it's also marketing."

As an example, Krainik recounted a telling anecdote from the early days of Domingo's career: "When Placido first sang with us, he was just a young beginner. Nobody thought he was going to be what he is now. One day he told me that he had to leave Chicago in the middle of a series of performances. I told him we wouldn't be happy about that, but he said, 'It's very important to me. I'm going to be on the Johnny Carson show.'" Pavarotti had been on the Tonight Show with Carson. Krainik noted, and Domingo knew that television exposure was important for broadening his audience.

Some observers believe that the megatenor phenomenon itself is something of an anomaly. "When Luciano and I first came around," Domingo pointed out, "certainly there were a tremendous number of exciting tenors singing, but even so, it was the age of the diva. Everyone was talking about Callas, Tebaldi, Price, Sutherland, Nilsson, Caballé. Then all of a sudden it changed, and the interest was in the tenors. It has been that way for quite a long time. I don't know if it's going to remain that way until we retire, or if there will be a turn for sopranos again, or mezzos or baritones."

Alison Ames, vice president for artists and repertory at Deutsche Gramophon, is already beginning to see a trend away from tenors: "If we had a golden era of divas in the Forties and Fifties, in the Eighties and [early] Nineties it was a golden era for tenors. Now we seem to be entering the age of the mezzos and baritones—which, after all, are the more natural voice levels." In support of that view, Ames cites the enormous success of the mezzo-soprano Cecilia Bartoli and the emerging careers of such baritones as Dmitri Hvorostovsky and Thomas Hampson.

The outlook for tenors isn't altogether dim; picking the next crop is one of the favorite sports of music-industry insiders. Alison Ames sees great careers down the line for Jerry Hadley, Richard Leech, and Frank Lopardo; Ray Minshull adds Roberto Alagna to the list. Ardis Krainik believes that the Canadian Ben Heppner will be the next great heldentenor; the Met currently favors Michael Sylvester for the lyric tenor roles of the Italian repertory.

Yet Krainik captures the consensus when she says, "Is there another Domingo, another Pavarotti coming? I don't know. There isn't anybody on the horizon right now that you can point to and say, 'Boy, this is it.'"
This 1985 release, produced by Don Gehman and Mellencamp, was considered the artist’s best work to date. Includes concert favorites IN THE U.S.A., Ram ON THE BAYOU, and SMALL TOWN.

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Elvis Costello has been laying the groundwork for his latest record, "Brutal Youth," for a long time. From the dense, often labored songcraft of albums like the late-Eighties "Spike" and (especially) 1991's "Mighty Like a Rose" through noble failures like last year's "The Juliet Letters," Costello was guilty only of trying too hard to maintain his status as the pre-eminent songwriter of his time. Now, with "Brutal Youth," he refines and clarifies his art by focusing sharply on what he does best—boring through the thicket of human interactions with lacerating wit and a musical attack to match. Fittingly, the effort reunites him with the musicians who participated in his greatest successes: his old band, the Attractions (Steve Nieve, Pete Thomas, Bruce Thomas), and his erstwhile producer, Nick Lowe, who here shares bass duties.

In fact, "Brutal Youth," which was co-produced by Costello and Mitchell Froom, winds up sounding like the Great Lost Elvis Costello and the Attractions Album, a worldly neo-punk broadside that could easily be filed between "This Year's Model" and "Armed Forces." Like those classics, it's a big chunk of a record to digest; its fifteen songs are as dense and unrelenting as anything Costello's ever recorded, more like novellas than the average songwriter's short stories. But only one clocks in at over 5 minutes (the moody, keyboard-drenched "Sulky Girl"), and the band runs as clean and hot as a well-tuned engine on such numbers as 20% Amnesia, a blast of rebel rock that features Costello in full-throttle scream throughout.

The album's musical standout is Clown Strike, a breezy soul strut that could easily merit a spot on a beach-music jukebox. Lyrically, Costello taps into a motherlode in London's Brilliant Parade, a detailed catalog of urban obsessions defining his love/hate relationship with the city whose spirit he interprets with as sure a hand as Lou Reed dissects New York. It's a theme explored in depth on "Brutal Youth," as Costello, returning to the scene of the crime, sifts through the evidence of a profligate age and draws up a canny indictment in which even he does not stand unaccused.

From start to finish, "Brutal Youth" reveals an artist fully in control. Amazingly, time hasn't mellowed Costello and the Attractions—it's made them that much more muscular and knowing. Costello even looks more like himself on the cover than he has in years—clean-shaven, horn-rimmed, back in fighting trim, face fixed in a delightfully jaundiced smirk. This Elvis, I'm pleased to note, has not left the building.

Parke Puterbaugh

STEREO REVIEW JULY 1994 77
The Vogler Quartet Delivers

T
he youthful Vogler Quartet impressed me the first time I reviewed one of its recordings, a pairing of Verdi's String Quartet in E Minor and Berg's Lyric Suite some three years ago. The Vogler's new RCA Victor CD offers equally provocative programming—quartets by Debussy, Janacek, and Shostakovich—and superb performances, superbly recorded.

From the very first bars, Debussy's lone quartet gets a reading that is elegantly poised yet has plenty of muscle where called for. The prickly scherzo is a real ear-grabber, the slow movement is both sensuous and translucent, and the main body of the finale has marvelous impulse and drive.

The realization of Leos Janacek's First Quartet, a miniature music drama inspired by Tolstoy's tale of jealousy and murder, The Kreutzer Sonata, extracts every ounce of passion and color that this remarkable work has to offer. Listen in particular to the tense dialogue in the second movement and the savage interjections that punctuate the third.

Shostakovich's Quartet No. 11, written in 1966 as a memorial for the second violinist of the famed Beethoven Quartet of Moscow, is atypical of the genre in that it has seven movements, all but the last two less than 3 minutes in length. The musical structure is held together by interlinked motifs that thread their way through the diverse movements. The first movement seems to ask, "why?" and the succeeding ones are imbued with elements of both Russian Orthodox and Hebraic liturgical chant. The third, a savage recitative, and the fourth, a sizzling etude, haunt the memory, and the final two movements are even more unforgettable, particularly the last, which suggests a cradle song for infinity. The performance by the Vogler Quartet is simply stunning in its impact, enhanced by sonics of extraordinary dynamic range and presence. Don't pass up this CD!  

David Hall

Sam Phillips's Dear John Letter

H
as John Lennon been dead long enough for somebody to inherit his caustic spirit? If not, don't tell Sam Phillips. On her new album, "Martinis and Bikinis," Phillips pays homage to Lennon through dead-on Beatleseque melodies, guitar riffs, song structures, production techniques, and vocals, all of which she wedds to her own cryptic lyrics about the Search for Truth.

But Phillips, who scored critical raves with two previous albums, "The Indescribable Wow" and "Cruel Inventions," doesn't so much copy Lennon; it's as if she had his hologram stamped on her soul and then picked up where he left off. Her imagery is at once brittle and dreamy, her passion strong yet dry. And her anger is consistently palpable ("Our madness envi and desire / Ring you with an unforgiving fire," from Circle of Fire) even if her vulnerability is only sometimes visible ("Control is letting go / And I'm the last to know," from When I Fall).

Flirting at times with ersatz psychedelia (Same Rain, in which the wash of background vocals thrillingly approximates new Beatles harmonies), Phillips' music isn't nearly as immediately hummable or tuneful as the early Beatles classics (she zeros in mainly on the "Straw-

Sam Phillips (bikini not shown)
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James Levine and the MET Orchestra are really an anachronism: a world-class conductor and orchestra that live, work, and breathe together. While other star conductors jet all over the place, Levine mostly stays in New York City, where he runs the Metropolitan Opera and conducts its performances several times a week. He has conducted its orchestra thousands of times, not only in the operatic repertory but increasingly in Classical, Romantic, and twentieth-century symphonic music as well.

Here is a kind of long-term relationship that has deep rewards. The big payoff, as you hear in DG's new recording of Mussorgsky's Pictures at an Exhibition and Stravinsky's The Rite of Spring, is that an opera orchestra has turned into one of the great symphonic ensembles, not only of this country but anywhere. Who would have thought that the Met's pit band would emerge as one of the leading recording orchestras of the CD era?

Take the items at hand. These performances go well beyond what happens when good orchestral players follow a gifted conductor. There is a kind of maturity, a solidity and depth, that is powerful and moving. The performances are more than brilliant; they cohere. They are colorful in the best way, clear and transparent without any loss of energy or forward movement. The music never feels arbitrary or forced; even the greatest moments of power, of edge, of intimacy, of forward drive are easy and right. This is ensemble performing in the best sense.

What makes it all the more remarkable is that the orchestra rarely gets to deal with challenges like the Stravinsky in the opera house. You would never guess that these musicians have not been playing The Rite of Spring all their lives.

Levine, like Leonard Bernstein, has a feel for the Russian repertory, but, unlike Bernstein, his approach is architectural. Where Bernstein depended on feeling and rhythmic color—qualities not exactly inappropriate in music that is neither symphonic nor developmental in the Central European tradition—Levine's cooler and more spacious style gives these pieces an almost Classical aura against which the exotic Russian colors only seem to stand out the more clearly. And it is the rapport between orchestra and conductor that makes everything work. The first-rate recorded sound helps, too.

Eric Salzman

SAM PHILLIPS

Martins and Bikinis
Love and Kisses, Signposts: Some Rain; Baby I Can't Please You; Circle of Fire; Strawberry Road; When I Fall; Same Changes; Black Sky; Fighting with Fire; I Need Love; Wheel of the Road; When I Fall; Same Changes; Black Sky: Martinis and Bikinis

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What makes it all the more remarkable is that the orchestra rarely gets to deal with challenges like the Stravinsky in the opera house. You would never guess that these musicians have not been playing The Rite of Spring all their lives.

Levine, like Leonard Bernstein, has a feel for the Russian repertory, but, unlike Bernstein, his approach is architectural. Where Bernstein depended on feeling and rhythmic color—qualities not exactly inappropriate in music that is neither symphonic nor developmental in the Central European tradition—Levine's cooler and more spacious style gives these pieces an almost Classical aura against which the exotic Russian colors only seem to stand out the more clearly. And it is the rapport between orchestra and conductor that makes everything work. The first-rate recorded sound helps, too.

Eric Salzman

SAM PHILLIPS

Martins and Bikinis
Love and Kisses, Signposts: Some Rain; Baby I Can't Please You; Circle of Fire; Strawberry Road; When I Fall; Same Changes; Black Sky; Fighting with Fire; I Need Love; Wheel of the Road; When I Fall; Same Changes; Black Sky: Martinis and Bikinis

VIRGIN 39438 (46 min)

WET Orchestra

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A nuthouse symphony of groggy voices, slide guitar, junkyard rhythms, preposterous imagery, and foul-mouthed cunning, "Mellow Gold" flips the bird at a world that's too busy rolling down the gutter to notice. "Tonight the city's full of morgues / And all the toilets are overflowing / The shopping mall's coming out of the walls / As we walk out among the manure," he sings like a street-smart Pete Seeger who's waist deep in another kind of Big Muddy. His portraits of life among the losers are simultaneously hilarious and harrowing. With wicked Zappa-esque wordplay, he skewers characters like the Truckdrivin' Neighbors Downstairs ("Whisky-stained buck-toothed backwoods creep") and a Nitemare Hippie Girl ("She's got tofu the size of Texas"). All the while the music rolls on in a collision of styles that sounds like the aftermath of a power outage at a sherbert factory on a hot summer night—messy, slurry, and weird, but beautiful in its own peculiar way.

DR. JOHN
Television
GRP/MCA 4024 (48 min)
Performance: Grotesque
Recording: Bottom-heavy

Dr. John indulges in a bit of quackery by attempting to pawn himself off as a lowdown funkateer on "Television," which—like most of what's on the book—dunk/R&B chestnuts with which he mistakenly presumes some kind of kinship (Sly and the Family Stone's 1970 crossover hit Thank You [Fallin' in Me Be Mice Elf Again] and Money [That's What I Want]). Only Witchy Red, a swampy, haunting throwback to his Night Tripper days, passes like the all but unlistenable grunt-fest Limbo and funk/R&B chestnuts with which he mistakenly presumes some kind of kinship (Sly and the Family Stone's 1970 crossover hit Thank You [Fallin' in Me Be Mice Elf Again] and Money [That's What I Want]). Only Witchy Red, a swampy, haunting throwback to his Night Tripper days, passes

BECK
Mellow Gold
DGC 24634 (48 min)
Performance: Like, wow
Recording: Home brew

An inertia, decay, decomposition, collapse. It's the end of the world as we know it, and no one feels particularly fine. Then along comes Beck, holding a funhouse mirror up to life in the ruins and managing to coax a collective giggle at the tragicomic absurdity of it all. "I'm a loser, baby, so why don't you kill me," he sings in Loser, creating a self-referential archetype that isn't so much slicker as willing-to-work hustler who's losing ground on the economic and esteem fronts.

GREEN DAY
Dookie
REPRISE 45529 (40 min)
Performance: Lively
Recording: Punchy

Loud-fast alternative rock needn't be just a hyperventilating slamfest for mosh-pit denizens. Stick a little melody in there and you've got a formula for fun that has energized garage-punk groups from Steppenwolf to the Sex Pistols. Green Day is a cartoonish lot of surprisingly adroit players who come off like the Beastie Boys with pop smarts, good guitars, and a great intuitive grasp of rock dynamics. "Dookie" is a virtual invitation to shut the door and pull out the air guitar. So far, 1994 has yielded few pleasures so keen as this album's one-two-three of Longview (killer chorus!), Welcome to Paradise (Born to Be Wild chords, Husker Du heart), and Pulling Teeth (wherein Green Day sounds like an Everly Brothers for the Nineties). All in all, "Dookie" is more fun than a barrel of slamming Monkees.
Reissues We'd Like to See

There are still lots of cool LP's that haven't been reissued on compact disc. Here are some our critics would actually pay money for.

BUFFALO SPRINGFIELD

The mono version. Stephen Stills and Neil Young did the mix and spent a lot of time on it, whereas the (currently available) stereo version was done in a hurry by their slipshod producers. P.P.

EXPRESSO BONGO

Original-Cast Recording

This cynical look at the sleazy underside of show biz documented the manufacture of an Elvis-like rock star. Paul Scofield and company had a good time with the tuneful songs and witty lyrics, and I loved the album.

DOLLY PARTON

My Tennessee Mountain Home

From when Dolly was still a folk artist who wrote real stuff, rather than the plastic creation she became. A.N.

WAS (NOT WAS)

Born to Laugh at Tornados

This guy was probably crazy, which could explain why he recorded for Frank Zappa's label. I have a feeling it will never be on CD.

AN EVENING WITH WILDMAN FISCHER

This guy is probably crazy, which could explain why he recorded for Frank Zappa's label. I have a feeling it will never be on CD.

TED HAWKINS

The Next Hundred Years

For the uninitiated, Ted Hawkins is a former L.A. street singer who started out life in wrenching poverty, spending part of his younger years in Mississippi's legendary Parchman, a hellhole of a prison known for routine beatings and chain gangs. Since then, Hawkins has refined a personal mix of blues, soul, folk, and country, and performs as if he was channeling the shades of Otis Redding, Sam Cooke, and Jackie Wilson. In 1982 he cut a remarkable album, "Watch Your Step," and this new one is nothing to sneeze at either. When Hawkins sings the old Webb Pierce song, "There Stands the Glass," you can hear the thrist in his voice, a kind of sweetness gone to rasp. When he performs John Fogerty's "Long as I Can See the Light," he makes it a hymn all his own. And when he tells of his Strange Conversation, in which his baby says his next lover will be the blues, the words underscored by a bleeding Memphis soul guitar, his voice cracks from emotion, not bad technique. How many of your slick pretenders to the throne do that these days? Tremendous.

HUEY LEWIS & THE NEWS

Four Chords and Several Years Ago

If you ever had the feeling Huey Lewis & the News was your basic bar band that got lucky and hit the big time, this collection of reworked golden oldies (Shake, Rattle, and Roll, Blue Monday, Mother in Law, and fourteen others) will confirm the impression. Dave Marsh once said there was "no pop in their power." Well, there's no power in their pop, either—and even worse, there's no passion. This album isn't just nostalgia, it's a colossal ego trip, and a misplacement one at that. Smack in the middle of summer, it probably constitutes a decent party album—just don't confuse it with real music.

KATHY MATTEA

Walking Away a Winner

When it comes to commercial country music, you can't craft an album any better than the latest from Kathy Mattea, "Walking Away a Winner." Mattea shows once again, as she has on her previous strong outings, that she can tug at the heartstrings of Nashville without making much of a fuss; she doesn't need to howl or wail to make you understand deep emotions. Even on the album's title tune, in which a woman is leaving the scene of a romantic crime, Mattea comes off as the sort of person you'd really want around during a time of crisis. The subject matter and the sentiments here may be a little pedestrian—housewives deserve a break, we'll miss our parents when they're gone—but the production is state-of-the-art, with just enough rock-like guitar to make the arrangements seem fresh. And Mattea seems incapable of singing a false note. Among the women of country music, she's as dependable as they come.

PAT MCLAUGHLIN

Unglued

R&B singer/songwriter Pat McLaughlin has turned out songs for country stars Trisha Yearwood, Tanya Tucker, Steve Wariner, Joy White, and Maura O'Connell. But aside from co-writing John Prine's Daddy's Little Pumpkin, he's best known for two things—his 1988 debut album, a critics' favorite, and his second record, "Get Out and Stay Out," which was heralded by some as the best album never released (his label dropped him in a change of regimes). This return to recording finds him, like before, a kind of cross between J.J. Cale and John Hiatt, though not as bitting and off the wall as the latter. Lyrically obscure ("Only flower underneath my rug can find / Such a piece of cake"), and rangy stylistically from gut-bucket hollering blues (Night Thing) to romantic folk (Try the Love) to Seventies blues-rock (It's Hard) and not-very-convincing honky-tonk country (Knockin' Around Nashville), McLaughlin favors groove over content. Don't listen too closely—just take it in by osmosis. McLaughlin has one of those lived-in voices, and, like many roots performers, when he gets on a roll he's more into getting emotion out than in communicating with you. No matter. Enjoy.

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MEAT PUPPETS
Too High to Die
LONDON 828 484 (52 min)
Performance: Trippy
Recording: Good

Yeah, this is your brain on drugs, but in a good way. Tripping the light fantastic through a baker’s dozen mind excursions. Meat Puppets have returned to the languid, flowing slipstream of altered consciousness they navigated so swimmingly on such albums as 1985’s “Up on the Sun.” Figuratively speaking, guitarist Curt Kirkwood is one of Jerry’s kids—Garcia, that is—and he’s back in tune with his cosmic runes rather than the prickly, ZZ Top-style blues-rock mannerisms that dogged him down circa “Huevos” (1987). By contrast, “Too High to Die” is one sprightly turn of the kaleidoscope after another, from the crystal dewdrop notes flung by Kirkwood’s fleet-fingered guitar on Never to Be Found to a whimsical flight through the mental ionosphere entitled We Don’t Exist. Neither time nor hallucinogenic intake has dulled the Meat Puppets’ ability to create colorful, smartly arranged soundscapes. Most of “Too High to Die” is played up tempo with the kind of vigor and imagination prevalent in the ballrooms of Haight-Ashbury before burnout set in. Ten years on, the Meat Puppets are flying higher than ever.

THE NEVILLE BROTHERS
Live on Planet Earth
A&M 0225 (71 min)
Performance: Spirited
Recording: Very good remote
doors, and pop. They’re bowing down to give thanks—to God, to Rosa Parks, to a woman with African eyes. Recorded over a year’s time at various concerts around the globe, this album is nearly nonstop drive and fire, from the hypnotic New Orleans jazz-in-the-pocket of Congo Square to Aaron Neville’s angelic rendering of Amazing Grace. On a couple of the more predictable tunes, especially the cover medleys of One Love/People Get Ready/Sermon and Love the One You’re With/You Can’t Always Get What You Want, the Nevilles get a tad lazy vocally, and dumb down for the crowd instrumentally. But on the whole, the hottest rhythm section alive more than lives up to its rep here.

BUSTER POINDEXTER
Buster’s Happy Hour
FORWARD/RHINO 7054 (53 min)
Performance: Novelty wearing thin
Recording: Good

Let’s face it, David Johansen’s Buster Poindexter character was a limited stick to begin with, and by now the limit’s about up. This time, Johansen drops his Jolson pose for covers of Louis Jordan and Wynonie Harris jump tunes (most interesting track: Drunk, a duet with Bill Morrissey). But how many unconvincing bluesman inflections and whiskey-and-women tirades does it take before a smart-alek New York white boy turns completely jive? On this record, the evidence here, not many.

COLLIN RAYE
Extremes
EPIC 53952 (35 min)
Performance: Not “extreme,” but not tame
Recording: Very good

When balladeer Raye burst on the scene with Love Me in 1991, he looked like a one-hit wonder. Since then, he’s taken pains to present himself as an across-the-board mainstream country performer, as at home with full-tilt, Fifties-style rockers as with ballads. Now, on his third album, he shows he’s not afraid to experiment with songs that push the envelope a tad as well. Little Rock, for example, is a grittier and bleaker kind of “I can’t live without you” song in which a pathetic VCR salesman at a Wal-Mart muses about his life and loss. And in the Gothic Man of My Word, a widower wishes he’d lied when he told his dying wife he’d remain faithful. Raye also weighs in with a decent family-values song, A Bible and a Bus Ticket Home, which imparts homespun wisdom without getting sickeningly sweet. Still, Raye—whose real first name is Floyd—shines brightest on the up-tempo honkers, such as Lee Roy Parnell’s That’s My Story, and on his own To the Border and Beyond. Which goes to show that if you’re born a Floyd, you’re probably still a country boy underneath, even if you cover it up with a Collin.

DENNIS ROBBINS
Born Ready
GIANT 24543 (34 min)
Performance: Yeah, buddy
Recording: Good

On his second solo outing Dennis Robbins continues to demonstrate the sly wit, backwoods drawl, and off-center, blue-collar songs that make him one of Nash...
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ville's favorite smart-guy white boys. Robbins excels at situations in which small-town lads lose their heads after a short walk on the wild side, be it the greaser monkey who follows the leather-clad babe on the Harley in *Ride, Ride, Ride*, or the libidinal romantic who never encountered anybody quite like *Mona Lisa on Cruise Control*. For that reason, Robbins makes what might also be called Andy Griffith music. Just after he presents himself as the World's Biggest Hick, he comes up with a serving of Mayberry wisdom, declaring on *Traveling Music*, in which he engages in a bit of a domestic squabble, that “Everybody knows I ain’t afraid to fight / But I got my good clothes on tonight.” Robbins wrote Garth Brooks’s white-trash anthem, *Two of a Kind*, Working on a Full House, and he hasn’t packed this album with songs nearly as rambunctious. Nevertheless, this is one heck of a fun record, and a fine introduction to a much underrated talent.

**VICTORIA SHAW**

**In Full View**

*REPRISE 45592 (35 min)*

**Performance:** Going places

Victoria Shaw has (so far) written three No. 1 country hits—Garth Brooks’s *The River*, Doug Stone’s *Too Busy Being In Love*, and John Michael Montgomery’s *I Love the Way You Love Me*—and now she’s out to prove there’s a voice behind the pen. Indeed there is—a sturdy, full-range soprano with impressive technical proficiency and an ability to convey complex emotion. As a performer Shaw is as commercial as they come—she’s perfect for radio—and all her successful friends (Brooks, Billy Dean, Lari White, Bill Lloyd, Mary Ann Kennedy) show up to give her a helping hand on this debut. Whether co-writing (with the likes of White, Jon Vezner, and Desmond Child) or going solo, Shaw turns out highly melodic, hook-laden songs (*You Don’t Know Love, Love’s Not Gonna Pass Me By, Small Talk*) that often impart a bit of philosophical advice. She knows how to have fun, too, but a campy Elvis cover aside, it’s obvious she’s intent on songs that make a strong emotional connection. Shaw will probably settle back down into songwriter status one of these days, but in the meantime, enjoy her sound as well as her songs.

**RANDY TRAVIS**

**This Is Me**

*WARNER BROS. 45501 (34 min)*

**Performance:** Pleasant

**Recording:** Very good

Strange as it may seem, Randy Travis is making a comeback at the tender age of thirty-five. After huge success in the Eighties, the singer seemed to get trampled in the stampede of hat acts in country music. Now, with “This Is Me,” Travis has reconstructed, ever so slightly, the approach that made him so successful. You can hear the difference most clearly in the use of guitars—pedal-steel is used more delicately, electric a bit more aggressively. Otherwise, the album could have come from Travis’s heyday. The songs offer the usual, some what predictable variety of situations, from All-Consuming Heartache to Zealous Familial Sentimentality, but what makes them all work in a much congenial way is that soft, warm Travis baritone. Whether he’s prescribing a honky-tonk cure for the blues or proclaiming the intensity of his passion, Randy Travis makes his singing seem as effortless as falling off a log.

**IAN TYSON**

**Eighteen Inches of Rain**

*VANGUARD 79475 (42 min)*

**Performance:** Sleepy

**Recording:** Good

Once part of the folk duo Ian & Sylvia, singer/songwriter Ian Tyson has devoted the last decade to producing some of the most lyrical western-style music ever recorded. Of course, being a real rancher helps, and so does being Canadian—he can separate himself from the American cowboy mythology and write about tried-and-true themes (high soaring hawks, stray cattle, the cowpoke’s isolation, etc.) in a modern way. There’s a kind of sweetness, a romance, to Tyson’s work, as in the idea of “chasin’ the moon by the tail.” But he’s usually far more realistic about trail life—bitter coffee, gut-wrenching loneliness—even if in his world men still measure their lives by the outfits they’ve ridden in and the good horses and bad women they’ve loved (*M.C. Horses, Heartaches Are Steelin’*).

Tyson is a bit sharper when he co-writes with folks, like Tom Russell, who supply a little edge, something this easygoing-to-the-point-of-drowsy collection needs. Still, “Eighteen Inches of Rain” is a fine record to play when you kick off your boots and sit by the fire. Just don’t look for it to supply the fire by itself.

**PAUL WELLER**

**Wild Wood**

*LONDON 823 513 (61 min)*

**Performance:** Extraordinary

**Recording:** Good

Paul Weller is a restless changeling whose varied guises have included leadership of the Jam (punk’s answer to the Who) and Style Council (a more musically ambitious ensemble that employed jazzier mannerisms to convey Weller’s anti-establishment polemics). On this, his second solo album, he combines the hard-soul energy of the former with the deceptively breezy
You're Gone, involving, and Dement's performance of acoustic R&B Girl from the North Country, That said, it's also one of the weakest. Iris DeMent, Bruce Hornsby, and R.E.M. and gospel acts. But Volume Six must be the groups shaking hands with folk, country, ways diverse offerings—alternative rock

The idea of recording the songs of Depression-era balladeer Woody Guthrie may seem quaint in a time when gangsta rap serves as America's premier protest music. But down in Texas, they know that many of Guthrie's songs are as relevant to today as they were when he wrote them—that I Ain't Got No Home might be sung over huddled bundles on the contemporary streets of New York City or Washington, D.C.—and speak as much about the failure of U.S. society as they do about the simple greatness of Guthrie's songwriting. Three of U.S. society as they do about the simple
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BEAUTIFUL PEOPLE
If 60's Were 90's
CONTINUUM 19315 (50 min)
Contempo dance tracks based on a variety of (legal) samples from Jimi Hendrix albums and outtakes, and against the odds it works. Spacey, funky, and genuinely creative stuff—Summer of Love purists may cringe, but Jimi himself would doubtless have dug it. S.S.

GOOD ROCKING TONIGHT:
THE BEST OF ROY BROWN
RHINO 71545 (50 min)
Late-Forties and early-Fifties tracks by one of the premier vocal stylists of the era, and proof positive that there was indeed (in Nick Tosches's phrase) rock-and-roll in the dark, wild days before Elvis. S.S.

HUUN-HUUR-TU
60 Horses in My Herd
SHANACHIE 64050 (48 min)
Like Tibetan monks, these musicians from Tuva in highest Central Asia have mastered the art of singing two or three notes at one time. In evolved listeners their tuneful program of old Tuvan songs will stir primitive parts of the brain where race memory dwells. The album notes are excellent and helpful. William Livingston

IN YO' FACE:
THE ROOTS OF FUNK VOL. 1/2
RHINO 71615 (48 min)
A document of that historical moment—the late Sixties—when soul and R&B began to favor groove over traditional song structure, including such fondly remembered transitional hits as the Fantastic Johnny C's Boogaloo Down Broadway and Archie Bell's Tighten Up. Great down-and-dirty stuff, and lots of fun. S.S.

MINT JULEPS
Round Our Way
HIGHTONE 8052 (41 min)
An all-girl British neo-doo-wop a cappella group that, as they say, sings like birds—in fact, a little too much like birds (big exception: a soulful, technically virtuosic version of Jackie Wilson's Higher and Higher). Pleasant enough overall, but the Persuasions they're not. S.S.

THE SPONGETONES
Beat & Torn
BLACK VINYL 12993 (52 min)
North Carolina's Spongtones have labored to keep the goony sound of Mersey-beat alive via albums of original tunes that almost best their sources of inspiration. "Beat & Torn" collects their early-Eighties recordings (a complete album, a mini-album, and bonus tracks) into a package that's lovable, listenable, and—take my word here—indispensable. P.P.

SANDY STEWART & FAMILY
CABARET 5010 (55 min)
Talk about talent running in families! First there's Sandy Stewart, still as sultry-voiced and bewitching as ever. Then there are her two sons (by the late Broadway composer Moose Charlap): Bill Charlap (Gerry Mulligan's pianist) and bassist Tom Charlap. Add her present husband, former Benny Goodman trumpeter George Triffon, and what terrific music they make together, mostly in a soft-lights (but never colorless) mood. R.H.

TODO TANGO
MILAN 35667 (76 min)
Leading performers from Argentina (Astor Piazzolla, Horacio Salgan, Roberto Goyeneche, and others) make this a beautiful and super-authentic overview of the tango today. Its twenty-two tracks are mostly New Tango, with a few old favorites in slick, modern arrangements. A perfect treat for novices and tango connoisseurs alike. W.L.

BEN VAUGHN
Mono U.S.A.
BARNONE 039 (56 min)
Ben Vaughn has put together a collection of reverb-happy oldies in the privacy of his home studio—and no stereo sound allowed. Nearly all this stuff, from twangy instrumentals (the Ventures' Exploration in Fear) to maudlin sociology (Henson Cargill's Skip a Rope) is neo-classic, meaning that Vaughn is more interested in paying homage to the past than reinventing pop music, but that just makes "Mono U.S.A." even cooler. R.G.

VELOCITY GIRL
Simpatico
SUBPOP 247 (35 min)
Somebody called this stuff bubblegrunge, which is just about right, because underneath the layers of fuzzed-out guitars lurks a sweet pop quintet as familiar (how I can't figure) with the Association as with, say, My Bloody Valentine. Withal, an absolutely delightful racket, and the lead track, Sorry Again, gets my premature vote for single of the year. S.S.

JAZZ REVIEWS

HERB ELLIS
Texas Swings
JUSTICE 1002 (52 min)
Performance: Distinctly Herbal
Recording: Very good
He was born and raised in Texas, so it's not a complete surprise to find that guitarist Herb Ellis's new album, "Texas Swings," combines the jazz style for which he is known with elements of country music. The progenitor of this idiom blend—which is sometimes called western swing—was probably Bob Wills, whose twenty-five-piece Texas Playboys became regular Midwest radio fare in the Thirties and even perked up the ears of the young Charlie Parker. Indeed, there are Wills alumni in Ellis's group, which—in terms of size—is mere modestly than the Playboys, but doesn't skimp on talent. Three guitars, two violins, piano, bass, and drums is an unusual instrumentation that sometimes approaches the sound of the Quintet of the Hot Club of France. The country accent comes mainly from Herb Remington's steel guitar and the two violins (played by Johnny Gimble and Bobby Bruce). But the group's most prominent "sideshow" is country superstar Willie Nelson, whose guitar is not out of place in a jazz environment.

CHARLIE PARKER's Billie's Bounce (mislabeled Scrapple from the Apple), which starts things off, is decidedly urban, being a well-fused boogiewoogie conception. In fact, the jazz flavor dominates this release, and even The Old Rugged Cross, which starts out as pure Nashville, eventually takes a turn that should please the mainstream jazz fan. All in all, a thoroughly captivating western-swing romp.

C.A.

GEORGE LEWIS
Changing with the Times
NEW WORLD 80-334 (65 min)
Performance: Poetry in motion
Recording: Excellent
The music on this disc is as enchanting as it is difficult to classify—and by "music" I also mean the poems and narratives around which trombonist Lewis has centered his six compositions for small ensembles of shifting instrumentation. Because so much of the literal music heard here sounds through-composed (even including a bit of barrelhouse piano from Jeanne Cheatham), the hard-liners at Lincoln Center might be
resistant to call it jazz. But so what? I suppose it's best to call it New Music and let it go at that. Whatever it is, though, it's a beautiful piece of work, the most emotionally satisfying effort from Lewis since his 1979 "Homage to Charles Parker," and one of the most absorbing hours of music anyone has given us so far this year. The centerpiece is the lengthy title composition, in which Bernard Mixon reads—or performs, to do him justice—Lewis's father's informal autobiography, and which blurs the line between fact and tall tale in disarming fashion. The rollicking and affectionate music that envelops it is just as mythic, earthy, and fine.

F.D.

RIVERSIDE REUNION BAND
Mostly Monk
MILESTONE 9216 (62 min)
Performance: Starry get-together
Recording: Very good

Riverside Records existed for roughly a decade, which is several years longer than any financial analyst would have predicted. The man who kept it going was Bill Grauer, a good-humored jazz fan with broad taste in music. Although his partner, Orrin Keepnews, never had a real ear, it was Keepnews who, on a hit-and-miss basis, produced most of the label's sessions, from which good music often emerged.

Now Keepnews has assembled the Riverside Reunion Band, a sextet of luminaries whose musical authority is not easily interfered with. With Nat Adderley and Jimmy Heath as the front line, the group also boasts Buddy Montgomery on vibes (his brother, Wes, was a Riverside artist before moving on to commercial success), and a rhythm section comprising Barry Harris, Ron Carter, and Albert Heath. All-star gatherings don't necessarily result in good music, but this one does. Nothing innovative, just solid jazz of a timeless variety. C.A.

SILVER LEAF JAZZ BAND
Streets and Scenes of New Orleans
GOOD TIME JAZZ (71 min)
Performance: In the tradition
Recording: Very good

When I produced a series of New Orleans sessions for the Riverside label in 1961, I thought I was capturing the last gasp of traditional sounds from the cradle of jazz. I was wrong, of course. In fact, some of the musicians I recorded back then continued to play for another two or three decades, and there are still active keepers of the flame today. One such group is the Silver Leaf Jazz Band, a New Orleans ensemble whose members were transplanted from such places as New York, Pittsburgh, and France. There is no innovation here, the band, which plays regularly in the tourist environment of Bourbon Street, is strictly a mirror of the past. The arrangements and many of the solos are derived from classic recordings, which will make any collector feel right at home. Perdido Street Blues, for example, is taken right from the 1926 performance by Lil Armstrong's New Orleans Wanderers, complete with the wonderful George Mitchell/Johnny Dodds lead-in. Imitative? Yes, but the Silver Leaf gang has the right spirit and sound to please the true traditionalist. C.A.

JOE WILLIAMS
Here's to Life
TELARC JAZZ 83357 (59 min)
Performance: Lifeless
Recording: Good

Every Day
VERVE 813 (two CD's, 123 min)
Performance: Pure cream
Recording: Decent transfers

I thought Joe Williams, at seventy-five, might still be capable of giving a memorable performance, but I'm afraid "Here's to Life" says otherwise. Mainly, it's the wrong mix of singer and material, and Williams's usually assertive voice is weak and faltering. "Every Day" is quite another matter. Subtitled "The Best of the Verve Years," it features performances recorded between 1955 and 1990. With one exception, these are worthy of the album's title; Williams sounds uncomfortable on a dumb song called Too Good to Be True, a 1988 duet with Shirley Horn, but he's in top form everywhere else. The accompaniments range from the glorious bash that was Count Basie's Orchestra to various small groups. I listened to this set twice, and I'm still not through. C.A.

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BEETHOVEN: Piano Variations

Olli Mustonen
LONDON 436 834 (77 min)
Performance: Crisp, elegant
Recording: Bright, clear

Out of the twenty sets of variations Beethoven wrote, the young Finnish virtuoso Olli Mustonen here offers us an imaginatively arranged program of eight. There are two entertaining sets from 1795 on themes from the then-popular Paisiello opera La Molinara and from the following year a dozen variations on a so-called Russian dance. Also in the entertainment mode, but of a more rugged cast, are the 1803 set based on Rule Britannia and a companion piece on God Save the King - interesting to compare this one with Charles Ives's Variations on America (which, of course, uses the same tune).

The really substantial pieces, from the same "Eroica" Symphony period as the British sets, include the Six Variations in F Major, Op. 34, and the lordly and elaborate Fifteen Variations and Fugue in E-flat Major, Op. 35, which uses the same theme as the variations-finale of the "Eroica." And from 1806, the period of the Fifth Symphony, comes the Thirty-two Variations in C Minor on an original theme, in a chaconne pattern also used by Brahms.

Mustonen's decidedly crisp and cool approach to these pieces is enhanced by impeccably accurate playing, with scintillating passage work. For me it works beautifully in the lighter sets, in the Op. 34 set, and in the virtuosic aspects of Op. 35, but the performance of the wonderful C Minor set emphasizes intellect at the expense of drama. The bright and slightly hard sonics of London's Henry Wood Hall tend to reinforce that impression.

D.H.

SOMETHING TO CROW ABOUT

Chanticleer, a distinguished San Francisco-based a cappella ensemble that performs more than a hundred concerts of wide-ranging repertory each year in North America, Europe, and the Far East, has been signed to an exclusive contract by Teldec. The twelve-man group's first Teldec CD, titled "Mexican Baroque," was released in June. It's also their first recording with instrumental accompaniment, here provided by the Chanticleer Sinfonia, a nineteen-member period-instrument orchestra. Chanticleer's music director, Joseph Jennings, conducts.

Teldec already has plans in the works for three more new Chanticleer discs, ranging from the Renaissance to Broadway, and it will also reissue recordings the group produced for its own label in 1978. The first reissue, also a June release, is "Where the Sun Will Never Go Down," which features gospel music.

CHOPIN: Piano Concertos Nos. 1 and 2

Rigotto: Budapest Philharmonic, Bergel
DENON 75637 (72 min)
Performance: Expansive
Recording: Cloudy at times

Bruno Rigotto (French by birth and training despite the Italian name) goes all out in an old-fashioned but generally attrac-
tofive way in the Chopin concertos. His perfor-
mances are expansive, unhurried, any-
thing but supercharged, with just enough
subtle tension to sustain momentum; some-
times he stretches the shape of a phrase, but
he’s always very much involved and fre-
quently reaches a poetic level. I felt that he
must be responding genuinely to the music,
rather than merely seeking an approach that
would strike listeners as different from to-
day’s norm. But it is different, and absor-
ing—at least the first time round. The Ro-
anian conductor Erich Bergel is a remark-
ably sympathetic partner in an interchange
whose intimacy is close to the realm of
chamber music.

This recording may not be for everyone,
and some who do respond to it at first may
find a second or third hearing somewhat
less persuasive, but for many it could be an
appealing evocation of an earlier era—or, at
least, what we may imagine an earlier era to
have been. The sound, emphasizing warmth
rather than brilliance, suits the intimacy of
the performances just fine. R.F.

DEBUSSY: Etudes
BERG: Piano Sonata
Maurizio Pollini
DEUTSCHE GRAMMOPHON
423 678 (52 min)
Performance: Superb Berg
Recording: All right

Most of us, I suspect, will not have heard
Maurizio Pollini play Debussy before
(his only previous recording of French mu-
sic seems to have been the Boulez sonata).
Nothing this pianist does is without interest,
and there is a good deal of stunning playing
here; there is also, however, a good deal to
suggest he is less comfortable with Debussy
than with Chopin, Beethoven, Schopenberg,
and so on, in whose music he projects such
intimacy and conviction.

The most successful of the twelve etudes
here are No. 1, which is downright dazzling,
and No. 8, which comes across with a won-
derful sense of fantasy. Elsewhere in the se-
quence I felt Pollini was a little tentative
here and there, as if he had not fully digest-
ed the music beyond its technical demands,
and there is even a shaky moment or two in
that respect.

Berg’s Op. 1 sonata, a curious filler for
the Debussy, finds the pianist on what we
would consider his home ground, and he
does not disappoint us in any way. I can
imagine more than a few listeners ungrudg-
ingly buying this disc for the Berg alone,
and the sound quality is quite good, without
being exceptional. For the Debussy, though,
the CD’s by Garrick Ohlsson (Arabesque)
and Paul Jacobs (Nonesuch) both strike me
as safer recommendations. R.F.

DVORAK: Piano Trios Nos. 1-4
Lanier Trio
GASPARO GSCD 291/2 (two CD’s. 140 min)
Performance: Fine musicianship
Recording: Good

Dvorak’s four piano trios come from both
his youthful and mature creative peri-
ods. The First, in B-flat Major, is tempo-
raneous with the lovely E Major String Ser-
enuade from 1875 and shares many of its en-
dearing qualities. The Second, in G Minor
from the following year, sounds a tragic
note in its opening movement, reflecting the
composer’s grief over the death of his eldest
daughter, and there’s a touch of Czech na-
tional flavor in the finale’s polka rhythms.

The Trio No. 3, in F Minor, was com-
pised in 1883, squarely in Dvorak’s peak
creative period. Like the D Minor Sympho-
y (No. 7) of two years later, its powerful
first movement shows a strong Brahmsian
influence. The national element still comes
through in the charming second movement
and the dance-based fourth; the slow move-
ment is deeply expressive, with violin and
cello taking the lead. Trio No. 4, the “Dum-
ky” from 1891, shucks off Classical forms
and displays in its six movements the varie-
gated broody and gay aspects of the Slavon-
ic lament, or dumka. If the F Minor is ar-
guably the most cogent of Dvorak’s trios,
the “Dumky” is by far the most popular.

The Lanier Trio includes Cary and Doro-
thy Lewis as pianist and cellist and, since
1986, William Preucil of the Cleveland
Quartet as violinist. There is ample warmth
in their treatment of Dvorak’s wealth of
melody and countermelody, and a fine
rhythmic sense throughout, with excellent
balance among the three instruments. I was
particularly struck by Preucil’s outstanding
playing in the “Dumky” Trio and his subtle
use of portamento in its third movement.
The recording is agreeably intimate. D.H

ELGAR: Violin Concerto; Introduction
and Allegro
Takezawa, Bavarian Radio Symphony, C. Davis
RCA VICTOR 61612 (65 min)
Performance: Extraordinary
Recording: Very good

Elgar’s massive Violin Concerto in B Mi-
nor has never attained great popularity
despite a distinguished list of committed ad-
vocates, beginning with the teenage Yehudi
Menuhin’s recording with the composer
conducting and extending to the young
Nigel Kennedy’s. Now it’s Kyoko Takeza-
wa’s turn, and her stunning new recording
for RCA Victor may well help establish the
concerto more solidly within the boundaries
of the so-called standard repertory.

Takezawa’s remarkable combination of
youthful drive and mature vision has been
evident in all her recorded performances, as
has the flexibility with which she adapts her
assertive individuality to the work at hand.
These are the qualities the Elgar particularly

demands, and no violinist who has recorded
the work before has seemed more truly “in-
side” it. No other recorded performance has
been more fired up with its unique blend of
passion and breadth, more consistently
aglow with voluptuous tone and unforced
warmth of heart, more reliable in respect to
both momentum and tastefulness.

Colin Davis, conducting the Bavarian Ra-
dio Orchestra, provides a tidy accompani-
ment. The filler piece, Elgar’s Introduction
and Allegro for string orchestra, does not in-
volve Takezawa and doesn’t really get off
the ground, but her performance of the con-
certo is simply not to be missed. R.F.

JANACEK: Glagolitic Mass; Sinfonietta
Soloists: Montreal Symphony Chorus and
Orchestra, Dutoit
LONDON 436 211 (66 min)
Performance: Handsome
Recording: Resplendent

Janacek’s setting of the Mass in Old
Church Slavonic has little in common
with the solemnities of the Masses by Bach,
Haydn, or Beethoven; rather, it stems from
Charles Dutoit has a generally fine team of soloists in soprano Natalia Troitskaya, mezzo Eva Randlová, tenor Kaludi Kaludov, and bass Sergei Leiferkus—the soprano is a bit stent懂 in the Kyrie, but the tenor is superb in the cruelly demanding portions allotted to him, especially in the closing pages of the Credo. The choral work is first-rate throughout, and the orchestral execution is all that one could ask, particularly in terms of the solo work and the vivid coloration. More urgency would have been welcome in the instrumental introduction. The organ part is more prominent than usual in this Mass, and Thomas Trotter plays the king of instruments to magnificent effect. Indeed, it is the glorious acoustic surround afforded by Montreal’s Church of St. Eustache that lifts this realization out of the ordinary. The brazen Sinfonietta, with its panoply of twelve trumpets, is a perfect companion piece for the Glagolitic Mass, and again the church acoustic makes for a marvelous soundstage. Dutoit opts for a fast pace in the opening movement, which for me dilutes the work’s ceremonial quality, but he does honorably by the three middle movements, and his very broad pacing at the end of the finale is striking. While Dutoit and his Montrealers may miss something of the fiery quality that these late masterpieces by Janaek demand, their recording earns a special place for its sonic grandeur. D.H.
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RACHMANINOFF: Preludes (complete)
Moura Lympary (piano)
ERATO 91714 (two CD's, 81 min)
Performance: To the manner born
Recording: Excellent

Moura Lympary is an old hand when it comes to Rachmaninoff. She was one of the first to record the complete piano preludes, back in 1951, and this new set demonstrates that she has lost none of her technical or interpretive prowess.

Where the twenty-four preludes do encompass all the major and minor keys, they were not conceived as an integral series like the Chopin preludes or Bach's Well-Tempered Clavier. The famous Prelude in C-sharp Minor comes from Rachmaninoff's Op. 3, and another ten were set down in 1904. Six years later he wrote the best of the lot, a baker's dozen published as Op. 32.

To start with the two most popular preludes, the C-sharp Minor is played here in a broody rubato fashion that is very effective and refreshing, and the G Minor gets a more relaxed pacing than usual. Lympary is very good in the lyrical numbers, such as the next to last from the Op. 23 set. It is in Op. 32, however, that she really comes into her own with a burst of virtuosity in the fierce F Minor and in the tragic lament in the B Minor (No. 10). The series climaxes in the last three preludes—the tender B Major, the G-sharp Minor with its sustained melody, and the grandiose D-flat Major, where things come to a resounding conclusion. If you prefer your Rachmaninoff with a stress on the lyrical element, Lympary's recording will satisfy you. But Vladimir Ashkenazy's 1985 London set of the preludes, which includes the Second Piano Sonata, is a tempting alternative.

D.H.
tation on the part of listeners who think of the work as one of those trifles you acquire to complete a set. Repeats are taken in both outer movements, and it’s grand to hear such delicious material come round again. The variations that make up the slow movement are tellingly characterized, with all the radiant Schubert charm in full bloom yet enough momentum to avoid falling into caricature. The Rosamunde pieces—the Zaubertaberce Overture and Ballet Music I and II—are every bit as rewarding. The playing as such is all one could ask, and so is the beautifully balanced recording.

**SUK**: **Ripening**; **Praga**
Royal Liverpool Philharmonic, Pesek
**VIRGIN** 59318 (67 min)
**Performance**: Persuasive
**Recording**: Excellent

Libor Pesek is today’s most active and effective champion of the music of Josef Suk (1874-1935), grandfather of the contemporary violinist of the same name and both pupil and son-in-law of Dvorak. In recordings with the Czech Philharmonic for Supraphon and in his guest appearances with American orchestras, Pesek has introduced us to several works by Suk, and when he toured here with the Liverpool Philharmonic two years ago their big work was the Second Symphony (“Asrael”), which they’ve also recorded. This new disc by Pesek and his orchestra offers two tone poems. “Ripening,” a sort of autobiographical disquisition in music on the process of maturing through experience, runs more than 40 minutes in Pesek’s reading. It might be described as Richard Strauss without the bluster—also without the memorable tunes he was able to devise. But Suk’s themes are strong enough to sustain the musical development, and there is imaginative exploitation of orchestral color (augmented by a wordless chorus in the final section).

The performance itself, and the recording of it, are all a composer could wish, and the same may be said of “Praga,” an enthusiastic tribute to the proud Czech capital in which fanfares based on the famous Hussite hymn lead to a battle scene and an apotheosis with organ. Pesek’s still current Supraphon recording (with a different coupling) is splendidly performed and recorded by Hogwood and the Saint Paul players.

**TIPPETT**: Fantasia Concertante on a Theme of Corelli
HOLST: A Fugal Concerto; St. Paul’s Suite
Works by Corelli and Bach
Saint Paul Chamber Orchestra, Hogwood
**LONDON** 440 376 (57 min)
**Performance**: Good
**Recording**: Good

The British love of old Italian music is amply demonstrated by this recording, which elegantly reaches back across the centuries, starting with a Corelli trio sonata in B Minor. Bach wrote a fugue based on a theme from that sonata, and here it’s re-Corelli-ized by Christopher Hogwood in a transcription for strings and continuo. Commissioned to write something for the 1953 tercentenary of Corelli’s birth, Michael Tippett used themes from the Bach-Corelli fugue, Corelli’s F Major Concerto Grosso, and his popular “Christmas” Concerto to create an enigmatic hybrid.

Gustav Holst’s links with the Baroque pieces are less direct, and both the Fugal Concerto and the St. Paul’s Suite are less original than the Tippett, but also more accessible in their evocation of a sort of folk-Baroque. All the music is most pleasantly performed and recorded by Hogwood and the Saint Paul players.

**WAGNER**: Der Fliegende Holländer
Soloists, Budapest Radio Chorus; ORF Symphony, Vienna, P. Steinberg
**NAXOS** 8.660025 (two CD’s, 138 min)
**Performance**: Very good
**Recording**: Excellent

With an intense, well-paced performance, captured with theatrical realism, this budget-price recording of Wagner’s The Flying Dutchman compares well with several other versions boasting more
could ask in the way of revivifying them without altering the characters that have remained and preserved their popularity. Fire and elegance are superbly balanced throughout, and Vengerov’s partnership with Kurt Masur and the Leipzig Gewandhaus Orchestra is an exceptionally happy one. R.F.

**NOBRE: Reminiscencias; Homenagem a Villa-Lobos**

**VILLA-LOBOS: Twelve Etudes**

Joaquim Freire (guitar); LEMAN/QUALITON 44601 (55 min)

Exquisite performances of a cornerstone of modern guitar music, Villa-Lobos’s Twelve Etudes, combined with two attractive works by a contemporary Brazilian. Marlos Nobre’s homage to his predecessor is serious, contemporary, and respectful, but it is the timeless reminiscences of his home town of Recife that confirms this sometime avant-gardist as a worthy successor of Villa-Lobos. Joaquim Freire is an immensely talented Brazilian guitarist who makes the difficult sound easy and then moves on to make music. E.S.

**THE BOSTON CAMERATA**

_Nueva España_

ERATO 45977 (75 min)

Joel Cohen, his Camerata, and other Boston musicians make a persuasive case for this mostly sacred music from Spain’s American colonies. It often sounds more energetic and more beautiful than music of that period (1590 to 1690) written in the old country, perhaps because of hybrid vigor from blending European music with indigenous and African influences.

William Livingstone

**SYLVIA McNAIR**

_Exsultate Jubilate_

Monteverdi Choir; English Baroque Soloists, Gardiner

PHILIPS 434 920 (59 min)

In addition to Mozart’s motet _Exsultate Jubilate_, with a particularly brilliant performance of its famous “Alleluia,” this CD offers Handel’s less familiar but very satisfying _Silete Venti_ and _Laudate Pueri Dominum_. Soprano Sylvia McNair uses her pure, nearly vibratoless voice to fine effect and with thoughtfulness. John Eliot Gardiner’s conducting of the period-instrument ensemble conveys the controlled power of the music. R.A.

**WHITE NIGHTS**

Romantic Russian Showpieces

Kirov Orchestra, Gergiev

PHILIPS 442 011 (60 min)

Except for the fanciful _Baba-Yaga_ and _Kikimora_ by Anatole Liadov, these are all tried and true warhorses: Gluck’s _Ruslan_ and _Ludmilla_ overture, Khachaturian’s _Sabre Dance_, the Polovstian March and Tchaikovsky’s _1812 Overture_. Valery Gergiev leads respectable run-throughs, but the orchestra is hardly world-class, and the recorded sound seems cramped. D.H.

Illustrious names. Actually, the principals are far from unknown; baritone Alfred Muff (the Dutchman), soprano Ingrid Haubold (Senta), and tenor Peter Seiffert (Erik) are front-line singers in Munich and Vienna. All three are thoroughly inside their roles, and supported by a good chorus and an excellent orchestra under Pinchas Steinberg, they form a seasoned ensemble.

Seiffert’s Erik, in fact, is as good as any on records; he is a lyric tenor for whom a melting legato is not out of place in Wagner. Muff is a commanding Dutchman, if not a tonally ingratiating one, and he is particularly effective in the opera’s closing moments. Despite instances of unsteadiness, Haubold is a moving and committed Senta. The Daland of Erich Knodt may have already weathered too many storms at sea, but he manages his music adequately, while Jörg Hering (the Steersman) and Marga Schinl (Mary) are more than competent. There are notes in English, French, and German, but the libretto is in German only. Otherwise, my only complaint about this highly commendable set is that Senta’s Ballad is split between the two discs. G.J.

**CECILIA BARTOLI AND ANDRAS SCHIFF**

_In the Impatient Lover_

Italian Songs by Beethoven, Mozart, Schubert, and Haydn

LONDON 440 297 (68 min)

_Performance: Gratifying_ 

_Matching Recording: Lovely_ 

In addition to being a spectacular Rossini heroine, mezzo-soprano Cecilia Bartoli, a native Italian, appears to be a natural recitalist as well. Except for a few forays into the French repertory, she has championed the music of her homeland. But though she has successfully built entire recitals around Rossini’s lightweight song output, one can’t do that for long. The programming of this CD suggests an attempt to broaden her repertory without abandoning the Italian language. It consists of songs by Beethoven, Mozart, and Schubert on Italian poems about romantic longing, plus Haydn’s Italian cantata _Arianna a Naxos_. Aside from the Haydn, most of the music is rarely heard second-and third-rate stuff. Bartoli’s performances are probably better than it deserves. D.P.S.
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30 Years Ago

In his June 1964 editorial, Furman Hebb took umbrage at a number of fake (electronically enhanced) stereo records that had recently crossed his desk, most priced a dollar more than equivalent mono releases. “Pseudo-stereo is something of a sham,” he declared, “and the moral of this story is that for once, at least, cheapest is best.”

For the issue’s cover story, Julian Hirsch and Gladden Houck tested twelve new stereo phono cartridges, from the Empire 880P ($19.95) to the Weathers PS-11 ($129.50). “The past year,” they observed, “has produced three noteworthy developments: the semi-standardization of the 15-degree vertical tracking angle, the introduction of a number of cartridges with elliptical styli, and a dramatic reduction in prices.”

In “The Anatomy of a Best Seller,” contributor James Goodfriend wrote, “Naked girls on the cover will help the sales of some records and hinder the sales of others. It is hard to know in advance which is which.”

20 Years Ago

Our Reviewers (We Think We’ll Keep Them): In a letter to the editor, reader Robert Dell’Aringa of Chicago, Illinois, sang the praises of reviewer George Jellinek, describing him as “a credit to criticism.”

In Best of the Month, Richard Freed recommended a Karl Böhm/Vienna Philharmonic performance of Beethoven’s Ninth Symphony (“the finest recording in which Böhm or the Ninth has yet been presented”), and Noel Coppage raved about “Seeds,” the latest effort by British folk-rockers Gallagher and Lyle (“neat-o-keeno all the way”). In other reviews, Leonard Maltin was wild about “Fifty Years of Film Music” on Warner Bros. (“the next best thing to having the films themselves”), Eric Salzman was stunned by a Heinz Holliger oboe recital on Philips (“one can only gasp in astonishment”), and Peter Reilly, reviewing the first (and only) album by glam-rock wannabe Jobriath, remarked, “Vocally, Marcel Marceau’s act sounds better.”

10 Years Ago

Sony’s MLV-1100 stereo TV decoder, Jamo’s PP 2504 tower speaker, an impressive-looking four-way bass-reflex system, and Toshiba’s pricey second-generation XR-Z70 programmable CD player ($750) were among the new products this month. Julian Hirsch said of the high-performance Proton 930 AM/FM receiver from designer Larry Schorz ($360) that it “easily outperforms anything we have seen at anywhere near its price.” And Craig Stark tested the Denon DR-M44 cassette deck, a three-head machine with Dolby B and C that he found he could “recommend without hesitation.”

It’s Got a Good Beat and You Must Dance to It: Reviewing Mel Brooks’s Hitler Rap, in the soundtrack for To Be or Not to Be, critic Louis Meredith dubbed it “Grandmaster Flash Meets Field Marshal Goering.”

—Steve Sinels
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