

4 Breakthroughs That Will Change Audio Forever!

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High Fidelity™

THE MAGAZINE OF AUDIO, VIDEO, CLASSICAL MUSIC, AND POPULAR MUSIC

Our Music Critics Review First Digital Compact Discs

New HF Chart Makes Tonearm/Pickup Matching Easy!

Steely Dan's Donald Fagen ■ HF Remembers Glenn Gould

Lab Test Special!

**How 10 Brand-New
Components Performed**

- Amazing Carver Tuner
- Super-Imaging Polk Speakers
- Boston Acoustics' First Pickup
- Plus 7 More Components!

Hands-On Reports

- JVC's Creative Video Camera
- Kenwood Bookshelf Stereo System

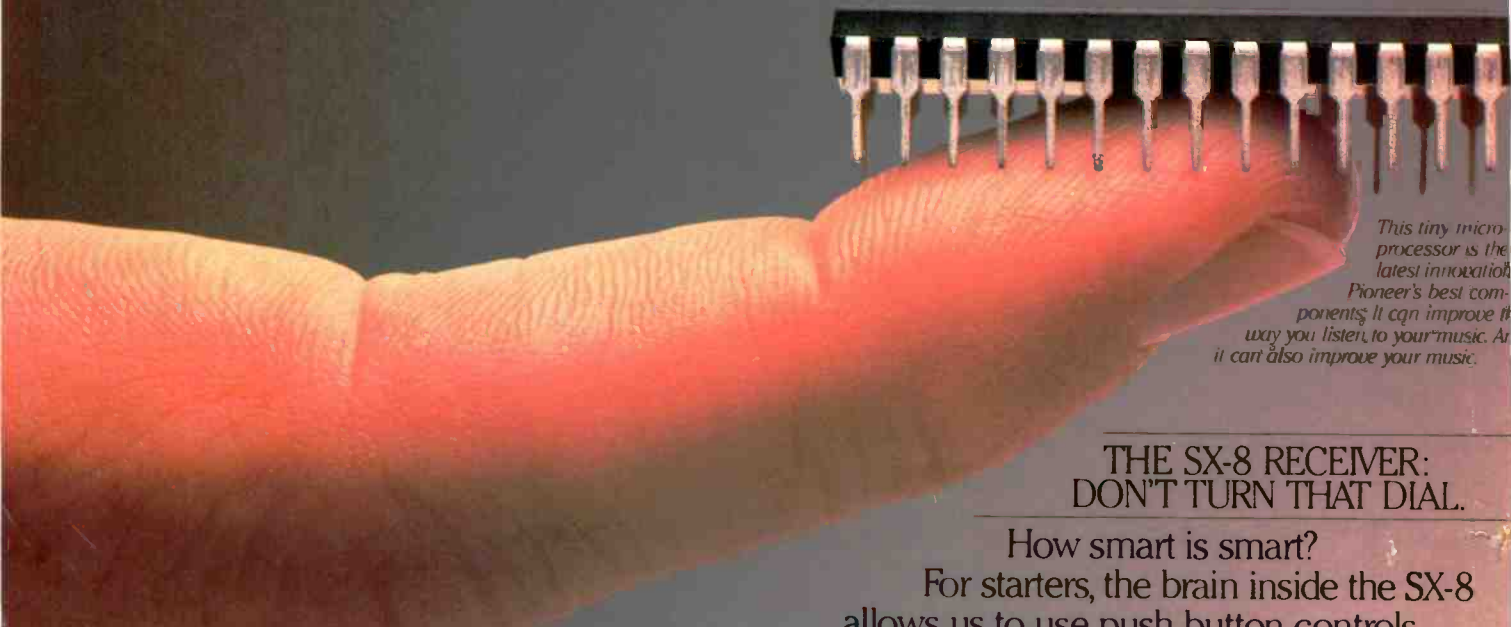


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**Best Way to Position
Car Speakers!
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WHAT YOUR EAR IS A BRAIN.



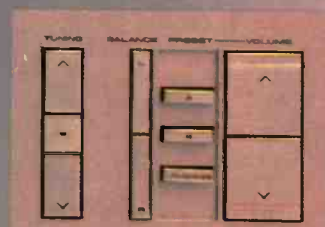
This tiny microprocessor is the latest innovation in Pioneer's best components. It can improve the way you listen to your music. And it can also improve your music.

THE SX-8 RECEIVER: DON'T TURN THAT DIAL.

How smart is smart?

For starters, the brain inside the SX-8 allows us to use push button controls, eliminating noise and distortion caused by mechanical dials.

So all you hear is crisp, clean music. Just the way it was recorded. The brain also willingly takes over the chores you used to do yourself.



All-electronic receiver operation does away with knobs and dials. Volume, station and bass and treble levels can be easily monitored thanks to L.E.D. readouts.

Just push a button to raise or lower volume or tone, change stations, even check the time. Push the Scan Tuning button and the receiver automatically scans every station, playing five seconds of each one.

Then, simply touch the Memory button. Your station, volume, and tone settings will

Not that there's anything wrong with the one you've got.

We just had something a little smaller in mind. More like the one you see here.

Technically, it's called a microprocessor or computer chip.

But we like to think of it as a little brain. Because when it's built into our Pioneer receivers, tape decks and turntables, they become more.

They become smart.

And when it comes to getting the most music out of your music, smart components have a lot of advantages over dumb ones.

RS NEED

be instantly stored in the memory. Ready to be recalled just as fast.

THE CT-9R TAPE DECK: SMART ENOUGH TO FIND NOTHING.

If you've ever done even a small amount of cassette recording, you've gone through the not-so-convenient fast forward/stop/play/reverse/stop/play procedure of trying to find the blank area where your last recording left off and the next one can begin.

The CT-9R, on the other hand, has a button marked Blank Search. Give it a push and it will find the area that's long enough to tape on, back up to the last recorded piece, leave a four second space and stop, ready to record.

Automatically.

And, as if that weren't enough, the CT-9R also has one of the world's fastest Automatic Bias Level Equalization systems. In plain English, that means that it takes just eight seconds for Auto B.L.E. to analyze the tape being used (no easy task with over 200 different tapes on the market) and then adjust the deck for optimum performance with that tape. Improving



The real-time counter reads out the amount of tape left in meaningful minutes and seconds instead of meaningless inches.

the quality of your recordings faster than you can say "wow and flutter."

THE PL-88F TURNTABLE: IT WON'T PLAY WHAT YOU DON'T LIKE.

In the history of recorded music, there has probably been one, maybe two people who like every cut on a

record. If you're not one of them, you'll take an immediate liking to the new PL-88F.

It's front loading, stackable and, best of all, it's fully programmable.

Punch in up to eight cuts per side in any order that makes your ears happy. The turntable will automatically skip the ones that don't.

And when you're recording from records to cassettes you'll appreciate the tape deck synchro that automatically

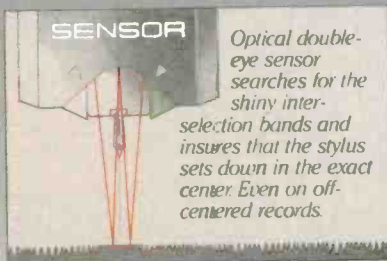
places any Pioneer Auto Reverse tape deck into the pause mode when the turntable tone arm lifts off the record.

Leaving you free for more important things.

Like listening to music.

The Pioneer CT-9R tape deck, SX-8 receiver and PL-88F turntable. Proof that to get the quality of music you buy quality components for, you don't need a lot of knowledge.

You just need a little brain.

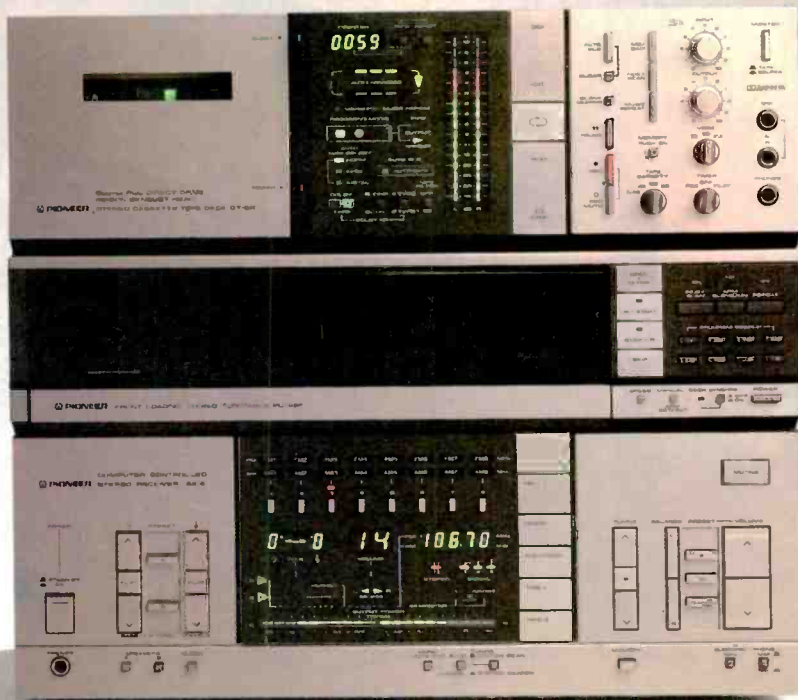


Optical double-eye sensor searches for the shiny inter-selection bands and insures that the stylus sets down in the exact center. Even on off-centered records.



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High Fidelity

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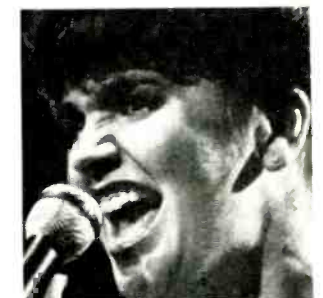
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The new Technics cassette decks with dbx.[®] They don't just reduce tape noise. They eliminate it.

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The Technics RS-M255X goes even further.

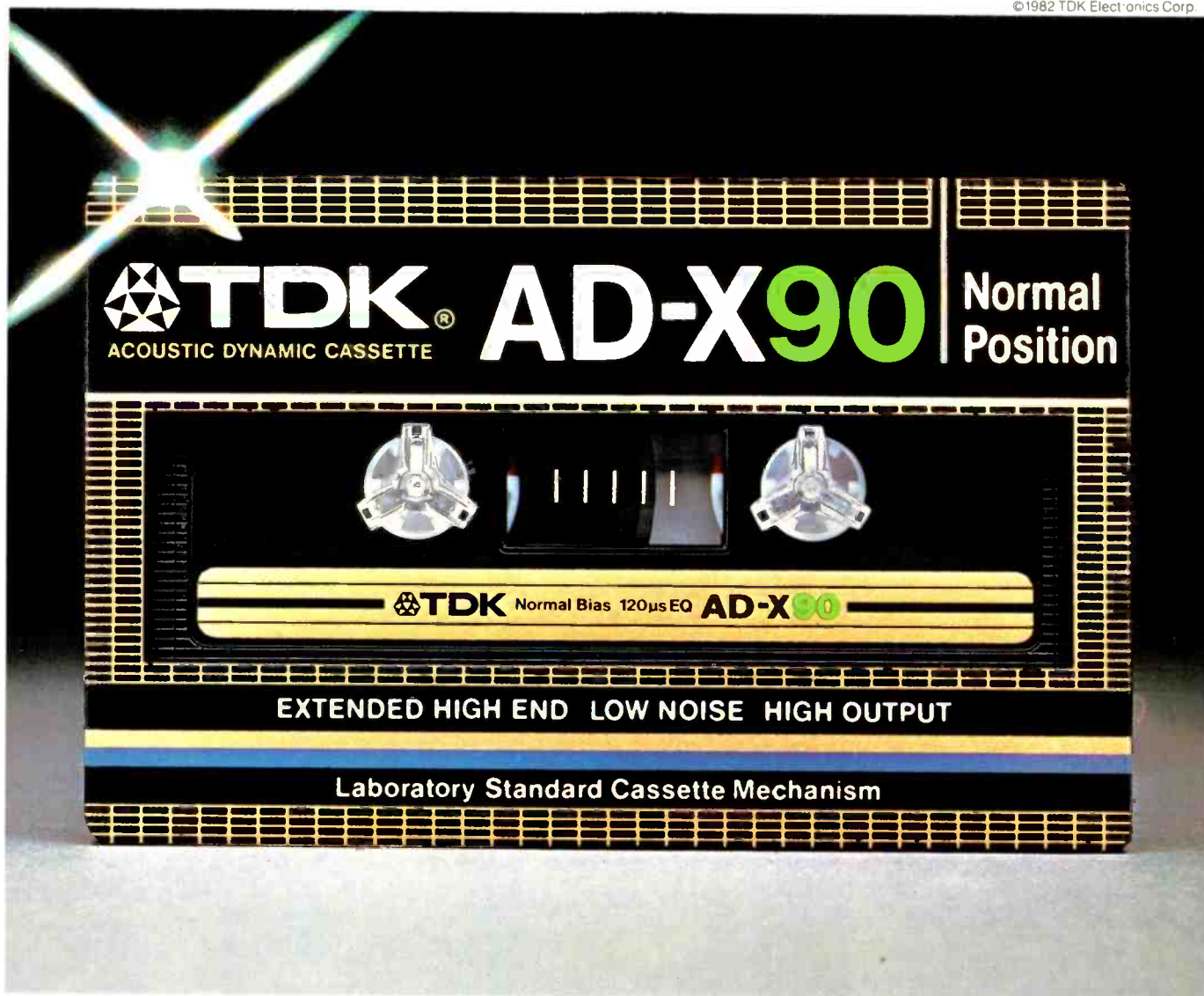
Wide range (-40 to +18 db), three-color FL meters handle the dynamic range dbx gives you. An electronic tape counter doubles as a remaining time indicator to show how much time is left on your cassette. Bias and EO levels are automatically selected for any tape formulation. Microprocessor feather-touch controls give you fast, easy, mode switching. And Technics RS-M255X gives you the stability and accuracy of a two-motor drive system.

Audition all of the sophisticated Technics cassette decks with dbx. Including the very affordable RS-M228X.

Why settle for tape noise reduction when you can have tape noise elimination? From Technics.

*Dolby is a trademark of Dolby Laboratories, Inc. ® dbx is a registered trademark of dbx, Inc.

Technics
The science of sound.



Someone who's a Wonder thinks AD-X is extraordinary.

As far as Stevie Wonder is concerned, the only thing that's normal about TDK AD-X is its bias. Otherwise AD-X is extraordinary.

AD-X is engineered to record and play back in the normal bias/EQ position. It's compatible with any cassette deck, delivering a wider dynamic range with far less distortion than ever before. Extraordinary.

Stevie also knows that even at higher recording levels, the increased headroom in AD-X handles strong signals easily without over-saturation. Extraordinary.

But, it's when



you (or Stevie) press the playback button that the superior quality of TDK AD-X becomes demonstrably clear. The brilliance you hear, resulting from the higher MOL and lower bias noise, will make it difficult for you to believe how much AD-X "improves" your deck. Extraordinary.

Of course, there's a solid reason why AD-X performs so brilliantly. It's TDK's Super Avilyn technology at work. You see,

AD-X is the first normal bias audio cassette to use TDK's Avilyn magnetic par-

ticle—based on the same formulation that's made TDK the leader in audio and video tape technology.

Another advantage about AD-X is the housing it comes in. It's TDK's Laboratory Standard Mechanism, and it's protected by TDK's lifetime warranty. Extraordinary.

When you add it all up, what TDK AD-X gives you is the ideal audio cassette for all-round personal entertainment suitable for *any* cassette player. That's why Stevie Wonder chose TDK before we chose him. This, too, is extraordinary.

TDK
THE MACHINE FOR YOUR MACHINE

About This Issue

Inside the pages of January's HIGH FIDELITY

THIS YEAR PROMISES to be a very exciting one for home entertainment. Surely much attention will be focused on the digital Compact Disc and player. Our coverage of this revolutionary technology began last month with a hands-on report on Sony's CDP-101 by technical editor Michael Riggs. This month our classical- and popular-music critics and editors listen to the first Compact Discs. As they report, it is often difficult to separate the medium from the music.



HF technical editor Michael Riggs (standing, right) explains the digital Compact Disc to HF music editors and critics assembled in High Fidelity's listening room.

More traditional playback equipment is seeing a revolution of its own. As Peter Dobbin reports in "Sound Views," such products as Carver's TX-11 tuner and the Polk SDA-1 loudspeaker reflect a real renaissance in audio innovation. Those two units are covered in detail in this month's expanded test-report section, for which we have selected ten new products for in-depth lab/listening reports by Diversified Science Laboratories and the HIGH FIDELITY technical staff. Supplementing these formal tests are two hands-on evaluations: In "Environments," Christine Begole appraises one of the new bookshelf component stereo systems, and in our video report, Edward J. Foster of DSL checks out a new, feature-packed color video camera.

In the area of classical music, this month we begin a two-part tribute to Glenn Gould, the legendary pianist who died last October and whose by-line appeared frequently in HF during the '60s and '70s. In this issue, we run his previously unpublished piece "What the Recording Process Means to Me," David Hamilton's appraisal of his importance to recorded music, and a review of Gould's recent *Goldberg Variations* by classical music editor James Oestreich. Next month we'll print excerpts from his eloquent and often eccentric HF writings.

Speaking of eccentric, BACKBEAT's interview this month is Steely Dan's Donald Fagen. With uncharacteristic candor, Fagen discusses his first solo LP and its digital recording sessions. In February, BACKBEAT will interview Billy Joel.

Next month's audio and video coverage will focus on tape and recording. Along with test reports on six new cassette decks, we'll feature articles on how to make great recordings, how tape recording works, how to pick the best audio (or video) tape for your application, the future of home recorded and recording media, and tips on mistakes to avoid in your home recording studio . . . That's enough to keep us busy. In the meantime, Happy New Year!—W.T.

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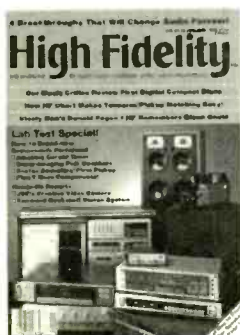
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Letters

Pinheaded Angel-Dancing

The controversy over how many choristers poor old Bach had at his modest disposal [September, October, and December 1982] is just so much pinheaded angel-dancing. Even if it could be proved that Bach had only one voice per part, or that he had to sing all the parts himself by means of Mongolian split-voice techniques, this would not justify our imitating his deprivations. The Bach choral works are glorious, monumental pieces that, for their full realization, require the contrasts in weight of tone available from modern performing forces.

This whole matter of authentic performance and instrumentation can be seen as the musicological trivia it is when one remembers that today's audiences do not listen to faithfully reconstructed performances with the same ears as the composer's contemporaries did: an historical gulf intervenes. Whether we hear Bach's peculiar-sounding strings and oboes or the broken-down old pianos Beethoven was always snapping strings on is a matter of little interest to the general music listener. It should be left to the musicologists, who may someday decide that Mozart sounds best performed on eighteenth-century comb and tissue paper.

The musicologists should devote their energies to establishing correct texts, ornamentation style, and tempo and dynamic indications where possible—elements that really do affect the music as we hear it—for the calendar is never going to be turned back, no matter how much they fuss.

James Wade
 Seoul, Korea

Ominous Thumps

The query titled "Thumper" in October's "CrossTalk" reminded me of a similar experience I had. Until about a year ago, my system included a Nikko 7075 integrated amp and a pair of Audio Monitor 9200-II four-way acoustic suspension speakers. At times, this setup would produce an ominous thumping noise that would increase as the volume was turned up.

Of course, I was concerned that the speakers were being damaged. Turning down the volume did seem to help eliminate the problem. Since I was in the process of upgrading my system, I decided to replace the integrated amp with a Nikko Alpha 220 amplifier and Beta 40 preamp. The minute I connected the new components, the thumping stopped, and to this day it has not returned, regardless of the volume level or the type of music being played. Clearly the increased headroom of the new setup was the remedy. (Incidentally, the speakers sound excellent, too.)

Robert A. Jones
 Milford, N.J.

Bravos ... and No-Nos

Bravo, Conrad L. Osborne and his "Collectors' Gioconda" [August 1982]!

Not that I can second all of Mr. Osborne's opinions, but the breadth and richness of his

study are truly Ponsellian. Here's hoping for the same treatment of other major recordings.

Barry Frauman
 Chicago, Ill.

Your review of Glenn Frey's new album "No Fun Aloud" [September 1982] was fine, except for one thing. Although his midwestern, Jack Nicholson-ish intonation is quite distinctive, I believe you'll find that the voice "immortalized" on Eagles standards like "The Best of My Love" is not Frey's, as stated, but drummer Don Henley's.

Joanne Recca
 Glen Cove, N.Y.

We stand corrected.—Ed.



Kudos for Don Heckman's "The Postwar Jazz Trumpet" record review [September 1982]! His excellent work is characterized by a rare combination of brevity, substance, insight, and knowledge.

Mark Kaplan
 Brookfield, Conn.

Thank you for the complimentary remarks about my new album ["Missin' Twenty Grand," July 1982]. I was really flattered, particularly by the comparisons to Rickie Lee [Jones]. The review helped me keep the LP alive. Thanks!

David Lasley
 New York, N.Y.

Home Brew

I found Robert Long's article on record and tape care products most informative. Does Mr. Long recommend using a solution of 25% pure isopropyl alcohol and 75% distilled water as a substitute for popular commercial record-cleaning liquids?

David R. Long
 West Jefferson, N.C.

Mr. Long replies: *No, I don't. I'd stick to the manufacturers' formulations.*

Letters should be addressed to The Editor, HIGH FIDELITY, 825 7th Ave., New York, N.Y. 10019. All letters are subject to editing for brevity and clarity.

High Fidelity News

New equipment and developments



Sansui Practices Digital Magic

Sansui has good news for perfectionist home recordists who make digital recordings using a VCR and a digital audio processor. Until now, such recordings could be made only at a video deck's fastest, least error-prone speed: slower speeds led to problems with data dropouts, noise, and variations in the amplitude of digital data. Enter the PC-X1 digital processor, a unit whose powerful error detection and correction circuitry enables the tapist to make ultralong-playing digital recordings at a VCR's slowest speed—five-hour on Beta or eight-hour on VHS decks.

This bit of digital legerdemain is accomplished by manipulation of the digital codes during playback. Though noise and dropouts might be horrendous because of the VCR's slow recording speed, the PC-X1 restores order during playback by slowing down the stream of data being read from the tape just long enough to second-guess whether the signal makes musical sense. If it doesn't, the circuit interpolates new digital bits, basing its reconstruction on predictive logic. The PC-X1 fills in the gaps, so to speak, and the result, according to Sansui, is audibly perfect sound. The unit will arrive on dealers' shelves by midyear; expected price is about \$2,000.

Circle 71 on Reader-Service Card



Superstar Billing

Though it is billed as a "supertuned" edition of the ZX-7 cassette deck, Nakamichi's \$1,550 ZX-9 employs several fundamentally different techniques. The ZX-9, for instance, provides the cassette-deck debut of the Super-Linear-Torque motor first used in the TX-1000 turntable. This direct-drive motor's star-shaped rotor-magnetization pattern is said to eliminate any vestiges of

cogging and torque variations. (The ZX-7 has a belt-drive motor.) The ZX-9 is also said to include improved electronics, with both recording and playback heads directly coupled to their respective circuitry. Other features of the new deck include a dual-gap ferrite/sendust erase head, laminated long-wearing Crystalloy recording and playback heads, and simultaneous encode/decode Dolby B and C noise reduction circuits for full off-tape monitoring.

Circle 85 on Reader-Service Card

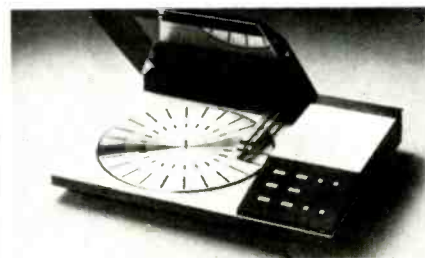


Akai at a Glance

A fluorescent screen on Akai's AA-R22 instantly verifies each of the receiver's control settings and input selections. The unit is rated at 30 watts (14¾ dBW) per channel,

with no more than 0.05% total harmonic distortion. All function- and input-selector controls are electronic, and a microprocessor enables you to store and retrieve two tone control settings. The receiver's tuner section has six AM and six FM station presets. In addition, an automatic fader permits smooth segues during recording. Price of the AA-R22 is \$250.

Circle 77 on Reader-Service Card



Better Yet from B & O

Though there is no vacuum stabilizer in Bang & Olufsen's 8002 turntable, you'd

Hands-On: Sound Concepts' Synthesizer



Audiophiles seduced into mating their video and audio gear are likely to be disappointed with the sonic results. Even when feeding both channels of a preamp or receiver, a mono source leaves much to be desired for a generation brought up on stereo sound. Stereo synthesizers that attempt to redress this problem have been around for years. Often advertised with extravagant claims, these inexpensive devices (usually less than \$50) are seldom anything more than passive crossover networks that dump bass into one channel and treble into the other. But when Sound Concepts, a company responsible for several innovative audio signal processors, announced a stereo synthesizer, I suspected its approach would be more clever. And I was right. Having lived with the VSP-1 (\$150) for several weeks, I can report that it creates an altogether pleasant two-channel experience.

The VSP-1 uses a comb-filtering process that creates a continuously changing left-right frequency balance. The signal for each channel has a rippling response that

peaks where the other channel's response dips, and vice versa. These differences in each channel's frequency response do not enable the ear to localize instruments and voices, but the comb filtering does create a stereolike ambience and projection. When I switch back to mono, the sound loses vitality and depth, appearing to draw back into the speakers.

Inserting the VSP-1 between video gear and a receiver or preamp is quite easy. There are separate two-channel inputs for signals from VCRs and television sets; a video disc player could use either one. If your VCR is a mono unit, plug it into the left input; if your VCR or disc player is stereo-capable, the two-channel input and a STEREO/MONO button enable you to accommodate the stereo input without having to reconnect the whole system.

The VSP-1 replaced a simple Y-connection I had made between my VCR and preamp (for two-channel mono). The resulting improvement was dramatic, but not intrusive. The VSP-1 is not intended to diminish the hiss or increase the bandwidth of video sources. It does, however, make the limitations of most video sound easier to live with.—P.D.

Circle 78 on Reader-Service Card

think otherwise when lifting a record off the platter. A series of microscopically raised Nextel ribs support a record on the "land" between its grooves, rather than on the disc's outer bead or label area. This, says B&O, traps a very thin layer of air that damps vinyl resonances, which are further reduced by high-absorption components under the platter and on the rotor. Other refinements to the earlier Model 8000 (see test report, September 1981) include a repeat function for programming as many as nine play cycles and a spring-cushioned tonearm designed to achieve a vertical resonance of 12-14 Hz when used with the

latest generation of B&O plug-in pickups. The price of the 8002 is \$700.

Circle 84 on Reader-Service Card

Stanton Stays Neutral with RC-5

Long-lasting static neutralizers combined with effective cleaning agents make Stanton's RC-5 Plus a logical successor to the company's highly regarded Permostat antistatic fluid. Said to reduce LP surface noise while leaving no residue, the system



consists of a two-ounce bottle of cleaner/antistatic solution, a high-pile brush designed to reach deep into record grooves, and a storage case. The brush has a conductive handle to help bleed off LP static charges during the cleaning operation. The RC-5 Plus System, which contains enough fluid to clean and neutralize 300 record sides, costs \$17.

Circle 70 on Reader-Service Card

AUDIO CRITICS RAVE ABOUT THE V15 TYPE V:



"Our tests show that the Shure V15 Type V not only lives up to the claims made for it, but in virtually every respect OUTPERFORMS the best cartridges we have previously tested... It is hard to imagine how the V15 Type V could be improved significantly. It offers the MOST PERFORMANCE in the most areas, plus the most convenience and safety in installation and operation." — Julian Hirsch, *Stereo Review*, June, 1982

"... (The V15 Type V) is definitely the FINEST pickup Shure has ever made, which makes it one of the finest ever made, period." — High Fidelity, July, 1982

"... In a world of audiophile discs with demanding tracking requirements, the Shure V15 Type V KEEPS AHEAD of the times." — Rich Warren, *Chicago Sun-Times*, June 4, 1982

"(The V15 Type V) REDEFINES its maker as a pioneer in cartridge

design not only from the beginnings of micro-groove technology but well into the future of the LP disc." — FM Guide (Canada), June, 1982

"... It may be safe to say that this cartridge's excellent tracking ability is NUMBER ONE in the world. Provides exquisite and elaborate sound." — Swing Journal (Japan), May, 1982

Find out why the critics are so excited. Send for free fact-filled brochure AL694A.

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SHURE®

Shure Brothers Inc., 222 Hartrey Avenue, Evanston, IL 60204



Plug-In Pickups from Shure

With the addition of the M-96LT (above) and M-94LT, Shure brings to four the number of pickups it offers for Technics-type tangential-tracking tonearms. The two pickups—\$80 and \$45, respectively—are said to offer high trackability and smooth, extended frequency response. Both models have elliptical diamond tips and are designed to track at 1¼ grams.

Circle 87 on Reader-Service Card



Think Thin

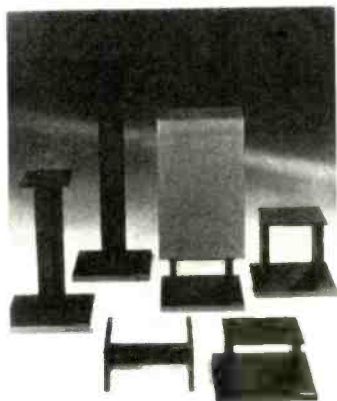
Requiring less than two inches of mounting depth, Jensen's ThinMount 6-by-9-inch car speakers can solve a lot of placement headaches. The Triaxial (three-way) version is said to be capable of handling 50 watts of power, with a sensitivity of 101 dB SPL for a 1-watt input. Price is \$130 per pair. The \$85 Coax (two-way) speakers have a similar power-handling rating, but with a sensitivity of 100 dB SPL.

Circle 76 on Reader-Service Card



Turn On, Tune Up

Designed for the nontechnical, Telarc's \$30 OmniDisc provides a musical method for setting up and adjusting a stereo system. The two-record set guides the user through turntable and tonearm adjustments, proper use of tone controls, speaker placement, system wiring and phasing, and channel balancing. Telarc even recruited conductor Leonard Slatkin and the St. Louis Symphony for the stereo imaging test. By comparing the seating chart printed in the owner's manual with the aural image of the orchestra, the listener can determine how accurately his system reproduces the recording's soundstage. A phono cartridge alignment method is described, and an alignment protractor is inscribed on one side of a disc. *Circle 88 on Reader-Service Card*



Elevating Performance

Improving the performance of a loudspeaker is often as simple as elevating it. Naim Products offers six different speaker stands to complement a variety of loudspeakers and room decors, marketing them under the Plateau brand. The stands range in height from 5 1/4 to 30 inches and are available in a black washable finish or black with walnut trim. Each model tilts the speaker back to aim it properly at a seated listener. The Plateau stands range in price from \$20 to \$56 a pair.

Circle 4 on Reader-Service Card ▶

The ADC Sound Shapers.[®] Improvements on perfection.

When you make a line of equalizers that audiophiles consider to be the best, it's difficult to make them better.

But we did. And our exciting new Sound Shaper[®] line reinforces our reputation as the leader in the equalizer world.

You'll find the same superb electronics and high performance technology that you've come to expect from ADC. With LED-lit slide controls that let you custom-tailor your sound to compensate for room and system deficiencies. And now, you'll find our Sound Shapers updated with new refinements and sleek styling that makes them look as good as they function.

Our top-of-the-line SS-30 is a perfect example. A ten-band equalizer with LED meters and two-way tape dubbing, it has its own integrated spectrum analyzer built in, so you can clearly see the altered frequency response. And unlike many other equalizers with integrated spectrum analyzers that require outside pink noise sources, our SS-30 has its own pink noise generator built right in. So now, you can accomplish corrective equalization of your room without

an additional component.

The rest of the line is equally impressive. From our 12-band SS-20 to our ten-band SS-10 to our five-band SS-5, all ADC Sound Shapers offer you fingertip control of your frequency response, with features geared to your equalization needs.

If you're serious about equalization and want to maximize the potential of your present system, an ADC Sound Shaper is your answer. The new ADC Sound Shapers. Perfect examples of sound thinking. Improved.



Sound Shaper[®]
Frequency Equalizers



Sound thinking has moved us even further ahead.

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Practical answers to your audio questions by Robert Long

Unfettered FM

I own four FM receivers, three from Europe and one from the U.S. The European receivers—and European FM transmissions—have a frequency response and dynamic range that are immediately identifiable as superior to what's available here. Is there something about FCC regulations that limits the quality of U.S. broadcasting?—J.R. Frame, Cecilia, Ky.

No. I suspect that what you are perceiving is an unfortunate by-product of the largely commercial nature of U.S. broadcasting. FM stations in Europe are mostly noncommercial government operations, designed to deliver a network signal to a relatively small area. The "reach" of the individual transmitters is generally less important (because there are so many of them carrying the same programming) than the quality of the signal being transmitted. In the U.S., the number of listeners that can be corralled into listening is important for both commercial stations (to attract sponsors) and publicly supported ones (to attract donors). Thus broad dynamic range becomes intolerable, because it allows the quietest passages to drop "into the mud" and alienate listeners who can't get really quiet reception. This puts a premium on the use of various signal processing equipment to "grab" listeners—even if that means compressing (and compromising) the sound. There are very few stations with the guts to forego such devices and the greater listenership they generate. The FCC has contributed to this dilemma by choosing a noisier stereo broadcast method than it might have. But in the competitive world of FM—commercial and otherwise—"punch" outpulls quality.

Help!

I wonder whether readers can help me find those large white plastic clips that the 3M Company used to make to hold in place the ends of open-reel tapes? The smaller red and orange ones I find now don't seem to do the job, and I have a collection of more than 100 tapes that I want to keep in first-rate condition.—Sid Rosen, Toronto, Ont., Canada.

Frankly, I prefer those little "bricks" of sponge rubber (at least that's what it feels like) that Memorex used on its short-lived

open-reel tape line. You could make something like that for yourself, cutting a springy sponge material (its actual composition is immaterial, as long as it has good resiliency and grip) a little thicker than the distance between the insides of the reel flanges, so the block will wedge in place. Maybe some of our readers have even better suggestions.

Sound in Space

I've been advised that some speakers should be better suited to creating the Carver holographic image than others, but several of the recommended models sound "boxy" to me. I have heard the Dahlquist DQ-10s with a Dahlquist subwoofer. The effect with the Carver device is quite pleasant, but a dealer tells me the Dahlquist/Carver combination is redundant. Who's right?—Ken Lausa, Lima, Ohio.

You are: Ultimately it is a question of your own aural judgements—whatever I or your dealer may say. For holography, it's theoretically desirable to have all drivers in a speaker system aligned vertically, whereas the DQ-10 design takes care to align them in the same acoustic plane, but not necessarily in a vertical line.

The Carver holographic effect and the coplanar drivers of the DQ-10s are not identical in intent, however, and therefore not redundant. Dahlquist seeks to prevent what has been called "time smear" in reproducing whatever signal is fed to the speakers—that is, to keep the signals from the various drives in step with each other—and to reduce diffraction. The Carver device's compensatory circuits correct for acoustic anomalies that occur once the signals are sent out into the room, which are caused by room interactions and by the geometric relationships between a pair of speakers and a pair of listening ears.

A Thin Line

I recently came across a TDK D C-180 tape. The tape looked extremely thin and hardly capable of high-quality reproduction. What are your opinions on it?—S. Docie, Trenton, N.J.

TDK's D (for Dynamic) formulation is its least expensive, but is capable of very good

results in appropriate recorders—at least with the C-90 and shorter lengths recommended for music. I've even used C-120s with good results, though I don't know a single cassette-deck manufacturer who's willing to recommend the length—in any brand. The C-180, however, is another story—as TDK itself is the first to admit. With such thin backing, mechanical strength is reduced and printthrough increased. And the magnetic coating also is much thinner, even by comparison to C-120s. The result is poorer performance, particularly in the bass. TDK evidently makes C-180s expressly for users to whom maximum possible recording time is an overriding necessity—for speeches, for example—but the company doesn't recommend them for music. Nor would I.

Proportions

I am considering modifying a garage measuring 24 by 18 feet for use as a stereo listening room. Can you recommend physical changes so the room will provide the best possible acoustical environment?—Linda E. Bailey, Dothan, Ala.

Perhaps. First, these proportions sound worrisome. When the distances between parallel walls have a common denominator (in your case, six feet) standing waves will be created at common frequencies. Many acousticians try to avoid parallel walls altogether when planning a listening environment. But it's obvious that, without major and very expensive alterations, you're stuck with the current dimensions of your space. What you can control more readily is the relative "liveness" (reflectiveness) or "deadness" (absorptivity) of the materials on and between the walls.

It's fundamental that live and dead materials should be intermixed to break up the sound. A growing number of designers favor making the area behind the speakers as dead as possible and the listening end of the room relatively live. (A really dead wall will also prevent serious standing waves, even if a live wall is parallel to it.) This is a very complex subject, however, and if you need detailed help you should seek out a builder or other professional with practical experience in creating home listening environments.

We regret that the volume of reader mail is too great for us to answer all questions individually.

MAXELL IS PLEASED TO PRESENT AN EVEN HIGHER PERFORMANCE TAPE.



If you're familiar with Maxell UD-XL tapes you probably find it hard to believe that any tape could give you higher performance.

But hearing is believing. And while we can't play our newest tape for you right here on this page, we can replay the comments of Audio Video Magazine.

"Those who thought it was impossible to improve on Maxell's UD-XL II were mistaken. The 1981 tape of the year award goes to Maxell XL II-S."

How does high bias XL II-S and our normal bias equivalent XL I-S give you such high performance? By engineering smaller and more uniformly shaped epitaxial oxide particles we were able to pack more into a given area of tape. Resulting in a higher maximum output level, improved signal-to-noise ratio and better frequency response.

To keep the particles from rubbing off on your recording heads Maxell XL-S also has an improved binder system. And to eliminate tape deformation, XL-S comes with our unique Quin-Lok Clamp/Hub Assembly to hold the leader firmly in place.

Of course, Maxell XL II-S and XL I-S carry a little higher price tag than lesser cassettes.

We think you'll find it a small price to pay for higher performance.



IT'S WORTH IT.

Maxell Corporation of America, 60 Oxford Drive, Mahanoch, N.J. 07074

The Autophile

Going on the road with stereo by Gary Stock

Letters from the Road

LETTERS, WE GET LETTERS. The ones addressed to this column tend to fall into two categories. There are those seeking miracle solutions to their specific—and often bizarre—problems (“Where do I put the 10-band equalizer in my ’46 Hudson Hornet?”), and there are those whose queries deal with the fundamentals of car audio—price ranges, component matching, hookup, and so on. As they relate to *home* high fidelity systems, those elements have been addressed often in this magazine. But as they apply to the relatively young science of putting music on wheels, they have yet to be dealt with in depth. Allow me to begin, then, by dipping into the Autophile mailbox for a few of the most common inquiries:

Q. *How much should a reasonable auto-sound system cost?*

A. Probably not as much as you’ve been told. To a greater extent than with a home music system, the quality of sound you get from a car stereo system is dependent on the care with which it’s installed. If you do it yourself and are willing to experiment a little during the installation, it’s possible to assemble a really nice-sounding basic system for as little as \$200. That would include an AM/FM/cassette unit installed in the dash and one good pair of speakers mounted in the doors or on the rear deck.

Spending more than \$200 can take you in a couple of directions. It will buy you more convenience, in the sense that pricier AM/FM/cassette units have things like station seeking (the radio hunts down a station without your twiddling any dials) or automatic-reverse tape playback. There are also nifty items like electric antennas that go up and down by themselves when you turn the radio on and off. Alternatively, the extra money could be put into equalizers, subwoofers, or additional speakers to obtain marginally better sound: slightly deeper bass, more treble, and the “surround sound” effect you get with more than one pair of speakers.

Q. *Should I install the system myself, or let the professionals at a car stereo store do it?*

A. That depends on how complicated a rig it is. If you stick to just an AM/FM/cassette unit and one or even two pairs of

speakers, you should be able to install a system yourself by following the instructions closely. You will save an installation fee, plus you’ll know the job has been done carefully.

By the way, there are a lot of little things you can do yourself to make everything sound as good as it can. For instance, use heavy (16 or 18 gauge) wire to connect the speakers and the radio. Loosely pack white polyester-fiber “angel hair” pillow stuffing (usually sold at sewing stores) behind the speakers to protect them from moisture and to absorb reflected sound. You might also want to experiment with different speaker locations within the car before you start cutting vinyl: Make temporary and moveable enclosures for the speakers by mounting them in a box—their original cartons usually work fine—after cutting a hole in the box side. All these things will have a marked effect on the reliability and sound quality of the system.

If you’re going to spring for a fancier rig, though, with separate power amplifiers or an equalizer, have the pros install it. Installation complexity increases (as does the likelihood of hassles) as the system becomes more complicated.

Q. *Do I have to choose electronics and speakers of the same brand?*

A. That’s not necessary for a basic system. Just about any speaker will work with any front-end unit. The thing to avoid is mismatching the *performance* quality of the two basic components—there’s no point in using, say, \$300 speakers with a \$150 radio. As a general rule of thumb, stick with a 3-to-2 ratio between the cost of the front end unit and the cost of the speakers.

If you have a more complex system with a separate power amp or equalizer—or

if you intend to upgrade a basic system by adding outboard signal processing—all your electronic components should be the same brand. Car stereo components are much less compatible than their home counterparts; occasionally plugs and jacks don’t even match.

Q. *What can I do when choosing and installing a new autosound system to ensure good radio reception?*

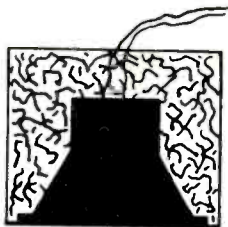
A. First of all, look for a radio with a good FM sensitivity specification—something around 1.5 to 2 microvolts. When you’re installing it, make sure the antenna cable has a clean, shiny plug to make a good connection; keeping the cable routed away from the rest of the car’s wiring should also minimize interference. If your speakers produce a persistent whining that changes in pitch as the car changes speed, look into add-on interference suppressors; such devices are available at most good car stereo stores. If your car has its antenna embedded in the windshield, FM reception may be poor, so invest a few dollars in a new rod antenna. And don’t forget to adjust the AM trimmer control when you install the radio; your owner’s manual will tell you how.

Resources

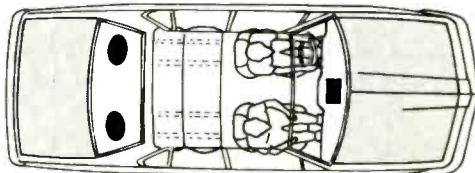
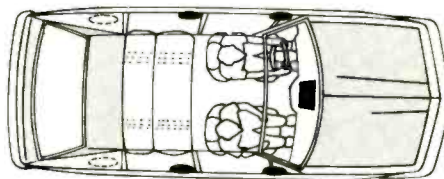
For more detailed information on car stereo selection and installation, consult either of these two books:

Van Waterford, *The Complete Guide to Car Stereo Systems* (Blue Ridge Summit, Pa.: TAB Books, No. 1121), \$7.95.

Martin Clifford, *The Complete Guide to Car Audio* (Indianapolis, Ind.: Howard W. Sams & Co., No. 21820), \$9.95.



A test enclosure (above) can help determine the best location for speakers. With hatchbacks (top, right), place speakers in kick panels or behind front seats; avoid luggage compartment (dotted circles). For cars with trunks, start with rear deck.



Perfect Timing



So you won't miss the music you're after.

The song you're recording is building to a big finish. Unfortunately, your tape may finish before the band does.

The Onkyo TA-2055 takes the guesswork out of making perfect cassette recordings. It features a Real Time Counter that displays the consumed or remaining time on the tape, so you can plan your music selections down to the second. Creating your own tapes takes a lot of effort, and the TA-2055 insures that time is on your side.

There are more outstanding recording benefits to this remarkable deck. Jarring, abrupt song transitions are prevented by our Auto Space control that automatically inserts

five seconds of blank space between cuts. Onkyo's patented Accucias lets you fine-tune to the correct recording bias of the tape. The result is professional recording quality with the

flattest frequency response a tape can produce. Dolby B & C Noise Reduction systems are standard, and a microcomputer controlled direct-drive 3-motor transport guarantees smoothness and reliability, in recording or playback.

The TA-2055 takes its place with our other cassette decks as a superb example of Onkyo technology and value for the dollar. Our perfect timing will make for perfect listening.



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The Institute of Jazz Studies is proud to announce
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THE GREATEST JAZZ RECORDINGS OF ALL TIME

Unprecedented in recording history—the complete
and definitive collection of great jazz performances



*"Now it's all together . . . all the best of jazz,
at long last, in one place. With all the joy,
the sorrow, the vitality that makes jazz great.
It gives me a tremendous feeling to know
this collection is being done, and
I'm delighted to be a part of it."*

—Dave Brubeck

A collection that only the Institute of Jazz Studies could assemble:

- *The best of over 60,000 records from the institute's archives and the vaults of every great jazz label.*
- *Including rare out-of-issue pressings, unreleased recordings — and studio "takes" just recently discovered.*
- *The first and only collection to tell the entire jazz story.*

FOR THE FIRST TIME EVER, the greatest recorded performances in the history of jazz will be brought together in a single, definitive record collection.

This unprecedented collection is being issued by the Institute of Jazz Studies, home of the world's largest archive of original jazz recordings. It will include the most important recordings of every major jazz artist who ever lived. And it will span all periods . . . all labels . . . all the great styles that have made jazz the most inventive and exciting music of our century.

From the world's largest jazz archive *The Greatest Jazz Recordings of All Time* is the culmination of years of work carried on at the Institute's headquarters at Rutgers University — by a staff of authorities unique in all the world.

As they set about making their selections, no resource was denied them. They considered countless recordings, beginning with the Institute's own archive of more than 60,000 records. In addition, they received the support of all the great jazz labels, whose vaults hold the master recordings essential for this collection.

The most comprehensive collection ever assembled

As a result, this will be the first collection to capture the all-time best of

jazz, as it flourished in each generation. The greatest music from the *golden age* — the dazzling trumpet solos of Louis Armstrong, the biting elegance of Bix Beiderbecke's cornet, and the vital, vibrant piano styles of Fats Waller.

From the era of *swing* — the innovative bands of Benny Goodman, Count Basie, Gene Krupa; the incomparable Duke Ellington; singers Billie Holiday, Bing Crosby; guitarist Django Reinhardt in his "Hot Club of France" recordings.

The best of *bop* and *cool jazz* — with alto sax artists ranging from the fiery Charlie Parker to the impeccably graceful Paul Desmond . . . trumpeters Dizzy Gillespie and Miles Davis . . . the Oscar Peterson Trio . . . Milt Jackson, with the Modern Jazz Quartet.

And the great musicians who are bringing jazz to more people than ever today — including George Benson, Herbie Hancock and Chick Corea.

A collection you could never assemble in any other way

This is a collection that could not be duplicated by any individual. For it draws upon a wealth of rare recordings which belong to the Jazz Institute — including important material just uncovered in the last few years.

Some of these recordings, such as Teddy Wilson's solo piano version of 'Somebody Loves Me,' have actually never been issued before. Others have been unavailable for decades — such as Art Tatum's 'Chloe.' And among the most fascinating of all are the previously unreleased studio "takes" of well-known numbers like 'Benny's Bugle' by Charlie Christian and 'I Can't Get Started' by Bunny Berigan.

And all the *classics and hits* of jazz will be here. Unforgettable performances of 'St. James Infirmary' by Jack Teagarden, 'China Boy' by Eddie Condon, and 'Star Dust' by Lionel Hampton.

The superior sound of proof-quality records

The sound quality of each record will be a revelation. For every vintage recording will first undergo a painstaking restoration. Each will be electronically "cleaned," groove by groove . . . bring-

ing you closer to the actual performance than was previously possible.

Furthermore, the Institute of Jazz Studies has appointed The Franklin Mint Record Society, one of America's leading producers of high-quality records, to press the records for this collection. And they will use a special vinyl compound containing its own anti-static element. In addition, each record will be pressed in an atmosphere controlled "clean room." The result — a pressing of superior fidelity that is also more durable and resistant to dust. A record of true *proof-quality*.

The records will be issued in hard-bound albums. Each album will hold a set of four 12" long-playing records. And each will present a specially conceived *program of selections*, which brings together related performances in a way unique to this collection. Accompanying each album will be an expert commentary, written under the supervision of Institute Director Dan Morgenstern.

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Louis Armstrong, Stan Getz: Photos by Robert Parent; Ella Fitzgerald: Photo by Raymond Ross; Lionel Hampton, Dave Brubeck: David Federn/Retna Ltd.; Benny Goodman: Rex Features Ltd.; King Oliver's Creole Jazz Band: Courtesy of the Tulane University Jazz Archive.

...and then came the SE-9.

35 years ago, to satisfy listening preferences, serious music lovers had to redesign their listening rooms. Remove the drapes. Add a rug here. Rearrange the upholstered sofa there. Get rid of that crystal chandelier!

Bass and treble tone controls came later, and they helped—but only a little. When you needed a boost in that lowest bass region, you had to accept boosted upper bass and mid-range tones as well—whether you needed them or not.

By 1958, the first equalizers appeared. They allowed you to alter specific bands of tones to suit the needs of the listening room—and the music program. With special mics, a pink noise generator, and a real-time

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Touch another button, and the curve is memorized for future, instant recall. Move to another location—even another room—and the SE-9 can create and store a new curve—up to four of them.

At last, after 35 years, a perfect equalization system without errors or frustration. And, at a price that makes perfect equalization affordable for all serious music lovers.

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Sound Views

Opinion and comment on the changing audio scene by Peter Dobbin

A Renaissance in Audio: True Innovation Is Here Again

SOME TIME IN THE LATE '70s, the notion surfaced that audio was a mature technology. Industry commentators whispered that performance was as good as it ever really had to be; gimmickry and flash, they asserted, were replacing the innovations and breakthroughs of audio's golden years. As the economy nose-dived and audio sales softened, trade journalists lifted their pens to pronounce that the industry was in its senescence; one otherwise unremarkable trade journal went so far as to announce the imminent demise of the traditional audio industry.

Well, naysayers and cynics be damned. If originality and creativity are the keys to the success of any endeavor, then their rekindling in audio marks the beginning of still another growth cycle. Even we true believers at HIGH FIDELITY were a bit taken aback recently by the number of truly ground-breaking developments announced within a period of just a few months. Yet, products like the Philips/Sony Compact Disc, the Polk SDA-1 loudspeaker, the Carver TX-11 tuner, and Sony's recently announced frequency-modulation technique for attaining heretofore unachievable VCR sound quality provide startling evidence of the audio industry's essential creative vitality.

No single development in the long history of home audio playback has carried with it the potential of the Compact Disc (CD), and I am convinced that this digital format will quickly replace the analog LP as the medium of choice. In head-to-head comparison with audiophile quality LPs, CDs don't always provide an immediate overwhelming sonic improvement (see page 50). But after repeated playings, as the soft vinyl LP begins its inevitable sonic decline, the CD version still sounds great; ten thousand plays later, the Compact Disc should still show no signs of wear. In an economy where return on investment has become increasingly important, the impact of CD will be immediate: Even the least sophisticated record buyer will quickly realize that CDs are worth the extra few dollars. And as prices for both players and discs come down, what will remain to deny

the CD format preeminence?

Moreover, CD is just plain fun. In the month or so that HF has had its player, no one who has used and heard it has failed to ask when he could get one. Its range of automatic features—search, scan, random access, and so on—make even the most automated analog record player seem slow and clumsy.

CDs will not, however, remain as audio-only devices for long. Their enormous information storage capacity is simply too attractive. It would take several thousand floppy discs (the magnetic medium most commonly used for data storage in

A common thread links all these products—each one steps beyond accepted limits.

personal computers) to hold the same amount of information as can be recorded on just one hour-long side of a Compact Disc. Considering how many pop recordings contain less than an hour's worth of music, what's to prevent a company like Warner Communications from eventually issuing CDs with forty minutes of music, plus a bonus of computer programs and video games pressed into the remaining disc space? Sony's CDP-101 player does not contain the digital output necessary for direct interface to a home computer, but it would be easy for player manufacturers to add the necessary taps for access to the stream of binary data being read from the disc. The future of CD seems limited, in fact, only by the imagination of hardware and record manufacturers.

Bob Carver, possibly the most fecund talent in audio, has managed with his TX-11 tuner to vanquish two seemingly intractable hobgoblins of FM reception: multipath distortion and noise due to weak signals. The approach is truly revolutionary (see test report, page 26), and it sounds great, making pleasurable stereo listening possible for multipath-ridden city dwellers as well as for music lovers located great distances from transmitters.

At \$550, the TX-11 will at first find a

limited audience. But the resourceful Mr. Carver is no doubt already looking at ways to make the technology available at lower prices. And should some enterprising car stereo manufacturer succeed in obtaining a license from Carver, the effects on mobile stereo FM quality should be startling.

Reported on in detail on page 41, the SDA-1 loudspeaker represents an altogether unique rethinking of what a loudspeaker can and should do. While others have attempted to recreate the original sound field of a recording by manipulating the audio signal electrically, Polk tackles the problem acoustically. As explained by designer Matthew Polk, the operation of the SDA-1 stereo loudspeaker system seems altogether self-evident; in fact, you wonder why it wasn't done before. Unlike some electronic image enhancers, the effect it creates holds up across a wide listening arc. On some recordings, the SDA-1 speakers seem to melt away, leaving in their place a sonic portrait so palpable in its left-to-right positioning and depth as to leave auditions agog.

Analyzing the theory behind the design of the SDA-1 is rather difficult going at first, but it's ultimately very rewarding to work through. Having done just that, I can only express my hope that Mr. Polk will publish his results, which shed new light on the fundamentals of stereophonic recording and playback. The speaker, in essence, poses a number of thorny questions about audio basics, and grappling with them leads us to wonder about the possibility of developing other loudspeakers capable of still more dramatic effects. Could a single pair of loudspeakers, for instance, be made to produce a "quadriphonic" effect? At the least, we expect that Polk's new and very unconventional approach to loudspeakers will influence other designers for years to come, and perhaps record producers as well. It is sure to shake up a few people.

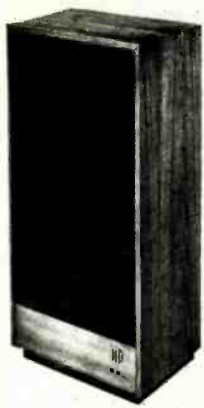
Though details are sketchy, Sony promises to show working prototypes at this month's Consumer Electronics Show of a Beta-format VCR equipped with a recording system capable of audio performance as good as (or better than) that of some studio recorders. Sony claims a dynamic range in excess of 80 dB and a frequency response of 20-20,000 Hz, which would spell dramatic changes in how we think of video sound. We have no idea how far Sony really is from marketing such a VCR, but the news itself is sending shock waves through the video establishment.

As I see it, the ultimate effect of "Beta

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AUDIO Soundviews

HiFi'' will accrue to the benefit of the audio industry. The marriage of audio and video, though much talked about, has been slowed by the poor quality of video sound. Anyone who plugs a typical VCR's audio output into a full-range home audio system is quick to regret the move. With a true high fidelity stereo sound track on videotape, however, such a mating will quickly become the norm. Even "TV junkies" should eventually come to appreciate the subtleties and drama of high fidelity audio playback.

A common thread is discernable in all four of these products. Each of them, in its own way, takes a step beyond audio tradition, either in how it tackles a problem already accepted on the high fidelity agenda or in what it implicitly adds (in the cases of Carver and Polk, especially). This is the other side of technological maturity: As the old problems give way, new challenges and opportunities present themselves, and de-

The very definition of high fidelity is being widened and deepened; the journey is far from over.

signers' imaginations are unleashed to roam unexplored territories. In this way, the very definition of what constitutes high fidelity is widened and deepened. We see that our journey is not done.

The contribution of stagnating sales to this furious round of innovation is fascinating to speculate on. It cannot force invention, but it can foster its acceptance. Would manufacturers be in such a great rush to bring digital audio to market or to improve video sound if it were not seen as a tool for generating consumer demand? Perhaps, but I doubt it. It's almost always easier just to keep doing what you're used to. Over the years, I've auditioned many allegedly revolutionary new components that failed to yield significant audible improvements over established designs. I don't think we'll be seeing as much of that in the weeks and months and years to come. Audio manufacturers seem to be taking their first serious encounter with recession as a signal to return to their roots in the spirit and substance of innovation. Rather than becoming a mere appendage on the body of the consumer electronics industry, audio is once again reasserting itself as the heart and lifeblood of the rapidly diversifying home entertainment scene.

HF

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HOW COULD A CASSETTE DECK WITH TWO HEADS BE SO HARD TO GET?



The Kyocera D-801 Cassette Deck is hard to get because so much more is built into it. For example, it has five circuit boards where most decks have only one or two. But that's only the beginning.

It more than meets the ultimate tape deck challenge.

The challenge is to move tape across the heads at as nearly a constant speed as possible. Variations in speed, of course, come out in your speakers or headphones as wow and flutter.

Many decks claim a wow and flutter figure of 0.05% WRMS—trouble is, speed variations of 0.05% are clearly audible with piano music (one of the most revealing tests you can give a cassette deck—try it on the D-801 and marvel!).

The D-801 by Kyocera comes through with a remarkably low wow and flutter figure of 0.02% WRMS—and that is derived from a unique, three-motor, dual capstan drive mechanism. Two capstans are driven by a direct drive motor. A beltless/clutchless simple DC motor drives the feed and takeup reels, while a third motor is used as a head-position assist drive (it greatly prolongs head-to-tape azimuth accuracy). The dual capstan system provides that sensationally accurate tape travel, maintaining proper tension between capstans to eliminate external shock source modulating noise.

It more than meets the needs of the audio perfectionist.

The D-801 goes above and beyond even the fussiest audiophile's needs with 3-position bias/equalization selection (with fine bias adjustment), 400 Hz calibration tone, Automatic Program Mute Recording, automatic search, and electronic 4 digit display, including counter, elapsed time and time remaining functions.

The D-801's noise reduction systems were built for the audio purist. It has *two*—Dolby® B & C—Dolby B for music material of limited dynamic range, Dolby C for music of the widest dynamic range, so noise reduction can be tailored to program material.

Finally, the specs everyone wants: frequency response of 30-20,000 Hz \pm 3 dB using metal or CrO₂ tape, and a S/N ratio of 78 dB with metal tape in Dolby C NR mode.

If you have any trouble finding a Kyocera dealer, contact: Cybernet International Inc., 7 Powder Horn Drive, Warren, NJ 07060 (201) 560-0060.

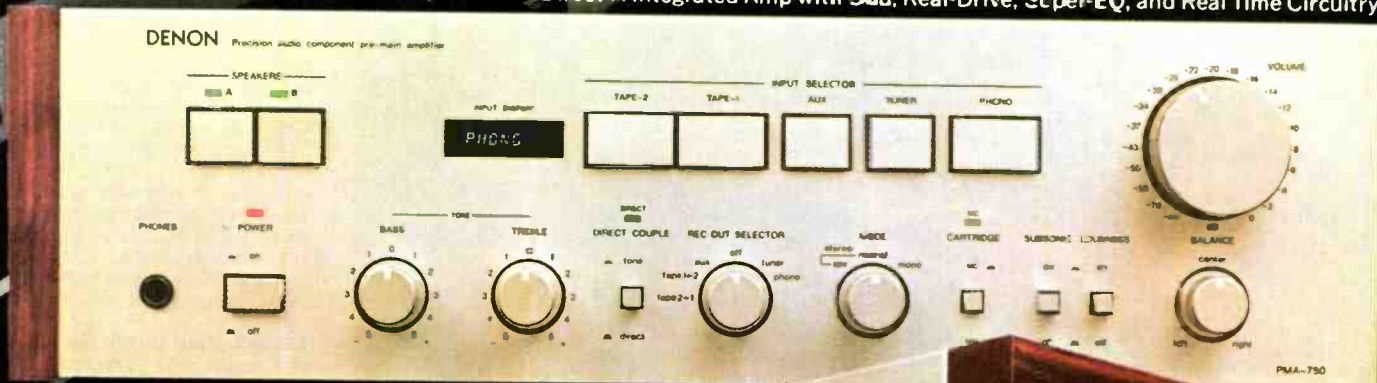


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The performance that comes closest to our \$8000. Separate...
Pure Class-A, Non-NFB PRA-6000 Preamplifier and PCA-8000 Amplifiers.

... comes in our \$450. PMA-750...
Direct-A Integrated Amp with OdB, Real-Drive, Super-EQ, and Real Time Circuitry.



...and our \$399. DRA-400.
Non-Switching-A AM/FM Receiver
with MC Head Amp and Digital FM.



The pure Class-A and Real Drive operation of the PRA-6000 and PCA-8000's safely extracts the full performance potential of transistor technology. The elimination of Negative Feedback (Non-NFB) removes the principal cause of Transient Intermodulation and Time Delay Distortions and represents the very latest in contemporary audio design.

Virtually all of this technology is incorporated into the PMA-750. To keep its transistors operating optimally, yet safely, it employs Direct-A OdB circuitry (capacitorless, non-negative feedback and non-switching), Real-Drive (distortion measured at the speakers is reduced to 1/50!) and Real-Time (passive) tone control. The sound quality is only surpassed by Denon separates costing 13 times as much!

Non-switching A circuitry can also be heard in the DRA-400 AM/FM Receiver, in addition to its built-in Moving Coil Head Amp and Digitally Synthesized FM tuning. With the DRA-400, Denon has made a new standard of listening quality available to those demanding economy and operating convenience in a compact package.

Denon products share more than name alone.

DENON
Imagine what we'll do next.

Basically Speaking

Audio concepts and terms explained by Michael Riggs

Cartridge and Arm: Making the Best Match

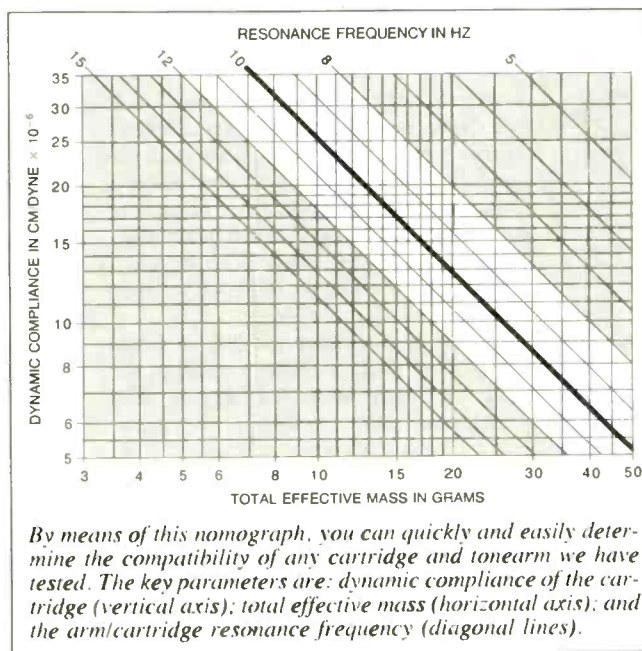
FOR YEARS WE'VE BEEN SAYING that a proper match between cartridge and tonearm is vital to getting good sound from any system, regardless of price. The arm/cartridge resonance frequency should be high enough that the system will not overreact to record warps, yet not so high as to exaggerate bass response. At the same time, we've been aware that it is far easier to say that this is desirable than to explain how it is to be accomplished. Several variables are involved, and the information necessary for balancing them is seldom all available in usable form.

The resonance data in our cartridge, tonearm, and turntable reports can serve as a guide, if used cautiously, but they are strictly valid only for the reference components that DSL uses for these measurements. For cartridges, this means an SME 3009 Series II Improved tonearm; for tonearms, it is a Shure V-15 Type III cartridge. Although both units are fairly typical, they are not truly representative of every model in their respective component categories.

We are therefore delighted to announce that Diversified Science Laboratories has developed a measurement technique that enables us for the first time to report reliable figures for effective tonearm mass and cartridge compliance. These, together with the nomograph shown here and the cartridge-weight and resonance data we have been publishing all along, will enable you to determine unequivocally the compatibility of any given cartridge we have tested with any given turntable or tonearm we have tested. In the case of cartridges, we will be able to tell you right out the effective tonearm mass that will yield an optimum resonance frequency (10 Hz) and the range of masses that will yield what we consider an acceptable resonance frequency (between 8 and 12 Hz).

The relationship between resonance frequency, cartridge compliance, and tonearm mass is defined by the formula $f = \frac{1}{2\pi\sqrt{MC}}$, where f is the resonance

frequency, C is the cartridge's low-frequency dynamic compliance at its recommended tracking force, and M is the total effective mass of the arm/cartridge system. M is equal to the effective mass of the tonearm alone (m_T) plus the weight of the pickup (m_P), and 2π is approximately equal to 6.28, so the formula becomes $f = \frac{1}{6.28\sqrt{(m_T + m_P)C}}$. Simple algebraic manipulation gives the formulas for dynamic compliance and effective tonearm mass: $C = \frac{1}{39.5f^2(m_T + m_P)}$ and $m_T = \frac{1}{39.5f^2C} - m_P$, respectively.



Although these equations can serve as an aid to understanding, you won't actually have to use them. We've already done the math for you and put the results into the nomograph reproduced here. Cartridge compliance is represented by the vertical axis, total effective mass (tonearm effective mass plus cartridge weight) by the horizontal axis, and resonance frequency by the diagonal lines. If you know any two of these three quantities, you can quickly and easily read off the third value from the nomograph.

Ultimately, you are always going to want to know the vertical resonance frequency for whatever arm/cartridge combination you are contemplating. In the simplest case, you can begin by looking up the weight and dynamic compliance shown in the cartridge report and the effective tone-

arm mass listed in the turntable or tonearm report. Add the weight of the cartridge to the effective mass of the tonearm to get the total effective mass. Then find the point on the graph where the vertical line for the total effective mass intersects the horizontal line for the cartridge's dynamic compliance. Ideally, this point would fall on the 10-Hz line, but so long as it is in the white band between the 8- and 12-Hz diagonals, the arm and cartridge should work well together. (In fact, it is usually okay to let the resonance rise as high as 15 Hz.)

When necessary, you can also use the nomograph to back-figure compliances and effective masses for cartridges and tonearms tested before we began reporting these quantities directly. For cartridges, look up the vertical resonance frequency and cartridge weight listed in the test report. Add 15 grams (the effective mass of the SME tonearm used for the resonance measurement) to the cartridge weight to get the total effective mass. Then find the intersection of the diagonal line representing the measured resonance frequency with the vertical line representing the total effective mass calculated in the previous step. Now you can read off the cartridge's vertical dynamic compliance from the horizontal line passing through the point of intersection.

To determine an unknown effective tonearm mass, look up the vertical resonance frequency listed in the test report for the tonearm or turntable. Find the intersection of the diagonal line for that frequency with the horizontal line representing a vertical dynamic compliance of 22.5×10^{-6} cm/dyne (for the Shure V-15 Type III cartridge used in the resonance measurement). Reading down the vertical line on which the point of intersection falls will give you the total effective mass of the arm with the V-15 Type III mounted in it. Then subtract the Shure's 6.3-gram weight to get the tonearm's effective mass.

This simple little system should put you well down the road to phonographic bliss. One cautionary note, however: Because of differences in measurement technique, manufacturers' specifications for compliance and effective mass often differ from our findings and may yield inconsistent results if used with this graph. So stick with the data in our test reports. **HF**

New Equipment Reports

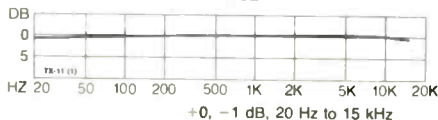
Preparation supervised by Michael Riggs, Peter Dobbin, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise noted) supplied by Diversified Science Laboratories.

A New Breed of Supertuner from Carver

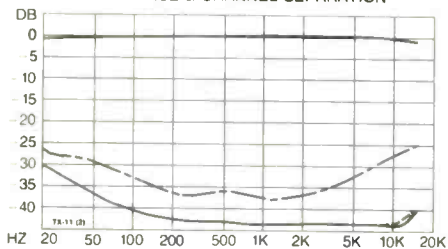
Carver TX-11 FM tuner. Dimensions: 17¼ by 3¾ inches (front panel), 12¾ inches deep plus clearance for connections. Price: \$550. Warranty: "limited," three years parts and labor. Manufacturer: Carver Corporation, 14304 NE 193rd Place, Woodinville, Wash. 98072.

Except where noted otherwise, all data are for the WIDE IF-bandwidth setting with the Carver NOISE and MULTIPATH REDUCTION circuitry off.

MONO FREQUENCY RESPONSE



STEREO RESPONSE & CHANNEL SEPARATION

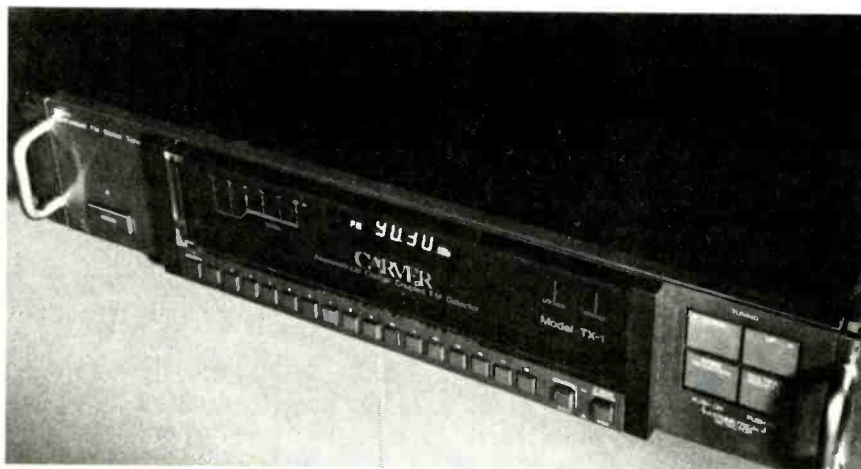


Frequency response

— L ch +0, -1 dB, 20 Hz to 15 kHz
 - - - - R ch +0, -1 dB, 20 Hz to 15 kHz

Channel separation

— L ch ≧ 40 dB, 100 Hz to 15 kHz
 - - - - R ch ≧ 30 dB, 20 Hz to 15 kHz
 - - - - R ch ≧ 40 dB, 100 Hz to 15 kHz
 - - - - NOISE and MULTIPATH REDUCTION on*
 ≧ 30 dB, 20 Hz to 15 kHz
 ≧ 35 dB, 150 Hz to 2.8 kHz
 ≧ 25 dB, 20 Hz to 14.5 kHz



A WHILE BACK, a friend commented that Bob Carver seemed to him more an inventor than simply a design engineer. And we agreed: A Carver product that doesn't embody some spectacularly innovative feature or technical breakthrough is a rare bird. So in a way, his first tuner is no surprise, even though it's like no other we've ever tested.

What distinguishes the TX-11 is its ability to pull clean, noise-free sound out of weak or multipath-ridden signals that would send you lunging for the mono switch on any other tuner we know of. The Carver doesn't even *have* a mono switch. Instead, there are two rectangular push-pads, labeled NOISE REDUCTION and MULTIPATH REDUCTION, which when pressed activate an ingenious and very sophisticated audio signal processing circuit that improves the TX-11's effective stereo sensitivity to beyond the generally accepted theoretical limit.

The key to this seemingly magical accomplishment is a fresh look at the process of retrieving independent left- and right-channel audio signals from stereo FM broadcasts, in which they are matrixed to form mono sum (L+R) and stereo difference (L-R) signals. Normally, these are added together in a tuner's stereo demultiplexer circuits to produce the desired left- and right-channel outputs.

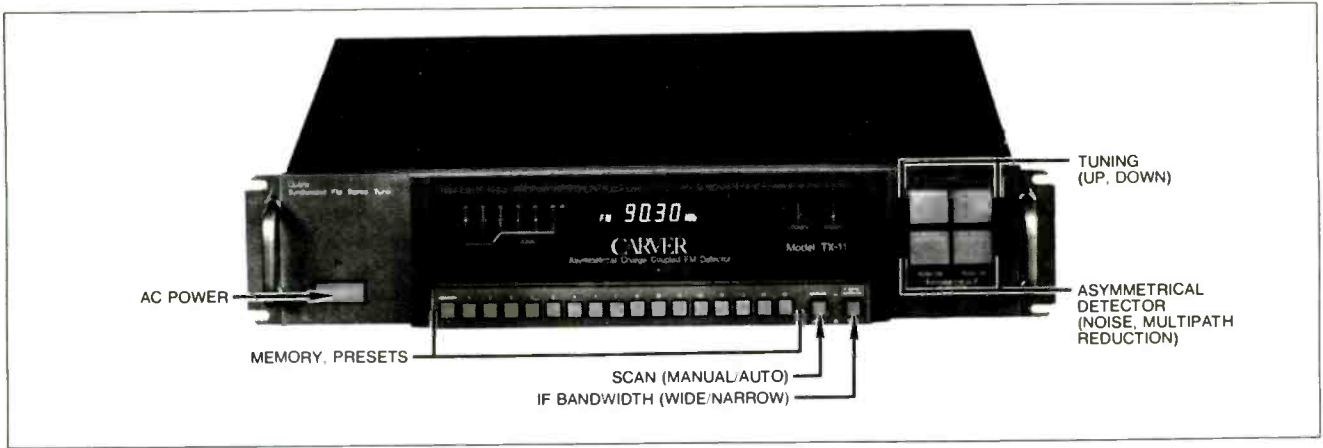
The problem with this is that only the mono part of a "stereo FM" transmission is actually frequency modulated. The difference signal is amplitude modulated on a subcarrier and is therefore far more susceptible to interference. This makes the requirements for good stereo reception considerably more stringent than those for comparable mono reception. Not only must

the received signal be stronger, but it must also be substantially free of interfering reflections (or multipath) from nearby hills, buildings, and so forth. For many people—especially those living in cities or rural areas—this means that few, if any, receivable stations are listenable in stereo.

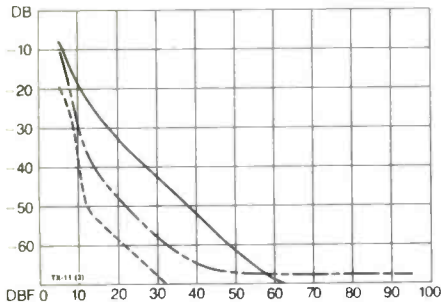
One such unlucky soul was Bob Carver. Thinking about the problem, it occurred to him that the mono and difference signals are ordinarily far more similar than different. The information responsible for stereo localization makes up only a small fraction of the total L-R signal; what remains is ambience information, which is essentially a random-phase version of the L+R component with a slightly different overall spectral balance.

This insight led Carver to develop what might be thought of as an alternative stereo demodulation system (see block diagram). The incoming FM signal is tuned, detected, and demultiplexed in the usual fashion, yielding left- and right-channel audio signals (L and R). But instead of going directly to the tuner output terminals, the audio signals first pass through a matrix circuit, which adds and subtracts them to reconstitute the original L+R and L-R signals. (The separate L and R signals are preserved, however, for use when the noise and multipath reduction switches are released or when the tuner decides they are clean enough that there would be no audible benefit from further processing.)

The relatively noisy and distorted difference signal goes to what Carver calls a leading-edge detector, which separates out the small amount of transient information necessary for proper stereo localization. How much of the L-R survives this process is determined by the switch setting—NOISE



FM SENSITIVITY & QUIETING



Quieting (noise)
 — stereo
 - - - stereo with NOISE and MULTIPATH REDUCTION ON*
 mono

Stereo sensitivity (for 50-dB noise suppression)
 37½ dBf at 98 MHz, with 0.41% THD+N
 (38¼ dBf at 90 MHz; 37½ dBf at 106 MHz)

Stereo sensitivity with Carver circuitry on (for 50-dB noise suppression)*

NOISE REDUCTION	24¼ dBf at 98 MHz
MULTIPATH REDUCTION	23¼ dBf at 98 MHz
both	22 dBf at 98 MHz

Mono sensitivity (for 50-dB noise suppression)
 12 dBf at 98 MHz

Muting threshold	27 dBf
Stereo threshold	5 dBf
Stereo S/N ratio (at 65 dBf)	
normal	70½ dB
NOISE REDUCTION ON	70½ dB
MULTIPATH REDUCTION ON	69½ dB
NOISE and MULTIPATH REDUCTION ON	67½ dB
Mono S/N ratio (at 65 dBf)	77 dB

CAPTURE RATIO 1.1 dB

SELECTIVITY (alternate channel) 44¾ dB

HARMONIC DISTORTION (THD+N)
 Carver circuitry off

	stereo	mono
at 100 Hz	0.21%	0.18%
at 1 kHz	0.12%	0.053%
at 6 kHz	0.18%	0.12%

Carver circuitry on (stereo)

	NOISE	MULTIPATH
at 100 Hz	0.36%	0.30%
at 1 kHz	0.36%	0.30%
at 6 kHz	0.22%	0.23%
	both	
at 100 Hz	0.25%	
at 1 kHz	0.21%	
at 6 kHz	0.24%	

STEREO PILOT INTERMODULATION

normal	0.13%
NOISE REDUCTION ON	0.06%
MULTIPATH REDUCTION ON	0.05%
NOISE and MULTIPATH REDUCTION ON	0.03%

IM DISTORTION (mono) 0.043%

AM SUPPRESSION 61¾ dB

PILOT (19 kHz) SUPPRESSION 71 dB*

SUBCARRIER (38 kHz) SUPPR. 109¾ dB

*See text

REDUCTION, MULTIPATH REDUCTION, or both—with the first retaining the most and the last keeping the least. In any event, most of the L-R is discarded, along with much distortion and interference.

Meanwhile, the comparatively clean L+R is passed through a phase-scrambling circuit that randomizes it to simulate the ambience information that the leading-edge detector has thrown away. The resulting ambience signal is mixed (according to the instantaneous amplitude of the L-R) with the localization signal from the leading-edge detector to form a composite quasi-difference signal, which is then added to the original L+R signal, creating clean, quiet left- and right-channel signals that can be substituted for the original low-quality L and R.

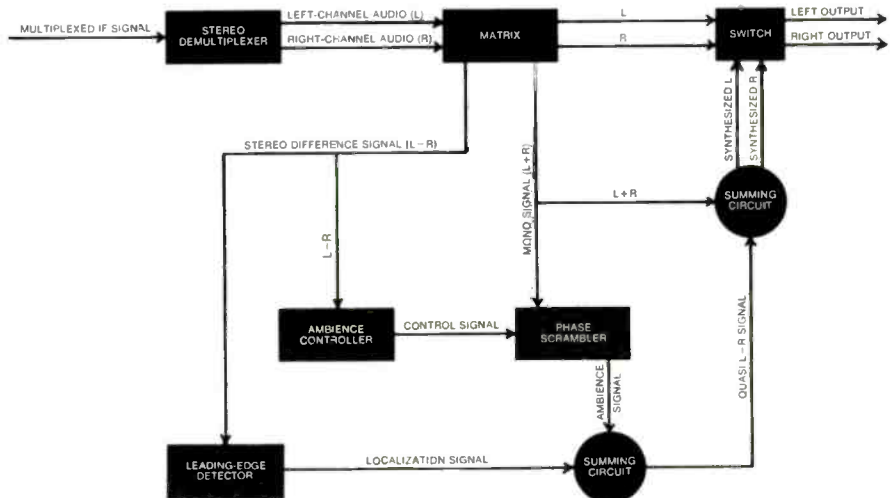
Purists might cavil that this is not "true" stereo, and in a certain pedantic way, they would be right. Although separation is quite good with any signal confined to a single channel (because of yet another special circuit) and on transients, it is considerably diminished with typical steady-state inputs. And the ambience signal, though statistically very similar to the real thing, is not identical. But given that stereo is just an illusion anyway, we're inclined to view such objections as spurious.

Direct A/B comparisons between the

Carver tuner's regular and processed stereo modes as well as between the Carver tuner in processing mode and another high-quality tuner in regular stereo revealed only marginal differences other than a marked disparity in noise and distortion on weak signals. Anyone who didn't know something special was going on in the Carver would assume that it was operating correctly in normal stereo and that the other tuner was either substandard or defective.

In any case, the bottom line is that if the TX-11 gets a strong, clean signal, its special circuits automatically stay out of the way; if it doesn't, they will make it perform almost as well in stereo as most tuners would in mono, and therefore sound much better. You can't lose.

We hasten to add that the TX-11 is no slouch in normal stereo, either. Diversified Science Laboratories' measurements document very good to outstanding performance in every respect. There are, however, a few minor oddities in the data, stemming from the fact that in a couple of respects our test sample is no longer representative of current production. Carver has increased the bandwidth of the narrow IF filters, so we have not included any of the data accumulated with that setting. He has also incorporated a modification developed in the course of DSL's testing that should improve



SIMPLIFIED BLOCK DIAGRAM OF CARVER CIRCUIT

the already superb 19-kHz pilot rejection by about 20 dB. Neither of these changes is of great significance.

Switching in the Carver circuits makes major differences only in the stereo quieting curve, which becomes dramatically steeper, and in the measured (not audible) separation, which deteriorates somewhat. As the steeper quieting slope would imply, sensitivity is quite a bit enhanced—by about 13 to 16 dB, depending on whether NOISE REDUCTION, MULTIPATH REDUCTION, or both are selected. Two of the three settings degrade the ultimate signal-to-noise ratio very slightly, but not enough to be of any audible consequence.

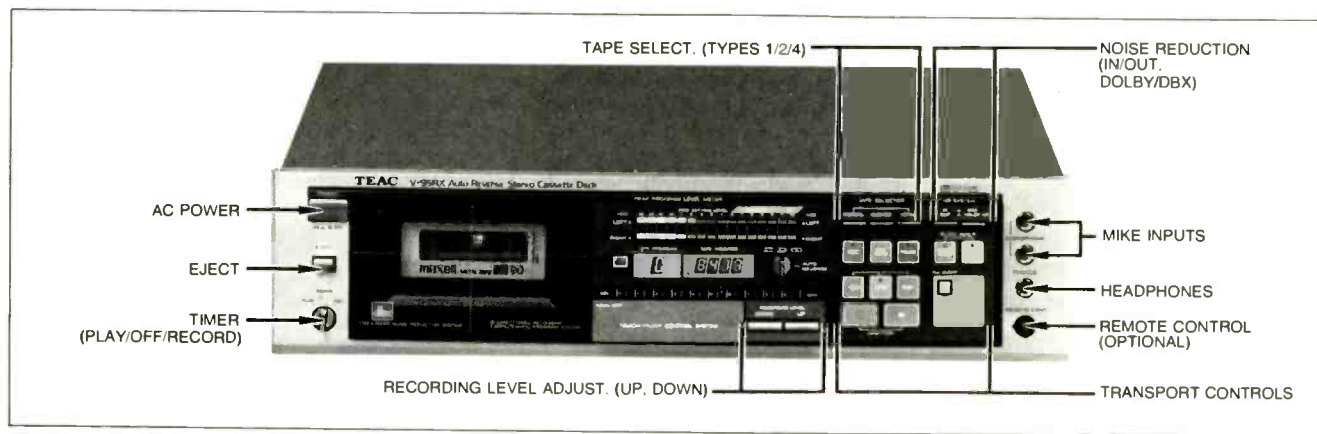
What does matter is that switching in the Carver circuitry enables us to get clear stereo reception with a short piece of zip cord on stations that defy conventional tuners connected to a standard dipole antenna. Carver says that NOISE REDUCTION optimizes the leading-edge detector's response for weak signals and provides the least improvement in sensitivity, while MULTIPATH REDUCTION optimizes it for squelching multipath interference and gives a somewhat greater sensitivity gain. The two together are supposed to help with really severe reception problems and to provide the highest sensitivity. In practice, we find all of the possible settings effective, but usually less different from one another than we expected. In most cases where we have felt need of the processing, we have preferred to keep both buttons pushed in.

This is also a very attractive and easy

to operate unit. As befits its exceptional signal-grabbing capacity, there are sixteen station presets—the most we've ever seen—each with its own LED indicator. (Regular tuning—station search or manual stepping—is in 100-kHz steps and is reasonably fast.) And there is a six-element LED signal-strength meter covering a well-chosen range. The muting threshold is set so that you will get adequate quieting on any stereo station received with the Carver circuitry on. Or you can defeat it, for reception of very weak signals, by going from auto to manual tuning. The stereo threshold seems a little too low, however, to assure adequate quieting on some very weak stations, for which mono reception would be more appropriate. The only other things we can find to complain about are the front-panel legends and indicator lights, which are sometimes difficult to read (especially from a distance), and the use of a binding post and collar for 75-ohm coaxial antenna connections, instead of a more convenient F connector. Carver's user manual is excellent, with especially good coverage of antennas. And bolt-on ears are available for those who prefer rack-mounting.

On the test bench and in the home, the TX-11 is an extraordinary tuner. For people who live in good reception areas, it is, for all practical purposes, as good as any other top-grade tuner we've looked at (and less expensive than many of them); for those who don't, it is by a wide margin the best tuner we have tested to date.

Circle 99 on Reader-Service Card



Auto Reverse Teac Cassette Deck with DBX

Teac V-95RX bidirectional cassette deck, with Dolby B and DBX noise reduction. Dimensions: 17¼ by 4 inches (front panel), 10½ inches deep plus clearance for controls and connections. Price: \$625; optional RC-95 remote control, \$60. Warranty: "limited," one year parts and labor. Manufacturer: Teac Corp., Japan; U.S. distributor: Teac Corp. of America, 7733 Telegraph Rd., Montebello, Calif. 90640.

SOME TRADITIONAL HALLMARKS, as well as some new departures, are embodied in the Teac V-95RX. Teac was, for example, the first tape-deck manufacturer to offer DBX noise reduction (at that time well established with professionals, but still relatively esoteric in consumer equipment). And it has long made tape equipment capable of recording (as well as playback) in both directions of tape travel. Newer are the smooth, flexible control panel, which is fast becoming a fixture on Teac cassette decks, and two elements we have seldom seen before: a powered fader system and some

relatively elaborate playback programming, both of which contribute significantly to this deck's appeal.

Automatic reverse is triggered by an infrared sensor that can distinguish between recording tape and leader—and thus make the reverse almost instantaneous. Teac claims 150 milliseconds on the turnaround time, and we wouldn't argue the point. That's about as large a "hole" in musical continuity as you're ever likely to get from a dropout: an annoyance if it falls in the middle of a sustained cantilena, but conceivably capable of going unnoticed in

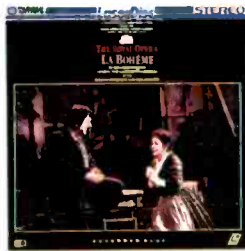
Aida



George Shearing



La Bohème



Rostropovich



Swan Lake



America in Central Park



Dave Mason



Grover Washington, Jr.



Paul McCartney & Wings
"Rockshow"



The Tubes Video



Kingston Trio



The Nutcracker



Horowitz



Pippin



Dvořák's Symphony # 9



The Music of
Melissa Manchester



Liza in Concert



Kenny Loggins/Alive



Paul Simon



Queen/Greatest Flix



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* (In Illinois, 800-972-5855)



Credits: Pioneer Artists and Pioneer Video Imports. Simulated TV picture of Pioneer Artists' "The Music of Melissa Manchester." Available titles subject to change without notice. © 1982 Pioneer Video Inc. All Rights Reserved.

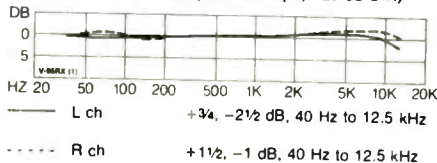
PIONEER

Circle 9 on Reader-Service Card

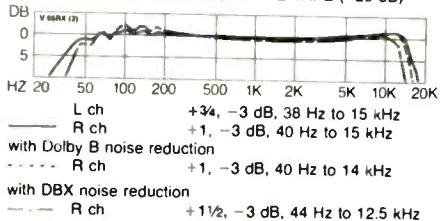
AUDIO LAB TEST SPECIAL

All data shown are for the forward direction. Data measured for the reverse direction are not significantly different from those for the forward direction.

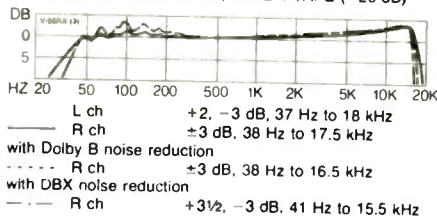
PLAYBACK RESPONSE (TDK test tape; -20 dB DIN)



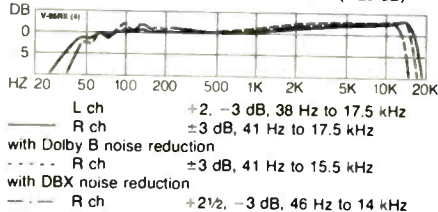
RECORD/PLAY RESPONSE, TYPE 2 TAPE (-20 dB)



RECORD/PLAY RESPONSE, TYPE 4 TAPE (-20 dB)



RECORD/PLAY RESPONSE, TYPE 1 TAPE (-20 dB)



S/N RATIO (re DIN 0 dB; R/P; CCIR/ARM-weighted)

	Type 2 tape	Type 4 tape	Type 1 tape
without noise reduction	52¼ dB	51¼ dB	52¼ dB
with Dolby B	62¼ dB	61¼ dB	62¼ dB
with DBX noise reduction	76¼ dB	74 dB	74¾ dB

INDICATOR READING FOR DIN 0 DB (315 Hz)

Type 2 tape	+1 dB (with 1.1% THD)
Type 4 tape	+1 dB (with 1.5% THD)
Type 1 tape	-1 dB (with 1.1% THD)

INDICATOR READING FOR 3% DISTORTION (315 Hz)

Type 2 tape	+3 dB (for +2¼ dB DIN)
Type 4 tape	+3 dB (for +2¼ dB DIN)
Type 1 tape	+2 dB (for +2¼ dB DIN)

DISTORTION (third harmonic; at -10 dB DIN)

Type 2 tape	≤ 0.35%, 50 Hz to 5 kHz
Type 4 tape	≤ 0.42%, 50 Hz to 5 kHz
Type 1 tape	≤ 0.50%, 50 Hz to 5 kHz

ERASURE (100 Hz)

Type 2 tape	72 dB
Type 4 tape	57 dB

CHANNEL SEPARATION (315 Hz)

	50 dB
--	-------

INDICATOR "BALLISTICS"

Response time	≈ 0.3 msec
Decay time	≈ 1-2 sec.
Overshoot	0 dB

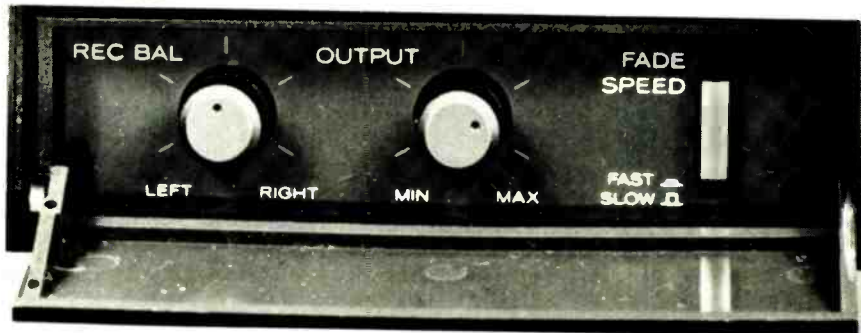
SPEED ACCURACY 0.4% slow, 105-127 VAC

FLUTTER (ANSI/IEEE weighted peak; R/P)

	±0.26%
--	--------

SENSITIVITY (re DIN 0 dB; 315 Hz)

line input	95 mV
mike input	0.34 mV



A flip-down door on the Teac's front panel conceals a recording-balance control, an output-level control, and a two-position fader-speed switch for the motorized pushbutton recording-level controls.

some material. Thus, even if you leave the reversing entirely to the automatic mechanism in both recording and playback, there will be less interruption (and less loss of program) than with any but a very few other automatic-reverse decks. And if you want even less obtrusive direction changes, you can trigger the reverse manually when you record and apply adhesive foil strips to the tape to make playback reverse automatic from that point, rather than from the end of the tape.

The usual three options apply: unidirectional operation (permitting playback or recording in either direction, but with no automatic change of direction), out-and-back bidirectionality (with automatic reverse at the end of the first side only), and continuous repeat (inoperative in recording, but playing both sides of the cassette until you rescind the order). These options combine in various ways with both the programmed start and stop options (which Teac calls "block repeat") and what Teac calls CPS, for Computomatic Program System. The manual, which is much better than average for a cassette deck, lists all the permutations—which seem obvious once you're familiar with the deck, anyway—so we'll content ourselves with an overview here.

When you know you will want to return to your current position on the tape, you press START MEMO; at the end of the passage of interest, you press STOP MEMO. The block repeat now is programmed to repeat the passage (which may go from Side 1 to Side 2 under some conditions) until you stop it. This replaces the memory-rewind functions of most decks. (There is no zero-reset button for the counter, though it will reset if you press EJECT.)

The CPS feature provides random access of any one selection. With the deck set for the continuous repeat mode, in either direction of play, you press the CPS button and then either of the fast-wind buttons. Each press of the latter increases by one the number displayed in the "CPS program" window, which tells you how many inter-selection blanks the transport will pass over before cueing up and beginning playback at the next. The number can be as high as 15 (if you step it too high, you can back off by

pressing the fast-wind button for the opposite direction, which subtracts from the total shown); if the search takes the tape to the end, the transport reverses direction and continues its countdown on the other side.

Naturally, there is a RECORDING MUTE to provide the CPS with appropriate inter-selection blanks. When you tap it, it's programmed to lay down four seconds of silence before switching the V-95RX into RECORDING/PAUSE. If you want a longer blank, you can keep your finger on the button; whenever you release it, the deck will go into RECORDING/PAUSE. And the big STOP button at the lower right of the transport-control group, which acts like a normal STOP, contains a small separate button within it that releases all programming functions. (The small control is a true pushbutton, rather than a push area such as the ones in the flexible control panel that make up the transport control complex both here and on the optional remote control.) If you want to release either of the block-repeat "cues" or the CPS function without interfering with the others, a second press of the button for that function will do so—and will extinguish an LED to let you know that it has been released.

Even more striking is the motorized recording-level fader. At first we thought it a bit gimmicky, but use quickly altered that assessment to admiration. At the bottom center of the front panel is a little flip-down door behind which lurk an output level control, a recording-level balance control, and a two-position fader-speed switch. The fader itself is a pair of buttons (UP and DOWN) just to the right of the door. A horizontal, illuminated scale, calibrated from 0 to 10 and located just above the door, tells you where the recording level is set. The slow drive speed takes about ten seconds to cover the entire scale, while the high speed makes it in about half the time—very nice for gradual or snappy fades, respectively, at typical fader settings.

The peak-reading level indicators are calibrated from -30 to +10 dB, in 1-dB steps between -3 and +3 and 2-dB steps extending to -7 and +7. As the data from Diversified Science Laboratories show, the rise time is very quick and the decay time long enough to allow easy evaluation. The

MIKE INPUT OVERLOAD (clipping) 27 mV
 MAX. OUTPUT (from DIN 0 dB) 0.57 V

A Quick Guide to Tape Types

Our tape classifications, Type 0 through 4, are based primarily on the International Electrotechnical Commission measurement standards.

Type 0 tapes represent "ground zero" in that they follow the original Philips-based DIN spec. They are ferric tapes, called LN (low-noise) by some manufacturers, requiring minimum (nominal 100%) bias and the original, "standard" 120-microsecond playback equalization. Though they include the "garden variety" formulations, the best are capable of excellent performance at moderate cost in decks that are well matched to them.

Type 1 (IEC Type I) tapes are ferrics requiring the same 120-microsecond playback EQ but somewhat higher bias. They sometimes are styled LH (low-noise, high-output) formulations or "premium ferrics."

Type 2 (IEC Type II) tapes are intended for use with 70-microsecond playback EQ and higher recording bias still (nominal 150%). The first formulations of this sort used chromium dioxide; today they also include chrome-compatible coatings such as the ferricobalts.

Type 3 (IEC Type III) tapes are dual-layered ferrichromes, implying the 70-microsecond ("chrome") playback EQ. Approaches to their biasing and recording EQ vary somewhat from one deck manufacturer to another.

Type 4 (IEC Type IV) are the metal-particle, or "alloy" tapes, requiring the highest bias of all and retaining the 70-microsecond EQ of Type 2.

"bar graph" actually shrinks back to the left, for all maxima below the 0-dB indication, once the signal is removed. This process begins after about one second, but it takes twice that long before the bar has shrunk by 20 dB to the IHF/EIA indicator-decay rating point. When the signal reaches "into the red" (to above 0 dB), the highest cursor stays lit for about two seconds, providing a peak-hold action in this range. The absolute calibration of the 0-dB indication varies slightly depending on the setting of the tape selector: 1 dB more sensitive than DIN 0 for Type 2 or Type 4 tape, 1 dB less sensitive for Type 1. Further, the indicators are marked to show that maximum readings for "normal" (Type 1) tapes should be between 0 and +2, for "Co" (Type 2) at +3, and metal (Type 4) at +3 to +5. The top of the scale is reserved for DBX noise reduction, which presents a special case because of its downward compression of high-level signals, so that a signal level of, say, +8 dB goes on the tape at a lower level than it would with Dolby B or with no noise reduction.

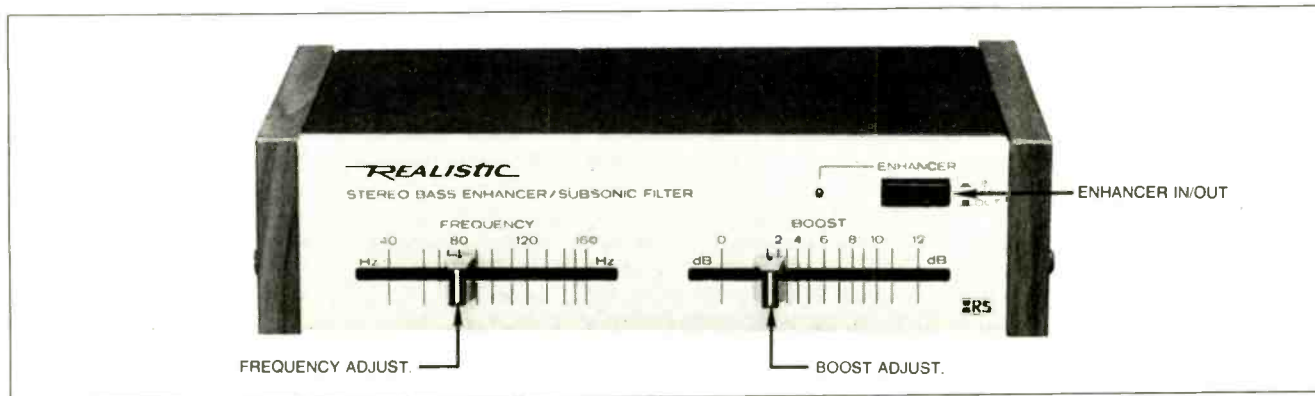
At Teac's suggestion, DSL used TDK SA as the basic Type 2 tape and MA as the Type 4—both with excellent results for a deck with no bias adjustment or multiplex-filter defeat and with a single four-gap,

combination record/play head. The company declined to specify a ferric (Type 1) tape, however, though several formulations are listed in the manual. The lab chose TDK AD, which produced excellent results, though a tape of somewhat lower sensitivity presumably would have flattened out the shelving in the Dolby B curve.

In the listening room, we found we could get best results with the Type 2 group (chromes/ferricobalts) and Type 4 (metals), which tend to be more standardized than Type 1 (ferric) tapes (and therefore less variable in their bias, EQ, and sensitivity requirements). Quietest results are, of course, with the DBX noise reduction. It should be used with care, because it is at its best when signal levels are kept high (short of compression or distortion), but the calibration of the V-95RX's level indicators helps ensure optimum settings.

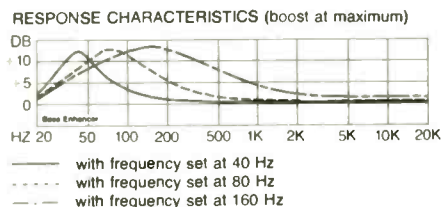
Every one of the V-95RX's many features seems chosen with the home music enthusiast in mind. Many times, when we question a manufacturer about why a certain feature is included in a given model, the answer comes back, "Because it was on the chip." Teac, to its credit, has not let technological grandstanding supplant thoughtful design.

Circle 96 on Reader-Service Card



Realistic Big Bass from a Baby Box

Realistic Bass Enhancer low-bass equalizer. Dimensions: 7¼ by 2 inches (front panel), 4¾ inches deep plus clearance for controls and connections. Price: \$50. Warranty: "limited," ninety days parts and labor. Manufacturer: made in Korea for the Radio Shack Division of Tandy Corp., Fort Worth, Texas 76113.



IN A WAY, IT REMINDS US of *The Incredible Hulk*. Inside Realistic's tidy, mild-mannered little box lurks a mighty sonic muscle that can be unleashed at the mere tickle of a button. Its purpose is to enhance the bass of speakers that are weak in the nether regions—a common problem in this age of minispeakers—without the expense of a subwoofer. As such, the Realistic Bass Enhancer is a single-purpose equalizer, tailored to typical needs in its particular area of expertise.

The controls and hookup are simplicity itself. An IN/OUT button lets you assess your handiwork with the other two controls: sliders for frequency (calibrated from 40 to 160 Hz) and boost (0 to 12 dB). And on the back are an AC cord and two pairs (input and output) of pin jacks. That's it. When you switch the Enhancer out, the input signal feeds directly to the output terminals,

bypassing all active circuitry; when you switch it in, you get a sharp infrasonic filter (approximately 18 dB per octave below 17 Hz) along with whatever frequency contour you've chosen.

Paradoxically, the Enhancer's one complication grows directly out of its simplicity. Because it has no tape-monitor connections, some system configurations accept it ungracefully. Apparently for that reason, the contents of the brief owner's manual are devoted almost exclusively to hookup procedures. The first recommendation is that you use pre-out/main-in jacks, which we agree should pose the best solution. (Some equalizers are too noisy for such a hookup in systems where high amplifier gain mandates relatively low levels between the preamp's volume control and the power-amp input. The Enhancer's noise is low enough to remain inaudible in

AUDIO LAB TEST SPECIAL

FREQUENCY RESPONSE (boost at 0 dB)	
+0, -1/4 dB, 40 Hz to 36 kHz;	
+0, -3 dB, 17 Hz to 144 kHz	
CLIPPING LEVEL	9 V
S/N RATIO (re 0.5 V; A-weighted)	
typical	= 90 dB
worst case (see text)	84 1/2 dB
HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)	
2-volt input	≤ 0.03%

most such configurations.

If you have no pre-out/main-in connections, the manual suggests that you use a tape monitor loop. If you have a tape deck in the loop, you would have to disconnect the recorder for normal use, use the Enhancer ahead of the recorder when recording, and use it after the recorder in playback. Presumably you would turn off the bass boost during recording and use only the infrasonic filter—which can improve recordings, especially those from discs. Then, on playback, you would have to reconnect the Enhancer to get the benefit of its bass boost. The manual just shows the hookups; it doesn't address the question of control settings. Probably most users would prefer to connect the deck to Tape 1 and the Enhancer to Tape 2 on components offering the second set of connections and forego having the infrasonic filter in the recording circuit. (An outboard switching box plugged into Tape 1 would enable you to use two or more decks in combination with the Realistic.)

Once you start working with the Enhancer, you'll find that it can provide a wide variety of bass effects up to and including a horrendous thunder. The controls are fairly accurate in terms of achieving the calibrated frequencies and boosts at the maxima of the infinite variety of curves available. With everything "wide open"—the boost at +12 dB and the frequency at 160 Hz—there is a broad "mountain" in the response, reaching well up into the midrange and falling back to +3 dB only at 1 kHz. But with more moderate settings, you can firm up the bass without inducing the sort of leaden sound that the extreme setting will provoke from any speaker good enough to bother with in the first place.

The quality of the result will depend on your speakers—and on your patience in finding the optimum control positions. The object is to get the frequency of the peak

somewhat below that of your speakers' bass resonance and then boost the output in that range (where the speakers' inherent response is rolling off) up approximately to the output level in the resonance range. That will flatten the bottom-end response and lower the bass cutoff frequency. But keep in mind that there's a limit to how much extra signal your speakers will accept gracefully, particularly if they're the sort of minispeakers for which extra bass is especially advantageous. For example, you may get excellent results with a lot of boost at moderate listening levels, only to find that when you crank up the volume, the woofers are being asked to exceed their capabilities. Only experimentation with your own speakers will demonstrate what the Enhancer will or won't do in combination with them.

Electrically, the Enhancer performed excellently on the Diversified Science Laboratories test bench. The "worst case" signal-to-noise ratio is 84 1/2 dB at the "wide-open" setting, which we would expect to be used only as a curiosity. For settings that make good musical and audio sense, the S/N ratio should be around the 90 dB that the lab measured with the maximum-boost 40-Hz setting. With the boost at 0 dB, the S/N ratio measures 92 1/2 dB. Distortion is too low to worry about and consists only of the second harmonic. Input and output impedances are reasonably well chosen, and headroom (at 9 volts) is generous.

If your speakers need help in the bottom octave or two, the Bass Enhancer can do the job at a very reasonable price. It has enough control flexibility to provide a good match to a variety of small speakers, and it introduces no unwanted sonic side effects if used appropriately. And though the design, finish, and size give it the look of a miniature, the sound it creates is anything but.

Circle 95 on Reader-Service Card

An Elegant Integrated Amp from Technics

Technics SU-V9 integrated amplifier. Dimensions: 4 1/2 by 17 inches (front panel), 13 3/4 inches deep plus clearance for controls and connections. AC convenience outlets: one switched (100 watts max.), two unswitched (200 watts max. total). Price: \$650. Warranty: "limited," two years parts and labor. Manufacturer: Matsushita Electric Industrial Co., Ltd., Japan; U.S. distributor: Technics, 1 Panasonic Way, Secaucus, N.J. 07094.

RATED POWER	20 3/4 dBW (120 watts)/channel
OUTPUT AT CLIPPING (both channels driven)	
8-ohm load	21 1/2 dBW (140 watts)/channel
4-ohm load	23 1/2 dBW (225 watts)/channel
16-ohm load	19 dBW (80 watts)/channel
DYNAMIC HEADROOM (re rated power, 8-ohm load)	+3 1/4 dB

THERE ARE SOME PRODUCTS whose use gives us pleasure beyond what we might rationally expect from their quality, fine though it may be. When we encounter such a model, we usually find it as hard to contain our irrational enthusiasm as to explain its source. The Technics SU-V9 is a case in point: There's no doubt that it is a fine integrated amplifier, typical of Technics at its best, but that says nothing about its special appeal—its charisma.

The first thing you'll probably notice about the SU-V9 is that the "esoteric" controls are arrayed along the bottom of the front panel behind a smoked, transparent flip-down door. This arrangement inhibits careless use of these special-purpose adjustments without hiding them beyond reach of a quick visual check. The idea struck us as a little gimmicky at first (and the fact that the

door is motor-driven still does), but we quickly came to the conclusion that this compromise between clutter and closet audiophilia is eminently functional.

The least familiar of the features behind the door is what Technics calls the super-bass tone control. It is designed to give speakers—particularly the increasingly popular minispeakers—an extra kick at the bottom end, where response otherwise begins to roll off. To match its operation to varying rolloff characteristics, there is a choice of two turnover frequencies: 150 and 75 Hz, these being the points at which the response is up by 3 dB at the maximum boost setting of the rotary control. The control itself is calibrated from 0 to 10, with the numbers corresponding reasonably closely to the boost (in dB) at 20 Hz. (Unlike some deep-bass boosts, this one shelves toward

From the Driving Force:

**The graphic equalizer
that combines
high power,
low distortion
and 7-band control.**

Panasonic presents the Composer.[™] The graphic equalizer for your car that's not just an ordinary graphic equalizer. It's a low-distortion* 7-band equalizer with a built-in 50-watt (25 watts/channel) power booster. To give you crisp, clean, turbo-charged music.

In addition there are the exclusive Panasonic Key Frequency Compensators. For 50% more sound control where you need it most: the critical 125/200-Hz frequency range.

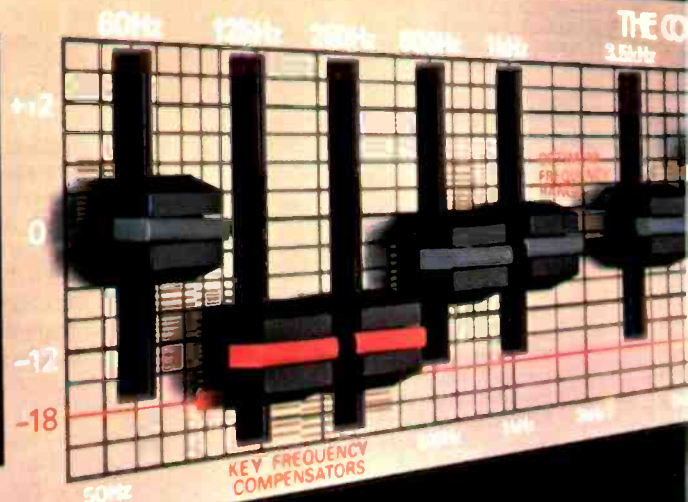
The Panasonic Composer gives you another exclusive. It's called Optimum Frequency Range. A series of yellow indicators that guide you to the settings that will deliver the best possible sound in a car interior. And there's more.

A brilliant LED display gives you instantaneous power readings. And an angled illuminator lets you keep track of your settings in the dark.

So when you're looking for a graphic equalizer, remember not all are created equal. Some are Panasonic. The Panasonic Composer.

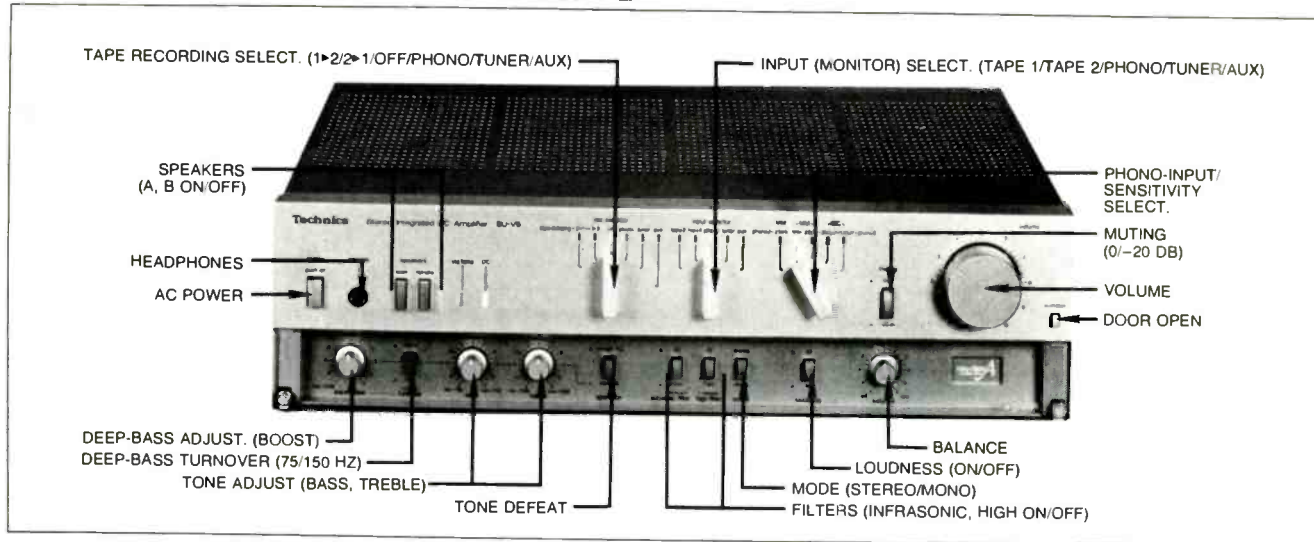
Panasonic car audio
The driving force

Panasonic *The Supreme Series*



*Less than 1% THD at total 25 watts — 12.5 watts/channel

AUDIO LAB TEST SPECIAL



HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)
at 20 3/4 dBW (120 watts) $\leq 0.022\%$
at 0 dBW (1 watt) $< 0.01\%$

FREQUENCY RESPONSE
+0, -1/4 dB, <10 Hz to 30.4 kHz
+0, -3 dB, <10 Hz to 142 kHz

RIAA EQUALIZATION
fixed-coil (2.5 mV) +1/4, -1/4 dB, 20 Hz to 20 kHz;
-3/4 dB at 5 Hz
moving-coil (250 μ V) +1/4, -1/2 dB, 20 Hz to 20 kHz;
-3/4 dB at 5 Hz

INPUT CHARACTERISTICS (re 0 dBW; A-weighting)
sensitivity S/N ratio
FC phono, 2.5 mV 0.24 mV 75 1/2 dB
FC phono, 1.0 mV 0.098 mV 76 3/4 dB
MC phono, 250 μ V 25 μ V 73 3/4 dB
MC phono, 100 μ V 9.8 μ V 75 dB
aux 14.5 mV 79 dB

PHONO OVERLOAD (1-kHz clipping)
fixed-coil, 2.5 mV 185 mV
fixed-coil, 1.0 mV 75 mV
moving-coil, 250 μ V 19 mV
moving-coil, 100 μ V 7.4 mV

PHONO IMPEDANCE
fixed-coil, 2.5 mV 48.5k ohms; 130 pF
fixed-coil, 1.0 mV 51.7k ohms; 130 pF
moving-coil, 250 μ V 220 ohms
moving-coil, 100 μ V 100 ohms

About the dBW . . .

We currently are expressing power in terms of dBW—meaning power in dB with a reference (0 dBW) of 1 watt. The conversion table will enable you to use the advantages of dBW in comparing these products to others for which you have no dBW figures.

WATTS	dBW	WATTS	dBW
1.00	0	32	15
1.25	1	40	16
1.6	2	50	17
2.0	3	63	18
2.5	4	80	19
3.2	5	100	20
4.0	6	125	21
5.0	7	160	22
6.3	8	200	23
8.0	9	250	24
10.0	10	320	25
12.5	11	400	26
16	12	500	27
20	13	630	28
25	14	800	29

the bottom end of the audio range, rather than dropping off abruptly.)

The control's audible effect will vary considerably, according to the loudspeakers used, their positioning, and the setting of the control. Misused, it could create an unnatural heaviness or, in some cases, overload and distortion resulting from boosted infrasonics. With most "bookshelf" speakers, however, moderate boost at the 75-Hz position may improve low-end solidity and authority on some material.

Although the Superbass control doesn't seem to have any protective filtering of its own at the very bottom of its range, there is a switchable infrasonic filter, whose slope (12 dB per octave) and turnover frequency (25 Hz) are typical of effective designs of this sort. The relative gentleness of the high filter (6 dB per octave above 7.3 kHz) makes it less effective, though it will ameliorate minor background hiss. The tone controls both have shelving response characteristics, with maxima of about ± 10 dB available in the treble and ± 7 dB in the bass. The latter reaches a little higher into the midrange than is usual; this, plus the rather restricted adjustment range, is no doubt dictated by the presence of the deep-bass control, since the two can be used together to shape the bass in ways that are well beyond the capability of conventional controls. (The manual, which is excellent on basics, is skimpy on such fine points.) The tone-control defeat switch restores "linear DC" operation (with no capacitors in the signal path). The LOUDNESS causes the response to begin rising below about 1 kHz to a maximum of +7 dB below 100 Hz and is unaffected by the volume setting within Diversified Science Laboratories' test range (± 10 dB re the IHF/EIA standard volume setting for test purposes), making it identical in effect to the bass control at maximum boost.

There are three selector knobs, so to speak, each with an array of LEDs to indicate its setting (though the knobs themselves are shaped so as to leave little doubt

on this score). The first selects recording output and includes an OFF (to prevent non-linear loading of the main signal path, which can occur with some recorders when they're shut off) as well as positions for dubbing in both directions with two recorders. The second knob is the main listening selector and includes monitoring for the two decks. The third addresses the phono section only and provides two sensitivity settings for moving-coil and two for fixed-coil pickups on Phono 1. (Phono 2 is permanently set for standard, high-output fixed-coil pickups.)

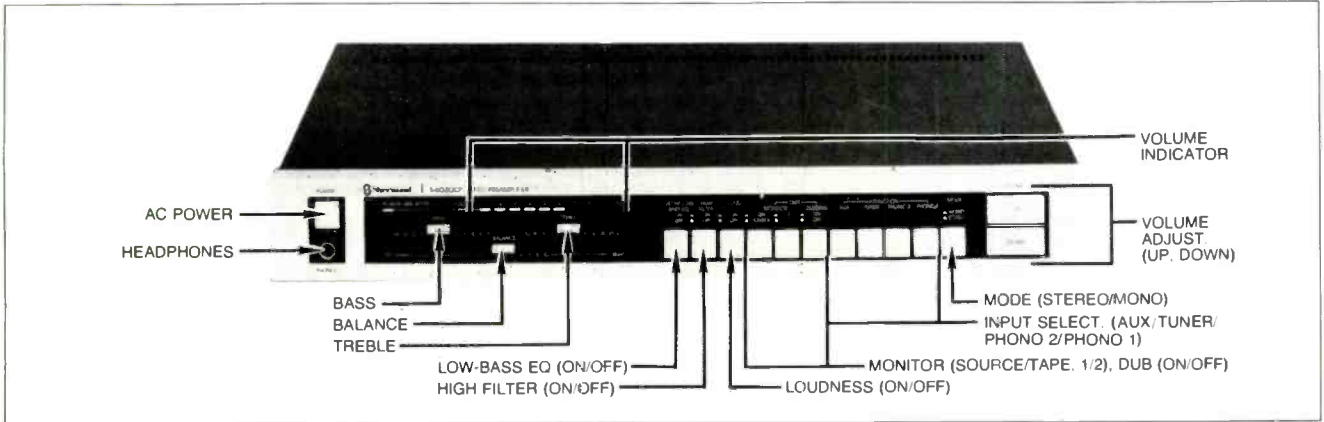
Technics' labeling of these settings can be somewhat confusing, however, because of variations in the way manufacturers specify the sensitivities of pickup cartridges themselves. (The owner's manual speaks only of a "rating," without specifying what kind.) The settings aren't critical, however, and the best advice we can offer is that you use whichever delivers a listening level closest to that of the tuner or other inputs. The "2.5-mV" setting works very nicely with pickups of medium to high output (including most of the popular moving-magnet types). The "1.0-mV" setting does equally well by fixed-coil models of medium to low output and by moving-coil designs of very high output (those intended for use without a head amp or transformer). And one or both of the moving-coil settings should be at least adequate with the remaining moving-coil models.

The power section uses Technics' New Class A circuitry. Although we're exceedingly pleased by what we hear, we don't know whether any special "listenability" is contributed by the circuit configuration. In terms of conventional measurements, the results are much what one would expect from any first-rate amplifier: There are no distortion products above 0.01% at the 0-dBW (1-watt) test level, and none above that figure, even at full power, until the very high end of the frequency range is reached. In other words, DSL finds no form of distortion that we would expect to be in

DAMPING FACTOR (at 50 Hz) 80
 HIGH FILTER -3 dB at 7.3 kHz; 6 dB/octave
 INFRASONIC FILTER -3 dB at 25 Hz; 12 dB/octave

any way perceptible in normal music listening. The rated power (120 watts, or 20 $\frac{3}{4}$ dBW, with 8-ohm loads) is exceeded by $\frac{3}{4}$ dB with steady signals or with the pulsed signal of the headroom test, for an effective maximum output of 21 $\frac{1}{2}$ dBW (140 watts)—more than enough power for most purposes.

This is a very fine integrated amplifier by any standard. Whether you agree with our perception of something extra in this elegant design is more a question of taste than anything else, but we can recommend the SU-V9 even to those who are impervious to its more elusive charms.
Circle 97 on Reader-Service Card



Pretty as a Preamp

Sherwood S-6020CP preamplifier, in metal case. Dimensions: 17 $\frac{1}{2}$ by 2 $\frac{1}{2}$ inches (front panel), 14 $\frac{1}{2}$ inches deep plus clearance for controls and connections. AC convenience outlets: three switched (600 watts max. total), one unswitched (200 watts max.). Price: \$250. Warranty: "limited," three years parts and labor. Manufacturer: made in Korea for Sherwood (Division of Inkel Corp.), 17107 Kingsview Ave., Carson, Calif. 90746.

OUTPUT AT CLIPPING 15.8 volts
 HARMONIC DISTORTION (THD: 20 Hz to 20 kHz)
 aux <0.01%
 phono <0.01%
 FREQUENCY RESPONSE
 +1/4, -1/2 dB, 10 Hz to 22.2 kHz;
 +1/4, -3 dB, 10 Hz to 76.2 kHz
 RIAA EQUALIZATION +0, -1/2 dB, 20 Hz to 20 kHz;
 -3 1/4 dB at 5 Hz
 INPUT CHARACTERISTICS (IHF loading; A-weighting)
 sensitivity S/N ratio
 aux 74 mV 92 dB
 phono 1.17 mV 80 dB
 PHONO OVERLOAD (1-kHz clipping) 340 mV
 PHONO IMPEDANCE 48.6k ohms; 170 pF
 HIGH FILTER -3 dB at 8.5 kHz; 12 dB/octave

LINKING "PRETTY" TO "PREAMP" seems at first glance an odd thing to do. As the first choice of audiophiles seeking high performance and maximum operating flexibility, preamps have traditionally been all-business, eschewing cosmetics in favor of dour functionality. So by its strikingly handsome faceplate, Sherwood's S-6020CP asserts its nonconformity.

For example, the absence of a traditional rotary volume knob is fairly heretical in a preamp. In its place are two touchpads that activate a motor-driven potentiometer. An altogether clever adaptation to prevailing design trends in integrated amps and receivers (though not in Sherwood's own), this electromechanical control introduces none of the hiss we have found in most microprocessor-mediated VOLUMES. Moreover, it works quite nicely, though some may miss the speed and tactile feedback one gets with a manual control. A ten-segment lighted display is a fairly effective indicator of relative volume settings.

As in the S-9600CP receiver (test report, January 1982), Sherwood manages bidirectional dubbing with a single button. When depressed, the switch routes the Tape 1 output to the Tape 2 input and, simultaneously, the Tape 2 output to the Tape 1 input. It's such a simple and economical alternative to separate one-way switches that we wonder why it has not been adopted by more manufacturers. (A very careless user could induce feedback, but only by trying to dub between two three-head decks with *both* in record.) Another feature discussed in the receiver report is Sherwood's ULTRA-LOW BASS EQ control. Designed as a complement to the company's own loudspeakers, the circuit can be used to reinforce the low-frequency output of many small and medium-size speakers, while

providing substantial attenuation of infrasonics. Its effectiveness is confirmed by Diversified Science Laboratories' measurements, which show that the control introduces a 5-dB boost at 35 Hz with a steep cutoff below.

The phono section's input capacitance is moderately low—about right for most premium pickups in typical tonearms, though perhaps on the low side for some others requiring more loading to achieve flat response. This is a sensible choice, since it's quite simple to add additional capacitance to the tonearm leads when necessary. (Removing what's already there is usually impossible.) The preamp's high filter takes a hefty chunk out of the upper treble (with a sharp cutoff above 8 kHz). Though you would not normally use it, with scratchy discs or hissy tapes it can be a great boon.

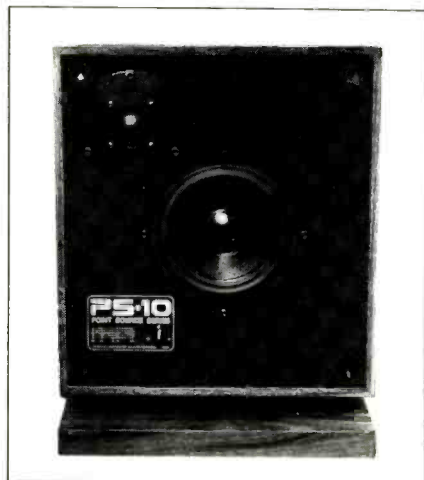
LOUDNESS, in Sherwood's hands, reflects modern (post-Fletcher-Munson) research on the ear's response at low listening levels, adding just a bit of compensatory bass boost and no treble boost. The TREBLE (which can be used in concert with LOUDNESS for those who miss the traditional high-frequency emphasis) begins its influence at about 500 Hz, reaching extremes of ± 10 dB at 20 kHz. The BASS begins its action between about 400 Hz and 1 kHz (depending on the amount of boost or cut) and has a range of ± 10 dB at 70 Hz and more than ± 12 dB at 20 Hz, which is more than adequate for most purposes.

If specifications are the chief criteria for preamp excellence, the S-6020CP is virtually beyond criticism. Ranging from merely excellent to superb, its performance with regard to frequency response, phono equalization, noise, and distortion (which DSL could not even measure) is at a level

we've rarely seen surpassed.

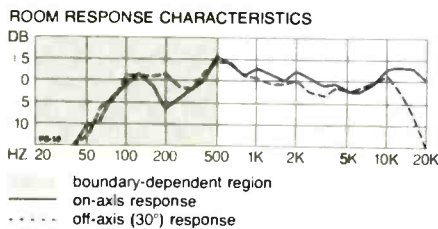
Though the S-6020CP may put off die-hard traditionalists with its bows to modernism, we see it as an attractive alternative to

the traditional "black boxes." In fact, we can't think of a preamp that offers more performance and flexibility for the dollar. **Circle 94 on Reader-Service Card**



Design Acoustics' Small Speaker with a Big Voice

Design Acoustics PS-10 loudspeaker. In wood cabinet with walnut-grain vinyl finish. Dimensions: 11 by 14 inches (front), 14 inches deep. Price: \$250. Warranty: "limited," five years parts and labor. Manufacturer: Design Acoustics Corp., 1225 Commerce Drive, Stow, Ohio 44224.



SENSITIVITY (at 1 meter, 2.8-volt pink noise, 250 Hz to 6 kHz) 91½ dB

AVERAGE IMPEDANCE (250 Hz to 6 kHz) 8.0 ohms

Report Policy: Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report or portion thereof may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested. HIGH FIDELITY and Diversified Science Laboratories assume no responsibility for product performance or quality.

DESIGN ACOUSTICS HAS NEVER settled for the ordinary in loudspeakers. The company's first effort was dodecahedral in shape, with its twelve sides approximating a pulsating sphere. A later design, the Model LDM (test report, June 1980), was in most respects a conventional two-way mini-speaker, but for its beveled front edges designed for minimum diffraction. Although still committed to the goal of low diffraction, Design Acoustics is now offering a bookshelf speaker intended to provide what other small speakers frequently cannot—ample low-frequency output. To that end, the PS-10 resembles no other bookshelf speaker we know of, other than the company's own smaller PS-8.

Though it probably won't fit comfortably on most shelves, its 14-inch depth is no accident: To make sure that reflections from shelf walls, books, and so forth won't degrade performance, the speaker's baffle is intended to protrude a bit when the system is seated on a typical 12-inch-deep shelf. For those who object to this on aesthetic grounds, the company has an optional wooden stand that raises the PS-10 some two feet off the floor.

Another notable difference from more standard speakers of this type is the use of an integral base. No mere cosmetic conceit, the raised bottom of the enclosure permits the mounting of a 10-inch down-firing woofer. This was the only way to include such a large driver and still keep overall system height to acceptable shelf limits; moreover, the designers say that the small front baffle helps to minimize diffraction.

Other design features include an interesting crossover arrangement that lets the midrange driver act more as a mid-woofer, covering the range from 200 Hz to 2 kHz. The reason, according to Design Acoustics, is to eliminate the possibility of crossover-induced anomalies in the critical midrange. Shipped in mirror-image pairs, each PS-10 has a tweeter-level control. Amplifier connections are made via spring-loaded clips that accept banana plugs or stripped wire.

The PS-10 proved itself a worthy performer in Diversified Science Labs' tests. Power handling is exceptional. Indeed, in the 300-Hz pulse test the speaker accepted the full output of DSL's test amp—57½ volts peak (equivalent to 26¼ dBW, or 413 watts, into 8 ohms). The resulting sound pressure level is a staggering 117¾ dB. Sensitivity is also quite high, with the PS-10 producing a sound pressure level of 91½ dB with a 2.8-volt input (equivalent to

dBW, or 1 watt, into 8 ohms).

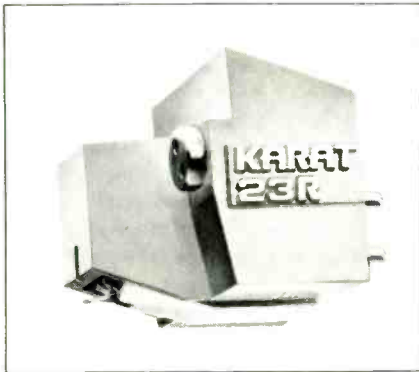
Distortion measurements likewise connote good design. At a moderate 85-dB sound pressure level, total harmonic distortion (THD) remains less than 1% from 100 Hz to 10 kHz, and at 90 dB SPL, THD increases only slightly, barely exceeding 1% from 100 Hz to 10 kHz. Impedance, too, appears well controlled. From a minimum of 4.7 ohms at 120 Hz, it rises to a maximum of 12.8 ohms at 210 Hz and remains at or above 6.4 ohms across the midrange and into the treble. Impedance does vary slightly in the treble according to the setting of the tweeter-level control, but not to any significant degree. The control itself is very gentle in its action, matching almost exactly the ±3 dB range marked on its continuously adjustable rotary knob. Its action begins to be felt at 2 kHz and reaches its maximum at 20 kHz.

Placed according to the manufacturer's recommendation, well away from the back wall and two feet off the floor, the PS-10 exhibits some response irregularities, although our listening tests (conducted under similar conditions) disclosed little evidence of the drop in output at 200 Hz shown by the on-axis curve. Response is reasonably smooth through the midrange and treble, with the latter showing just the usual amount of off-axis drop-off as directivity increases at very high frequencies.

Our experience does suggest that best performance will indeed be obtained with the PS-10's mounted out into the room, away from walls. Placed against the rear wall, they sound a little bass-heavy (seemingly confirming the response bump at 126 Hz in the curves DSL made with the speaker in that position). With the speakers optimally set up, the overall sound is smooth, clean, and detailed. Bass is surprisingly well maintained for so small a speaker. Imaging is also outstanding, with firm, stable stereo localization and a good sense of spaciousness and depth.

The PS-10 is not an easy speaker to characterize, but then innovative products often resist pigeonholing. The consensus here is that Design Acoustics has succeeded in building a loudspeaker that will produce wide-range, neutral sound, provided you take some care in finding the optimum placement for it. The PS-10's sonic performance belies its size and price to a very great degree, and we would unhesitatingly advise that you add it to your auditioning list.

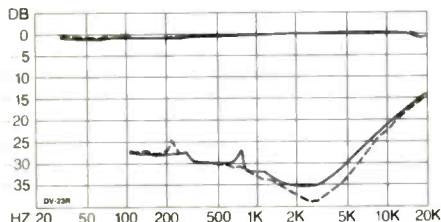
Circle 93 on Reader-Service Card



A Polished Gem from Dynavector

Dynavector DV-23R moving-coil phono pickup, with ruby cantilever and "super elliptical" diamond stylus. Price: \$310. Warranty: "Illimited," one year parts and labor. Replacement cartridge: \$170. Manufacturer: Dynavector Systems, Ltd., Japan; U.S. distributor: Dynavector Systems USA, 1721 Newport Circle, Santa Ana, Calif. 92705.

FREQUENCY RESPONSE & CHANNEL SEPARATION (test record: JVC TRS-1007 Mk. II)



Frequency response
 — L ch +1/2, -1 dB, 20 Hz to 20 kHz
 - - - R ch +1/2, -1 dB, 20 Hz to 20 kHz
 Channel separation
 ≧ 30 dB, 750 Hz to 4.8 kHz;
 ≧ 20 dB, 100 Hz to 10 kHz

SENSITIVITY (1 kHz) 0.065 mV/cm/sec

CHANNEL BALANCE (1 kHz) $\pm < 1/4$ dB

VERTICAL TRACKING ANGLE $\approx 30^\circ$

IT'S HARD TO RESIST labeling this cartridge "a jewel of a pickup" in recognition of its ruby cantilever. Jewel cantilevers are not new: Dynavector introduced a model with a diamond cantilever in 1979, and B&O used sapphire for the purpose at nearly the same time. Since then, a number of other manufacturers, including ADC, Grace, and Klipsch have followed suit. The reason for using such exotic (and expensive) materials is to transmit the recorded waveform from the stylus tip to the transducer within the pickup as perfectly as possible, free from the mechanical distortion that can be imposed by an insufficiently stiff cantilever. Specifically, Dynavector says it has chosen ruby to minimize dispersion of the transverse wave propagated along the cantilever, without sacrificing conventional performance characteristics, such as frequency response and channel separation.

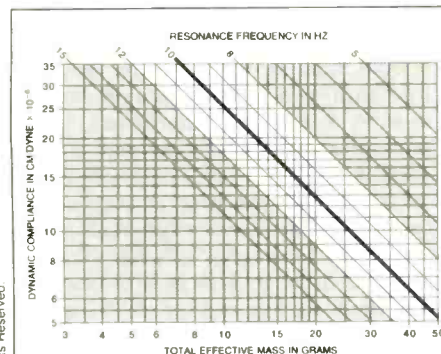
The DV/Karat 23 Ruby, better known as the DV-23R, is a typically low-output moving-coil model, requiring the use of either a step-up transformer or a pre-preamp ahead of the phono preamp. (Both methods proved entirely satisfactory in our tests.) The tip shape is described as "super elliptical." Apparently it splits the difference between the "fatter" spherical and elliptical shapes required by the high vertical tracking forces of some moving-coil models and the small-curvature multiradials favored for light-tracking fixed-coil models. The DV-23R's recommended tracking force is 1½ grams—not much higher than the 1 to 1¼ grams typical of high quality fixed-coil pickups.

The cartridge's response is certainly flat. Indeed, all of the conventional measurements are excellent. Vertical tracking angle (as measured with the DIN twin-tone test cuts) is on the high side of the specified 20 degrees, as it is with many top pickups. In the low-frequency test, the highest-VTA band (30 degrees) proved the best match to

the pickup; at the high test frequencies, the 25-degree band supplied the best match. When Diversified Science Laboratories measured maximum lateral tracking levels, the 23R had no trouble with the highest band (+18 dB RIAA) at 200 Hz, but couldn't manage at 400 Hz, settling for +15 dB instead—which still is more than you'll usually need.

The low-frequency resonance is just about ideally placed in the SME arm. From now on, however, we will be talking more about the dynamic compliance and the effective tonearm mass with which it should be mated. Low-frequency dynamic compliance—measured at $11 (\times 10^{-6})$ centimeters per dyne) by DSL for the DV-23R—bears no necessary relationship to the static compliance frequently listed by manufacturers. (Dynavector gives a "compliance" spec of 15, without saying how it was measured.) But it is low-frequency dynamic compliance that governs actual resonance and therefore susceptibility to warps. Both the resonance measurement and the tendency for compliance to run lower in moving-coil pickups than in current fixed-coil models would lead us to expect higher compliance numbers in future tests—and lower ideal arm masses. Suffice it to say here that these figures confirm that the Dynavector should do well in a relatively broad spectrum of arms, from fairly low to fairly high in mass, with a moderately heavy arm such as our SME just about on target. (For a full discussion of this subject, see "Basically Speaking," page 25.)

It is in the listening room that the Dynavector really shines, however. We had expected superb smoothness and excellent clarity, and we weren't disappointed. In none of our listening could we discern a significant falsification of timbre. From triangle to tympani, from trombone to piccolo, reproduction is exemplary in its faithfulness. Voices and strings suffer from no edg-



Tonearm/Cartridge Matching Graph

By means of this nomograph, you can quickly and easily determine the compatibility of any cartridge and tonearm we have tested. Ideally, the arm/cartridge resonance frequency (indicated by the diagonal lines) should fall at 10 Hz, but anywhere between 8 and 12 Hz will assure good warp tracking and accurate bass response. (It is usually okay to let the

resonance rise as high as 15 Hz, although we don't normally recommend this.)

Begin by looking up the weight and dynamic compliance shown in the cartridge report and the effective mass listed in the turntable or tonearm report. Add the weight of the cartridge to the effective mass of the tonearm to get the total effective mass. Then find the point on the graph where the vertical line for the total effective mass intersects the horizontal line for the cartridge's dynamic compliance. For a good match, this point should fall in the white region, between the 8- and 12-Hz diagonal lines.

When necessary, you can back-figure compliances and effective masses for cartridges and tonearms tested before we began reporting these figures directly (in January 1983). For cartridges, look up the vertical resonance frequency (measured in the SME 3009 Series II Improved tonearm) and the cartridge's weight. Add 15 grams (the SME's effective mass) to the cartridge weight to get the total effective mass. Then find the

intersection of the vertical line representing that mass with the diagonal line representing the measured resonance frequency. Now you can read off the compliance from the horizontal line passing through the point of intersection.

For tonearms, look up the vertical resonance frequency as measured with the Shure V-15 Type III cartridge. Find the intersection of the diagonal line for that frequency with the horizontal line representing the Shure's dynamic compliance of 22.5×10^{-6} cm/dyne. Reading down the vertical line on which the point of intersection lies will give you the total effective mass of the arm with the Shure V-15 Type III mounted in it. Then subtract 6.3 grams (the weight of the V-15 Type III) to get the tonearm's effective mass.

Because of differences in measurement techniques, manufacturers' specifications for compliance and effective mass often differ from our findings and may therefore yield inconsistent results if used with this graph.

AUDIO LAB TEST SPECIAL

LOW-FREQUENCY RESONANCE (in SME 3009)
 vertical 10.6 Hz; 10½-dB rise
 lateral 9.7 Hz; 11-dB rise

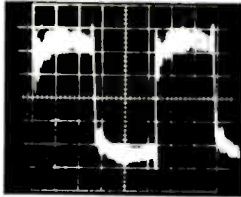
DYNAMIC COMPLIANCE (vertical)
 11 × 10⁻⁶ cm/dyne

RECOMMENDED EFFECTIVE TONEARM MASS
 optimum 17.5 grams
 acceptable 10.5 to 30.5 grams

MAX. TRACKING LEVEL (re RIAA 0 VU; 1.5 grams)
 lateral ≥ +15 dB
 vertical ≥ +12 dB

WEIGHT 5.5 grams

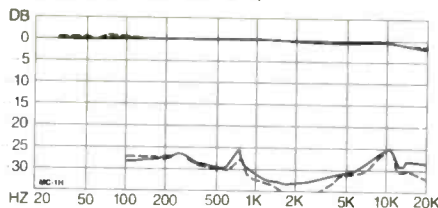
SQUARE-WAVE RESPONSE



Boston Acoustics' Premier Pickup

Boston Acoustics MC-1vdH moving-coil phono pickup, with multiradial (van den Hul) diamond stylus. Price: \$200. Warranty: "limited," one year parts and labor. Manufacturer: made in Japan for Boston Acoustics, Inc., 130 Condon Street, Boston, Mass. 02128.

FREQUENCY RESPONSE & CHANNEL SEPARATION (test record: JVC TRS-1007 Mk. II)



Frequency response
 L ch +½, -2 dB, 20 Hz to 20 kHz
 R ch ±1, -1½ dB, 20 Hz to 20 kHz
 Channel separation
 ≥ 30 dB, 1 kHz to 5 kHz;
 ≥ 25 dB, 100 Hz to 20 kHz

SENSITIVITY (1 kHz) 0.65 mV/cm/sec

CHANNEL BALANCE (1 kHz) ±¼ dB

VERTICAL TRACKING ANGLE ≈22°

LOW-FREQUENCY RESONANCE (in SME 3009)
 vertical 9.0 Hz; 12-dB rise
 lateral 9.1 Hz; 10¾-dB rise

ness or breathiness. Some listeners detected a very slight "glassiness" in complex passages, but none of our auditioning revealed any shortcoming that might be associated with the failure to track the ultra-high-level 400-Hz test band.

On the contrary, the most imposing thing about this pickup is its dynamic range. Perhaps because of its superb way with transients, the DV-23R seems to reproduce a greater difference between the loudest and the softest passages on given

records than we are used to hearing with other pickups. When we tried the crushing crescendi at the beginning of Side 2 of the Sheffield Lab *Romeo and Juliet* (Leinsdorf's editing of the Prokofiev ballet), the impact was devastating. The Dynavector's very solid bass surely contributes to this effect, which is at once visceral and delicately detailed. We are satisfied that the DV-23R is one of the world's great phono cartridges.

Circle 98 on Reader-Service Card

WE'VE SEEN A FEW cartridge manufacturers get into the loudspeaker business, but this is probably the first time we can remember seeing a speaker company turn around and bring out a cartridge. Actually, Boston Acoustics has two new pickups: the MC-1vdH reviewed here, which has a state-of-the-art van den Hul stylus, and the less expensive (\$140) MC-1E, which is identical except for the use of a conventional elliptical tip. The company's rationale for introducing these products is twofold and characteristically practical. One is the truism that the phono pickup you use affects your system's sound more than any other component except the speakers. The other is that most high-quality cartridges make it difficult, if not impossible, for typical users to obtain from them the performance they were designed to provide.

For example, most fixed-coil pickups (those falling into the moving-magnet, moving-iron, and other similar categories) require a load of approximately 47,000 ohms in parallel with some amount of capacitance (usually between 100 and 500 picofarads, depending on the particular model) to deliver their flattest frequency response. This loading is supplied by the phono input of your amplifier or receiver together with your turntable's tonearm wiring and cables. Most phono stages now provide the required 47k-ohm resistive load, but capacitance varies all over the lot, both in amplifiers and in turntables. And a capacitance mismatch of as little as 20% (not hard to come by) can cause a high-frequency response error of several decibels with some pickups.

The other problem with fixed-coil cartridges is that their stylus-cantilever suspensions are often so compliant (for good low-frequency tracking) that installation in a typical tonearm of medium to high effective mass yields an arm/cartridge resonance frequency below 8 Hz. This degrades warp tracking and increases the likelihood of

amplifier overload or excessive low-frequency distortion from large, unwanted infrasonic signals.

Moving-coil cartridges, on the other hand, have very low output impedances and are therefore relatively insensitive to loading: You'll get the same response no matter what you plug them into. And they usually have relatively low compliances, as well (though this advantage is sometimes offset by increased weight), making them more compatible with the tonearms most people use. Unfortunately, most moving-coils are also very low-output devices, which makes it necessary for you to use some kind of step-up transformer or pre-preamp and increases their susceptibility to hum. Another common difficulty with moving-coil pickups (though less so than in the past) is a tendency to peakiness at the high end, sometimes accompanied by mediocre tracking ability.

With the MC-1vdH, Boston Acoustics seems to have retained all the genre's traditional strengths without any of the customary weaknesses. Sensitivity, for example, is quite high for a moving-coil, ensuring more than enough output for a good signal-to-noise ratio with conventional phono preamps and eliminating the need for any auxiliary step-up device. And tracking ability is generally excellent, if not the very best Diversified Science Laboratories has measured. Distortion is very low for a cartridge, even at very high groove velocities, confirming the fine tracking ability and perhaps also reflecting the groove-tracing performance of the van den Hul stylus. Channel balance is superlative—essentially perfect—as is vertical tracking angle, which is almost smack on the 20-degree DIN standard.

Frequency response is exceptionally smooth and flat, with just a hint of rolloff at the very top and certainly no peakiness. Channel separation is unusually wide and uniform, exhibiting none of the deteriora-

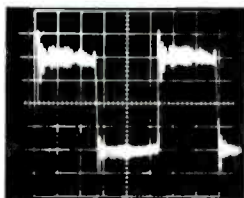
DYNAMIC COMPLIANCE (vertical)
 15.5×10^{-6} cm/dyne

RECOMMENDED EFFECTIVE TONEARM MASS
 optimum 11.3 grams
 acceptable 6.3 to 20.5 grams

MAX. TRACKING LEVEL (re RIAA 0 VU; 1.8 grams)
 lateral $\text{IV} +15$ dB
 vertical $\text{IV} +12$ dB

WEIGHT 5.0 grams

SQUARE-WAVE RESPONSE



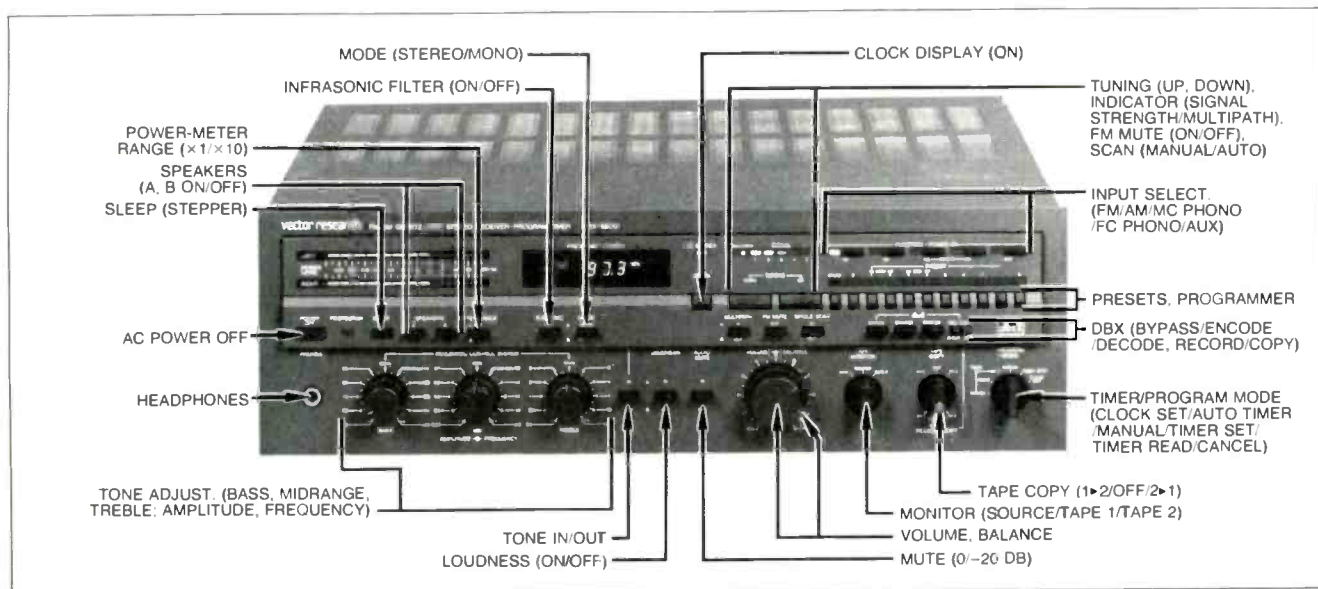
tion at high frequencies one finds on many other cartridges. And square-wave response is very good, showing a mild overshoot accompanied by some low-level ringing (most of which is present in the test record).

As claimed by Boston Acoustics, the MC-1vdH's low mass and moderate compliance make it suitable for use in just about any tonearm you are likely to come across. The cartridge is packaged with mounting hardware and an alignment protractor, which together with the unit's rather blocky shape makes accurate installation easier than usual. Boston Acoustics is also supplying its dealers with a more elaborate set-up

gauge for even more accurate alignment of the cartridge in their customers' tonearms.

As one would expect from the data, the MC-1vdH sounds extremely good—very smooth and alive with a firm, stable stereo image and no hint of stridency, even on demanding material. We therefore have no hesitation in recommending it to quality-conscious buyers. The price, although not low, is in line with the going rate for premium cartridges, and if you are put off by it, you might reasonably look to the less costly MC-1E, which we expect is very nearly as good.

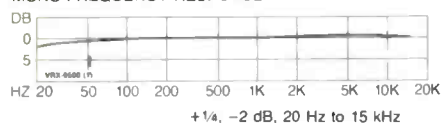
Circle 92 on Reader-Service Card



Vector's Incredible Music Machine

Vector Research VRX-9500 AM FM receiver, with DBX tape/disc noise reduction. Dimensions: 17¼ by 5¼ inches (front panel), 13¾ inches deep plus clearance for controls and connections. AC convenience outlets: two switched (200 watts max. total), one unswitched (200 watts max.). Price: \$1,000; optional VRC-11 remote-control unit, \$85. Warranty: "limited," two years parts and labor. Manufacturer: made in Japan for Vector Research, Inc., 20600 Nordhoff St., Chatsworth, Calif. 91311.

FM tuner section
 MONO FREQUENCY RESPONSE



THE SHEER QUANTITY OF FEATURES embodied in the VRX-9500 receiver is startling, and that so pace-setting a receiver should have come from a company that has been on the scene only a few years is at first glance even more startling. Yet this is probably just the sort of product we should have expected from Vector Research. It represents the sort of fresh design thinking and synthesis of current technology that the company has said it intends to make its hallmarks and evinces the awareness of the special needs of recordists that is so much in evidence in the company's cassette decks.

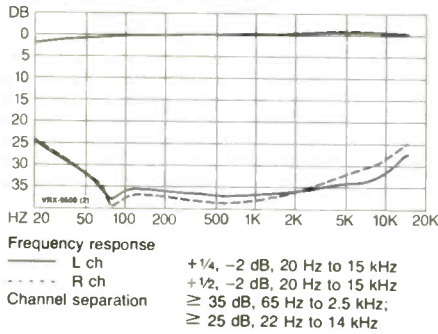
First, let's examine the VRX-9500's front panel. There is no ON switch as such; instead, when you press the selector button for any function the receiver turns on. When you press OFF, the tuner's frequency readout becomes a twenty-four-hour clock (reading "17:00" for 9:00 p.m. for instance), which works in conjunction with the three-way built-in timer. The timer has three separate functions: It can turn the receiver on and off each day at the times for which you program it; it can be programmed for a one-time turn-on/turn-off cycle in addition to the daily cycle; and it

has a sleep feature that automatically turns the unit off after a preset period of time has elapsed. (Both the daily and the one-time cycle include input-selector programming, as well.) The interrelationships among these three timer modes are quite complex in terms of what overrides what, but they are very well thought out and painstakingly explained in the manual. Incidentally, you can always check the time (CLOCK) or timer programming (TIMER READ) with the tuner section turned on, even though its frequency readout normally pre-empts the clock display.

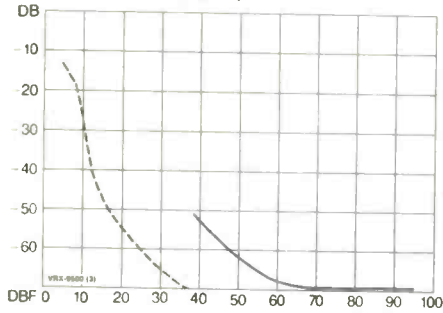
There is also provision for timer-controlled synchronization with Vector's VCX-800 cassette deck, by means of a special jack on the back of the VRX-9500, and a jack for the cable from the optional VRC-11 remote control. (Because we had neither of the ancillary units, we didn't test these features.) A compartment in the rear panel holds a Z battery (composed of four AA cells) to energize the memory functions during power outages or periods when the receiver is not connected to a wall socket. And there are back-panel pre-out/main-in amp jumpers whose jacks can be used to

AUDIO LAB TEST SPECIAL

STEREO RESPONSE & SEPARATION



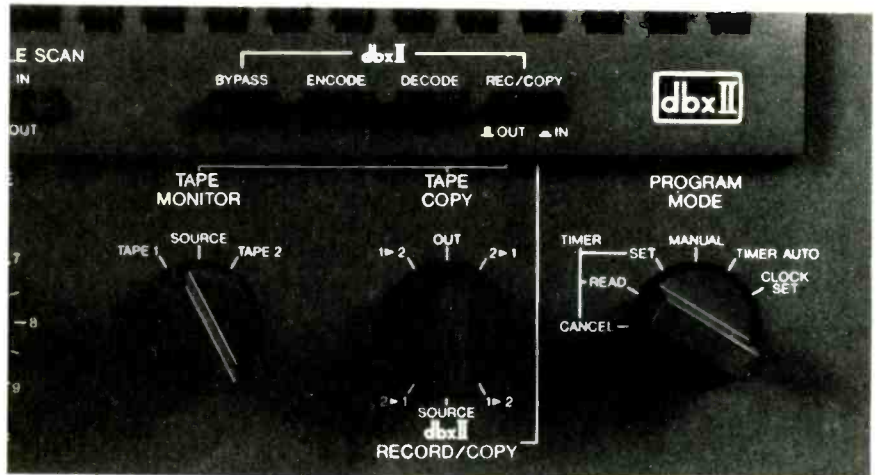
FM SENSITIVITY & QUIETING



Muting threshold	29 1/2 dBf
Stereo threshold	38 1/2 dBf
Stereo S/N ratio (at 65 dBf)	69 dB
Mono S/N ratio (at 65 dBf)	73 1/4 dB
CAPTURE RATIO	1 1/4 dB
SELECTIVITY (alternate-channel)	62 dB
HARMONIC DISTORTION (THD+N)	
at 100 Hz	stereo 0.38% mono 0.42%
at 1 kHz	0.05% 0.16%
at 6 kHz	0.16% 0.25%
STEREO PILOT INTERMODULATION	0.084%
IM DISTORTION (mono)	0.046%
AM SUPPRESSION	47 1/4 dB
PILOT (19 kHz) SUPPRESSION	69 3/4 dB
SUBCARRIER (38 kHz) SUPPR.	>95 dB

Amplifier section

RATED POWER	19 1/2 dBW (90 watts)/channel
OUTPUT AT CLIPPING (both channels driven)	
8-ohm load	20 3/4 dBW (120 watts)/channel
4-ohm load	22 1/4 dBW (168 watts)/channel
16-ohm load	18 3/4 dBW (75 watts)/channel
DYNAMIC HEADROOM (re rated power, 8-ohm load)	+13 1/4 dB
HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)	
at 19 1/2 dBW (90 watts)	$\leq 0.031\%$
at 0 dBW (1 watt)	$\leq 0.015\%$
FREQUENCY RESPONSE	
	+0, -1/4 dB, <10 Hz to 29.3 kHz
	+0, -3 dB, <10 Hz to 105 kHz
RIAA EQUALIZATION	
fixed-coil input	+1/4, -1/2 dB, 20 Hz to 20 kHz;
	-13 1/4 dB at 5 Hz
moving-coil input	+1/4, -13 1/4 dB, 20 Hz to 20 kHz;
	-1 1/2 dB at 5 Hz



Much of the VRX-9500's flexibility is summed up in this section of the front panel. The buttons below the preset-indicator lamps serve to set and select station presets and also as a programming keyboard in conjunction with the clock/timer program-mode switch below. The two rotary tape switches and DBX control buttons enable you to record, play back, and copy standard and DBX discs and tapes in almost every possible way.

patch in equalizers, time-delay units, and so forth.

Possibly the most complex feature of the receiver (we found it the most difficult to master, but that's partly a question of how much we had to unlearn from our experience with more conventional switching) is its DBX/dubbing section. The DBX functions are controlled by four pushbuttons—three of which, ENCODE, DECODE, and BYPASS, are interdependent and interlocked, while the fourth, RECORD/COPY, operates independently. Because there is only one set of DBX circuits, you can't select ENCODE and DECODE simultaneously and thus can't monitor a DBX recording off the tape, even if you have a monitor-head recorder. Presumably to prevent you from monitoring an undecoded signal, the DBX RECORD/COPY automatically disables the monitoring function and either returns you to the source signal or mutes the output, depending on how other switching is set.

This scheme may sound unnecessarily complicated, but it's really not, considering all the things it makes possible: decoded playback of DBX discs or tapes, undecoded tape copies of DBX tapes or discs, decoded (or differently encoded) copies of DBX tapes or discs, non-DBX copies of non-DBX discs or tapes, and DBX copies of non-DBX discs or tapes. Any scheme we can conceive for simplifying the switching would materially reduce these options. With the DBX section bypassed, the dubbing and monitoring switches operate in the normal, full-function manner, enabling you to monitor either deck while you're dubbing (for example) and to dub in either direction between the two decks.

The tone controls also require a little thought and practice for full mastery. The three-band (bass, midrange, treble), defeatable system offers two adjustments in each band: for amplitude and frequency. Data from Diversified Science Laboratories show that at the detented center of the fre-

quency adjustment the TREBLE shelves at about ± 12 dB above 20 kHz or so—with the whole response curve capable of being displaced about one octave upward or one and a half octaves downward. The MIDRANGE offers ± 10 dB maximum, with a similar frequency adjustment range above and below its detented position (which is centered just above 1 kHz). The BASS shelves below about 80 Hz at the detent, with a slightly wider amplitude range than the MIDRANGE, and allows a frequency shift upward by a little more than an octave and downward by something less than an octave.

This range of options approaches the flexibility and equals the smoothness of parametric equalization if you're willing to rely on your ears in fine-tuning it. Admittedly, it can't manage the narrow-band (high-Q) effects of a parametric, and at minimal boost or cut settings the controls' effects are usually very subtle. On the other hand, it can more nearly approximate ideal response curves over a much wider range of conditions than one could even hope for with conventional tone controls, and without the ripple that tends to afflict the response of graphic equalizers where hefty boost or cut is called for over several adjacent bands.

The AM/FM tuner, which has eight station presets for each band, sweeps up or down the chosen band continuously as long as you depress the tuning button in the manual mode. It advances in discrete hops (of 0.1 MHz on FM or 10 kHz on AM) if you just tap the tuning button in manual or continuously until it arrives at a "receivable" station in the automatic mode. If you live outside a strong signal area, you may find the 9500's definition of "receivability" somewhat persnickety: Even when it's switched to MONO, it will pass over stations that light the first signal-strength LED (at about 30 dBf—where mono quieting runs some 65 dB in the DSL data). It seems to

INPUT CHARACTERISTICS (re 0 dBW; A-weighting)

	sensitivity	S/N ratio
fixed-coil phono	0.255 mV	73 1/4 dB
moving-coil phono	9.5 μV	73 dB
aux input	16 mV	76 dB

PHONO OVERLOAD (1-kHz clipping)

fixed-coil input	175 mV
moving-coil input	9.4 mV

PHONO IMPEDANCE

fixed-coil input	55k ohms; 250 pF
moving-coil input	58 ohms

DAMPING FACTOR (at 50 Hz) 82

INFRASONIC FILTER -3 dB at 26 Hz; 12 dB/octave

need enough signal to trip the stereo threshold (at 50 dB of stereo quieting—better than 70 dB in mono) before the scanning will stop. Thus, both the signal strength display and the scanning are somewhat less sensitive than average. So is the stereo switching (though without a BLEND feature, many listeners may be reluctant to go for stereo on stations too weak to achieve 50 dB of quieting).

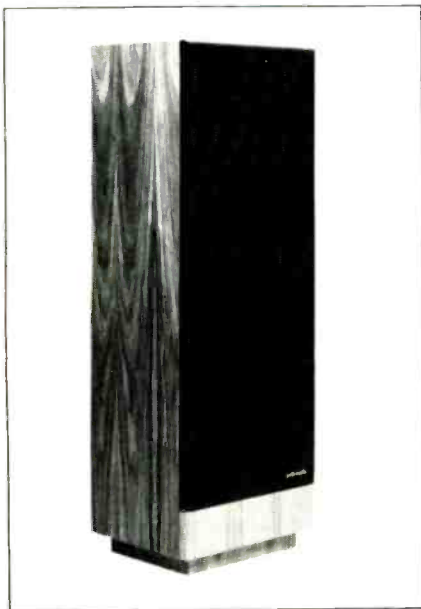
The five-LED signal-strength display can be converted to register multipath at the flick of a switch, but this function also seems relatively insensitive. In a fringe area where other tuners so equipped frequently show considerable multipath, the 9500 registers none. In more typical locations, however, where both signal strength and multipath are considerably higher, the tuner section should really come into its own. Among the generally very good FM measurements, selectivity should be singled out for special mention. Not only is the usual alternate-channel figure better than usual, but DSL measured 8 dB of adjacent-channel selectivity, which is outstanding.

Even for a top receiver, the amplifier section is opulent, delivering more than 20 dBW (100 watts) per channel into 8 ohms on a continuous basis and the equivalent of 21 1/4 dBW (133 watts) on pulses that more nearly simulate music. Distortion is low and is dominated by the relatively benign second harmonic; intermodulation, which usually is about the same (and in that case goes unremarked in our reports) is here noticeably lower. The infrasonic filter is

steep enough to be effective, and though its turnover frequency is, perhaps, a hair higher than average, it is low enough to be below the lower limit of virtually all speakers and musical material. The loudness compensation, which adds about 10 dB in the deep bass and 6 dB in the extreme treble, is unaffected by the VOLUME setting in DSL's tests and strikes us as somewhat redundant, given the unusually capable tone controls. Incidentally, the power meters at the upper left of the front panel are calibrated from 0.05 to 180 watts (-13 to +22 1/2 dBW) into 8 ohms, in steps of approximately 3 dB; a switch increases by 10 dB (ten-fold) the display's sensitivity.

Obviously, this is not a receiver whose capabilities can be assessed at a glance. Nor is it one for which an objective "bottom-line" value assessment is even conceivable, since its multitude of features must be measured, one by one and together, against the needs of individual users. You'll certainly find specifics that don't do much for you—perhaps the power metering or timer turn-on—but their presence doesn't diminish the receiver. Indeed, the diversity of its capabilities is remarkable—perhaps unprecedented. And when you consider what it would cost you to add them all to a conventional receiver of similar performance, by means of outboard accessory units, the VRX-9500 qualifies as a bargain. We suggest that you look at all the features that can be useful to you and make your assessment on that basis. We find it captivating.

Circle 90 on Reader-Service Card



Polk "Reinvents" the Loudspeaker

JUST TO LOOK AT IT, the Polk SDA-1 Stereo Dimensional Array doesn't seem much different from a great many other floor-standing dynamic loudspeakers. To hear it, though, is quite another matter. Our first, all too brief audition simply bowled us over: The width, depth, and precision of the stereo image were astounding, as though a very good image-enhancement unit had been plugged into the system along with the speakers. We now know that this is, in effect, just what was going on, although the implementation is primarily acoustical, rather than electronic. And we also know, after extended listening, that we're no less astonished than we were that first day at the system's sometimes mind-boggling powers of sonic persuasion.

The problem the SDA-1 seeks to overcome is known as acoustical crosstalk, which is also the prime target of several purely electronic devices, most notably the Carver Sonic Hologram Generator and the Sound Concepts IR-2100 Image-Restoration system. (The SDA-1's approach is more like that of the Sound Concepts.) Acoustical crosstalk occurs when a signal that should ideally be heard by only one ear is heard by the other as well. Unfortunately, nonideal behavior is inevitable in ordinary

stereo systems. Sound from the right speaker, which really should be heard only by the right ear, sneaks around the head to the left ear, where it competes with the desired signal from the left speaker. And the same effect happens from left to right.

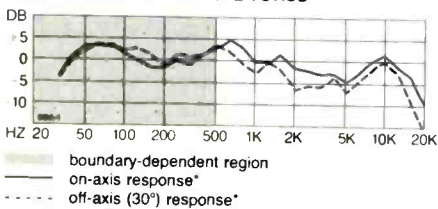
Acoustical crosstalk is purely an artifact of stereophonic reproduction: It cannot occur in nature, where sound comes from only one direction for a given source—not two, as in stereo. It is a problem because of its potential for confusing the brain's sound-localization system, which depends primarily on differences in arrival time at the two ears to determine the direction from which a sound is coming. For example, a sound coming from your left should arrive at your left ear before it gets to your right ear. The magnitude of this interaural delay depends on the distance between your ears and on the angle from which the sound is coming. The interaural delay will be greatest when the sound source is exactly 90 degrees to your left or right and zero when the source is directly in front of you.

An extreme example will serve to illustrate how acoustical crosstalk can provide false localization cues. Consider a recording in which the sound source is far off to the left and the microphones are

AUDIO LAB TEST SPECIAL

Polk SDA-1 Stereo Dimensional Array floor-standing loudspeaker system, in walnut veneer cabinet. Dimensions: 15¾ by 43¾ inches (front), 11¾ inches deep. Price: \$1,700 per stereo pair. Warranty: "limited," five years parts and labor. Manufacturer: Polk Audio, 1915 Annapolis Road, Baltimore, Md. 21230.

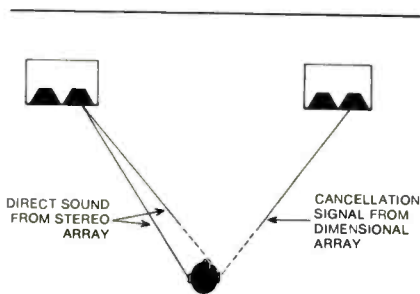
ROOM RESPONSE CHARACTERISTICS



SENSITIVITY (at 1 meter; 2.8-volt pink noise, 250 Hz to 6 kHz) 90½ dB*

AVERAGE IMPEDANCE (250 Hz to 6 kHz)
 one channel driven 3.0 ohms*
 both channels driven (mono) 8.3 ohms*

*See text



Cancellation of acoustical crosstalk is achieved by means of a second array of drivers, called the dimensional array, mounted to the outer side of each speaker cabinet's front baffle, slightly more than the width of a human head away from the regular stereo array. In the example shown here, a signal emerges from the left speaker's stereo array, arriving first at the left ear and slightly later, because of the additional distance traveled, at the right ear (where it constitutes acoustical crosstalk). Simultaneously, a signal comprising a standard right channel component and an out-of-phase left-channel component emerges from the right dimensional array. The placement of the right dimensional array causes the path length from it to the right ear to be almost the same as that from the left stereo array to the right ear. Consequently, the in-phase component from the left stereo array and the out-of-phase component from the right dimensional array arrive at the right ear at the same time and cancel each other, thereby eliminating the left-channel acoustical crosstalk.

spaced apart by a distance greater than the diameter of your head. When played back over a conventionally arranged stereo system, the acoustical crosstalk signal from the left speaker will arrive at the right ear before the direct signal from the right speaker. The precedence effect will cause the brain to suppress the later-arriving right-channel signal. The brain will then dutifully localize the sound as coming from the direction of the left speaker.

By this logic, it follows that in a conventional stereo system no sound can ever be localized outside the limits defined by the positions of the speakers, regardless of where the sound actually originated at the recording site. This is especially damaging to ambience information, which naturally arrives from all directions and serves to give a live performance its sense of depth and spaciousness. In conventional stereo, this information is all squeezed up front between the speakers.

To generate a more nearly correct image, each Polk SDA-1 speaker has two arrays of drivers, plus a woofer system that operates from about 100 Hz down. The woofer system consists of two 6½-inch active drivers and a large passive radiator to which they are acoustically coupled. Above each of the woofer cones (which are side by side on the baffle) is a column of two drivers: a 6½-inch midwoofer and a dome tweeter slightly more than 1-inch in diameter. The inner (or "stereo") column is driven by a normal left- or right-channel signal; the outer (or "dimensional") column, however, is driven by either an L-R signal (in the case of the left speaker) or an R-L signal (in the case of the right speaker). These signals are derived by means of a passive matrixing network and a cable linking the two speakers.

The trick is that the two arrays are separated by a distance just slightly greater than the diameter of a human head. Knowing that, consider the following simple (if rather artificial) case, in which the output from the amplifier to the speakers consists solely of left-channel information (see diagram). That signal will emerge from the inner "stereo" array of the left speaker. In addition, an L-R and an R-L signal will be derived by the matrix—in this special case, an L and a -L signal, respectively, since there is no right-channel signal. The -L signal emerges from the right speaker's outer "dimensional" array at the same time the L signal emerges from the left speaker's stereo array. The only element of the signal from the left stereo array that is desired is the one to the left ear: The other path, to the right ear, is acoustical crosstalk.

Now, the right-channel dimensional array is displaced just enough to the right that its output (-L) will arrive at the right ear at the same time as the acoustical crosstalk signal (L) from the left stereo array, so that the two cancel. That eliminates the false localization cue that otherwise would have

existed because of the crosstalk. But there is now only one signal, which arrives only at the left ear; localization requires signals at both ears.

The desired localization cue is supplied by the L signal from the left dimensional array. Although it travels to both ears, it arrives at the left ear after the L signal from the nearer stereo array and is therefore ignored by the left ear (because of the precedence effect). And because of the dimensional array's displacement to the left, it takes twice as long to get to the right ear as did the now cancelled crosstalk signal from the left stereo array. Consequently, the perceived interaural delay is twice as long as it would be if the sound source were in the direction of the left loudspeaker. This causes the brain to localize the sound to the left of the left speaker. (According to Polk, systems that cancel the crosstalk without supplying this additional cue can severely distort the central image by stretching it too much toward the sides.)

How far to the left depends on the listener's distance from the loudspeakers. If he is exactly as far away from an imaginary line connecting the two speakers as the speakers are apart from each other, he will hear the sound exactly 90 degrees to his left. Moving farther away will cause it to move gradually around an arc toward the left speaker; moving closer will create an apparent interaural delay larger than is possible in nature. (For that reason, Polk recommends that you not sit too close to the speakers.)

Real situations are more complicated and bring factors such as loudness differences into play as secondary localization cues, but the basic idea is clear. And it is, in its essence, elegantly simple, despite the necessary complexity of our exegesis.

Testing the speaker proved to be at least as difficult a task as explaining it. Diversified Science Laboratories reports that measurements of the SDA-1 account for more than 7% of the total data it has accumulated on loudspeakers since we began our current testing program in June 1981. Frequency response measurements were especially difficult, since the loudspeakers cannot be operated individually and their outputs vary so much according to the characteristics of the input signal. The curves shown here were made using a mono drive signal with both speakers pushed together against the rear wall. There is no special logic to this nonstandard arrangement, other than that the results seem passably consistent with what we hear and with the general trend of the many other curves DSL generated. (There do, for example, seem to be mild prominences at around 500 Hz and 10 kHz.) We admit that we really have no idea what to make of an off-axis curve made in this way. And we note that these are neither the best nor the worst that we obtained. For the record, the smoothest curve was taken off axis with the right-



channel speaker several feet from the rear wall and the left-channel speaker in another room, muffled with blankets and with the whole system driven by a right-channel input.

At any rate, of all the loudspeaker response curves DSL has ever run for us, the ones obtained with the Polks are by far the least consistent or predictive. But given the SDA-1's unusual operating principle, we're not too surprised. Take the curves shown here with several large grains of salt and judge the speakers by ear.

Impedance measurements also posed special problems, because the impedance varies according to how "stereo" the drive signal is. A mono signal, which exercises only the "stereo" arrays, gives a fairly smooth curve that never drops below 4.8 ohms. Left- or right-channel drive brings the dimensional arrays fully into operation, along with the stereo arrays, dropping the minimum impedance to 2.4 ohms. In normal use, the impedance would vary continuously between these two extremes. Some amplifiers may have difficulty with this load, although we expect most will get along fine, provided you don't run another pair of speakers in parallel.

DSL measured sensitivity, power handling, and distortion in the most conservative possible way—using a mono drive signal with one speaker in the room against the rear wall and the other in another room muffled with blankets. Sensitivity turns out to be high anyway, which means that it's probably somewhat higher still with more typical signals. In the 300-Hz tone-burst test, the Polk accepted the full output of DSL's amplifier—62½ volts peak, equivalent to 27 dBW, or 488 watts, into 8 ohms.

Total harmonic distortion (THD) is generally quite low on the SDA-1, even under these worst-case conditions. At a moderately loud sound pressure level (SPL) of 85 dB, THD averages less than ¼% over DSL's entire test range (30 Hz to 10 kHz) and less than ½% from 100 Hz up, and it doesn't rise appreciably until a very loud 95 dB SPL is reached, where it still averages less than 1% from 100 Hz up.

In the listening room, we wound up

placing the SDA-1s against the rear wall, where they not only sound somewhat better balanced, but also seem to image better than when placed away from the wall (a first in our experience). The overall sound is agreeably smooth, with an occasional tendency to what listeners have variously referred to as a slight brightness or hardness. And the system tends to make some recordings with large amounts of artificial reverberation mixed into them sound annoyingly echoey. These have been the only complaints, however.

The SDA-1's strong suit (to put it mildly) is its imaging, which ranges from very good to flabbergasting, depending on the material. It seems to be at its best with simply miked jazz and classical recordings or with heavily produced rock, which it can make devastatingly dramatic. With good classical discs, the soundstage seems to open up, presenting a greater sense of depth and enveloping the listener more fully in the recorded ambience. The effect seems more subtle on most heavily multimiked material, but remains ingratiating, nonetheless.

But it's on fancy rock recordings that the system can really strut its stuff—solo instruments thrown out far to the left or right, beyond the confines of the speakers, the sensation of almost falling into the sound, singers made larger than life. (Try the Beach Boys' "In My Room," for example, or Pink Floyd's *The Wall*, if you'd like a shiver or two.) It's not natural, of course, but the sort of record we're talking about here is not exactly what you'd call organically grown, and it really is great good fun. We find ourselves listening to unfamiliar recordings on other speakers and saying to each other, "I wonder what this would sound like on the Polks?" And we're going to miss being able to find out when the time comes to send them back to Baltimore.

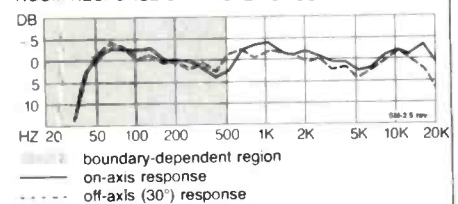
These are by no means inexpensive speakers: Most of you probably can't afford to run right out and buy a pair. We do suggest, however, that you at least pretend that you can long enough to get an audition. It's worth the trouble just for the experience. **Circle 91 on Reader-Service Card**

Correction

A COUPLE OF ERRORS crept into our report on the Mirage 2.5 loudspeaker (November, page 30). The first regards the company's SM-1 loudspeaker, which has been modified since we tested it in April 1981—not replaced—and remains in the line with the same model number. The other is the response chart, which as published represents the 2.5's behavior when placed about three feet from the rear wall. The chart that was supposed to have run, showing mea-

surements taken with the speaker against the rear wall, is reproduced here. Sensitivity and distortion data in the report also reflect wall placement.

ROOM RESPONSE CHARACTERISTICS



Environments

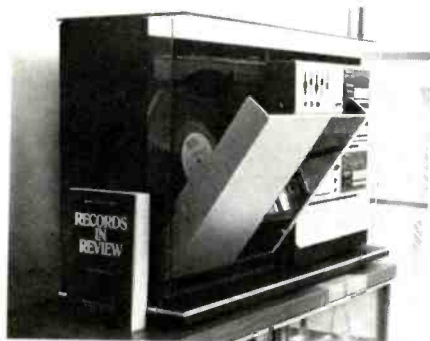
Bringing technology home by Christine Begole

"New Life" from Kenwood

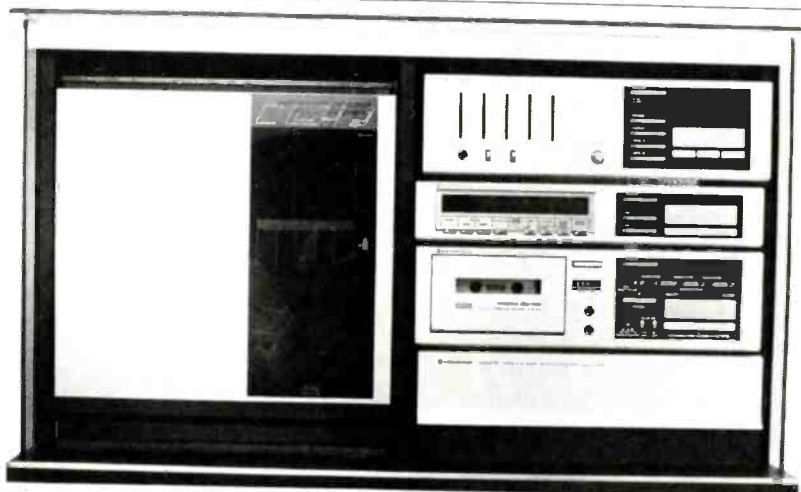
I'VE LONG BEEN FASCINATED by the possibility of a truly integrated audio system—that is, one whose component parts complement each other both aesthetically and functionally. The designers at Kenwood also seem to be interested in exploring this approach and have come up with what the company calls the New Life series of "midsize" ensembles. I recently had the opportunity to put the top system in the series through its paces, and though space prevents me from detailing all its virtues, it is in several respects one of the most synergistically designed systems I've encountered. Its appeal, in fact, stems from the functional interrelatedness of its separate parts more than from individual superlatives.

The system consists of a tuner, an amplifier, cassette deck, tangential-tracking turntable, a cassette storage drawer, and a cabinet that houses them all. Surprisingly compact, the cabinet is a mere 10 inches deep, making it ideal for shelf placement. That means, of course, that the turntable stands vertically, nestled into the left side of the cabinet. The electronics, cassette deck, and cassette storage drawer all stack neatly beside it.

Actual system setup is a breeze. Novices will find the owner's manuals (one for each component) well illustrated—a good thing, since their organization is occasionally knotty. The turntable comes with a pre-mounted cartridge, and you don't even have to fiddle about with vertical tracking force or transport screws; the former is preset and the latter not used. There's only one unusual connection to be made: A single cable must be plugged into a jack marked SYNCHRO on the turntable and SYNCHRORECORD on the cassette deck. As I discovered, this



Just 10 inches deep, the New Life system lends itself easily to shelf placement.



PHOTOS BY JOHN COLE

connection is responsible for a large part of the system's appeal.

Though its name sounds straight out of R2-D2's vocabulary, SYNCHRO refers to a very practical function. The cable connecting turntable and cassette deck carries a control signal from the turntable, ordering the deck to go into the recording mode as soon as the stylus touches the disc. Provided the tape you've loaded into the deck has been wound past its leader, this extra connection offers the possibility of perfectly synchronized dubs from discs.

If you've never used an almost totally automated system before, the New Life approach will take some getting used to. Even the turntable's door is motorized; hinged at the bottom, it opens and closes at the press of a button. And you can't foul it up by closing it manually; when I absent-mindedly tried just that, the door at first resisted my push, but then calmly went into its automatic closing cycle, not the least bit daunted by my gaffe. The cassette deck, too, will surprise many traditionalists. Features like automatic bias and EQ selection, music search and repeat, and Dolby C are all easy to love, but automatic level control (ALC) without override and the lack of a recording level meter are both fairly heretical ideas in home decks.

Though no ALC can be perfect all the time, I found this deck's circuit capable of fairly even-handed level setting. The dynamics on the recordings I made were quite natural, even when I dubbed pieces that contained both extremely quiet and loud passages. (There is, however, a manual "fine tune" control on the back of the deck to correct for objectional dynamic imbalances.) My overall reaction to Kenwood's approach to level-setting is quite positive. I firmly believe that, for the majority of

users, it is much easier to make good recordings on an automatic deck of this sort than it would be on a deck that requires constant attention.

The system's frequency-synthesis tuner is capable of excellent FM reception, even in my difficult location. In addition to six AM and six FM station presets, the tuner has a manual stepping mode and an automatic station search. Memorizing the frequency of your favorite station is a simple two-button procedure, or you can save a few seconds by ordering the tuner to memorize automatically the first six listenable stations it finds. The tuner's built-in timer will either please or puzzle you. It can wake you up or lull you to sleep with music, but its turn-off interval is preset at one hour. This will undoubtedly distress opera buffs who wish to record a broadcast automatically: The system will switch on at the preprogrammed time for unattended taping, but will shut down exactly one hour later.

The system's integrated amplifier is rated at a respectable 40 watts (16 dBW) per channel and includes a simple five-band graphic equalizer. I don't usually have the patience to fiddle about with an equalizer, but Kenwood has taken much of the guesswork out of the equalization process. A chart in the owner's manual suggests possible solutions to common problems; e.g., to increase bass output from small speakers, push up the 250-Hz slider.

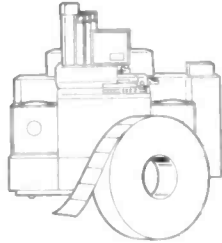
At \$1,400, Kenwood's New Life system represents an attractive alternative to mix-and-match component ensembles. Though you might put together a more economical or higher performance setup on your own, you'd be hard pressed to duplicate New Life's compactness, visual appeal, and functional synergy.

Circle 75 on Reader-Service Card

VIDEO TODAY & TOMORROW™

VideoFronts

Latest video news and products



At the recent Photokina show in Cologne, West Germany, Kodak demonstrated a prototype video-display unit for disc-camera negatives, confirming the film giant's intention to play an important role in the exploding video market.

Here's how it works: After a disc containing negatives is loaded into the video playback unit, a CCD (charge-coupled device) video sensor converts the film negatives to positive images and enhances them for display on a television screen. The system is said to yield a color video picture composed of more than 350,000 image elements. The bandwidth of the luminance signals is claimed to be more than 3.5 MHz, providing greater resolution than most commercial television receivers can manage. Controls in the playback unit permit the

viewer to crop or enlarge the color-corrected image. Because color prints can be made in the usual way from the negatives, Kodak's system requires no video printer.

Kodak's film-to-video technique seems particularly attractive in light of the problems Sony is rumored to be having in perfecting a hard-copy color printer for its Mavica still-image video camera ("Video Camera of the 1990s?," December 1981).

In his announcement to the press, Kodak chairman Walter Fallon asserted that film and video should not be thought of as mutually exclusive technologies. He was quick to add, however, that the Kodak device is still in the exploratory stage and that the company was not yet committed to its manufacture or sale.

Kodak's prototype video-display system for disc-camera negatives provides video "slide" shows on home TV sets; the video converter also enables the creative photographer to experiment with various enlargement sizes and croppings. Standard color prints can, of course, be made directly from the disc-camera negatives themselves.



Tension mounts, beads of perspiration form on the forehead, trembling hands reach for the joystick's firing button—but too late, you missed again! Video game players may find relief from these frustrations with the PointMaster joystick from Discwasher. The new design incorporates a contoured handgrip with a convenient thumb trigger at the top of the handle for quick-response firing. A spring-loaded pivot is said to provide smoother playing action, and a 5-foot cord gives added convenience. Compatible with the Atari, Sears Tele-game, and Commodore Vic 20 sys-

tems, the joysticks are priced at \$17 each.

Circle 80 on Reader-Service Card



Professional-style power belts can make field recording a much less fatiguing experience. The 12-pound Model 12AH from VDO-PAK Products consists of four rechargeable gell-electrolyte batteries encased in an adjustable (27–50 inches) nylon belt. Capable of powering a 12-volt portable VCR and camera for up to seven hours, the Model 12AH comes with a float charger that monitors the batteries during recharging; once full power has been restored (twelve hours), the float unit switches to standby, coming back on only to top off the

batteries periodically. The Model 12AH is priced at \$250.

Circle 82 on Reader-Service Card



Dirt and oxide are scrubbed from tape heads, capstans, and pinch rollers of Beta-format VCRs by the Gen II cleaner from Allsop. The new unit is said to be even gentler to tape heads than the Gen I system, which it replaces. A softer cleaning ribbon is the key to the device's improved performance, says the company. A specially formulated cleaning solution is applied to the ribbon prior to use. Priced at \$30, the Gen II includes a supply of cleaning fluid and a replacement ribbon premounted in a slip-in cartridge.

Circle 79 on Reader-Service Card

TubeFood

New video programming: cassette, disc, pay and basic cable by Susan Elliott

Video Cassettes

FEATURE FILMS

CBS/Fox Video: *Author! Author!; Visiting Hours; Moses; Megaforce; Taps.*

Embassy Home Entertainment: *Paradise; Swamp Thing; Horror Rises from the Tomb.*

Paramount Home Video: *Grease 2; A Woman Called Golda; The Bad News Bears in Breaking Training; Joseph Andrews; Hurricane; Jonathan Livingston Seagull.*

RCA/Columbia Pictures Home Video: *Fail Safe; Hanover Street; Monty Python and the Holy Grail; Love and Anarchy; To Forget Venice.*

Thorn EMI Video: *I'm All Right Jack; Heavens Above; The Harder They Come; The Playboy of the Western World; That'll Be the Day; Hobson's Choice; Lust for a Vampire; Whisky Galore; The Return; Morgan—A Suitable Case for Treatment; Rattle of a Simple Man; The Winslow Boy; Lucky Jim; The Final Programme; By Design; Below the Belt.*

Vestron Video: *Young Doctors in Love; Angle of H.E.A.T.; Improper Channels; The Europeans; The Innocent; Pepper; Seniors.*

Video Dimensions: *Ballad of a Soldier; Ugetsu; Rashomon; Grand Illusion* (all subtitles); *The Goon Movie* (Stand Easy); *La Strada; The Lodger* (silent film); *Robot Monster* (Monster from Mars).

Walt Disney Home Video: *Tron.*

MUSIC/STAGE SHOWS

RCA/Columbia Pictures Home Video: *Richard Pryor Live on Sunset Strip; Diana Ross in Concert.*

CHILDREN'S PROGRAMMING

Embassy Home Entertainment: *The Raccoons on Ice* (animated).

MCA Videocassette: *The Best of Marvel Comics; Walter Lantz Presents 10 Classic Cartoons Featuring Woody Woodpecker and His Friends.*

Media Home Entertainment: *Puss 'n' Boots; The Night Before Christmas; Silent Night* (all animated).

MGM/UA Home Video: *Spaceketeers; Danguard Ace; Dr. Seuss Video Festival.*

RCA/Columbia Pictures Home Video: *Mr. Magoo, Vol. 5* (animated).

Walt Disney Home Video: *Mary Poppins; Alice in Wonderland; Babes in Toyland; Snowball Express; Fun and Fancy Free; Disney's Storybook Classics.*

Warner: *Tip Top with Suzy Prudden* (two cassettes—ages 3-6 and 7 and over); *The*

Looney Tunes Video Show, Nos. 1-7.

SPORTS/INSTRUCTION

MasterVision: *Body Building; Women's and Men's Mixed Pairs, 1982 World Championships.*

MCA Videocassette: *Aerobic Dancing; Jazzercise.*

NFL Films Video: *Super Bowl XVI; NFL '81; Pittsburgh Steelers—The Championship Years; Coming of Age—The Story of the Dallas Cowboys; America's Team—The Dallas Cowboys 1975-79; Wake Up the Echoes* (Notre Dame documentary).

Paramount Home Video: *Aerobicise—The Beginning Workout; Vic Braden's Tennis for the Future.*

Vestron Video: *How To Beat Video Games; The New Video Aerobics.*

Video Discs

FEATURES FILMS

CBS/Fox Video (laser): *Casablanca; The Good, the Bad, and the Ugly; MASH; The Pink Panther; Fiddler on the Roof; The Adventures of Robin Hood.*

CBS/Fox Video (CED): *S.O.B.; Return of the Street Fighter; Black Orpheus; Getting of Wisdom; Final Conflict; Julia; Chu Chu and the Philly Flash; The Spiral Staircase; There's No Business like Show Business; The Paper Chase; Notorious; Norma Rae; Death Hunt; Capricorn One; Game of Death; Damien-Omen 2; A Change of Seasons; I Ought To Be in Pictures; The Moon Is Blue; Ring of Bright Water; Lenny; Bus Stop; An Unmarried Woman; Six Pack; Taps; Visiting Hours; Author! Author!.*

MCA Videodisc (laser): *Private Lessons; Ghost Story; Battlestar Galactica; Missing; The Border; Cat People; Dead Men Don't Wear Plaid; The Deer Hunter.*

MGM/UA Home Video (laser): *Doctor Zhivago; Wizard of Oz; 2001: A Space Odyssey; Fame; Cat on a Hot Tin Roof; An American in Paris; The Goodbye Girl; Network; Tarzan, the Ape Man* (1980); *That's Entertainment; True Confessions; Brigadoon; The Champ; Forbidden Planet; Coma; A Day at the Races.*

Paramount Home Video (laser): *Some Kind of Hero.*

Vestron Video (laser): *Fort Apache, the Bronx; Meatballs; Butterfly; Angel of H.E.A.T.; The Private Eyes; The Cannonball Run; And God Created Woman; Till Marriage Do Us Part; Good Guys Wear Black; Go Tell the Spartans; Dick Cavett's Hocus Pocus It's Magic; Young Doctors in Love.*

Walt Disney Home Video (laser and CED): *Tron.*

MUSIC/STAGE SHOWS

CBS/Fox Video (CED): *Harry Chapin in Concert.*

MGM/UA Home Video (laser): *The Complete Beatles; The First Barry Manilow Special.*

Vestron Video (laser): *Here It Is Burlesque.*

CHILDREN'S PROGRAMMING

MGM/UA Home Video (laser): *Tom & Jerry Cartoon Festival, Vol. 1.*

Optical Programming Associates (laser): *Fun & Games.*

SPORTS/INSTRUCTION

Optical Programming Associates (laser): *Belly Dancing—You Can Do It!*

RCA SelectaVision (CED): *Red on Roundball.*

Pay Service Premieres

(Check local listings for availability and schedules.)

Cinemax: *Loose Shoes; Meatballs; The Night the Lights Went Out in Georgia; This Sporting Life; Bite the Bullet; Love for Rent; To Die of Love; Whose Life Is It Anyway?; Cannonball Run; Dead End.*

Home Box Office: *Superman 2; Across the Great Divide; Rollover; Four Friends; Neighbors; Gallipoli; On Location; Olivia Newton-John in Concert; George Carlin at Carnegie Hall.*

Showtime: *Superman 2; Time Bandits; Rollover; Gallipoli; Pennies from Heaven; Whose Life Is It Anyway?; American Pop; Coast to Coast; Second Hand Hearts; Die Laughing; Smash Palace; The Last Metro; The Tall Target; The Unknown Man; Mystery Street; Scene of the Crime; Adventures of the Wilderness Family; Manny's Orphans; Mark Twain Theater; The Thing About Feudin'; Sinbad and the Eye of the Tiger; Willie Wonka and the Chocolate Factory; JFK—One Man Show; The Doo-bie Bros. Farewell.*

The Movie Channel: *Superman 2; Four Friends; Gallipoli; Time Bandits; Rollover; Whose Life Is It Anyway?; Pennies from Heaven; Smash Palace; Birgit Haas Must Be Killed; Heavy Metal; Vice Squad; Urgh! A Music War; The Last Waltz; The Mouse and His Child; The Man Who Skied Down Everest; Liar's Moon; The Burning; Chain Reaction; The Deer Hunter; Les Girls; The Music Man; Man of La Mancha.*

HANDS-ON REPORT

JVC GX-S9U Color Video Camera

An automatic camera to please the creative videographer

This Hands-On Report was conducted under the supervision of Edward J. Foster, Consulting Technical Editor of HIGH FIDELITY and Director of Diversified Science Laboratories

WITH VIDEO GEAR, "top-of-the-line" usually connotes either higher performance or more features. In the case of the JVC GX-S9U color video camera (\$1,100), it means both; in fact, this is one of the most feature-laden high-performance cameras we have ever tested.

The heart of the GX-S9U is a $\frac{2}{3}$ -inch Saticon pickup tube. Less susceptible than Vidicon sensors to picture lag while panning and to image burn (loss of detail) under bright light, Saticon tubes are similar to those used in professional video cameras. This pickup tube is protected by an automatic shutter whenever power is switched off. Nonetheless, JVC advises that the lens be capped except during shooting and that it never be pointed directly at the sun or other strong light source. For prolonged tube life, JVC also recommends that the camera be used at least one or two hours every six months.

The GX-S9U comes equipped with an f/1.6 power zoom lens (12.5 to 75 mm focal length range) with macrofocusing ability.

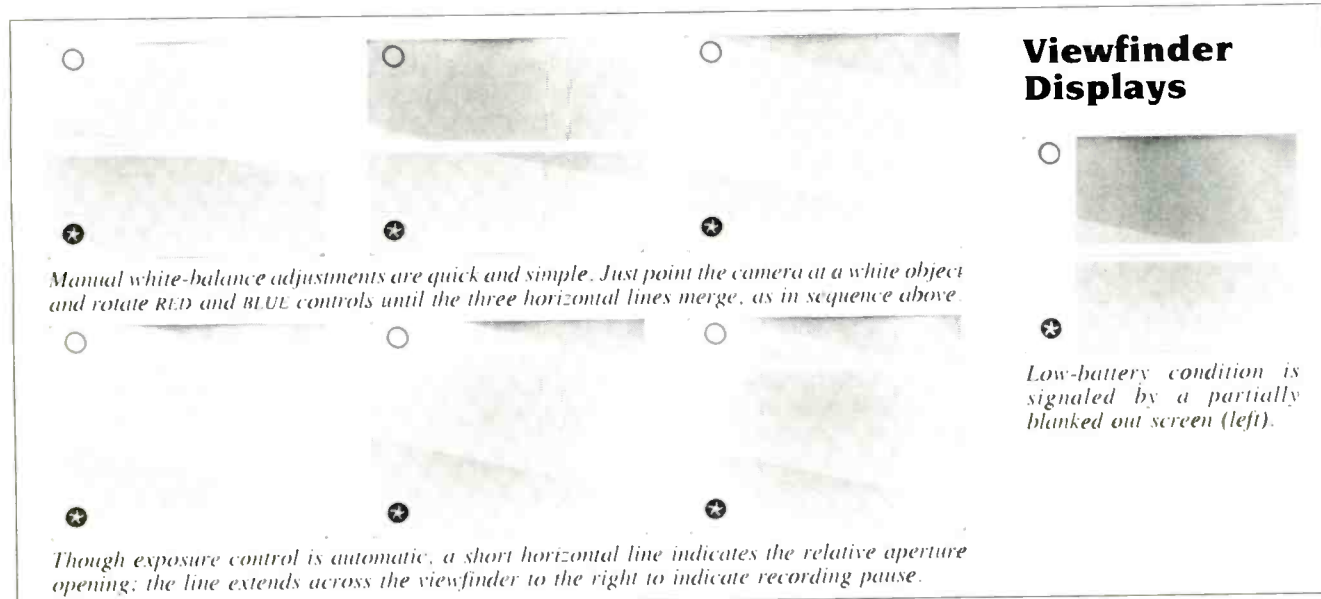
There's a choice of two zoom speeds and an override for manual zooming. In normal operation, the lens can be focused down to 4 feet by means of a well-knurled ring located in front of the zoom lever; to focus closer still, a release button on the ring switches the lens into macro operation.

The electronic viewfinder employs a $1\frac{1}{2}$ -inch black-and-white CRT coupled to a magnifying lens and eye cup. Indicators for exposure, VCR mode (PAUSE or RECORD), tape motion, low battery, white balance, and color filter are visible in the viewfinder as on-screen symbols. These take some getting used to, but they're remarkably helpful. For instance, as the light level diminishes and the automatic iris opens wider, a horizontal line in the viewfinder moves up. (This same line also indicates the recording mode by changes in its length.) For very low light, there's a sensitivity switch on the camera body to increase the gain electrically, albeit at the expense of more video noise. In the high-sensitivity position, the camera is rated for operation at 50 lux. In very bright light, the lens hood can be removed and a neutral-density filter screwed into place to reduce sensitivity.

The automatic iris works extremely

well. But the GX-S9U also offers the creative photographer some unusual alternatives. You can freeze any iris setting by pulling out a small knob; by pulling it out still further and rotating it, you can adjust the iris manually. Pushing the knob into the intermediate position freezes the adjustment until you either pull to reset or press in for a return to automatic operation. The ability to freeze the lens opening is very helpful when panning over light and dark subjects, or when a white object moves in and out of the scene. In normal automatic operation, such conditions would change the background illumination in an unnatural fashion. And, of course, the ability to set the iris manually is helpful when shooting backlit subjects.

White-balance adjustments are made via two three-position switches and a pair of knobs. One switch chooses the approximately correct balance for halogen or tungsten light (3200° Kelvin), fluorescent light (4200°), or daylight (5200°). When the second switch is at PRESET, the camera is balanced for whichever of the three color temperature settings you've chosen. (An LED in the viewfinder warns when you've selected other than daylight filtration.) By

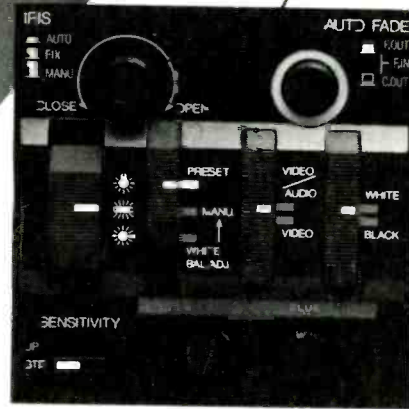




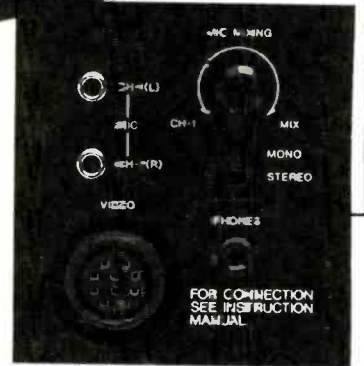
Viewfinder eyepiece swivels 180° for a variety of shooting positions.



Press a button on the focus ring for macro operation.



Most camera controls are located on one convenient panel.



A panel on the camera's aft end contains VCR connector, mike inputs, audio mixing controls, and headphone output.

switching from PRESET to MANUAL, you can adjust the color balance however you desire (using the RED and BLUE rotary controls) while watching on a color monitor. A third position, WHITE-BALANCE ADJUST, causes three horizontal lines to appear in the viewfinder. To balance the color, you just point the camera at a white object and manipulate the RED and BLUE until the lines are superimposed. We found the PRESET choice perfect for outdoor recording; indoors, under mixed tungsten and window light, a touch-up with RED and BLUE was desirable.

The GX-S9U has a nifty automatic fade system. You can fade to either black or white as well as join the audio to the video fades. A light touch on AUTO FADE creates a five-second fade to black or white; releasing the button accomplishes the reverse. Pressing AUTO FADE firmly yields almost instant fadeout. Of course, you can see the results in the viewfinder. The system is great for piecing together a number of scenes with professional smoothness. We preferred fading to white, because many TV sets will not hold a black picture.

On the audio side, the camera has a

built-in unidirectional condenser microphone on a short, sliding boom. We found the affixed windscreen fairly effective, but we were less than impressed with the mike's sound quality. Not to worry: Plugging any low-impedance mike into the Channel 1 jack on the rear of the camera automatically disconnects the built-in mike. The camera actually has provisions for two microphones for stereo recording on VCRs so equipped. A mono deck will record only the Channel 1 (left) input, although, with the MIKE MIXING control on the rear panel, you can blend the second mike's input with the first. The relative mix is continuously adjustable from no mix (stereo) to full mix (mono).

You can monitor the recording with an earplug or a stereo headset equipped with a miniature stereo phone plug. A MONO STEREO switch ensures that you will hear a mix of both left and right channels when monitoring with an earplug or full stereo when

listening with a regular headset.

The electronic viewfinder is detachable and theoretically could be used off camera. However, its connecting cable is very short, and we see no extension for it in JVC's list of available accessories. (There are only two options listed: The CA-P25U adapter supplies external power to the camera and makes connections to a VCR that lacks the necessary ten-pin coax fitting; the VC-235-10U extension cable adds 33 feet to the 8½-foot multiconductor cable supplied with the camera.)

The main body of the viewfinder (containing the CRT) mounts horizontally across the forward portion of the camera and can be moved laterally to adjust the eyepiece. However, since the viewfinder extends only to the left of the camera (looking forward), left-handed persons may find camera operation somewhat awkward. Slotted controls on the viewfinder allow you to adjust the contrast, brightness, and

Your video questions answered by Edward J. Foster

Q. *I have two questions about connecting cables. How far from a VCR can you operate a video camera without affecting picture quality? And how far can you place your VCR from a TV set without incurring ill effects?—Jason Richman, St. Louis, Mo.*

A. Most video camera manufacturers specify in the owner's manual the maximum cable length that can be used. I have found that fifty to sixty feet is about the limit, and that should be more than adequate for most situations. Your TV set can be even farther away from the VCR if you use high-quality coaxial cable properly terminated at both ends.

Q. *I'm considering replacing my twelve-year-old TV set with a state-of-the-art model. If possible, I want something that I can use with a home computer. I've heard a lot about combination monitor/receivers; would one of these be better for my circumstances than a conventional set?—Thomas McDonald, San Diego, Calif.*

A. Yes, but your question merits discussion. Many people are confused about the new television configurations and their applications. Generally speaking, a TV system composed of separate components should have greater resolution, better color, better sound, and more flexibility than a mass-produced console.

If you intend to watch broadcast TV on

your monitor, you will also need a tuner. And you may need an audio amplifier and speakers for the sound. The combination monitor/receiver you are interested in has all these elements.

If you choose a barebones video monitor, you could use your VCR's tuner section. Ultimately, however, you will probably want a separate tuner so you can watch one program while recording another. For audio, you can use your present high fidelity system, assuming you watch TV and listen to music in the same room.

Regarding your computer, the high resolution of the better TV monitors comes in handy for most computer display applications, but I don't know of any color TV receiver (or monitor) that is capable of reproducing the fine detail required for word processing. (I'm writing this column, for instance, on a high-resolution green-on-black display with an 18-MHz bandwidth; a good color TV is lucky to manage a bandwidth of 3.5 MHz.)

It's also important that your monitor and computer be compatible. Some computers generate an RGB (red-green-blue) color signal, others an NTSC composite signal, while a few have no direct video output at all. Generally, only very expensive color monitors accept RGB inputs. Most monitors take the composite video input, and monitor/receivers usually accept both composite video and ordinary RF-modulated signals. If you plan to use the computer's direct video output (preferable because of its higher resolution), make sure the monitor you choose can accept it.

What this all means is that a good amount of thought should be given to the type of television set you'll buy when the old one finally drops dead. Take into consideration all of your future video needs—for broadcast TV, VCRs, video discs, video games, and computers—and then consult your bankbook.

Q. *I own a Kloss Novabeam Model One projection TV set, which has a six-foot screen. I also have a Magnavision fourteen-day programmable VCR. I'm interested in buying a Pioneer LaserDisc player, but the salesman in my stereo store has discouraged me, stating that the picture quality on my projection TV set will be worse when using the LaserDisc system than it is with the VCR. Pioneer's advertisements claim that the picture quality is better. Please advise.—I. Czorny, Downingtown, Pa.*

A. In my experience, the LaserDisc system has much better resolution than the average VCR. Although I haven't used one with a projection TV set, I'd expect the better detail to be well-suited to the six-foot system.

Because the image is so much larger and the average user tends to sit six to ten feet from the screen, any loss of detail is painfully apparent on a projection TV screen. If you're satisfied with the picture your VCR produces, I think you'll be delighted with the LaserDisc. Try it, and then invite your dealer over. He needs some education.

focus of the black-and-white image. (They do not affect the operation of the Saticon tube.) The lens and eyecup can be flipped out of the way if desired, and the mirror/lens/eyecup assembly can be pivoted through 180 degrees so you can hold the camera at waist level or above your head and still see the image. Very neat.

The GX-S9U is no lightweight (6½ pounds with viewfinder), but it's quite convenient to carry and use. A long handgrip is permanently affixed to the bottom of the camera by a pivot with three detents. When you're simply transporting the system, the handgrip locks up against the bottom. The camera is then carried by a molded bar on top. At the fore end of the bar is an accessory shoe for a halogen lamp or other such device.

When using the camera, the handgrip pivots down and locks in the perpendicular or swings forward about 135 degrees. The latter position is recommended if you want

to rest the camera on your shoulder. (A heavy metal loop pulls out of the rear of the camera and lengthens it rearward by several inches for more secure shoulder placement.) Your hand slips through a security strap, and the three handgrip controls—RECORD/PAUSE, ZOOM WIDE, and ZOOM TELEPHOTO—lie conveniently under the thumb, index finger, and middle finger, respectively. The camera also can be tripod mounted, using a standard screw fitting on the bottom. JVC suggests that *only* the Samson Model 4-73010-7 tripod with Model 4-72300-3 cam head is sufficiently sturdy for use with the GX-S9U.

Before you go out in the field with this camera, make sure that your spare VCR battery is fully charged. The GX-S9U draws a hefty seven watts while recording. When the battery in your portable VCR starts to run down, the camera alerts you by whiting out the left quarter of the viewfinder. Perhaps because of the inadequacy of

the VCR battery pack we were using, the viewfinder signal gave us only a minute or so of warning before total shutdown.

While the position of the viewfinder makes this camera inconvenient for lefties and the microphone is no better than average, the GX-S9U has a great deal going for it. Its remarkably versatile iris and color-balance controls are just part of the story. Once you've used a camera with an automatic fade as flexible as this, you're hooked; home video recordings take on a professional flair that's hard to live without. And then there's the stereo recording capability and a viewfinder that can literally put you above the crowd. Last, but certainly not least, is the Saticon pickup tube. Under decent lighting conditions, color and definition are excellent, and there is much less image lag than we've experienced with the common Vidicon. Obviously, we are much impressed with the JVC GX-S9U. **HF**
Circle 89 on Reader-Service Card

HF's Music Critics Take On the Compact Disc

The digital millenium is (finally) at hand; but how does it sound?
by Allan Kozinn

FIVE YEARS AGO, the words "digital recording" began creeping into the record collector's vocabulary. At first, they described what seemed some kind of closely guarded state secret—a developing technology rumored to yield noise-free recordings with a dynamic range and timbral fidelity beyond anything conventional "analog" recording

could achieve. Soon enough, the technology's first products appeared on the market, proffered by small, audiophile labels that not only were eager to experiment with the new digital recorders, but took great care in the mastering and disc-cutting processes to preserve whatever edge digital recording gave them.

These first "digital" discs (actually hybrids—digitally recorded originals converted to analog form and sold as conventional, needle-on-vinyl LPs) were high-priced, and often documented less than memorable performances. But they sold like hot cakes, and soon the major labels launched digital recording programs and began marketing specially mastered, premium-priced lines.

Today, major-label classical LPs are recorded digitally wherever practical. The expense and scarcity of digital multitracking equipment have limited entirely digital pop productions, although the process is now frequently used during the mixing and editing stages, as a way of preserving fidelity from one tape generation to the next.

The reactions of critics and performers to all of this have been mixed. Some note a greater clarity on the hybrid discs. Others insist that the higher-grade vinyl and the more careful disc-cutting techniques used in making these LPs are more significant factors in their improved sound. Still others argue that listeners who find digital sound an improvement are either hallucinating or gullible: some even insist that the process yields a colder, harsher, and for certain timbres, less natural sound than the best analog recordings.

From the start, we have been told that any problems we hear on hybrid LPs are functions not of the digital process, but of other weak links in the chain. In fact, the situation is much more complicated. For example, flaws in microphones and recording technique previously masked by tape noise, high-frequency compression, or other problems peculiar to analog recording would quickly be exposed by digital recording. These would be faithfully passed on from the digital tape to whatever medium might be used for distribution to consumers, whether long-playing phonograph record or pure digital disc. Digital discs (and very well-made LPs) might even appear to compound the misery in some cases by exhibiting little or none of the son-



The Compact Disc (foreground, center) and its forebears (clockwise, from left): the Edison wax cylinder, acoustical and electrical 78s, and 33- and 45-rpm microgroove discs

What Are "Digital Compact Discs"?

THE SONY CDP-101 USED in these listening sessions is among the first players available (sometime this spring in the U.S.) for true digital discs. These discs, called Compact Discs or CDs, are fundamentally different from the familiar 12-inch long-playing phonograph record—much smaller (only 4¼ inches in diameter), grooveless, and almost immune to physical contamination and abuse. They are also essentially perfect copies of the master tapes from which they are made—literally the last word in fidelity.

The musical information is encoded beneath the surface of the disc as a sequence of microscopic pits, representing binary ones and zeros. The digits, in turn, represent instructions for assembling a signal that is an exact replica of the one originally recorded. This construction job is left to the player, which reads the pits in the disc surface with a low-power laser. Since the digital information is protected by a clear plastic finish and is played back with a beam of light,

there is absolutely no wear. There are also no clicks and pops and no surface noise.

"Digital" LPs are not true digital discs in the sense that CDs are. Rather, they are hybrids: analog records made from digital master tapes. The LPs used in the classical listening session fall into this category. The CDs used for that session are pure digital records made from the same digital master tapes. On the other hand, the CDs used in the pop session are a reverse sort of hybrid: digital discs made from analog master tapes. And the LPs that were used for comparison are pure analog products, from start to finish.

For more information on Compact Discs and the Sony CDP-101 (including its remarkable and very handy operating features), see the hands-on report in last month's HF. We are now in the process of acquiring test discs for Compact Disc players. This will enable us to bring them into our normal test report program when the players hit the U.S. market.—M.R.

ic degradation and loss that normally accompanies the transfer from master tape to LP. The only valid way to assess the fidelity of any process is to compare its output directly to its input—something we are not at the moment in a position to do as regards digital recording.

But now that the availability of the first home digital playback system is imminent, we at least have an opportunity to get some inkling of what lies in store. Developed jointly by Philips and Sony, it plays a 4.7-inch Compact Disc (CD)—a three-layer sandwich of digitally encoded impulses, scanned by a laser. Already available in Japan, the first players and a selection of popular and classical CDs will appear in European and American audio shops this spring. Last month, *HIGH FIDELITY* published a hands-on report on Sony's first Compact Disc player, the CDP-101, and the editors decided, since the player was on the premises, to assemble some of the magazine's record reviewers to ascertain their first reactions to the system.

Having gathered a selection of LPs and their CD counterparts (from Japan), we conducted a series of head-on comparisons, either synchronizing the two and switching from one format to the other, or listening to entire tracks in both formats. During the synchronized A/B comparisons, we normally knew which format was on, although during one selection, only the switcher knew which was which, and the critics evaluated the sounds (four out of five correctly identifying the CD) after the playing.

The tests were held in two sessions.

the first for pop critics, the second for classical. All were given copies of the CDP-101 report by technical editor Michael Riggs [December 1982], who was present through both sessions to explain the digital process, answer questions, and do the disc switching. Yet it is probably fair to say that the critics were unswayed by Riggs's enthusiasm for the CD medium: At the start of the sessions, several voiced reservations about digital recording, based on their experience with the hybrids; and although the tests changed some opinions about the sound, most of the critics continued to voice reservations about the merits of a format change.

Critics at the pop session included Susan Elliott (managing editor/*BACKBEAT* editor), Stephen Holden, J. B. Moore, and John Milward. At the classical session were Peter G. Davis, Harris Goldsmith, and David Hamilton. James R. Oestreich (classical music editor) and I attended both.

The equipment: In the digital corner, the Sony CDP-101. The analog player was a Linn Sondek LP-12 turntable with an SME 3009 Series II Improved tonearm and a Shure V-15 Type V cartridge. Both were fed through an Apt/Holman preamp and an Apt Model 1 power amp; for the one CX-encoded LP, we used a Sound Concepts SX-80 decoder. We experimented with B&W 801F speakers and a second pair but quickly decided that switching between radically different-sounding speakers only clouded the digital/analog comparison; the difference between the speaker systems was considerably more striking than the difference between the LPs and CDs played

through both.

The three pop recordings—Billy Joel's "52nd Street," Simon and Garfunkel's "Bridge Over Troubled Water," and a contemporary jazz disc, "One on One," by Earl Klugh and Bob James—were drawn from analog masters (one of them more than a decade old) and therefore posed special problems not met later in the day, when the classical panel compared LP and CD versions of digitally recorded material. Chief among these is tape hiss, particularly on the old Simon and Garfunkel recording. Since the CD is a literal copy of the master tape, without any of the compensations (bass roll-off and blending) that take place in the LP mastering process, the master's tape hiss remains intact.

Ironically, the bright sound of tape hiss is partially masked on LP by the duller vinyl noise; and while it may simply be a question of familiarity with LP sound, several critics found the unmasked tape hiss on the CD more "uncomfortable" than the combined tape hiss and surface noise of the LP. To be fair, the impression should not be left that the music was buried in hiss, and as on any tape, hiss was noticeable especially between selections. Lacking access to the actual master tapes, we could not compare the original sound with the CD; one can reasonably assume, however, that, in the transfer from master tape to CD, no *new* tape hiss was introduced by the digital process.

Testing began with Billy Joel. The analog version, CX-encoded, had a clean, clear sound. We made A/B comparisons of sev-

HF critics (from left): John Milward, David Hamilton, Harris Goldsmith, Allan Kozinn, J.B. Moore, Stephen Holden, Peter G. Davis



PHOTOS BY JOHN COLE



Kozinn: "I doubted that the CD could improve on the Klugh/James LP sound. I was wrong."

eral tracks—*Big Shot*, *Stiletto*, *Rosalinda's Eyes*, and *Until the Night*. For me, two qualities stood out in the CD version: The bass sound was noticeably richer, and the percussion, though certainly crisp enough on LP, became more tangible. Others agreed and offered additional observations.

"The CD gave a clearer sense of every kind of instrumental profile and timbre, and the vocal profile was much clearer," Holden commented. "But the differences were so marginal, overall, that they could really

only be appreciated by an obsessive audiophile."

Elliott, and indeed all of us, found the differences between the two systems negligible at first—as Riggs assured us should be the case when the music's dynamic range is not too great and the LP is carefully made and played back on top-quality equipment. But after listening to the digital for awhile, Elliott added, "The analog sound was mushy, relative to the digital." Both she and Oestreich were particularly bothered by the shrill sound on CD of a saxo-

phone solo that sounded more natural on LP. They would voice a similar objection to the string sound on the Simon and Garfunkel CD later in the session.

Moore, an independent record producer and perhaps the most technically-oriented of the critics, was often the most specific in his reactions. "I was surprised that the top was not a lot more present, having heard some digital tapes at mastering plants; but it was a bit more transparent, no question about it, and it reproduced that lovely echo sound on *Until the Night* very nicely. The bass had more size to it. I agree with the rest that it's a subtle difference; but from my point of view, anything that doesn't have pops and clicks is okay if it sounds as good as the analog."

The absence of pops and clicks is indeed one of the CD's most impressive givens. Allied thereto—in that it relates to the system itself rather than to its *sound*—is the player's ease of operation, which impressed the critics at both sessions. The Sony CDP-101 resembles a cassette deck in certain respects: Among its controls are forward, reverse, fast-forward, and fast-reverse buttons. To operate it, you simply press a button that activates a tray on the

Forthcoming CDs

THE FOLLOWING TITLES are drawn from Polygram's worldwide production list and represent only a small part of its initial CD package. None is scheduled for official release in the U.S. before mid-1983—by which time many more titles will also be available—and some may not appear here at all. Most (but not all) classical titles are derived from digital masters, most (but not all) pop titles from analog masters. The information furnished for some titles is incomplete, and all plans are, of course, subject to change. The classical list uses the following abbreviations: Ac (Academy), Ch (Chorus, Choir), O (Orchestra, Orchestre), P (Philharmonic), Qrt. (Quartet), S (Symphony).

Classical

ARCHIV

- Bach:** *Harpichord Concertos*. Pinnock; English Concert.
Vivaldi: *Four Seasons*. Standage; English Concert, Pinnock.

DEUTSCHE GRAMMOPHON

- Beethoven:** *Piano Sonatas, Nos. 8, 13, 14*. Gilels.
Berlioz: *Réverie et caprice*. **Lalo:** *Symphonie espagnole*. Perlman; O de Paris, Barenboim.
Brahms: *Ballades (4)*. **Schubert:** *Piano Sonata, D. 537*. Michelangeli.
Brahms: *Symphony No. 2*. Los Angeles PO, Giulini.
Brahms: *Symphony No. 4*. Vienna PO, E. Kleiber.

- Brahms:** *Violin Concerto*. Mutter; Berlin PO, Karajan.
Bruch: *Violin Concerto No. 1*. **Mendelssohn:** *Concerto*. Mutter; Berlin PO, Karajan.
Dvořák, Tchaikovsky: *String Serenades*. Berlin PO, Karajan.
Franck: *Symphony*. **Saint-Saëns:** *Le Rouet d'Omphale*. O National de France, Bernstein.
Grieg: *Holberg Suite*. **Mozart:** *Eine kleine Nachtmusik*. **Prokofiev:** *Symphony No. 1*. Berlin PO, Karajan.
Holst: *The Planets*. Berlin PO, Karajan.
Mahler: *Symphony No. 1*. Chicago SO, Abbado.
Mozart: *Eine kleine Nachtmusik; Ein musikalischer Spass*. Amadeus Qrt.
Mozart: *Mass, K. 427*. Hendricks, Perry, Schreier, Luxon; Vienna Singverein, Berlin PO, Karajan.
Mozart: *Piano Concertos Nos. 12, 20*. R. Serkin; London SO, Abbado.
Offenbach: *Overtures (5); Barcarolle*. Berlin PO, Karajan.
Ravel: *Bolero; La Valse; Pavane pour une infante défunte*. O de Paris, Barenboim.
Saint-Saëns: *Symphony No. 3*. Cochereau; Berlin PO, Karajan.
Schumann: *Symphony No. 3*. Los Angeles PO, Giulini.
Strauss, J. II: *Waltzes (3); Polkas (3); March; Overture*. Berlin PO, Karajan.
Strauss, R.: *Alpine Symphony*. Berlin PO, Karajan.
Stravinsky: *Petrushka*. London SO, Abbado.
Tchaikovsky: *1812 Overture; Capriccio italien; Marche slave*. Chicago SO, Barenboim.
Tchaikovsky: *Symphony No. 6*. Los Angeles PO, Giulini.
Tchaikovsky: *Violin Concerto; Sérénade mélancolique*. Kremer; Berlin PO, Maazel.
Plácido Domingo: *Opera Gala*. Los Angeles PO, Giulini.

Lorin Maazel: *New Year's Concert*. Vienna PO.

LONDON

- Bartók:** *Concerto for Orchestra; Dance Suite*. Chicago SO, Solti.
Beethoven: *Piano Concerto No. 5*. Lupu; Israel PO, Mehta.
Beethoven: *Symphony No. 5; Leonore Overture No. 3*. Philharmonia O, Ashkenazy.
Beethoven: *Violin Concerto*. Chung; Vienna PO, Kondrashin.
Berlioz: *Symphonie fantastique*. New York P, Mehta.
Dvořák: *Symphony No. 9*. Vienna PO, Kondrashin.
Mussorgsky (arr. Ravel): *Pictures at an Exhibition*. **Ravel:** *Le Tombeau de Couperin*. Chicago SO, Solti.
Mozart: *Piano Concertos Nos. 23, 27*. Ashkenazy; Philharmonia O.
Rachmaninoff: *Symphony No. 2*. Concertgebouw O, Ashkenazy.
Ravel: *Daphnis et Chloé*. Montreal Sch&O, Dutoit.
Rodrigo: *Concierto de Aranjuez; Fantasia para un gentilhombre*. Bonelli; Montreal SO, Dutoit.
Rossini: *Overtures (7)*. National PO, Chailly.
Schubert: *Symphony No. 9*. Vienna PO, Solti.
Sibelius: *Symphony No. 4; Finlandia; Luonnotar*. Philharmonia O, Ashkenazy.
Strauss, R.: *Don Juan; Tod und Verklärung; Till Eulenspiegel*. Detroit SO, Dorati.
Stravinsky: *Le Sacre du printemps*. Detroit SO, Dorati.
Verdi: *La Traviata (excerpts)*. Sutherland, Pavarotti; London Opera Ch, National PO, Bonyngé.
Luciano Pavarotti: *Best-Loved Tenor Arias*.
Luciano Pavarotti: *Verismo Arias*.
Joan Sutherland and Luciano Pavarotti: *Operatic Duets*.

front of the machine, put the disc on the tray, and press another button that takes the tray and CD into the player. To cue up a track, you can use either the forward and reverse buttons—the track number and a count of minutes and seconds elapsed into the track are displayed—or a remote control that allows you to tap the track number directly into the system. Thus, you can reorder tracks at will, and once the desired track (or point therein) is located on the display, the machine will play it without further fine-tuning.

The elapsed-time display is particularly handy to find specific passages within a track. In the classical session, we used this facility several times to note suspected tape splices, to which we wanted to return at the end of the movement. Another feature allows you to replay passages of any length over and over: Simply punch in the starting and ending times of the section, and the machine returns to the start of the passage automatically, until you release the function. Also of interest is a fast-forward control that allows the music to be sampled sped-up, yet at original pitch. One critic likened this sound to that of a distant, just-out-of-range FM station.

Moore: "I wonder whether labels will remaster for this disc. It's a whole new ball game."



Turning to Simon and Garfunkel, we made direct A/B comparisons of *Bridge Over Troubled Water*, and then heard *The Boxer* straight through, first on CD, then on LP. A dozen years old—and a lavish production for its day—the "Bridge" album pointed up both benefits and drawbacks, and raised a few questions.

"The differences were much more noticeable this time," Oestreich said. "The voices had much more character on the digital recording—there were many vocal qualities apparent on the CD that were not

on the LP. On the other hand, the string sound [on *Bridge*] was god-awful. And on the CD version [of *Boxer*] the sibilants were overemphasized."

Milward also noted certain peculiarities in the CD version: "That little bass-harmonica effect [in *Boxer*] sounds almost comic: I didn't notice it as much on analog, possibly because that's the sound I'm used to hearing. There's a fascinating philosophical dilemma here: In pop music, the performers and producers are often going for effects, but when you put this on an ultra-

OISEAU-LYRE

- Bach:** *Violin Concertos, S. 1041–43*. Schröder, Ancient Music Ac, Hogwood.
Handel: *Messiah (excerpts)*. Ancient Music Ac, Hogwood.
Handel: *Water Music; Royal Fireworks Music*. Ancient Music Ac, Hogwood.

PHILIPS

- Bach:** *Brandenburg Concertos (6)*. St. Martin's Ac, Marriner (two CDs).
Chopin: *Waltzes*. Arrau.
Debussy: *Nocturnes (3); Jeux*. Concertgebouw O, Haitink.
Dvořák: *String, Wind Serenades*. St. Martin's Ac, Marriner.
Gershwin: *Rhapsody in Blue; Concerto in F*. K.&M. Labèque.
Ketelhey: *In a Persian Market; In a Monastery Garden; et al.* London Promenade O, Faris.
Mozart: *Piano Concertos Nos. 15, 21*. Brendel; St. Martin's Ac, Marriner.
Ravel: *Ma Mère l'oye; Saint-Saëns: Le Carnaval des animaux*. Pittsburgh SO, Previn.
Rimsky-Korsakov: *Scheherazade*. Concertgebouw O, Kondrashin.
Rodrigo: *Concierto madrigal; Concierto andaluz*. Romeros; St. Martin's Ac, Marriner.
Scarlatti, A.: *Concerti grossi*. I Musici.
Schubert: *Trout Quintet*. Brendel; Cleveland Qt.
Strauss, R.: *Also sprach Zarathustra*. Boston SO, Ozawa.
Stravinsky: *Firebird*. Concertgebouw O, C. Davis.
Tchaikovsky: *Symphony No. 4*. Pittsburgh SO, Previn.
Wagner: *Overtures (3)*. Concertgebouw O, De Waart.
Waldteufel: *Waltzes*. Vienna Volksoper O, Bauer-Theussl.

- Boston Pops O: Digital Overtures*. Williams.
José Carreras: Popular Italian Songs. English CO, Müller.
Jessye Norman: Popular Sacred Songs.
Vienna Ch Boys: Folksongs.
Vienna Volksoper O: Famous Waltzes. Bauer-Theussl.

Pop

LONDON/DECCA INTERNATIONAL

- Camel:** *The Single Factor*.
Camel: *The Snow Goose*.
Mantovani: *The Golden Hits*.
Moody Blues: *Days of Future Past*.
Rolling Stones: *Hot Rocks*.

PHONOGRAM INTERNATIONAL (PHILIPS/MERCURY)

- Aphrodite's Child:** *Greatest Hits*
Art Blakey's Jazz Messengers: *Night in Tunisia*.
Boomtown Rats: *V Deep*.
Lindsay Buckingham: *Law & Order*.
J.J. Cale: *Grasshopper*.
Dire Straits: *Communique*.
Dire Straits: *Dire Straits*.
Dire Straits: *Makin' Movies*.
Dr. Hook: *Players in the Dark*.
Dutch Swing College Band: *Digital Dixie*.
Four Tops: *Tonight*.
Genesis: *Abacab*.
Genesis: *And Then There Were Three*.
Elton John: *Jump Up!*
Elton John: *The Fox*.
Elton John: *21 at 33*.
Kiss: *Unmasked*.
Paul Mauriat: *Best of*.
Steve Miller: *Greatest Hits*.
Steve Miller Band: *Circle of Love*.
Van Morrison: *Beautiful Vision*.
Van Morrison: *Into the Music*.

- The Platters:** *Greatest Hits*.
Eddie Rabbitt: *Step by Step*.
Demis Roussos: *Demis*.
Rush: *Moving Pictures*.
Soft Cell: *Nonstop Erotic Cabaret*.
Status Quo: *Never Too Late*.
Status Quo: *1 + 9 + 8 + 2*.
Status Quo: *12 Gold Bars*.
Rod Stewart: *Best of*.
10 cc: *Greatest Hits*.
10 cc: *Ten out of Ten*.
Thin Lizzy: *Lizzy Killers*.

POLYDOR INTERNATIONAL

- Abba:** *Greatest Hits*.
Abba: *Super Trouper*.
Abba: *The Visitors*.
Barclay James Harvest: *Berlin—A Concert for the People*.
BeeGees: *BeeGees' Greatest*.
BeeGees: *Saturday Night Fever*.
Eric Clapton: *Timepieces*.
Fame: *Soundtrack*.
Jean Michel Jarre: *Equinoxe*.
Jean Michel Jarre: *Magnetic Fields*.
Jean Michel Jarre: *Oxygene*.
Jon and Vangelis: *Friends of Mr. Cairo*.
Jon and Vangelis: *Short Stories*.
King Crimson: *In the Court of the Crimson King*.
James Last: *Classics*.
James Last: *Romantische Träume*.
James Last: *Tanz mal Tango*.
Rainbow: *Best of*.
Rainbow: *Straight Between the Eyes*.
Roxy Music: *Avalon*.
Roxy Music: *Flesh and Blood*.
Roxy Music: *Manifesto*.
Vangelis: *Chariots of Fire*.
Visage: *Anvil*.
Visage: *Visage*.
The Who: *Tommy*.

clean system, the effects become compounded and seem to become something else altogether."

Holden found this less bothersome: "The most noticeable improvement, for me, was Art Garfunkel's voice—the subtleties in the timbre of the singing, which sounded much richer on CD. I think that production technique, in which all the instrumentation is deliberately turned into an echoed, artificial sound, becomes a little weirder when the sound is presented in a cleaner format. But I like it—it's supposed to be that way, so it doesn't bother me. I've always thought the strings sounded strident [in *Bridge*], and they sound more so in digital. There is also that muddy, low-frequency roar, which is discernible on LP, but which becomes much more of a roar on CD. That abstract, thunderous quality comes off much better in digital, yet some people may find that disturbing. What you have is six of one, half a dozen of the other—the sonic improvement of something that is made to sound artificial."



Moore ventured some technical observations on the transference to CD of master tapes created for LP. "In my experience mastering records, I find that when you listen to the results, you listen most closely to the sound you get from the acetates, particularly on top. And invariably, I find that if I push the high frequencies a bit—around 10–12 kHz—I end up with a little presence on the LP that I would otherwise not have. But that is taking into account that I'll be going through a few generations of mothers, fathers, stampers, and finally, the crummy vinyl used in this country.

"Now if these tapes were taken and run into digital with the equalization left intact, then there might be six tons of extra 10–12 kHz on them, meant to defeat whatever losses would occur in the disc-cutting process but superfluous for a CD application. That could account for the problems we heard in the sax sound on the Billy Joel CD, or the strings and sibilants on "Bridge." The transfer engineers in the CD process may have decided that they don't need compression any longer, but perhaps a bit of compression might bring that string sound back to what the original producers

and artists intended as their final product. What I wonder is whether the labels are just going to take their analog masters and dump them onto CD in a nonchalant fashion, or whether they will see that the key to doing this right is to go back and remaster with the sound of this disc in mind. Because it really is a whole new ball game."

Time was running out as we got to the Klugh/James disc, so we focused on one track, *Winding River*, selected for its broad timbral spectrum and particularly for Ron Carter's extraordinarily colorful bass playing. Using neither electric instruments nor extensive postproduction, it provided some necessary contrast in the pop session. We heard the LP version first, and I, for one, considered the sound so crisp and well-rounded that I doubted the CD could improve on it much. I was wrong: As on the Billy Joel CD, the percussion here could be felt rather than simply heard. The acoustic-guitar sound, especially the note attacks, was even brighter and more realistic than on the perfectly acceptable LP, and the unusu-

Hamilton: "I'm afraid the CD sound let me hear more clearly what the performers weren't doing."

al, bending timbres and subtle shadings of the bass playing were even more striking. There was general agreement on these points.

"This was the most dramatic example of the difference between LP and CD we've had," said Holden. "All the instrumental voices, including every little percussive effect, were much clearer, and the entire sound was enormously brightened. The only instrument that didn't seem to be affected was the piano. The whole experience was more percussive than on LP." Moore concurred, adding that the CD's sound was "outrageously good—clear and crispy."

Milward was less impressed. "I noticed an improvement in the sound of the cymbals, but overall I didn't catch that much of a difference, and reflecting back on all we've heard, I noticed the difference between CD and LP more on the tracks that included voice. So while I agree that the percussion seemed to jump out more, the general atmosphere of the music remained relatively the same."

Elliott's reaction to the entire test, however, was more in line with Holden's

and Moore's. "In the recordings I know best—Billy Joel and Simon and Garfunkel—I felt a great deal of discomfort listening to the CD versions. There were certain aspects that sounded better or cleaner, but on the whole, the digital results sounded very superficial and sharp to me. Normally I like an edgy sound, but there was almost too much of an edge here. Perhaps it's because I feel uncomfortable hearing recordings I know with a different sound quality."

The classical session was markedly different in several respects. For one thing, we used discs made from digital master tapes. These included Lorin Maazel and the Orchestre National de France in Holst's *Planets*; Rafael Kubelik and the Bavarian Radio Symphony in Mozart's *Jupiter* Symphony and Bruckner's Fourth; and a CD sampler containing selections from several Polygram (Philips, DG, London) releases. The performances on these recent releases, new to most of us, themselves became subjects for discussion. Such judgments were at first considered beyond the scope and against the ground rules of the test. But it soon became apparent that a relationship between digital clarity and performance quality did indeed exist and that certain performance-related comments had to be considered fair game.

Actually, performers themselves have made the point about the relationship between performance quality and sonic clarity. During an interview a few years back, Maazel—who had then just completed his first digital sessions, and who had heard a prototype CD player during a tour of Japan—told me that "digital recording will divide the men from the boys. There is no place to hide—no electronic noises you can duck behind, none of the sonic tinkering that can make even the worst orchestra sound acceptable, no adding of sheen to the strings. You can hear everything perfectly, and when the public has an opportunity to hear true digital sound, it will notice that the difference between first-class and second- and third-class playing is enormous. I welcome it."

The critics agreed with Maazel's analysis wholeheartedly; in fact, it was his *Planets* recording that got both the testing and the observations about performance quality underway. We started with "Mars," in a "blind" A/B test; Riggs switched formats at two-minute intervals. I found it fairly easy to identify the CD version, although the difference in clarity was slight. Hamilton, not trying to decide which was which, noted a slight improvement in the two sections that turned out to be CD. Oestreich, on the other hand, thought he heard "more openness in the sound of the analog sections."

Davis also identified the CD correctly but added, "it's pretty subtle, in fact, it's hard to tell. I mean, how are we supposed to

separate the sound of the recording from the sound of an orchestra that's playing like pigs? The ensemble itself was so mushy that improved sound doesn't do anything for it."

Goldsmith, like Oestreich, preferred the "greater depth of sound" of the LP version. In fact, of all the critics at both sessions, Goldsmith seemed to have the strongest reservations about the vaunted merits of digital recording. He arrived in time to hear the jazz track at the end of the pop session and commented that, "perhaps it's that we're listening to this at high volume in a windowless room, or perhaps it's something intrinsic in the system, but I felt a kind of cold, discolored sound where everything is clinically analyzed but very unreal. My initial reaction is very negative." After "Mars," he reacted similarly: "Both the LP and the CD had the kind of antiseptic coloration a lot of recordings tend to have these days: I don't know whether it's the digital process, or just the microphoning, or even the way orchestras are encouraged to play by certain conductors, but I don't like it."

Goldsmith soon changed his mind. Laying *Planets* aside (for the moment), we turned to Kubelik's Mozart, and played the finale twice—LP, then CD. The differences, which had been fractional in *The Planets*, were quite dramatic in the Mozart. My own reaction was one I haven't entirely been able to analyze: I not only found the CD version *sonically* better, but felt it gave the performance itself a more captivating edge.

Davis reacted similarly: "This time the CD was incredibly different from the LP; it even made the performance sound different. On the LP, all that invertible counterpoint seemed very foggy and indistinct, but it all just blossomed on the CD." Hamilton, equally impressed, felt that here, too, the improved sonics shone a bright light on performance details. "The CD sound was quite good, even down to the deep bass. It didn't quite make the contrabasses play as cleanly as I'd hoped they'd come across—I'm afraid the CD sound let me hear more clearly what they *weren't* doing."

Goldsmith, on the other hand, waxed rhapsodic: "This sounds like the kind of thing you hear in the studio when you play back a master tape during a recording session—it has that kind of immediacy you get from the tape. Also, the little clicks, pops, and defects, really not all that terrible on the LP, just disappeared here, and that is a definite point in the CD's favor. Beyond that, I found the sound rounder and fuller and more lifelike. You hear more of the resonance, the sound of the bow on the strings, and the puffiness of the winds. I eat my words; I could listen to this *ad infinitum*."

"I, too, found the sound almost three-dimensional here," Oestreich added.

"Wouldn't it be ironic if this is the music digital recording turns out to serve best, when all the record companies have been assuming it would be the big sonic blockbusters?"

Even so, we thought we would return to those sonic blockbusters to get an idea of the CD's ability to reproduce broad dynamic ranges. A 90-dB dynamic range has been claimed for the CD, compared with an optimistic 60 dB on LP; but testing this is difficult, since most music employs a considerably narrower range. Rock and baroque music, for instance, require a dynamic range of only 20 to 30 dB, well within the LP's grasp. It is in the late-Romantic orchestral works that the larger range is needed, and so we turned next to the Bruckner Fourth. Alas, we had no LP version for comparison.

A single hearing of the first movement proved instructive, though. "Far more than what it did for the *loud* parts," Oestreich noted, "I was impressed with the sound in the quiet parts. The end of the development

Davis: "I wonder what I would have thought of those old Cetra operas if I'd had them on CD."

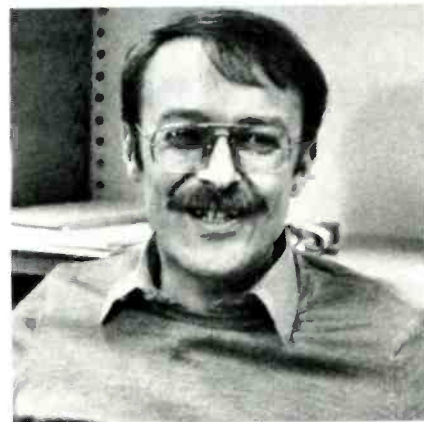
section was astonishing." Hamilton: "So was the clarity of the tremolo strings in the beginning." Oestreich: "And to hear all of that with no surface noise to disturb you is amazing." Equally tantalizing—this entire sixty-eight-minute performance is comfortably accommodated on a single disc side. Although current marketing plans call for one-sided CDs that play about an hour, both sides can be used, and the disc is obviously capable of holding more than an hour on each; thus, should the companies decide to package CDs this way, some full operas could fit on a single CD, with only one side break.

Still in search of wide dynamics, we returned to *The Planets*, this time trying "Mercury," a mostly quiet movement with a central climax and a nice array of wind, string, and tuned-percussion timbres. Again we were sidetracked by performance problems. What seemed a clearly exposed splice—or at least a sonic shift—could be heard only on the CD, and string playing that sounded merely poor on LP proved laughable under the glaring light of CD reproduction. "The overtones, the vinyl noise, and the comparative thinness of the

LP add a kind of bizarre atmosphere to that version," Goldsmith observed, "but when you take those things away, what's left is just dull playing."

Davis wondered "whether this is going to have any effect on who makes records now. I don't see how a record like that will be able to get away with being on the market. In fact, considering the way this system tends to point up both the best and worst aspects of the performances we've heard, I wonder what I would have thought of those old Cetra opera sets I listened to on my Webcor when I was fifteen if I'd had them on CD. How on earth would I listen to music now?"

We finally found what seemed an unusually wide and brilliantly captured example of the CD's dynamic range on the Polygram sampler, in a Solti/Chicago Symphony recording of the Rákóczy March from Berlioz' *Damnation of Faust*, and a Karajan/Berlin Philharmonic performance of the second movement from the Shostakovich Tenth Symphony. In both cases, the



discrepancy between the softest and loudest passages, and the clarity achieved in both, were startling. We liked, in these digitally mastered selections, the way a full orchestra (plus chorus, in other examples) sprang out of the CD's complete silence, and Hamilton noted yet another of the system's comforting aspects: "What I'm finding most striking is the sound at the top of the range. You no longer worry about whether the flute sound is going to be distorted."

In several examples, we also noted some odd sonic shifts that indicated either newly exposed splices or perhaps some dial-twiddling in the tape-mixing stage. This, combined with such widely disparate performance standards, indicated that possibly one of digital sound's biggest prospective advantages in classical recording is the effect it will have on players and producers, both of whom will have to approach their arts with greater honesty and more refined techniques.

One final test remained. When Philips began demonstrating its prototype CD and player at audio shows in 1979, it issued press kits full of technical specs, illustrations
(Continued on page 90)



HIGH FIDELITY ARCHIVES

Glenn Gould (1932–1982)

by David Hamilton

GLENN GOULD was an extraordinary pianist, at the height of his powers, and he will of course be missed for that reason alone; we can never have enough such performers. But he was something rarer as well, a musician who took nothing for granted, from the fundamentals of piano technique and sound, through the generally accepted concepts of style and interpretation, to the whole idea of performing public concerts. One doesn't have to have agreed with Gould's conclusions about any of these matters to recognize the value of the ques-

tions he asked, and to regret deeply that he is no longer around to ask further questions.

Let me call attention here to but one aspect of Gould's uniqueness. In an historically-minded age, he remained an old-fashioned nonhistorical performer—and not merely in his insistence on playing Bach on the piano. Every aspect of his playing—tempo, phrasings, dynamics, textural conceptions, and, of course, expressive character—grew principally from Gould's own inner resources, from his acute if highly

personal perceptions about each individual work and from his very decided musical sympathies and antipathies. In his youth he had been fascinated by Artur Schnabel's "way of looking almost directly at the music and bypassing the instrument. . . . He didn't seem to care about anything but the structural concept behind the music." Gould's playing (especially of Beethoven!) was nothing like Schnabel's, but he clearly aspired to a similarly penetrating vision of musical structure.

Like Schnabel, Gould was a child of his time—which may seem a truism until you reflect upon how many pianists of his generation have their roots somewhere like a century ago. Schnabel belonged to a musical tradition strongly influenced by Brahms and Schoenberg, and his playing responded to the same aspects of music that those composers thought crucial. Schoenberg played a major role in Gould's background as well, but his ideals of sound and texture clearly owe more to the neoclassicism of Hindemith (whom he admired) and even Stravinsky (whom he did not) than to the Brahmsian complexity of Schoenberg. Another model, I fancy, was the playing of Wanda Landowska—not that he tried in any way to imitate the harpsichord, but rather that he was inspired by it to seek an equivalent contrapuntal clarity on the piano. Having achieved that—and how!—he had little truck with those aspects of harpsichord style derivative of that instrument's articulative peculiarities (e.g., the extensive agogic accenting so subtly exploited by players such as Gustav Leonhardt). Equally unhistorical is the brilliantly successful attempt, in his last recording of the *Goldberg Variations*, to achieve a kind of continuity of overall movement and tempo that Bach almost certainly never dreamed of; this is an achievement of intellect, technique, and perception that must enormously deepen our profound sense of loss at his passing.

HF

What the Recording Process Means to Me

by Glenn Gould

This item, previously unpublished and kindly furnished to us by CBS Masterworks, formed the script for a segment of a Masterworks in-house video project. Gould was asked to address the question "What does the process of recording mean to you?"

Our "fee" for this article took the form of a contribution to the Glenn Gould Memorial Scholarship Fund at the University of Toronto. Readers who would like to make similar contributions may do so through: The Dean, Faculty of Music, University of Toronto, Toronto, Ontario, Canada M5S 1A1.—Ed.

I THINK THAT THE FINEST compliment one can pay to a recording is to acknowledge that it was made in such a way as to erase all signs, all traces, of its making and its maker. Correction: Its makers; as we all know, recording is a collaborative enterprise. The whole, long, complicated chain of events that begins in the studio when somebody presses a button and says, "Take one," and culminates when the master product leaves the pressing plant and makes its way into the world, justifies its existence and, indeed, its complexity only by the degree to which it can make itself—make all the

ingenious technical feats that play their part in it—invisible.

Do you remember, back in the Sixties, that there was a ubiquitous buzzword called "process"? (As a matter of fact, I'm not sure that "buzzword" was a buzzword of the Sixties, but "process" certainly was.) Anyway, it became a very overworked term and a very abused concept, even though the excesses that were perpetrated in its name had their roots in a perfectly understandable pride of craft. Avant-garde filmmakers, for example, deliberately—defiantly, even—drew attention to the process of their work

by disturbing its natural syntax, by challenging the expectations of the viewer, by saying, in effect, "You were expecting a reverse angle on this shot, were you? Sorry—no such luck, and oh, by the way, this is a film, is a film, is a film, so we have left the counter in at the head of the next reel: four, three, two, one. . . ." Well, you know the sort of thing I mean.

Of course, in all fairness, we in the record business weren't altogether free of these aggressively technologized process-pieces either. As a matter of fact, if anybody cares to remember a record called "The Medium Is the Massage," with Marshall McLuhan, you will know exactly what I mean.

Well, I was always fascinated with the notion of process—still am, really—but I tried to convey my fascination in a more clandestine way. I was given to saying things like, "Look here, there are 162 splices in the next movement, but since we've made them very carefully and you're not going to be able to spot them anyway, stop worrying about it." My point, of course, was, and is, that a recording represents something special—that it isn't a replica of a concert experience, that it isn't a memento of some hallowed public occasion, that it is, inherently, an art form with its own laws and its own liberties, its quite unique problems and its quite extraordinary possibilities.

And that brings us back to "process," because, despite all the self-conscious silliness with which that concept has been associated from time to time, it nevertheless implicitly conveys a very important idea—I was going to say "massage," but skip it. It conveys the idea that the performance, while it may have initiated the chain of events, undergoes a profound metamorphosis as a result of its exposure to that chain, to that network, and the result is a performance transformed, a performance transcended, a performance sent out into the world, if you like, charged with a very special mission. In my opinion, that mission is to enable the listener to realize the benefits of that invisible network, that climate of anonymity which the network provides.

You know, this is a very cloistered environment, this world of the recording studio; that's why I love it so. I don't mean "cloistered" in the physical sense only, though it certainly does share in that aspect of the cloister too. What I *do* mean is that it's, quite literally, an environment where time turns in upon itself, where, as in a cloister, one is able to withstand the frantic pursuit of the transient, of the moment-to-moment, day-by-day succession of events.

This is, after all, a place where, in the final product, the first take may well be preceded by the sixteenth, and where both may be linked by inserts recorded years later. It's an environment where the magnetic compulsion of time is suspended—well,

warped, at the very least. It's a vacuum, in a sense, a place where one can properly feel that the most horrendously constricting force of nature—the inexorable linearity of time—has been, to a remarkable extent, circumvented.

So, if you ask me what's really important about recordings—and I'm speaking now not simply as someone who participates in making them, from time to time, but as someone who also listens to them a lot—I'd have to say that it's the unique ability of a recording to involve the listener in the music or in whatever the substance of the recording happens to be, while at the same time separating that listener from all extraneous biographical data—from all concern with its documentation, its preparations, its performances, its postproduction processes, and so on.

What I'm describing, I think, is not, in the conventional sense, either an active or a passive listener. I'm obviously not describing someone who sits in the stands and cheers on the home orchestra; that may seem like an activity, but it's really the ultimate in herdlike passivity. On the other hand, I'm not describing someone who flops on a prayer rug and contemplates his

navel while waiting for the next chord change in the latest minimalist masterpiece, either. (I hasten to add that I've nothing against prayer rugs, or even navels; I do have a wee prejudice against minimalist masterpieces, but that's another story.) What I'm trying to describe is, for want of a better word, a creative listener—a listener whose reactions, because of the solitude in which they're bred, are shot full of unique insights. These are insights which will not necessarily duplicate or overlap those of the performer or the producer or the engineers; they're insights which initiate a new link in the chain of events, a new link in the network. It's a link which holds out the possibility that the work we do here doesn't necessarily come to an end when the final product is dispatched from the pressing plant, but rather that, from that point on, it will have consequences which we can't begin to measure, ramifications which we can't possibly attempt to quantify, and that, eventually, like a benign boomerang, the ideas which feed on those consequences, the ideas which, out there in the world of the creative listener, begin to take on life of their own, may very well return to nourish and inspire us.

HF

Closing the Circle: The *Goldbergs* Revisited

Reviewed by James R. Oestreich

IT TAKES THE WIND out of one's sails. The text was to have been Glenn Gould's dictum "The only excuse for recording a work is to do it differently" (which should probably not receive wider circulation without the quick qualification he appended in an interview with Tim Page: "If, however, that difference has nothing of validity to musically or organically recommend it, it's better not to record the work at all"); the review, examining the implications of that statement for rerecording, was to have included two other remakes of very "different" Bach recordings—the *Brandenburg* Concertos of Neville Marriner and Nikolaus Harnoncourt. I started with Gould's *Goldbergs*, listening first on what I later learned was his fiftieth birthday. As always with him, I found much to infuriate me, but as always, his performance set me to thinking, for hours and even days afterward. If truth were known, I became obsessed with the pianist, reading Geoffrey Payzant's *Glenn Gould: Music and Mind* and going back to old recordings. Thus, when I heard a week later that he had suffered a stroke, and on the following Monday that he had died, a strong sense of personal irony mingled with all the other imponderables surrounding the life and death of this singular

artist. I lost heart for the rest of the project.

What Gould attempts here is nothing less than to grasp the work whole, and it is his remarkable degree of success that ultimately dissolves accumulated quibbles. When I finally returned to the recording, having totally reconsidered the performance and my initial reaction to it, the tempos of the aria at beginning and end (very slow and still slower) no longer seemed excruciating. (All to the good, too, Var. 25—whose slowness and oppressive gravity in Gould's famous 1955 debut recording I still do find excruciating, especially in that high-strung context—here proceeds more resolutely and blends well with a mellowed interpretation.) And some of the articulation that seemed merely cute or precious at first now fitted more logically into the kaleidoscope of tone colors.

I have often railed against the lopsided treatment of repeats in a binary structure—observance of one, but not the other—and will doubtless do so again. In principle, I would rather have *no* repeats, as in Gould's earlier recording. Here, however, the issue seems largely irrelevant. Gould takes only some first repeats, those in the canons and a few other variations—thirteen in all. But in

the repeats, as elsewhere within variations, he freely shifts articulation, coloration, weight, or emphasis; in addition, he sweeps from one variation to the next after little or no pause (the transitions range from the jolting *attacca* into Var. 1 and the smooth glide into Var. 2 to full stops of various—seemingly precisely calculated—lengths). All of this gives a rhapsodic cast to the work as a whole, making it seem less a row of binary puddles than an impetuous, flowing stream. It's clear that Gould has something much larger on his mind than individual variations.

Yet compelling as his conception is, I suspect that even Gould, in his calmer moments, would not have argued the inevitability of just these first repeats. With an aesthetic so thoroughly shaped by recording, he seems here—with some fifty-one minutes of *Goldbergs*—too much tied to the constraints of the LP. It would have made for a more expensive, less salable product, of course, but I can't help wishing he had begun with four sides of vinyl spread out before him, to see how much he would have filled—and how he would have done so—in the "best" of all worlds. Though he frequently touted the "limitless possibilities" of recording, it may be that Gould's art, like Stravinsky's, thrived on limitation. But Bach's doesn't.

That there are still features here that I don't like (yet?)—a hasty Var. 6, a bottled-



Original cover of Gould's 1955 *Goldbergs*

up Var. 19—simply doesn't matter: no performance, even among those I've admired from the outset, has ever furnished more food for thought after a single hearing or after subsequent ones. This time around, Gould has truly made the work his own and given us a performance to live—and grow—with.

Even before the inscrutable twist of fate lent Gould's last major Bach recording still greater significance, CBS had every reason to assume—and must devoutly have hoped—that this renowned Bachian's interpretation would be *the* version to find its way into many a one-*Goldberg* household. The more regrettable, then, that the label's vaunted "new look" accommodates scarcely a word of information about the

work beyond its date of composition. (Room is found for a photo of the older recording's "original cover design," in which the words "An historic record debut rechanneled for stereo" are clearly legible.) The annotations are devoted largely to Samuel H. Carter's paean to CBS's "famous" 30th Street Studio—a curious document that smacks of corporate infighting. Following the final *Goldberg* sessions, CBS Records (not, be it noted, Masterworks) shut down the studio, "victim of the changed fortunes of an industry that has become as multinational as any other and as competitive." An additional, anonymous note provides further tribute to the studio and, in lieu of useful information, a tease: A thorough explanation of the pianist's "new approach would, according to Gould, entail a complete written analysis, in an almost book-length essay, of the 'thirty very interesting but independent-minded pieces' that make up the Variations—a fascinating prospect, to be sure." In retrospect, the simple sin of omission becomes a cruel joke.

HF

BACH: Goldberg Variations, S. 988.

Glenn Gould, piano. [Glenn Gould and Samuel H. Carter, prod.] CBS MASTERWORKS IM 37779 (digital recording). Tape: HMT 37779 (cassette). [Price at dealer's option.]








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Messiah: Reduplication Without Redundancy

A Handel maven begins a trek through the editions and the recordings, past and current.
Reviewed by Teri Noel Towe



HANDEL, PAINTED BY HUDSON

EVERY NOW AND AGAIN friends who know that I am a *Messiah* fanatic ask me to recommend the best recording. My short answer is that there isn't just one—and only partly because *Messiah* has been so frequently recorded that there have been at least a dozen excellent accounts.

A keyboard virtuoso and composer of the highest caliber, Handel was also a practical musician and entrepreneur—an eighteenth-century Stephen Sondheim. David Merrick, Lester Lanin, and Keith Jarrett all rolled into one. He owned at least an interest in the production companies that presented his operas and oratorios. He also frequently acted as impresario, organizing and promoting his own concerts. None of his compositions was graven on stone; he considered them all subject to revision, not only to improve them, but also to meet the practical requirements of particular performances. He often altered works to suit the capabilities of available performers.

In the case of *Messiah*, these observations are especially pertinent. Contrary to popular belief, the oratorio was not an immediate hit in England. After its initial success in Dublin, Handel took it back to London, where it met with indifference from the general public and outright hostility from those who—with the tacit support of Edmund Gibson, then bishop of London—considered it sacrilege to perform a setting of biblical texts in a theater, with popular stars as soloists.

Teri Noel Towe, a partner in the New York law firm of Ganz, Hollinger, and Towe, hosts classical-music broadcasts on WKCR and WBAL. His vaunted abhorrence of moderation—the very reason we recruited him for such a task—made it impossible for us to present a complete discography in a single installment in time for Christmas, as planned; but at least the late Christmas (or early Easter) shopper will find some guidance here, more next month.

Its first three seasons in London—1743, 1745, and 1749—*Messiah* flopped. Not until 1750, a couple years after Thomas Sherlock had succeeded Gibson as bishop, did it catch on; Handel gave two benefit performances—the second by popular demand—in the chapel of the Foundling Hospital, an orphanage of which he was a trustee. Thereafter, *Messiah* became a staple of his annual spring season of oratorios for the rest of his life.

Practically every year that he presented it, Handel made changes, rewriting, transposing, or replacing individual numbers. Some alterations were intended to improve the work's pacing, but most were dictated by the strengths or weaknesses of singers available for particular performances. For instance, the aria "But who may abide" originally was scored for bass soloist. In 1750, 1751, and 1753, Handel was blessed with the services of the remarkable castrato alto Gaetano Guadagni (later to create the role of Orfeo in Gluck's opera) for whom he wrote the revised form of "But who may abide" now familiar. About thirty years after his death, this version, with its vibrant prestissimos, began to be assigned to a bass soloist—which it *never* was by Handel—a practice that persists to this day, even in some otherwise "historically accurate" performances.

Handel, of course, wouldn't have given a damn about such later adaptations. A pragmatist and a businessman, he knew that changes and compromises are often necessary for the show to go on. *Pace*, ye righteously indignant purists. Handel surely would have endorsed the changes, cuts, and additions that have helped to insure *Messiah*'s status as the longest-running hit show in musical history; its universal popularity has not waned in 240 years. He would not have objected to the replacement of the "obsolete" harpsichord continuo and would have understood the beefed-up cho-

rus and orchestras later generations felt necessary for effective presentation in concert halls of vastly increased size. He considered *Messiah*, like all his other works, a living, breathing organism, a document as susceptible to interpretation, change, and amendment as the United States Constitution.

In the twentieth century, however, we have become accustomed to think in terms of "final" or "definitive" versions of compositions, musical and otherwise. By the late-nineteenth century, a "standard" version of *Messiah*—a combination of the various alternatives that tallies with no version Handel himself presented—came to be accepted by performers and audiences alike. These choices, made for extramusical as well as musical reasons over the nearly 150 years since Handel's death, were codified—for the English-speaking world, at least—by Ebenezer Prout in his performing edition, published in 1902. For numbers that exist in more than one authentic form, Prout selected and printed only the version then most popular; since these are the versions most of us know as "definitive," a list of his choices is presented in the accompanying box.

As is well-known, Handel wrote *Messiah* in twenty-four days during August and September 1741, rested a week, wrote the oratorio *Samson* in one month, rested a few days, and then left for Dublin to present a series of subscription concerts. While he worked on *Samson*, his longtime friend and business associate John Christopher Smith, Sr., was busy deciphering the *Messiah* score and preparing the fair copy from which Handel would conduct for the rest of his life. This manuscript contains much invaluable information concerning who sang what in which production and—together with evidence that can be gleaned from the composing score, surviving word

books, and contemporary manuscripts copied by Smith and his assistants—reveals a great deal about the various changes Handel made during the eighteen seasons prior to his death on April 14, 1759, eight days after his last performance of the work.

During the winter of 1741–42, Handel began to tamper. He rewrote the opening of “Thus saith the Lord,” shortening it by two measures and changing it from an *arioso* to an accompanied recitative. He also suppressed the original form of “How beautiful are the feet,” a *dal segno* aria that sets, in its central section, the words now familiar from the chorus “Their sound is gone out.” He substituted another number, an alto duet leading into a chorus, to a different text that also begins with the words “How beautiful are the feet.” The premiere production of *Messiah* in the spring of 1742 had no version of “Their sound is gone out.”

Indeed, the *Messiah* Handel introduced in Dublin was a rather makeshift affair, and the oratorio was never again presented in that form. Having taken only three vocalists—two sopranos and an alto—with him from England, Handel had to rely on local talent for the rest of his soloists. Hampered by the weakness of his tenor and basses, he ended up substituting recitatives for three arias—the original bass versions of “But who may abide” and “Thou art gone up” and the tenor aria “Thou shalt break them.” He also reassigned other solos to his own singers, taking care not to tax them more than necessary.

Notwithstanding the captions emblazoned across record covers, *Messiah* has never been recorded as Handel premiered it on April 13, 1742—nor is it possible to do so, since the recitative substituted for “Thou art gone up” has not survived. Jean-Claude Malgoire’s CBS account is the latest to be billed as the Dublin version. Yet as even the most cursory scrutiny of extant sources and relevant literature shows, the musicological preparation was embarrassingly slipshod. To catalog the most egregious mistakes:

1) “Ev’ry valley” is given in the familiar post-1745 version with two measures excised from the opening and closing ritornello.

2) “But who may abide” and “Thou shalt break them” are not sung in the recitative forms; the correct aria forms of those numbers and of “Thou art gone up” are used, however.

3) “Rejoice greatly” appears in a curious, completely un-Handelian hybrid of two early forms. He initially wrote it as a strict *da capo* aria in 12/8. Early on, probably between the Dublin and London premieres, he shortened it appreciably, splitting the original opening section into two segments, separated by the original central section. Malgoire gives the opening section complete in the original form, then follows with the central section and shortened

Prout’s *Messiah*

Part I

1. Sinfonia
2. Comfort ye My people (tenor recit.)
3. Ev’ry valley (tenor aria)
4. And the glory of the Lord (chorus)
5. Thus saith the Lord (bass recit.)
6. But who may abide (alto aria)
7. And He shall purify (chorus)
8. Behold, a virgin shall conceive (alto recit.)
9. O thou that tellest good tidings (alto aria and chorus)
10. For, behold, darkness (bass recit.)
11. The people that walked in darkness (bass aria)
12. For unto us a Child is born (chorus)
13. Pifa (long version)
14. There were shepherds: And lo! the angel of the Lord (sop. recit.)
15. And the angel said unto them (sop. recit.)
16. And suddenly (sop. recit.)
17. Glory to God (chorus)
18. Rejoice greatly (sop. aria) (4/4 version)
19. Then shall the eyes of the blind (alto recit.)
20. He shall feed His flock (alto. sop. aria)
21. His yoke is easy (chorus)

Part II

22. Behold the Lamb of God (chorus)
23. He was despised (alto aria)
24. Surely He hath borne our griefs (chorus)
25. And with His stripes (chorus)
26. All we like sheep (chorus)
27. All they that see Him (tenor recit.)
28. He trusted in God (chorus)
29. Thy rebuke hath broken His heart (tenor recit.)
30. Behold, and see (tenor aria)
31. He was cut off (tenor recit.)
32. But Thou did’st not leave (tenor aria)
33. Lift up your heads (chorus)
34. Unto which of the angels (tenor recit.)
35. Let all the angels of God (chorus)
36. Thou art gone up on high (bass aria)
37. The Lord gave the word (chorus)
38. How beautiful are the feet (sop. aria) (revised version)
39. Their sound is gone out (chorus)
40. Why do the nations (bass aria) (long version)
41. Let us break their bonds asunder (chorus)
42. He that dwelleth in heaven (tenor recit.)
43. Thou shalt break them (tenor aria)
44. Hallelujah! (chorus)

Part III

45. I know that my Redeemer liveth (sop. aria)
46. Since by man came death (chorus)
47. Behold, I tell you a mystery (bass recit.)
48. The trumpet shall sound (bass aria)
49. Then shall be brought to pass (alto recit.)
50. O death, where is thy sting? (alto. tenor duet) (short version)
51. But thanks be to God (chorus)
52. If God be for us (sop. aria)
53. Worthy is the Lamb (chorus)

reprise.

4) “Then shall the eyes,” “He shall feed His flock,” and “If God be for us” are all sung by soprano, as written, not by alto, as actually sung in Dublin.

5) “How beautiful are the feet” appears in the *dal segno* version Handel discarded before the Dublin premiere. Ironically, this error inadvertently furnishes one of the album’s strongest selling-points; the first recording of the aria’s original version, it fills a gap in the discography and makes the set invaluable for every true *Messiah* maven.

6) Malgoire presents “The trumpet shall sound” in its post-1745 *dal segno* form rather than as the full *da capo* aria

Handel used in his first three productions and cuts the reprise of the opening ritornello in “He was despised,” which Handel never treated as anything but a full *da capo* aria.

7) The duet “O death, where is thy sting?” appears in its revised twenty-four-bar version rather than the original forty-one bars Handel presented until 1749 or 1750.

Using period instruments and a choir of men and boys, Malgoire follows Handel’s instrumentation scrupulously—too scrupulously, in fact, for he omits French horns. While there are no extant horn parts, the accounts for the benefit performances at the hospital show that two horn players figured in the ensemble. In early-eighteenth-century performance practice, as confirmed by the *Samson* score, horns would have doubled the trumpets at the lower octave in the choruses in Parts II and III.

With an instrumental ensemble somewhat smaller than Handel’s, Malgoire stresses the dancelike qualities inherent in many movements. This approach works to the definite advantage of the jiglike “Rejoice greatly” but seriously detracts from a contemplative aria like “I know that my Redeemer liveth.” At times—such as in the *arioso* “All they that see Him” and the ensuing chorus “He trusted in God”—Malgoire’s striving for interpretive effects seems fussy, and his undue stress on strong beats makes the instrumental articulation a little too forceful and unnatural. Mirella Giardelli’s harpsichord continuo is overly reticent, especially in bravura arias like “Why do the nations.” The ensemble sound, especially in the strings, is raw and scrappy. Patches of painfully poor intonation abound, and the playing, like the musicology, reeks of inadequate preparation.

The Worcester Cathedral Choir sings the choruses to a fare-thee-well, but the soloists do not join in, as Handel’s did. Soprano Jennifer Smith is most impressive. Obviously schooled in authentic performance practice, she has a rich, well-focused voice that invites comparison with Rosa Ponselle’s in its molten gold tone. Treble Andrew J. King’s singing of the Nativity recitatives and *ariosos* becomes downright uncomfortable. Charles Brett’s is a fine, full, and focused countertenor, but his strangely detached air, particularly in “He was despised,” is disconcerting. Predictably, tenor Martyn Hill’s contribution confirms his thorough mastery of Handelian idioms; a pity, then, that his voice is suffused by so much anachronistic vibrato. A sensitive and effective bass, Ulrik Cold offers an especially lovely reading of “Thou art gone up.”

For all its failings—including a trilingual booklet that provides no information as to which performing edition is used or which soloist sings which numbers—this is nonetheless a valuable addition to the discography. Along with the “first” already

noted, the rousing "Hallelujah" chorus, one of the most thrilling renditions ever recorded—justifies the cost of the entire album.

The coolly received London premiere production is documented by Marriner's recording, accurately described as "based on the first London performance of March 23, 1743." The performing edition was prepared by Christopher Hogwood, who also plays organ continuo and provides the excellent annotations that are just one of the many strong points of this superb recording.

Apart from restoring at least two of the arias replaced by recitatives in Dublin, Handel made three major changes in this version: In the duet version of "How beautiful are the feet," he substituted a soprano for one of the altos. He restored the words "Their sound is gone out" in a tenor arioso—perhaps sung by a soprano at the first London performances. In the Nativity sequence, he replaced the accompanied recitative "And lo, the angel of the Lord" with the arioso "But lo," composed expressly for the singing actress Kitty Clive, who had gained fame as Polly in *The Beggar's Opera*. The presence of such a singer, the eighteenth-century equivalent of a Lotte Lenya or a Diana Ross, in the production must have been especially annoying to those antagonistic to Handel's presentation of a sacred oratorio in the theater.

Hogwood's performing edition, though commendably accurate, does contain two vestiges of the Dublin and pre-Dublin versions—the original arioso version of "Thus saith the Lord" and the abbreviated version of the "Blessing and honor" section of the chorus "Worthy is the Lamb." Technically not part of the first London production, they are nevertheless well worth having on record. A penciled indication in the composing score of the chorus, evidently in Handel's handwriting, cuts bars 39 to 53; doubtless associated with the Dublin production, this abridgment, which Handel may never have used, lends a different balance to the final choruses that is not without its peculiar appeal.

Marriner's *Messiah* otherwise re-creates the first London production right down to the restoration of the two bars in the opening and concluding ritornello of "Ev'ry valley." Using modern instruments and a mixed chorus, this is, quite simply, one of the finest accounts ever recorded. From the initial bars of the marvelously wrought Sinfonia, the instrumental playing is both inspired and impeccable. Aside from the concluding "Amen," a bit flaccid and lacking in momentum, the choruses are light-footed and brisk, but tempos in the slower choruses are never inappropriate. The soloists all give sensitive, stylish, and finely honed performances. Soprano Elly Ameling is especially noteworthy; her "I know that my Redeemer liveth" is melting-

Editions Consulted

- Mozart-Hiller;** Breitkopf and Härtel. 1803; reprinted by Kalmus from later edition.
Prout; Novello. 1902; reprinted by G. Schirmer.
Shaw, W.; Novello. 1958; *Textual Companion*. Novello, 1963.
Holschneider; Neue Mozart Ausgabe, Bärenreiter, 1961.
Tobin; Hallische Händel Ausgabe, Bärenreiter. 1965.

ly beautiful, and the extended, but not excessive, cadenza she interpolates into "Rejoice greatly," correctly performed in the revised, short 12/8 version, is in and of itself cause for rejoicing.

1749 and 1750 were watershed seasons for *Messiah*, and the productions mounted in those years prompted Handel to make revisions that to a large extent have become "standard." 1749 saw the composition of the best-known form of "Rejoice greatly," in 4/4 time, and the equally familiar choral version of "Their sound is gone out," prefaced by a version of "How beautiful are the feet" that is a slightly abridged form of the opening section of the soprano dal segno aria Handel had deleted before the Dublin premiere. 1750 produced the "Guadagni" versions of "But who may abide," "Thou art gone up," and "How beautiful"; this last, a modified form of the revised soprano aria, has not as yet been recorded to my knowledge.

Messiah as Handel performed it in 1752, when Guadagni was in Ireland, is recreated in the Robert Shaw recording, now more than fifteen years old but still one of the best. This production assigned Guadagni's versions of "But who may abide" and "Thou art gone up" to an alto and used the revised soprano version of "How beautiful are the feet." It also featured the short, eleven-bar form of the Pifa (generally mis-called the "Pastoral Symphony") and the short version of "Why do the nations," which, with its terse and dramatically intense recitative ending, Handel evidently preferred to the familiar long version. In the recitative "Then shall the eyes" and aria "He shall feed His flock," Handel appears to have opted in 1752 for the original soprano version. Shaw, on the other hand, chooses the most familiar version—which Handel, ironically, apparently used only twice, in 1745 and 1758—in which the alto sings the recitative and the first part of the aria, the soprano the rest.

Shaw's tempos, especially in the choruses, are brisk and energetic yet controlled. As one might expect, his chorus, only slightly larger than Handel's, acquits itself impeccably. All four vocal soloists are also first-rate; their embellishments and cadenzas, though conservative, are not too restrained. The orchestra, about the same size as the bands Handel used for his benefit

performances, is of like caliber.

The best documented of all of Handel's productions of *Messiah* is the annual benefit performance of May 15, 1754. A complete statement of the number of participating vocalists and instrumentalists is preserved in the minutes of the Foundling Hospital's general committee, and the set of parts and the score Handel bequeathed to the hospital, copied from the performance materials used at the 1754 benefit, are still extant. The orchestra consisted of fourteen violins, six violas, three cellos, two double basses, four oboes, four bassoons, two trumpets, two horns, and timpani, with harpsichord and organ continuo. The chorus, six boys and thirteen men, was augmented by five soloists, who, the parts make clear, sang all the choruses, as concertists of this period customarily did. Second soprano Christina Passerini, who had been recommended to Handel by his old friend Telemann, was allotted only three arias—but what arias they were! In addition to "If God be for us," she sang two of the Guadagni numbers—"Thou art gone up," transposed up a fourth, and "But who may abide," boosted a fifth. The latter transposition entailed extensive reworking of the altitudinous string parts. (Incredibly, this A minor soprano rewrite is the one authentic alternative version of a number in *Messiah* that has not been published. Watkins Shaw elects "for practical reasons" to include a literal transposition into G minor, made a year or two after Handel's death for the conducting score Smith prepared for his son, Handel's designated successor to continue the tradition of the annual Foundling Hospital benefit. John Tobin includes neither soprano version.) Otherwise, the 1754 *Messiah* was identical with the one Handel presented in 1752.

This production is re-created with extraordinary accuracy in Hogwood's own release, far and away the finest authentic-instrument account and one of the best *Messiahs* ever recorded. Hogwood deviates from Handel's practice in only one important particular: "As soloists cannot be expected to sing choruses nowadays, the original balance is here restored by the use of a choir slightly larger than Handel's, though fundamentally the same in constitution." Alas, boosting the number of trebles and male altos to compensate for the absence of the soprano and alto soloists does not result in quite the same choral timbre Handel expected. Why couldn't the requisite number of additional adult female vocalists have been engaged to preserve Handel's own balance? Still, in the face of Hogwood's magnificent achievement, such a cavil is perhaps ungracious.

There are those—HF's Kenneth Cooper among them (April 1981)—who do not share my enthusiasm for the Hogwood. Yet after numerous rehearsals in the two years since its release, its immediate appeal and interpretive persuasiveness remain un-

dimmed and have even been enhanced by familiarity. Particularly thrilling are soprano Emma Kirkby's performance of the revised "But who may abide," incomparably exciting and compelling, and the concluding choruses, with their shattering emotional clout and near perfect dramatic pacing.

True, there are moments where that quicksilver spark of inspiration eluded the performers—particularly in some of the choruses, where tempos could have been just a hair faster—yet one shouldn't hold one's breath waiting for a more exciting account on period instruments. Oiseau-Lyre's sound is bright, transparent, and natural, and the annotations, by Hogwood and Anthony Hicks, are excellent.

During the last five years of his life, Handel made no further alterations in the score, merely reassigning various numbers—"Rejoice greatly" was sung by a tenor one season—and reviving alternative versions. For one series of performances in the late 1750s he appears to have revived the alto duet and chorus form of "How beautiful are the feet," harking back to Dublin so many years before.

As early as 1744, Handel authorized and even encouraged the presentation of *Messiah* by ensembles other than his own, and by the time of his death in 1759, it had been performed in Oxford, Bristol, Bath, Salisbury, and in Gloucester and Worcester, where it was sung at the triennial Three Choirs Festival, establishing an enduring tradition. After Handel's death, John Christopher Smith, Jr., and then the blind organist and composer John Stanley continued the annual benefit performances through the year 1777. In 1784, some 525 vocalists and instrumentalists gathered in Westminster Abbey to commemorate the centenary of the composer's birth, giving rise to the tradition of gargantuan Handel performances. (There is, however, no evidence that, as frequently claimed, additional accompaniments were provided for this production.)

More than a decade earlier, *Messiah* had "gone out into all lands." In 1772, Thomas Arne's son Michael introduced it into Germany, presenting selections in Hamburg; three years later, in the same city, C.P.E. Bach led a complete performance, with the text translated into German by poet Friedrich Gottlieb Klopstock.

In 1789, in Austria, a performance was given that was to have a radical effect on the course of *Messiah*'s history. Baron Gottfried van Swieten, who later translated and edited the text for Haydn's *Creation*, had, as a diplomat in London during the late 1760s, become an ardent Handelian. Among other Handel scores, he took back to Vienna a copy of the first edition of the full score of *Messiah*, published by Randall and Abell in 1767. Beginning with *Judas Maccabeus* in 1779, he introduced works

by Handel into the annual oratorio series, given for the benefit of the Tonkünstler Society—a Viennese musical charity. In 1789, he presented *Messiah* and, for this Viennese premiere, commissioned Mozart to fill out the accompaniments, largely dispensing with the keyboard continuo and replacing the tromba parts—practically unplayable for late-eighteenth-century trumpeters.

Using the Randall score and a German translation by Christian Daniel Ebeling, Van Swieten had a copyist prepare a score containing the vocal lines and Handel's string parts, together with the original dynamic and tempo markings. Onto the staves left blank for his use, Mozart added his woodwind, brass, and string parts; those of Handel's woodwind or brass parts that he chose to retain, he copied from the Randall score.

Since that score contains some, but not all, of the alternative versions either in its main body or in an appendix, Van Swieten had to decide which forms to use. He doubtless chose the versions he had come to know in London twenty years earlier; by and large, he selected the versions favored by Handel during the last years of his life and subsequently by Smith, Jr., and Stanley.

Van Swieten reassigned some of the solos to voices other than those Handel specified. He divided the six tenor numbers

beginning with "All they that see Him" between the two soprano soloists (there was no alto soloist *per se*; those solos he allotted to the second soprano), assigned the 4/4 form of "Rejoice greatly" to the tenor, and gave the Guadagni version of "But who may abide" to the bass. Ironically, the only one of these assignments with no precedent whatever in Handel's practice—namely, the last—is the one that became "standard" during the nineteenth century and first half of the twentieth. Since Mozart's version was to become the basis for most, if not all, further accompaniments added to *Messiah* throughout the nineteenth century, Van Swieten must also take credit—or shoulder the blame—for initially shaping the "standard" score as finally codified by Prout. Neither Van Swieten nor Mozart, however, can be blamed for turning "Why do the nations" into a full da capo aria: They were merely following the indication in the first edition. As Walsh's heirs, Randall and Abell had reused the plates from his *Songs in Messiah* in order to hold down costs in assembling a full score. Since no choruses figured in that collection, a da capo was indicated in the aria to provide a return to the tonic key; Handel had used the chorus "Let us break their bonds asunder" as an exciting and dramatic substitute for a reprise of the aria's opening section. Walsh's da capo expedient was carried into the full score in error.

Van Swieten and Mozart also made a few cuts. In omitting the chorus "Let all the angels of God," these Roman Catholics inadvertently destroyed the subtle link Handel had created between this chorus and "Hallelujah," both of which quote a line from Philipp Nicolai's Lutheran chorale tune *Wachet auf, ruft uns die Stimme*. They also left out the aria "Thou art gone up," and Mozart replaced the aria "If God be for us" with an accompanied recitative of his own. His abridged version of "The trumpet shall sound" gives most of the demanding tromba solo to a horn. Perhaps most surprisingly, he made no additions whatever in quite a few numbers.

Mozart's woodwind complement includes paired flutes (piccolo in the Pifa), oboes, clarinets, bassoons, and horns. In addition to two trumpets and timpani, his scoring calls for three trombones—in the "Overture" and the chorus "Since by man came death." The original performance materials, which have been preserved, show that the trombones also doubled the alto, tenor, and bass lines in the tutti choruses. In addition, these parts show not only that portions of some choruses were sung by the soloists, but also that the tutti choir—and this is confirmed by annotations on a surviving word book—consisted of but twelve singers!

Precisely because Mozart's additions are so exquisite in and of themselves and were written by a universally acknowl-
(Continued on page 90)

HANDEL: *Messiah*.

Jennifer Smith, soprano; Andrew J. King, boy soprano; Charles Brett, countertenor; Martyn Hill, tenor; Ulrik Cold, bass; Worcester Cathedral Choir, Grande Écurie et Chambre du Roy, Jean-Claude Malgoire, cond. [Georges Kadar, prod.] CBS MASTERWORKS M3 37854 (three discs, manual sequence). Tape: M3T 37854 (three cassettes). [Price at dealer's option.]

Other Recordings

Marriner; Ameling, Reynolds, Langridge, Howell; St. Martin's Academy and Chorus. ARGO D 18D3 (3).

Shaw, R.; Raskin, Kopleff, Lewis, Paul; Robert Shaw Chorale and Orchestra. RCA LSC 6175 (3).

Hogwood; Nelson, Kirkby, Watkinson, Elliott, Thomas; Christ Church Cathedral Choir (Oxford), Ancient Music Academy. OISEAU-LYRE D 189D3 (3).

Messner; Kupper, Anday, Fehenberger, Greindl; Salzburg Cathedral Choir, Salzburg Mozarteum Orchestra. REMINGTON (3), OP.

Mackerras II; Mathis, Finnilä, Schreier, Adam; Austrian Radio Chorus and Symphony Orchestra. ARCHIV 2710 016 (3).

Stone; Addison, Sydney, Lloyd, Gramm; Handel and Haydn Society Chorus, Zimmler Sinfonietta. UNICORN (3), OP.

Dunn; Hoagland, Wallace, Gore, Livings, Evitts; Handel and Haydn Society Chorus and Orchestra. SINE QUA NON SA 2015 (3).

[Conductor unnamed]; Allen, Dews, Harrison, Knowles; London Welsh Choir, Queen's Hall Players. G&T 78s (25 sides).

Behind the Scenes

Music news and commentary by James R. Oestreich

New CDs, Old Award

At about the time we were putting the Sony Compact Disc player through its paces for this month's report, Polygram Classics staged a CD demonstration of its own for its regional sales representatives. The player was the first Magnavox deck (produced by



parent company Philips) scheduled to hit the American market, the CD-100; simpler and more streamlined than the Sony CDP-101, it is expected to retail in the third quarter of this year for \$800-\$1,000. The recordings were Deutsche Grammophon CDs—not surprisingly, for the gathering was timed to coincide with the New York performances of Herbert von Karajan and the Berlin Philharmonic, and the conductor was on hand to extol the virtues of the revolutionary technology.

Invited to attend, I took the very belated opportunity to present Karajan with the certificate for the 1981 High Fidelity/International Record Critics Award for his DG recording of Wagner's *Parsifal*. I was also spirited into the second half of a Saturday-morning rehearsal of the Mahler Ninth, where, in the finale, I found an intensity in the playing of which I've never heard the like. When I commented on this to Karajan, he quickly replied, with utter disingenuousness, "Me too!" He expressed regret that he had even called the rehearsal, since one can't expect players to respond like that twice in a day; and indeed, that night's performance, though mightily impressive, didn't show quite the same intensity.

Karajan's recent recording of the work was a strong contender on last year's IRCA list and would have fared even stronger but for the previous *Parsifal* award. Yet there will be another year. Not one to rest on his

raves, Karajan recorded the Ninth again, digitally, just before coming to New York. (Actually, parts of the earlier recording had also been taped digitally, but he so liked the strictly analog sections that he was loath to redo them then.)

Karajan also discussed other upcoming releases, including a Berlin recording of *Carmen*, with Agnes Baltsa, José Carreras, and José van Dam. When asked what else he wants to record just now, he responded, "Everything!"

Adleriana

In line with this month's tribute to Glenn Gould, we should note the recent passing of another innovator in the recording of early music, Herman Adler (born 1908 in Hamburg). The many recordings he produced for Musicraft and other labels helped lay the groundwork for the baroque boom of the past quarter-century. Like many another pioneer, however, Adler did not endorse everything done in the name of his cause in later years. His attitude toward at least some current notions of authentic performance practice is delightfully evident in a spoof memorandum from February 1979 that turned up among his effects:

FROM THE DESK OF
HERMAN ADLER

For release February 31, 9791

- Announcing the
Florence Foster Jenkins Memorial Award

A new prize has just been established by Herman Adler, a long-time patron of music, to honor the memory of the late Florence Foster Jenkins. It will be awarded each year on February 31 to the musician, musicologist, critic or writer on music whose work most worthily represents the tradition established by that remarkable artist.

The prize carries with it a cash award of One Billion Mark payable in currency issued by the Reichbank in Berlin in September, 1923.

Baroque musicians will also receive an autographed portrait of P.D.Q. Bach.

The first winner of this coveted prize is Nikolaus Harnoncourt who will henceforth be known as Nikolaus Harnoncourt von Foster-Jenkins.

Of course, Adler's interests extended far beyond the baroque. Among his prime passions were the works of Bruckner and Hindemith; his prime aversion was for the music of Brahms, who "never wrote an original melody." Hmmm. **HF**

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CLASSICAL Reviews



Virgil Thomson, Gertrude Stein: creators of *Four Saints in Three Acts*—See page 74.

BACH: Goldberg Variations, S. 998—
See page 57.

BACH: Mass in B minor—See page
72.

BARTÓK: Quartets for Strings (6).

Lindsay Quartet. [Mark Brown, prod.]
VANGUARD AUDIOPHILE VA 25011/3, \$38.94
(digital recording; three discs, manual se-
quence).

COMPARISONS:

Juilliard Qrt.	CBS D3S 717
Végh Qrt.	MHS 1501/3
Hungarian Qrt.	DG Priv. 2728 011
Tokyo Qrt.	DG 2740 235

The Bartók quartets—once considered “modern” and “inaccessible”—have decisively entered the standard repertory. They now turn up on the programs of virtually every student ensemble, and some crowd-pleasing concerts have featured the quartets in toto. (Near-toto, anyway; a student work, composed before the turn of the century, which the Tátrai performed against Bartók’s expressed wishes, has never entered the “complete” canon, which dates from 1908–39.)

Recently the Juilliard Quartet, which recorded the first complete cycle in early LP days and another in stereo in the 1960s,

taped a third version digitally. But Vanguard has beaten CBS to the punch with this integral performance by the little-known (in America, anyway) Lindsay Quartet. The Lindsays hail from England, although the annotations belabor the fact that they studied these works with *echt*-Bartók specialists such as Sándor Végh, Alexander Moszkowski, Vilmos Tátrai, and Zoltán Székely. (Their basic training was with Sidney Griller.)

Their performances, which display sincerity of purpose, basic musicality, and certain probing interpretive points, are nevertheless staid and mild-mannered, underplaying the works’ power and virtuosity. Though the first movement of No. 2 has a direct, unvarnished, “let’s get down to the basics” quality, and many of the pianissimo high violin passages in all the works emerge with a rapt luminosity (aided to some degree by the digital sonics), the Lindsays seem unwilling (or unable?) to take the bull by the horns. Their playing, earnest and mostly competent, lacks the motoric precision, the rhythmic bite, the passion and energy we have come to expect in this music. Nor does their cool British civilization really measure up to the rich vein of native lyricism found in the Végh and Hungarian versions. It’s the same thing

Reviewed by:

John Canarina	Nicholas Kenyon
Scott Cantrell	Allan Kozinn
Kenneth Cooper	Paul Henry Lang
R. D. Darrell	Irving Lowens
Peter G. Davis	Karen Monson
Kenneth Furie	Robert P. Morgan
Harris Goldsmith	James R. Oestreich
Matthew Gurewitsch	Conrad L. Osborne
David Hamilton	Andrew Porter
Dale S. Harris	Patrick J. Smith
R. Derrick Henry	Paul A. Snook
Joseph Horowitz	Susan T. Sommer

over and over: The outer movements of No. 4 amble along, and the concluding phrase they share lacks the requisite slashing conclusiveness both times. No. 5’s dynamic, hammering first movement is small-scaled. No. 6’s yearning is distinctly tepid and constrained.

Furthermore, there are signs that, in the effort to corner (momentarily) the digital market, these recordings were hastily processed. For instance, certain extraneous noises—such as the horrendous chair squeak in the third movement of No. 2—were allowed to remain. In music so rich in atmosphere and special effects, such intrusions are intolerably distracting.

Many collectors prize the Juilliard interpretations, virtually identical in the first two sets. (I expect the newest accounts to be somewhat looser and more lyrical.) The group’s approach to No. 5, so taut and fiercely dynamic, has always seemed ideal to me; elsewhere, though, the Juilliard of 1946–66 tended toward brittle acerbity and a certain unyielding formality. Its highly varnished, slightly metallic, and very unannounced sound makes these pieces sound more like Elliot Carter than Bartók. I favor the Végh and Tokyo interpretations. The Végh’s No. 4, brimful of audacious vitality, is just as unique as the Juilliard’s No. 5 (and the New Music Quartet’s No. 3 on an old Bartók Society LP: these three ensembles “own” those works). The Végh elsewhere provides fuel for thought with its clipped, structurally-oriented approach and achieves a kind of pulsating nuance that makes the music speak with a native Hungarian dialect. The Hungarian’s performances, similar to the Végh’s in most ways, provide an excellent medium-price alternative. The Tokyo, on the other hand, excels in finesse and technical virtuosity. It has the most color and flexibility of any of these groups and is wondrously well recorded in the bargain. H.G.

BEETHOVEN: Symphony No. 4, in B flat, Op. 60; Ah, perfido!, Op. 65*

Eva Marton, soprano*: English Chamber Orchestra. Michael Tilson Thomas, cond. [Steven Epstein, prod.] CBS MASTERWORKS IM 37209 (digital recording). Tape: HMT 37209 (cassette). [Price at dealer’s option.]

BEETHOVEN: Symphony No. 5, in C

minor, Op. 67; Egmont Overture, Op. 84.

London Symphony Orchestra, Pierre Monteux, cond. LONDON TREASURY STS 15519, \$5.98.

BEETHOVEN: Symphony No. 7, in A, Op. 92; Egmont Overture, Op. 84.

London Symphony Orchestra, Enrique Bátiz, cond. [Brian B. Culverhouse, prod.] VARESE SARABANDE VCDM 1000.160, \$15 (digital recording).

A little sticker appended to the outer sleeve of the CBS release bills the unfolding Michael Tilson Thomas cycle as the "first recordings of the complete Beethoven symphonies in their chamber orchestra versions." For one thing, these are no special versions; Beethoven wrote for smaller forces than one usually hears today, and about the only difference in instrumentation here is that the woodwinds aren't doubled and the strings quadrupled—or whatever. For another, CBS itself recorded the Nine with Bruno Walter and the Columbia Symphony, an aggregation of virtually "chamber" dimensions. (Neville Marriner also recorded a Fourth, as well as a First and Second, with the Academy of St. Martin-in-the-Fields.)

A small orchestra has advantages and disadvantages in the Beethoven symphonies. One of the gains ought to be greater clarity and crispness, and in that respect, the Thomas Fourth scores over the Walter (Odyssey Y7 30051) and the Marriner (Philips, deleted), both of which use electronic trickery to bloat the sonorities and approximate a larger orchestra. But at least for me, this performance lacks the sense of power-in-reserve that makes the Beethovenian effect potent.

The introduction, though respectfully phrased and well paced, loses its requisite mystery from being too close and loud. Nor does the outburst at the beginning of the Allegro vivace pack the wallop it should. Even with his scrawny forces, Thomas could have projected greater power if his timpani weren't so bloody discrete. And so it goes throughout: The Adagio is jaunty rather than inward, the scherzo—though crisply phrased—ineffectual and small-scaled, the *moto perpetuo* finale volatile in pacing but frivolous in effect. It's not a bad performance, just an innocuous and unstimulating one—emotionally tepid and coloristically neutral.

Ah, *perfidio!*, a much earlier work than its opus number implies (and all the more remarkable for its 1796 vintage), suffers less from the mode of presentation. Eva Marton, a Hungarian soprano, sings securely and artistically. If she lacks some of the grandeur of a Nilsson or Flagstad (not to mention the vehemence—or venom—of Crespin's woman scorned in her Odyssey performance with Schippers, just deleted), the music's pathos comes across admirably. Thomas' phrasing is poised and scrupulous, and the orchestra responds adroitly. The

pressing is fine.

The inexplicably belated release of Pierre Monteux's c. 1961 Fifth completes, at long last, that distinguished maestro's cycle of Beethoven symphonies. This isn't quite the way I remember his Fifth in concert: Here, for example, he waxes rhetorical, taking the motto much slower than the first movement in general. It gives the movement greater breadth than it had in his performances at Tanglewood and Lewisohn Stadium, but at the price of some idiosyncratic dislocation. The three subsequent movements are more traditional, although the finale is distinctly brisk. The playing, aside from a few tentative attacks and

releases, is admirable, and this classically cool and reserved interpretation is welcome, particularly at the price. The *Egmont* (another first in Monteux's discography; would that London had also included the *Leonore* No. 3 it has in the vault) is, if anything, even more compelling: This is a massive reading that rivals the great 1939 Toscanini broadcast once issued on HMV 78s. The recording is almost modern—very impactful and clean, with good woodwind detail.

The Mexican-born Enrique Bátiz shows signs of lyrical sensitivity and coloristic awareness in the Seventh, but his performance lacks what the work most

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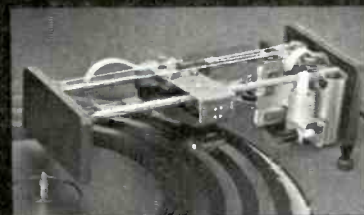
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FLUTE MUSIC OF LES SIX. Boyd, Schmidt, Stolart. SZA 0119, Oct.

HEINRICH STROBEL: Verehrter Meister, lieber Freund. Southwest German Radio. SCHWANN/DG 0629 027/31 (5), Oct.

needs—a firm sense of rhythm. Often the very fast tempos are negated by shapelessness and lack of breathing space. Together with the reverberation of the recorded acoustic, this uncontrolled hurtling ahead gives the disconcerting impression of a rocket broken in half—part zooming into the stratosphere, part remaining on the launching pad. The spineless, unarticulated precipitation combined with oozing legato (the third-movement trio emerges like toothpaste from a tube!) makes the performance sound like a caricature of Karajan's 1961 Berlin reading, unsuccessful enough in itself. The *Egmont*, though somewhat better, is again scrambled by the "spacious" recording. Bätz' undeniable talents are misplaced in this demanding and familiar music.

H.G.

BERNSTEIN: *Dybbuk: Suites Nos. 1**, 2.

Paul Sperry, tenor*; Bruce Fifer, bass-baritone*: New York Philharmonic. Leonard Bernstein, cond. [John McClure, prod.] DEUTSCHE GRAMMOPHON 2531 348, \$10.98.

BERNSTEIN: *Halil*. **Mass: Three Meditations*. † *On the Waterfront: Symphonic Suite*.

Jean-Pierre Rampal, flute*; Mstislav Rostropovich, cello†; Israel Philharmonic Orchestra. Leonard Bernstein, cond. [Hanno Rinke, prod.] DEUTSCHE GRAMMOPHON 2532 051, \$12.98 (digital recording). Tape: 3302 051, \$12.98 (casette).

Premiered in 1974, the ballet *Dybbuk* is one of several collaborations between Leonard Bernstein and choreographer Jerome Robbins—their first since the tremendously successful *West Side Story*, of 1957. Bernstein's Columbia recording of the complete score with the New York City Ballet Orchestra is no longer available. Here we have essentially the same music rearranged into two suites for concert purposes. Bernstein and the New York Philharmonic per-

formed the suites in the spring of 1975 and presumably recorded them then; one wonders why it has taken seven years for this disc to see light of day.

In Jewish folklore a dybbuk is the disembodied spirit of a dead person that seeks to enter the body of a living being. The ballet is based on a play of the same name by Shlomo Ansky (1863–1920), involving love, death, and exorcism. Bernstein has called it a story of "Good and Evil, Ends and Means, Male and Female, Justice and Necessity, Self and Society, . . . and especially the duality of the so-called True World as opposed to *this* world in which we seem to reside."

In composing *Dybbuk*, Bernstein took his inspiration from the kabbalah, the Jewish mystical system of numerology. Every note was chosen through cabalistic or mystical manipulation of numbers. One might expect the result to sound contrived, but no—*Dybbuk* is one of Bernstein's most striking and powerful scores, and it's difficult to imagine how a single note might be changed. As befits the subject, it's also one of his starkest and grimmest works, unrelieved by any suggestion of the wonderful Bernstein lightheartedness.

The first suite, lasting slightly more than half an hour, is the more dramatic and successful entity, dealing with what the composer calls the "poetry of earth," a term by which he affirms his belief in tonality. More ephemeral is the much shorter second, the "poetry of air," which avoids key centers and employs scales of eight notes rather than the conventional seven or twelve.

This authoritative performance cannot be faulted in any way. Surely Bernstein knows how his music should go, and he elicits brilliant and committed playing from the Philharmonic, as well as vigorous and expressive singing from Paul Sperry and Bruce Fifer, who intone the Hebrew texts

interspersed throughout the first suite.

The Philharmonic, in its sole appearance on DG, receives sound superior to what CBS usually gives it—clearer, more natural, less reverberant—even though the producer is the same as for most of Bernstein's old Columbia recordings. Different microphones, perhaps?

Halil is the Hebrew word for "flute," and Bernstein's 1981 score was written in memory of a nineteen-year-old Israeli flutist killed in the 1973 war. "I never knew Yadin Tanenbaum," writes the composer, "but I know his spirit." The subtitle *Nocturne for Solo Flute, String Orchestra, and Percussion* is not meant to evoke the music of Chopin and others. Rather, this work inhabits the eerie night world of Bartók. Again in Bernstein's words: "It is a kind of night-music which, from its opening twelve-tone row to its ambiguously diatonic final cadence, is an ongoing conflict of nocturnal images: wish-dreams, nightmares, repose, sleeplessness, night-terrors—and sleep itself, *Death's twin brother* . . ."

As with much of Bernstein's work, tonal and nontonal elements struggle and compete with each other, but the composer has the talent and, yes, the mastery to combine them in a totally convincing musical statement. This is particularly true of *Halil*; like *Chichester Psalms*, it contains one of those achingly beautiful melodies only Bernstein can write.

Jean-Pierre Rampal, who gave the premiere, is the soloist, and there's no faulting his performance either. Let's hope other flutists (and conductors) take up this eloquent and dramatic work. (The designation "string orchestra and percussion" is not entirely accurate, as there are moments when the solo flute is joined by alto flute and piccolo, whose players, in concert, are meant to be unseen by the audience.)

The "Three Meditations" from *Mass* are somewhat in the same vein—contem-



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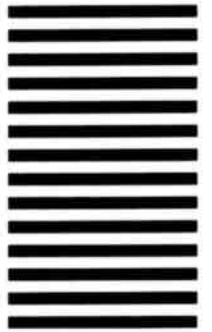
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plative, with an eerie and disturbed nocturnal atmosphere. Yet Bernstein is not one of those composers who seem continually to be writing the same piece. The solo cello part, while lyrical, is less overtly so than *Halil's* flute part. In fact it is mostly quite subdued, accompanied by frequent percussive outbursts, with a number of quiet, skittering cadenzalike passages in the third section, in which a brief but lively Israeli-type dance provides the only unmeditative moments and throws the surrounding music into stark relief. The work's general mood is one of restless, troubled searching, and even the peaceful conclusion does not imply that an answer has been found. Like its parent work, this is one of Bernstein's most provocative compositions.

Mstislav Rostropovich, long a champion of twentieth-century literature for his instrument, succeeds in harnessing his normally ebullient personality to convey beautifully the score's basically introverted spirit.

The suite from *On the Waterfront* has been familiar for many years through Bernstein's previous recording with the New York Philharmonic (CBS MS 6251). The percussion fugue is one of his most exciting creations, the love music one of his most eloquent—an adjective to which one must return again and again in describing his music. And if the majestic coda owes something to *Billy the Kid*, the composer would probably be the first to acknowledge the debt (and no doubt has).

Under Bernstein's authoritative leadership, the Israel Philharmonic plays beautifully throughout its disc, though it must cede pride of place to its New York colleagues when it comes to the rhythmic vitality of *On the Waterfront*. Recording and surfaces are first-class.

The disc's liner notes refer to "Arnold Schoenberg's demand that everything of supreme value in art must show 'heart' as well as 'brain'" —something that can rarely be said about Schoenberg's own work. I submit that Bernstein's music, by virtue of its ability to touch the heart, will be around much longer than that of many of his more cerebral contemporaries. J.C.

BRAHMS: Sextets for Strings: No. 1, in B flat, Op. 18; No. 2, in G, Op. 36.

Cleveland Quartet; Pinchas Zukerman, viola; Bernard Greenhouse, cello. [Jay David Saks, prod.] RCA RED SEAL ARL 2-4054, \$19.98 (two discs, manual sequence). Tape: ARK 2-4054, \$19.98 (two cassettes).

BRAHMS: Sextet for Strings, No. 1.

Les Musiciens. HARMONIA MUNDI FRANCE HM 1073, \$11.98 (distributed by Harmonia Mundi U.S.A., 2351 Westwood Blvd., Los Angeles, Calif. 90064).

Apart from the youthful *F-A-E* Scherzo and the posthumously rediscovered A major Piano Trio, the string sextets are Brahms's earliest surviving chamber works. (The B major Trio, of course, is virtually always

given in the drastically revised 1889 version rather than in its 1854 original.) For all that, an autumnal quality, akin to that of the much later string quintets, pervades these handsomely wrought works.

Both of the sextets are "big" pieces, and the combination of large-scale structure and expanded string scoring (in relation to the quartet "norm") carries the temptation to go all out for a billowing "string orchestra" effect in performance. At the same time, however, Brahms was a master orchestrator and an inherent classicist, and a re-creative viewpoint that lays stress on the tightly coiled rhythmic foundation, the precision and luminosity of balance and

The touch of self-indulgence is typical of modern American chamber playing.

sonority, the subtle implications of all the expressive, agogic, and dynamic indications (not to mention the consummately gauged tempo modifications)—in other words, a *specific* rather than a generalized approach—produces even greater dividends.

The Cleveland Quartet recorded the sextets several years ago, just prior to the departure of its original violist, Martha Strongin Katz (whose position is now occupied by Atar Arad). Comparing these performances to the Cleveland's debut recording, the Brahms string quartets (RCA VCS 7102), one is pleased to note the ensemble's maturing of style and greater technical address. Whereas the quartet performances lacked clarity and pulse, here the rhythmic outlines are clear, and tempo changes are geared in such a way that the total effect is firm and cumulative. The performances are steady, sober, and mostly well considered.

A touch of self-indulgence remains, however, in the players' almost reflexive response to such directives as *espressivo*, *tranquillo*, and *animato*. As in so much of the modern American, Marlboro-derived chamber playing one hears today, *espressivo* means turning on the vibrato switch, souping up the phrasing in a simpering way; *tranquillo* and *animato* mean slowing down or speeding up the tempo rather than merely modifying mood within the basic pulse. And the Cleveland-plus-friends' collective sonority continues to bother me. The violins tend to squeal in the high register, and their vibratos tend to beat against one another in octave playing; the dark cellos and violas provide a drab, "down in the

dumps" opacity instead of the requisite firm backbone that would come from a more compact, incisive articulation. Still, there are moments that come off handsomely, particularly in the G major: The *Presto giocoso* middle section of the Scherzo is particularly well realized in the Clevelanders' rustic, bouncy, bucolic reading.

But I find greater elevation in the French players' version of Op. 18. Their performance is Apollonian in the best sense of that word, with a lustrous, suave ensemble texture that allows every figuration in the printed score to tell. At first, the restraint and leisurely tempos appear a bit unforthcoming, yet before long, the easy pulsation and keen attention to balance, accentuation, and articulation (as well as color) propel the music along "on wings of song." Following the score, one is impressed by a seeming absence of "interpretation," but in fact, the combination of supreme technical competence and re-creative imagination selflessly put at the service of the text represents interpretive artistry at its highest. In its more elegant way, this account is fully the equal of the wonderful old 1952 Prades Festival recording by Stern, Schneider, Katims, Thomas, Casals, and Foley (CBS M5X 32768).

The first-movement exposition repeats are observed in both recordings. The French Harmonia Mundi sound is beautifully balanced, with greater brightness in the violins and more definition below than in the Cleveland edition. Both labels offer excellent processing. H.G.

HANDEL: Messiah—See page 59.

MAHLER: Das Lied von der Erde.

Jessye Norman, soprano; Jon Vickers, tenor; London Symphony Orchestra, Colin Davis, cond. PHILIPS 6514 112, \$12.98 (digital recording). Tape: 7337 112, \$12.98 (cassette).

COMPARISONS:

Ludwig, Wunderlich, Klemperer Ang. SB 3704
 Chookasian, Lewis, Ormandy CBS D3S 774
 Forrester, Lewis, Reiner RCA (OP—see text)
 F.-Dieskau, King, Bernstein Lon. OS 26005
 Ludwig, Kollo, Karajan DG 2707 082
 Miller, Häfliger, Walter Olys. Y 30043

This is an immediately striking performance that has grown more appealing with acquaintance. Both soloists are interestingly chosen, and Davis brings off most of his series of audacious choices, thanks in large part to the committed orchestral playing.

The London Symphony may not display the distinctive tone qualities of Klemperer's Philharmonia (Angel) or Ormandy's Philadelphia (CBS), my favorites in this music, or of the Chicago Symphony under Reiner (last in print here as Victrola VICS 1390, but recently available in a French RCA edition), the Vienna Philharmonic under Bernstein (London) and Wal-

ter (his 1936 and 1952 recordings—respectively, Seraphim 60191 and London Treasury, deleted), the Concertgebouw under Haitink (Philips 6500 831), the Berlin Philharmonic under Karajan (DG), or perhaps even the New York Philharmonic under Walter in 1960 (Odyssey). But the winds in particular play with a sense of purpose that enables Davis to scoot through the opening “*Trinklied vom Jammer der Erde*” in a breathless seven-and-a-half minutes and to stretch the culminating “*Der Abschied*” to very nearly thirty-five.

The “*Abschied*” is obviously the most immediately arresting feature of the performance (the first I’ve heard in which “*Der Abschied*” actually runs longer than the first five movements combined), lasting almost three minutes longer than the previous slowest on records, Solti’s (London OS 26292). What’s noteworthy is that Solti’s “*Farewell*” sounds long, almost endless in fact, breaking down into a series of fits and starts and sorely taxing the soloist, Yvonne Minton, who should be able to make something special of this music.

Davis’ “*Farewell*” doesn’t sound so much long as *full*. He has the advantage of a bigger-voiced and longer-breathed soloist, who can more easily fill these wide open spaces, but it’s at least as important that he and his players have found the imaginative wellspring of all those little instrumental motifs out of which the movement is built. Note for example the figure associated with the clarinets and horns, heard for the first time in its full form—with clarinet trills—just before the alto’s soaring “*O sieh! wie eine Silberbarke*.” Once you have found this kind of inner life for the music, it’s possible for the performance to begin evolving organically, at almost any pace. The momentum will come from the progress of this inner life rather than depending on a particular choice of tempo.

For the same reason, Davis’ “*Trinklied*,” although undeniably heady, doesn’t sound rushed: Quick as the pace may be, the component elements have been allowed their full imaginative value. Of course it helps that after the giddy opening orchestral outburst Davis can deploy Jon Vickers’ voluminous upper midrange (“*Schon winkt der Wein*” is set on middle C, D, E, and F) to sound the invitation to this singular drinking song. Even allowing for Vickers’ idiosyncratic vowel preferences—by which “*winkt*,” for example, comes out “*veenkt*”—this is a pretty overwhelming sound. And a bit later, on “*klingen*,” Vickers is even able to muster a ringing B flat and sustained high A.

Davis’ *Das Lied* is a performance of extremes in the inner movements as well. Only the fourth and fifth movements, the alto’s “*Von der Schönheit*” and the tenor’s “*Der Trunkene im Frühling*,” are taken at what we might call a “normal” pace, and even the former falls at the slow end of the

band. For the rest, the first alto song, “*Der Einsame im Herbst*,” ranks with the slowest on record; the already brief second tenor song, “*Von der Jugend*,” with the fastest.

About these choices I’m not entirely sure. “*Der Einsame im Herbst*” strikes me as the trickiest song in the symphony, with its predominantly reflective quality and spare orchestral textures all too often reducing to an anticlimax after the rousing “*Trinklied*,” and with no particular preparation for the glowing and somewhat surprising climax at “*Sonne der Liebe, willst du nie mehr scheinen*” (“Sun of love, will you never again shine”)—surprising in that this sudden outpouring of warmth is osten-

In the writing’s lower reaches, Norman puts out more sound than many a mezzo has.

sibly expressing the speaker’s doubt that the sun will reappear to dry her bitter tears.

In this case, I don’t think Davis has quite found where the music has come from, and the movement doesn’t really catch fire until the very end: not even at the “*Sonne*” climax itself, but on the word “*Liebe*,” where the singer has suddenly leapt from the E flat of the break (“*der*”) to the E flat an octave higher. Here we are in plausible soprano country, and Jessye Norman comes into her own with a luscious crescendo as that word “*Liebe*” drops from and then climbs back toward the E flat, and with a thrilling climax on the F of “*nie*.”

This is not to say that Norman doesn’t encompass the writing’s lower reaches, where she in fact puts out more sound than many of the mezzos who have recorded *Das Lied*. But this isn’t where her voice’s center of gravity lies, where she can make some sort of special vocal impact. The best examples of such impact are Christa Ludwig’s vocally rock-solid first recording (with Klemperer) and the work of the for-real contraltos, Maureen Forrester (with Reiner) and Lili Chookasian (first with Ormandy, later with Susskind and the Cincinnati Symphony, Candide QCE 31117). At the same time, Norman offers satisfactions of her own up where a contralto is straining at the top of her range—for example, in the galloping description of the young men on horseback (“*O sieh, was tummeln sich für schöne Knaben dort . . .*”) in “*Von der Schönheit*.”

For “*Von der Jugend*,” Davis has paired two choices that I would have thought, and may still think, incompatible. Other conductors have taken relatively

quick tempos (if not *this* quick), but they have generally had their soloists lightly trace the song’s conscious *chinoiserie*. Such lightweight tenors as Ernst Häfliger (with Walter in 1960), Murray Dickie (with Kletzki, Seraphim S 60260), and Richard Lewis (with Reiner and Ormandy) have achieved lovely results in such performances.

Davis, however, has Vickers singing not only at full throttle but at full blast, producing a parody effect that for me blunts the special perception of the song, in which the enviability of those idyllic youths in their porcelain pavilion evaporates by the simple perceptual shift of suddenly seeing them reflected, upside down, on the surface of the pond. This, the symphony’s shortest song, seems to me next to “*Der Abschied*” possibly the most remarkable. There are wonderfully suggestive performances in both Klemperer recordings, first with Anton Dermota (Turnabout THS 65089) and then with Fritz Wunderlich (Angel). The latter performance, nearly twice as long as the new one, is a revelation for the beauties of Wunderlich’s singing and the ravishing orchestral playing.

“*Von der Jugend*” is, incidentally, the only movement in which Klemperer takes a tempo that could be called slow. The glory of this performance—and I am more and more astonished by it on each hearing—is the thoroughness of its investigation of the music coupled with the stunning work of Ludwig, Wunderlich, and the orchestra. To my taste, none of the songs has been performed better elsewhere on records.

This doesn’t mean that there aren’t many other interesting performances. The spontaneous-sounding and orchestrally vibrant Ormandy, now available only in a box with his complete Tenth Symphony, is infectiously upbeat. The somewhat more reserved (and more distantly recorded) Reiner has, in addition to the vocal and orchestral virtues already noted, a special sense of balance and proportion not at all incompatible with real involvement and life. The boldly played and recorded Bernstein/London recording has a good, strong tenor in James King and the interest of Mahler’s baritone option for the alto songs, though Fischer-Dieskau came closer to meeting the music’s demands in the earlier recording with Kletzki and Dickie (see above).

The Karajan recording is quite different in spirit from the others, valuing the bleakness of the emotional state of Mahler’s observers over the unquenchable optimism that keeps shining through (cf. “*Sonne der Liebe . . .*”). It’s all most impressively executed, with the Berlin Philharmonic in excellent health, with Ludwig still able to manipulate the music to reasonably good effect, and with René Kollo a solid tenor of a piercing sort, as he is in the Solti and Bernstein/Israel recordings. If this is the one *Das Lied* recording that consistently

depresses rather than cheers me, it does keep me coming back.

Also different from the other recordings, but in a different way, is the Walter/Philharmonic version, whose autumnal glow pays real dividends in the problematic "Der Einsame im Herbst." Mildred Miller sings her music more appealingly than most of her more famous recorded rivals, and Häfliger gives much the most impressive of his three recorded accounts, sounding almost heroic in the "Trinklied." At Odysseus price, this is an attractive buy, but then, the budget collector has quite a choice: the dusky Susskind account with Chookasian and Richard Cassilly (Candide), the above-mentioned Fischer-Dieskau/Dickie/Kletzki recording on Seraphim, Hans Rosbaud's beautifully detailed and tolerably sung account on Turnabout (TV-S 34220), and the intense 1936 Walter performance on Seraphim.

In fact, after several months of living with nineteen recordings of *Das Lied*, I'm most struck by their overall quality; the score tends to coax the best out of its performers. And its recording crews. Sonically speaking, the new version is most impressive—broad in span, rich in detail, warm and full in tone. Davis' performance may not displace the Klemperer and Ormandy and perhaps Reiner recordings in my affections, but it seems to have joined the other listed comparisons in my current select

group of favorites.

K.F.

MONTEVERDI: Combattimento di Tancredi e Clorinda*; **Lamento d'Arianna†**; **Lamento d'Olimpia‡**. **FARINA: La Desperata.**

Patrizia Kwella, soprano*; Carolyn Watkinson, alto†; Nigel Rogers, tenor*; David Thomas, bass*; Cologne Musica Antiqua, Reinhard Goebel, dir. [Andreas Holschneider and Gerd Ploesch, prod.] ARCHIV 2533 460, \$10.98.

COMPARISONS—Combattimento:

Van Egmond, Leonhardt Tel. (OP)
Alva, Leppard Phi. 6768 175
Malaguti, Lochrer None. H 71090

In *Combattimento di Tancredi e Clorinda*, Monteverdi consciously broke new stylistic ground, experimenting with unusual rhythmic devices in an attempt to mold text and music into a dramatic unity. As he explained in the introduction to his Eighth Book of Madrigals (published in 1638, it included *Combattimento*, first performed some fourteen years earlier), music ought to be able to express agitated as well as moderate emotions; yet (to his taste) his colleagues and predecessors had succeeded in conveying only the latter.

On the authority of the ancient philosophers, Monteverdi determined that "the quick pyrrhic meter was used for all warlike and powerfully excited dances, and that the slow spondaic meter was used for the opposite"; he concluded that "a semibreve

sounded once was the equivalent of one spondaic beat," but "divided into sixteen semiquavers, rapidly sounded one after the other in connection with a text dealing with wrath and indignation, it would produce something very near to what I have been trying to find."

Torquato Tasso's poetic account of Tancred and Clorinda's tragic battle struck him as an ideal proving ground for this theory, "for here were war, entreaties, and even death to be interpreted in music." Of course Monteverdi's assertions make perfect sense, and *Combattimento* stands today as a masterpiece of representative scoring. Strangely, it was not unanimously proclaimed as such in its time: In fact, at the first performance (by Monteverdi's own account) the musicians found the notion of producing dramatic effect through rapidly repeated notes absurd, and refused to play it his way—thereby ruining the intended effect and prompting the composer to insist, at the time of publication, that the instrumental parts "must be played in the form and manner written."

Eventually, elements of the *concitato* style Monteverdi advocated became standard usages in descriptive compositional language; and these days, performers follow his directions, more or less. Yet historical distance has created different interpretive problems. Each of the handful of available recordings has its own way with the

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ALEXANDRA ROOSEVELT

Joshua Rifkin leading his "chorus" and orchestra in the recording of the Mass

Rifkin's Bach: A Mass of Evidence

Reviewed by Kenneth Cooper

IT IS IN THE NATURE of a collector to select a single idea and exploit it to its fullest capability. Whether stamps or rare books, depression glass or ten-inch records, chorale preludes or concerti grossi, the discriminating collector never loses track of his central theme and never worries about the source of a new addition or its method of acquisition. A man who has assembled an *Orgelbüchlein*, a *Well-Tempered Clavier*, a *Clavierübung* with a *Goldberg Variations*, a *Musical Offering*, an *Art of Fugue*, and numerous other smaller but equally comprehensive collections is a passionate collector. Such was Bach, and he was not alone. The eighteenth century had a mania for collecting, anthologizing, encyclopedizing everything in sight. The burst of enthusiasm about man's capacity for knowledge should be no surprise to those familiar with the term "enlightenment."

One does not have to look to Bach's "inner needs" to find reasons for the origins of his collections, of which the so-called Mass in B minor is one. In his own words, these works were gathered together to "give Instruction in Developing a Chorale in many Divers ways, and at the same time to Acquire Facility in the Study of the Pedal" (1717); to "Praise the Almighty's Will and for my Neighbor's Greater Skill" (1717); "for the Use and Profit of Musical Youth Desirous of Learning as well as for the Pastime of those Already Skilled in this Study" (1722); "to learn how to play cleanly in two voices . . . and in three obligato parts . . . to get good ideas of one's own, and to develop them well; mostly, however, to achieve a singing style of playing . . ." (1723); and "for Music Lov-

ers to Refresh their Spirits" (1726). It is hard, in fact, to imagine Bach attempting to restrict the use of these collections, having seen many of them through the press.

What were Bach's own plans for the Mass? We know what he did with it before it was assembled: He applied the various movements piecemeal to his circumstances, employing a wide variety of appropriate texts and instrumentations. In addition, he could well have had the entire work performed on feast days in either Catholic or certain Lutheran churches. It is therefore not difficult to accept among the many performance possibilities either Bach's clearly stated choral preferences at the *Thomaschule* (as defended by Robert Marshall [HF, October 1982]) or a chamber version in which all the choruses are sung by soloists alone, as may or may not have occurred at Dresden. Joshua Rifkin's key argument [HF, September, December 1982] that the *tutti* are not indicated and thus the ripienists could not have known when to sing can be simply answered: Singers tend to know which pieces they have rehearsed and which not.

If one listens to this recording *before* reading Rifkin's encyclopedic liner notes, one is likely to experience—what is the opposite of a rude awakening?—a polite soporific. To perform the B minor Mass à la Dresden demands recognition of Dresden's two chief prides, and perhaps its two main attractions for Bach, its virtuoso orchestra and its Italian singers. To ignore these and deliver Bach in a style invented in the twentieth century but best suited to the English Renaissance, makes a mockery of any efforts at establishing an authentic context

for the work. A lack of dynamic inflection in the lines and lack of rhetoric in the text do not clarify, but only muddy our understanding of the phraseology and texture. Nor would Dresden have been satisfied. Quantz, there, "soon perceived that merely hitting the notes as the composer wrote them was still far from the greatest excellence of an artist." The chamber-style performance, however, allows us many beautiful moments and lends insight to many passages, especially the big fugues.

The vocal soloists here sing quite accurately and fairly well in tune. The tempos are fast and buoyant, with a relentless, subliminal beat on every eighth-note, not unlike a click-track. The best performances occur on the fourth side, the most expressive of which is countertenor Jeffrey Dooley's *Agnus Dei*. The wind players are lovely and unassertive, not suggesting the Dresden band of egos; one remembers especially the captivating Lombards of the flute (Christopher Krueger) in the "*Domine Deus*." The strings, renouncing vibrato and needing more rehearsal, are the victims of another historical blunder. There are two first-violin parts extant. Does that imply that only two violins are to be used? Rifkin says yes. I say that when two violins play in unison, they are often out of tune, a condition Bach must have tried to rectify, where possible. Without musical judgment, we could get into worse trouble, I suppose: Frederick the Great had difficulty counting; do we want to hear what the original reading of the *Musical Offering* sounded like?

My brief criticism has centered on musicological matters, because it is to them that Rifkin, despite his disclaimer, has given primary, though not always enlightened, consideration. My disagreement on various points should be no reason not to praise Rifkin and his colleagues for going out on a limb for something they believe in and Nonesuch for the courage and imagination to avoid the beaten path. The Bach cantatas can yet be regarded as some of the world's greatest chamber music. The present recording is a definite curiosity not lacking a certain philosophical interest for our time. The relationship between light-headed music and heavy-handed musicology is a striking reversal of the attitudes of a few decades ago. The performance, according to my friend John McCullough, "will fall of its own lack of weight."

HF

BACH: Mass in B minor, S. 232.

Judith Nelson and Julianne Baird, sopranos; Jeffrey Dooley and Drew Minter, countertenors; Frank Hoffmeister and Edmund Brownless, tenors; Jan Opalach and Andrew Walker Schultze, basses; Bach Ensemble, Joshua Rifkin, cond. [Marc J. Aubort and Joanna Nickrenz, prod.] NONESUCH DB 79036. \$23.96 (digital recording; two discs, manual sequence). Tape: D2 79036, \$23.96 (two cassettes).

work, but so far as authenticity goes, the new Cologne Musica Antiqua recording surpasses the competition on several counts.

Among its attractions, on the most basic level, is the group's by now easily identifiable sonic personality—a sound that combines astringency, brilliance, and a vivid sense of coloristic possibilities. More than Leonhardt and even the normally over-editorial Leppard, Reinhard Goebel gets to the work's pictorial roots, not only with instrumental effects (including, in some of the battle sections, a percussive string and harpsichord sound), but through textural clarity and a regulation of tension by means of tempo variation.

The work is a dramatic scene, to be acted out by the two armored combatants and described by a narrator. Tancred's and Clorinda's relatively few lines are (with the exception of Clorinda's last scene) often underplayed. Here, David Thomas portrays the most belligerent Tancred on disc, and if Patrizia Kwella does little that is either unusual or particularly striking, hers is certainly a respectable Clorinda. But the lion's share of the vocal work falls to the narrator, and here again, the new disc eclipses the others. Nigel Rogers (who sang Tancred on Leonhardt's recording) is lavish and almost athletic with his embellishment of the narrative's slow, grave sections, and remarkably fleet in the tongue-twisting "*L'onta irrita lo sdegno a la vendetta*" verse. Of the alternatives, Max van Egmond also embellishes tastefully, though not so profusely; Laerte Malaguti embellishes little and often seems on the brink of a Gigli sob; and Luigi Alva avoids thoughtful ornamentation in favor of a thickly larded modern (or rather, Leppard-style baroque) vibrato.

The vocal styles of the competing versions, in fact, are analogous to the instrumental performances that back them. Leonhardt's, naturally, approaches the ideal established by the new Archiv disc but—more understated—lacks its tension, particularly at the end. Loehrer's has a rich, modern chamber-orchestra sound that is, nevertheless, deployed effectively; despite its modernity and my reservations about its narrator, I still find this an appealing performance, particularly at budget price. Leppard's is pretty much what one has come to expect from him, with lush, often dominant strings—full of character but somewhat anachronistic.

Musica Antiqua also offers the best coupling, although again, none of the choices is bad. Leppard presents complete the Madrigals, Book VIII, in a three-disc set; Loehrer includes selections from that book; and Leonhardt fills out his disc with madrigals from Books VII and VIII and the *Lamento della ninfa*. Goebel offers another of the better-known and more trend-setting works, the *Lamento d'Arianna* from the lost opera of 1608. The version for solo voice, though less frequently heard than the later

madrigal setting, is in many ways more expressive and touching—particularly so in this magnificent rendering by Carolyn Watkinson, a young but mature-sounding alto. She is equally affecting in the *Lamento d'Olimpia*, which closes the disc.

The two laments are separated by, appropriately enough, *La Desperata*, a violin sonata by Monteverdi's contemporary Carlo Farina, a precursor of the school of Italian violin virtuoso-composers (although this, like all of his published works, dates from his years as Konzertmeister at the Dresden court). Brief and attractive, if not terribly consequential, it serves the dual purpose of separating the vocal works and providing a vehicle for Goebel's zephyrlike violin playing. A.K.

The Musica Antiqua's attractive sonic personality is by now easily identifiable.

MOZART: Overtures (8).

Slovak Philharmonic Orchestra. Zdeněk Košler, cond. [Eduard Herzog and Milan Slavický, prod.] MUSICAL HERITAGE SOCIETY MHS 4575, \$7.75 (\$4.95 to members). Tape: MHC 6575, \$7.75 (\$4.95 to members). (Add \$4.60 for shipping; Musical Heritage Society, 14 Park Rd., Tinton Falls, N.J. 07724.)

Idomeneo, K. 366; Die Entführung aus dem Serail, K. 384; Der Schauspieldirektor, K. 486; Le Nozze di Figaro, K. 492; Don Giovanni, K. 527; Così fan tutte, K. 588; Die Zauberflöte, K. 620; La Clemenza di Tito, K. 621.

COMPARISONS:

Haitink/London Phil.	Phi. 9500 882
Marriner/St. Martin's Acad.	Ang. DS 37879
Davis/Royal Phil.	Sera. S 60037

This 1978 recording from the Czechoslovak Opus label is another plausible entry in the Mozart-overture field that I surveyed in November. Unlike the recent-vintage Haitink and Marriner discs, which included the long and rather tedious *Lucio Silla* Overture, and the long-familiar Colin Davis disc, which included the brief but charming *Finta giardiniera*, this one offers only eight overtures, but they're the eight essential ones, and they're sensibly thought-out and tidily played. (For more exotic repertory, don't forget the scrappy but well-intentioned Faerber/Turnabout collection, QTV-S 34628.)

While it's true that Košler's performances, like Haitink's similarly foursquare though more elegantly phrased and played ones, won't often surprise you, surprises aren't always a good thing. Is the pushiness of Marriner's performances an unalloyed treat? On the other hand, Marriner's *Idomeneo* and *Clemenza di Tito* remain uncom-

monly bracing, and then there's his unexpected *Così*—not pushed at all, and really quite ravishing. There's something to be said for surprises after all.

The Slovak Philharmonic's string tone as recorded here tends to thickness, but the woodwinds sound as warm and natural as those of Haitink's London Philharmonic, giving the MHS disc a certain sonic advantage over the rather gritty Seraphim. The advantage is hardly decisive, though, and Davis' performances remain fresh and attractive. K.F.

REICH: Tehillim.

Steve Reich and Musicians, George Manahan, cond. [Manfred Eicher, prod.] ECM 1-1215, \$9.98. Tape: M5E 1215, \$9.98 (cassette).

Tehillim, a setting of verses from four Psalms, shows Steve Reich embarking on a new and welcome course without sacrificing his familiar sound and style. Scored for four women's voices, strings, winds, electric organs, and percussion and sung in Hebrew (the title is Hebrew for "psalms," or more literally, "praises"), *Tehillim* brings Reich to terms with several compositional elements he has pointedly avoided in the past—chiefly, long melodic lines, replacing the repeated cells from which his earlier music grew, and tight manipulation of vocal and instrumental textures and harmonic movement.

Actually, he gave hints of this in his last major outing, *Music for a Large Ensemble* (1978; ECM 1-1168), and in some subsequent smaller works, in which instrumental groups would enter and exit more abruptly than usual (for Reich) and motivic changes were sharper than in his earlier, more smoothly flowing works. But the task of setting a text has clearly pushed the composer on to this next phase. Here the structures within each setting are clear rather than amorphous; and if the music proves entrancing, the trance is uplifting rather than soporific.

The piece has a nice cyclical feel. The first text (Psalm 19:2-5) moves through six settings based on an attractive, rhythmically angular tune heard first as a vocal solo, then in a two-voice canon. String and wind harmonies enter, giving way by the fifth section to four voices and maracas, with organs doubling the voice parts. Finally, this mass is pared back to the original solo melody, over percussion. The percussion continues beyond the melody, forming a bridge to the second text setting (34:13-15). This time, the two- and three-part vocal lines are presented homophonically, doubled at various times by different instrumental sections. (Percussion is the sole constant throughout the piece—but the kinds of percussive instruments vary.) After an interlude for organ and percussion, Reich brings his singers back for an embellished *da capo*, with sections of the melody elongated.

The third setting (18:26–27), the sole slow movement, again deploys the voices contrapuntally (but not canonically), over a pedal provided by marimba and vibraphone. The percussionists gradually quicken the pace, signalling the final setting (15:04–6)—almost a good, old-fashioned recapitulation—which reprises themes and techniques heard earlier and leads up to a glorious, full-ensemble coda on “Hallelujah” (in D major, no less!).

Certain Reichian thumbprints shine through this all: The quick canonic setting of the first text over distinctly Reichian rhythmic figures recalls the tape manipulations of *Come Out*, although the textures here are obviously more sophisticated. And while the vocal lines (and their repetitions) are now full-fledged melodies, the percussion parts and some of the sustained harmony lines in the winds and strings are cut of the same cloth Reich used for *Music for a Large Ensemble* and other works. As always, he maintains the feeling of continuity that joins each of his scores to its predecessors. But this work represents a quantum leap. For one who admired Reich’s music of the late ‘60s and early ‘70s but found his more recent work a bit tiresome, it’s refreshing to discover that he has at last changed—or rather, found—his tune. A.K.

SCHUBERT: Symphonies: No. 3, in D, D. 200; No. 5, in B flat, D. 485.

Academy of St. Martin-in-the-Fields, Neville Marriner, cond. PHILIPS 6514 149, \$12.98 (digital recording). Tape: 7337 149, \$12.98 (cassette).

SCHUBERT: Symphony No. 9, in C, D. 944.

Dresden State Orchestra, Karl Böhm, cond. DEUTSCHE GRAMMOPHON 2531 352, \$10.98. Tape: 3301 352, \$10.98 (cassette). [Recorded in performance, January 12, 1979.]

Marriner’s approach to the two early symphonies is trim and appropriate, with fastish tempos and smartly sprung rhythms. The Third is especially attractive here, with an alert, no-nonsense kind of vigor and tempos that—while driving and animated—avoid the eccentric relationships and dogmatic point-making that characterized both Carlos Kleiber’s reading (DG 2531 124) and his father’s. Without turning it into a “big” composition as Karajan (successfully) did (Angel SZ 37754) Marriner nevertheless manages, like Karajan, to find the seeds of the “Great” C major’s finale in the last movement.

If the Fifth is less successful, it is simply because of its sound, a bit bass-heavy, overblown, and deficient in detail. The winds and strings produce a blunted, general heft, but neither the violins (early in the work) nor the flute (when it takes a singing solo line, as in the slow movement) can cut through clearly. The orchestral playing here, while tasteful and civilized, is a mite genteel and lethargic.

Returning to Toscanini’s old 1953

recording of the Fifth (alas no longer available), one is immediately struck by the clarity and balance, old sound or no, and by the refreshing lack of those “feminine” phrase endings that constitute Marriner’s only eccentricity. Also noteworthy are Toscanini’s success in infusing a molten, passionate energy (e.g., in the Minuet) without in the least overloading the context and restraint of the writing, and the way his phrasing breathes and expands (albeit subtly) even in the context of a severe classicism. Basically, his is a more purposeful view of the music. Fully aware that some readers tire of my unceasing advocacy of Toscanini, I can only continue to hold up this sort of honest, inspired music-making

Böhm’s Dresden Ninth will surprise those who know his ‘60s Berlin version.

as a pristine example.

Karl Böhm’s Dresden account of the “Great” C major, taped by VEB Deutsche Schallplatten in concert, will surprise those who know his mid-‘60s Berlin Philharmonic version (DG 138 877). Maybe the leaner, more acute sound is a factor, but there is much more litheness and *chiaroscuro* here, a more spontaneous characterization of phrases, and more impulsiveness in the manipulation of tempo. Some of the hauling-about is of the sort one associates with Furtwängler, but with a firmer, brighter, less spongy type of sonority. Once or twice, the sudden “inspiration” produces near-anarchy (as at the approach to the first-movement recapitulation and at the end of the finale), and the Scherzo, for all its songfulness, is a bit stodgy and ungalvanic. Yet surprisingly, I found myself quite often enchanted by a heart and freedom I hadn’t known in Böhm, usually the model of a modern *Kapellmeister*. In short, an affecting memento, and one that definitely augments our view of a masterpiece. H.G.

TCHAIKOVSKY: Concerto for Piano and Orchestra, No. 2, in G, Op. 44.

Shura Cherkassky, piano; Cincinnati Symphony Orchestra, Walter Susskind, cond. [Marc J. Aubort and Joanna Nickrenz, prod.] VOX CUM LAUDE VCL 9011, \$8.98. Tape: VCS 9011, \$8.98 (cassette).

Richard Freed’s excellent annotation generously mentions Shura Cherkassky’s earlier mono version of this work on Deutsche Grammophon (with the Berlin Philharmonic under Richard Kraus) but ironically overlooks a still earlier one on Vox (with the Santa Monica Symphony under Jacques

Rachmilovich); this was one of two works (Brahms’s Op. 5 Sonata was the other) he recorded in the earliest days of micro-groove.

In any case, it is good to have Cherkassky back in the fold. As before, he opts for the Siloti revision in lieu of Tchaikovsky’s longer, more rambling original and plays with fine-grained lyricism. His version, thus, is strikingly different from Gilels’ (also of Siloti’s version; Angel, deleted); here slashing drama is tempered by a whimsical elegance. Cherkassky is a master of what I call the *a capriccioso* style, and if some of the bravura passages lack the ultimate in rhythmic steadiness, these deficiencies are more than offset by many ravishingly phrased details and dabs of color. Occasionally, his passagework delightfully suggests that he is tickling the keys with a feather (or wand?). There are very few pianists active who can obtain his kind of limpid, pressureless sonority.

Walter Susskind does his work artistically if unimaginatively, and the resonant recording has fine balance and agreeable expanse. My copy has a few blemishes, however. H.G.

THOMSON: Four Saints in Three Acts.

CAST:	
St. Teresa I	Clamma Dale (s)
St. Settlement	Gwendolyn Bradley (s)
St. Teresa II	Florence Quivar (ms)
Commère	Betty Allen (ms)
St. Chavez	William Brown (t)
St. Stephen	Joseph de Vaughn (t)
St. Ignatius	Arthur Thompson (b)
St. Plan	William Penn (b)
Compère	Benjamin Matthews (bs-b)

Other soloists, Orchestra of Our Time, Joel Thome, cond. [Marc J. Aubort and Joanna Nickrenz, prod.] NONESUCH DB 79035, \$23.96 (digital recording; two discs, automatic sequence). Tape: D2 79035, \$23.96 (two cassettes).

No, this first full-length *Four Saints* isn’t so great, and I do find it hard to believe that it’s possible to rehearse and perform the piece and make this little contact with (if nothing else) those infectious rhythms drawn from Thomson’s Southern Baptist upbringing. Still, this is the only recording we’re apt to have for the foreseeable future, and since it happens that most of the principal singers are well suited to their roles, the operative question seems how we might make the performance work for us.

The best hint is provided by the composer. In a revised and expanded version of the essay written originally for the RCA reissue of his own 1947 abridged recording (last available as LM 2756), he writes of the all-black original cast, so chosen “for beauty of voice, clarity of enunciation, and fine carriage”: “Their surprise gift to the production was their understanding of the work. They got the spirit of it, enjoyed its multiple meanings, even the obscurities, adopted it, spoke in quotations from it.”

Clearly this had a lot to do with the

circumstances of the 1934 production, in which essentially the same group of performers—a number of whom can be heard in the 1947 recording—worked together over an extended run, making it possible for them to absorb the piece, so that they not only found their own connection to Thomson's modes of musical speech but intuitively reached through to the underlying sense of Gertrude Stein's seemingly nonsensical words.

If the new cast hasn't achieved this with any consistency, the recording does allow us as listeners (if possible with the aid of the vocal score, to help see the shapes) to do some of this work on our own—to relax and let our response mechanisms cope, for example, with Thomson's decision to split the chiefest saint, St. Teresa, into a soprano and a mezzo part. Put on Side 2, which lands you in their first duet, consisting mostly of chromatically ascending arpeggios (standard vocalise, in other words, only set to Stein text), and you're likely to stop worrying about whether they're one character or two.

St. Teresa I, the soprano, arpeggiates upward ("Very many go out as they do"), and St. Teresa II, the mezzo, arpeggiates downward in response ("And make him prominent"), and it all makes perfect sense, just as it does a bit later in Act I when St. Teresa I launches an ecstatic hymn with the proposition: "There can be no peace on earth with calm with calm." Looking at these eleven words on paper, I haven't a clue what they mean, but as movingly sung in both recordings, they couldn't be clearer.

It's almost impossible to describe the opera for someone with no experience of it. That it has more than three acts and many more than four saints somehow doesn't seem terribly important. That it's set in Spain does. Thomson tells us that Stein "had lived in Spain and loved its landscape, its intensity," and *Four Saints* radiates sunlight and faith, though not necessarily religious faith. Perhaps for the creators St. Ignatius' Act III "Vision of Holy Ghost," the immortal "Pigeons on the grass alas," was a religious expression, but to me the faith expressed is more down-to-earth. *Four Saints* has the power to make such debased values as decency, affection, and wonder seem not at all clichéd, to seem in fact like the most important things in the world.

Thomson's musical setting is often described as "simple," which description suits it about as well as it suits Mozart's music. His sensitivity to speech rhythms has been widely commented on, and it's especially important when he is setting a text whose coherence is almost entirely nonlinear. His pleasure in Stein's words shows up most delightfully in the way stage directions are incorporated into the text, as when, in Act I, the Commère in her role as co-narrator announces, "Scene 7," and the

chorus tears into a series of descending D major scales: "One two three four five six seven all good children go to heaven. . . ." But stage directions also form the basis for the "Love Scene" of the Commère and Compère in Act II: "Scene 8" "To wait." "Scene 1" "And begun." Etc.

Without slighting the ingenuity and sensuousness of Thomson's orchestral interludes (I might note the little guitar song in Act I introduced by the St. Teresas' "Leave later gaily the troubadour plays his guitar"), I'm inclined to single out the score's sensitivity to and delight in the singing voice, whether in the form of chorus, smaller ensemble, or solo. The music's shapes should allow singers, and certainly singers as talented as Nonesuch's, to really explore their vocal properties. One good example is the St. Teresas' arpeggio-duet, which Clamma Dale and Florence Quivar sail through. Too much of the rest of the performance sounds like a quick first impression frozen in time.

Actually, Quivar is very good throughout; too bad we can't hear what she might do with this music with the kind of experience the original cast had. Dale and the lighter-weight Gwendolyn Bradley as St. Settlement both sing very prettily in a sight-reading sort of way. Arthur Thompson, for whom the Met has never found better use than the likes of the Mandarin in *Turandot* and the Jailer in *Tosca*, makes an excellent start here on what might evolve into a grand St. Ignatius, and Benjamin Matthews does a good deal of lovely singing as the Compère. The tenors sound less promising, and Betty Allen as the Commère is plain badly cast, parched-sounding and personally unsympathetic.

Nonesuch's double-fold album includes complete texts. The sound is less immediate than I'd like for so intimate a piece, and the surfaces of my copy are on the noisy side. If this adds up to an even less impressive premiere recording than New World's *Santa Fe Mother of Us All* (NW 288/9, reviewed by Conrad L. Osborne in July 1977), at least we now have both works in their entirety. With a certain amount of work, it's certainly possible to get something out of *Four Saints*, and goodness knows how desperately we need what the opera has to offer. K.F.

Recitals and Miscellany

AGNES BAL TSA: Operatic Recital.

Agnes Baltsa, mezzo-soprano: Munich Radio Orchestra, Heinz Wallberg, cond. [Theodor Holzinger, F. Axel Mehre, Dieter Sinn, and Dieter G. Warneck, prod.] ANGEL DS 37908, \$12.98 (digital recording). Tape: 4XS 37908, \$9.98 (cassette).

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DONIZETTI: *La Favorita*: Fia dunque vero . . . Omio Fernando . . . Su, crudeli, e chi v'arresta? MASCAGNI: *Cavalleria rusticana*: Voi lo sapete. MERCADANTE: *Il Giuramento*: Ah si, mie care . . . Or là sull'onda . . . Di tua fede bello ognora. MOZART: *La Clemenza di Tito*: Parto, parto. ROSSINI: *Il Barbiere di Siviglia*: Una voce poco fa. *La Cenerentola*: Nacqui all'affanno . . . Non più mesta. *La Donna del lago*: Tanti affetti in tal momento. VERDI: *Macbeth*: *La luce langue*.

The vocal attractions of this program account in part for its frustrations. Here we have a voice that actually functions under control over two full octaves (the high and low B flats are legitimately encompassed, not reached for)—a voice of pleasing if not seductive timbre, reasonably adept at difficult passagework, governed by a strong performer's will. So why aren't the results more compelling?

The Rossini/Mozart side is repertory that should ideally suit the voice's lean timbre and weight, and yet these performances, sleek and energetic as they are, rarely catch fire. The paradox is that as the program moves into progressively later and weightier material, vocally less suitable for Baltsa (I don't see how you can make even "*Omio Fernando*" happen without enough vocal force down in the vicinity of the break to be able to really roll those phrases that curl round it), she begins to demonstrate that she *is* capable of drawing on her personal resources.

Already in the Mercadante cavatina (a standard-form recitative, aria, and cabaletta), although we don't hear much projection of Bianca's immediate stakes, Baltsa does find a rhythmic impulsion that drives her through an andante that might otherwise seem a fairly humdrum nostalgic specimen, and she then contrasts this movement with the more obvious physical momentum of the cabaletta. My suspicion is that by instinct she is making an increasingly more direct expressive connection to the vocal writing as it evolves into styles that at least for a present-day performer seem emotionally more "natural."

In Lady Macbeth's "*La luce langue*," still a throwback form, a human being begins to emerge (might Baltsa have really cut loose in the formally fluid Sleepwalking Scene?), but it's not until we reach the verismo world of "*Voi lo sapete*" that we encounter a woman of real dimension. If Santuzza hardly seems a terribly healthy role for this voice, this performance of the aria conveys an aching need almost impossible to imagine from those neatly contained Rossini accounts on the flip side.

What depresses me is that a performer of such demonstrable talent, technical accomplishment, and enthusiasm seems never to have come in contact with anyone who would help her explore how the more stylized forms of Mozart, Rossini, and Donizetti express human needs as strong and urgent as those of Mascagni. Wouldn't

you love to hear a Rosina, a Cenerentola, maybe even a Sesto as "real" as this Santuzza?

The accompaniments and engineering are adequate, but the absence of printed texts will be a problem for even seasoned collectors in so rare a selection as the seven-minute Mercadante *scena*. K.F.

BERLIN PHILHARMONIC CHAMBER ENSEMBLES.

Berlin Philharmonic members. DEUTSCHE GRAMMOPHON 2741 011. \$64.90 (digital recordings; five discs, manual sequence).

Sides 1, 2: V. ALBRICI (arr. K.-J. Weber): Sonata. Andreas BERGER: *Canzon octavi modi*. G. GABRIELI: *Sonata XIII* (arr.

The audio excellence is consistent, but the aural thrills are dearly paid for.

H.-D. Schwarz): *Sonata pian e forte*. GRILLO (arr. Schwarz): *Canzone I, II*. Georg MUFFAT (arr. Woehl): *Ouverture*; *Sarabande*; *Bourrée*; *Rondeau*. PEZEL: *Bal*; *Intrada*; *Courante*; *Bal*. S. SCHEIDT (arr. Schwarz): *Suite*. STÖRL: *Sonate I, III, IV*. VIADANA: *Sinfonia "La Padovana"*. J.D. ZELENSKA: *Reiterfanfare*. (Brass Ensemble)

Sides 3, 4: MOZART: *Serenade No. 10*, in B flat, K. 361. (Wind Ensemble)

Side 5: MENDELSSOHN: *Octet for Strings*, in E flat, Op. 20. (Brandis, Westphal Quartets)

Side 6: BRUCH: *Septet for Winds and Strings*, in E flat. (Philharmonic Octet members)

Side 7: BOCCHERINI: *Quintet for Strings*, in E, Op. 13, No. 5: *Minuet*. (Westphal Quartet) HAYDN: *Divertimento in C*, H. II:11 (*Der Geburtstag*). (Philharmonic Soloists) MENDELSSOHN: *Quartet for Strings*, No. 1, in E flat, Op. 12: *Canzonetta*. (Herzfeld Quartet)

Side 8: HAYDN: *Quartet for Strings*, in D, Op. 20, No. 4. (Brandis Quartet)

Side 9: FUNCK (arr. Kapler): *Suite in D*. HAYDN: *Baryton Trio in D*, H. XI:81: *Finale*. *Baryton Trio in D*, H. XI:113: *Adagio*. J. KLENGEL: *Hymnus*, Op. 57. A. SCARLATTI (arr. Bergel): *Concerto No. 2: Grave*; *Minuetto*. (Twelve Cellos)

Side 10: KHACHATURIAN (arr. Vogler): *Gayane*: *Sabre Dance*. (Piano, Percussion, and Double-Bass Ensemble) ROSSINI: *Rendez-vous de chasse*. (Eight Horns) *Duetto for Cello and Double Bass*, in D. (Philharmonic Duo) J. STRAUSS II (arr. E. Hartmann): *An der schönen, blauen Donau*, Op. 314. (Nine Double Basses)

This curious cornucopia, a kind of *Anhang* to DG's magnificent centenary tribute to the Berlin Philharmonic, differs in almost every respect from the main, six-volume limited-edition documentary anthology

(HF, December 1982). It doesn't represent the full orchestra or any of its famous conductors, just directorless sections and chamber ensembles. It doesn't delve into past recordings, but is entirely new; indeed, it features ultramodern digital technology. It contains too few complete works and too many snippets—and its interest is in any case narrowly specialized (executant and technical) rather than general (musical). I can recommend it to fans of the individual players involved, to their opposite numbers in other orchestras worldwide, to aspiring and apprentice instrumentalists, to connoisseur audiophiles—and to no one else at all.

Well, maybe I should qualify that condemnation a bit: There's real if minor musical fascination in the recently discovered septet for winds and strings by the eleven-year-old Max Bruch—a prodigy of near Mendelssohnian if scarcely Mozartean gifts. Haydn's quirky *Birthday* Divertimento for winds, strings, and harpsichord has been recorded before, but surely never as skillfully. The elephantine derangements of *Blue Danube* (double basses) and "Sabre Dance" (percussion, piano, and double basses) would rank among the most amusing of musical caricatures—would, that is, if played with the slightest glint of humor. Throughout, the ultrabravura virtuosity, breathtaking in itself, achieves spellbinding impressiveness in sonic realism that is sometimes even larger and more potent than life. If any orchestral horn, brass, or double-bass section has ever been captured more thrillingly, I haven't heard it. Then, too, if you've ever had difficulty differentiating xylophone, marimba, vibraphone, and percussive piano timbres, just listen to the digital distinctions in the "Sabre Dance." Remarkably, this state-of-the-art audio excellence is consistently maintained despite the number of producers (five) and recording engineers (six) involved.

Lamentably, though, such aural thrills are dearly paid for. Quite apart from a complete lack of any sense of historical stylistic authenticity, the readings betray revolting insensitivities. Many of the interpretations—like that of the gracious Mozart serenade—are so brutally ferocious, heavy-handed, and stonyhearted, that I can't help recalling the phrase of Lucan applied in this century to alleged World War I atrocities—*furor teutonicus*. And where the more characteristic Germanic Romanticism allows sentiment to stray well over the boundary of schmaltz, I'm reminded of an apt Italian term for "affected expression"—*smorfioso*.

Just as war has been deemed too important to be left to the generals, many of us have long thought musical interpretation too important to be left entirely to star conductors. But now it seems that it's no less risky to leave it to orchestra members on their own. R.D.D.

(Continued on page 91)

The Tape Deck

Critiques of new cassette and open-reel releases by R.D. Darrell

Blowing Winds

A whole galaxy of gifted young virtuosos has decisively laid to rest the ancient calumny of the oboe's being an "ill wind that nobody blows good." Witness the superb recordings of current superstar Heinz Holliger—in particular, his explorations with *I Musici* of the inexhaustible treasure house of Vivaldi concertos. Vol. 5 (Philips 7337 167, \$12.98), the first of this series to be digitally recorded and chromium-taped, is more breezily invigorating than ever, with—as usual—a couple of new discoveries (RV 446 and 452) along with the relatively familiar (RV 454; RV 545, for oboe and bassoon, with Klaus Thunemann).

If any timbres can possibly be still more pungently delectable, it's those of the oboe's alto and tenor siblings—currently provided by noted New York Philharmonic soloist Thomas Stacy, who here triples as conductor of the Baroque Chamber Players. He commands perhaps even more piquancy on the oboe d'amore, in concertos by Bach and Telemann, than on the deeper-voiced English horn, in an endearing Michael Haydn quartet and a poignant Mozart Adagio (Spectrum SC 259, \$4.95, plus \$1.50 shipping, from Spectrum, Harriman, N.Y. 10926). A best buy!

Two American star clarinetists vie excitingly in Weber's ideally idiomatic Op. 34 Quintet: David Shifrin with the Sequoia Quartet (Nonesuch digital/ferric D4 79017, \$11.98) and Richard Stoltzman with Tashi (RCA Red Seal ARK 1-4328, \$9.98, no notes). The painful choice is made easier by differing supplementary appeals. Shifrin's is primarily a chamber-music approach, and he sticks to Weber—the Op. 33 Variations and Op. 48 Grand Duo, with pianist William Doppmann. Stoltzman, for all his taut control and coloristic nuance, is more a bravura concert soloist, especially in the lighter-weight contemporary American fare—works by William Douglas and the late Ingolf Dahl. By comparison, England's Thea King seems at first over-reticent, but her subtly restrained, pure-toned artistry endows two unfamiliar (to most Americans) clarinet concertos with complete conviction: Stanford's solidly satisfying Op. 80, from the turn of the century, and Finzi's eloquently spellbinding Op. 31, of 1979, both with near ideal accompaniments led by Alun Francis (Hyperion KA 66001, \$13.98 (via Harmonia Mundi U.S.A., 2351 Westwood Blvd., Los Angeles, Calif. 90064).

It's for his remarkable personality projection that Irish leprechaun flutist James

Galway is most celebrated. So sensation seekers will find him unduly subdued in his 1974 Seon recording, with Carl Baumgartner, of Mozart's two concertos and K. 315 Andante, now reappearing (Eurodisc chromium 55 514, \$9.98) with Dolby noise reduction markedly superior to that in the 1977 RCA edition (ARK 1-2159). But Galway reveals unexpected imagination in a welcome tribute to the underappreciated Romanticist Carl Reinecke (1824–1910). The flutist is joined by conductor Hiroyuki Iwaki in Reinecke's Mozartean/Schumannesque swansong Concerto (Op. 283!) and by pianist Phillip Moll—who also provides illuminating annotations—in the magically poetic *Undine* Sonata, both superbly played and recorded (RCA Prestige Box digital/chrome ATK 1-4034, \$15.98).

Maurice André's latest digitally recorded trumpet concertos (Angel 4XS 37905, \$9.98, no notes) are as dazzling as ever. But only the old-fashioned example by the obscure Luigi Otto (fl. 1750) is an original; the Albinoni, Handel, and Barsanti works are all transcriptions. More provocative musically is the spirited New York Trumpet Ensemble's Madeira Festival program of short pieces—a few in transcription, a few with organ—by Biber, Frescobaldi, Andrea and Giovanni Gabrieli, Martini, Mouret, Valentini, Wilbye, and White (Vox Cum Laude digital/chrome D-VCS 9015, \$10.98); not much stylistic authenticity, but the modern brass sonorities ring out thrillingly, and there are admirable notes by Peter Eliot Stone. The same stylistic shortcomings and sheerly sonic appeals also characterize the "Venetian Polychoral Music" by Berlin Philharmonic and Bamberg Symphony trumpeters and trombonists (Arabesque 9086, \$7.98). These bravura performances feature not only relatively familiar pieces by Frescobaldi and Giovanni Gabrieli, but more valuably, works by their lesser-known contemporaries Viadana and Giuseppe Guami—plus the quite unknown Bastian Chilesse and Giovanni Battista Grillo (who?).

Remembrances of things past. With the heartwarming news of Leon Fleischer's miraculous return to two-handed pianism still fresh in the news, I was more deeply moved than ever by his c. 1959–60 Epic triumphs with Georg Szell: the Beethoven Fourth and Mozart Twenty-Fifth Concertos. Not only is the playing rapturous, but the early-stereo sonics still seem admirably warm and robust in their new CBS Great Performances reissue (MYT 37762, price at dealer's option, no notes).

And every amateur pianist who once tackled *Country Gardens* and other Percy Grainger tidbits will rejoice in EMI's centenary tribute to the idiosyncratic Australian-American. It's a two-cassette grab-bag of 1970–79 English and Australian recordings featuring various conductors (Vivian Dunn, John Hopkins, Neville Dilkens) and pianists (Leslie Howard, David Stanhope, Daniel Adni, et al.) in the six pieces "everyone knows" and such fascinating extras as the *Nutshell* and *Youthful Suites*, *Colonial Song*, etc. (EMI Prestige Box TC SLS 5249, \$23.96, via International Book and Record Distributors, 40-11 24th St., Long Island City, N.Y. 11101). (Consolation prize: the same six Dunn-led favorites plus four British Proms miniatures in last year's Arabesque 9037, \$7.98.)

Another old phono-pianist friend is Shura Cherkassy—late-mono-era champion of Tchaikovsky's too seldom heard Second Piano Concerto. Luckily, he's still active, and a more persuasively eloquent proponent of this work than ever, in a grandly recorded new version with the Cincinnatians under the late Walter Susskind (Vox Cum Laude VCS 9011, \$8.98).

The latest open reels from Barclay-Crocker (11 Broadway, New York, N.Y. 10004), in line with this month's preoccupation with wind instruments, feature Jack Brymer's memorable 1967 "Virtuoso Clarinet" program (Vanguard/B-C E 71167, \$8.95). It's still a collector's "must," despite Felix Prohaska's routine accompaniments, for its rare concerto by the Czech Franz Krommer (1759–1831), plus the Weber concertino, Wagner Adagio, and an anglicized Debussy First Rhapsody. From still farther back, and even more famous, is Antal Dorati's 1957 milestone Respighi coupling—the lilting *Birds* transcriptions and evocative *Brazilian Impressions* (Mercury/B-C G 75023, \$10.95).

The current B-C/Philips programs (\$10.95 each) are all improved processings of recent disc and cassette successes: a magisterially controlled Tchaikovsky *Manfred* from Bernard Haitink and the Concertgebouw (G 9500 778); the completion of Colin Davis' Sibelius symphony series with the Bostonians, No. 4 and *Tapiola* (G 9500 143), and Nos. 5 and 7 (G 6500 959); the felicitous teaming of Alfred Brendel and Neville Marriner in Mozart's Piano Concerto No. 22 and two concert rondos (G 9500 145); and the Quartetto Italiano's muscularly vital realization of the last and grandest Schubert String Quartet, No. 15 (G 9500 409). **HF**

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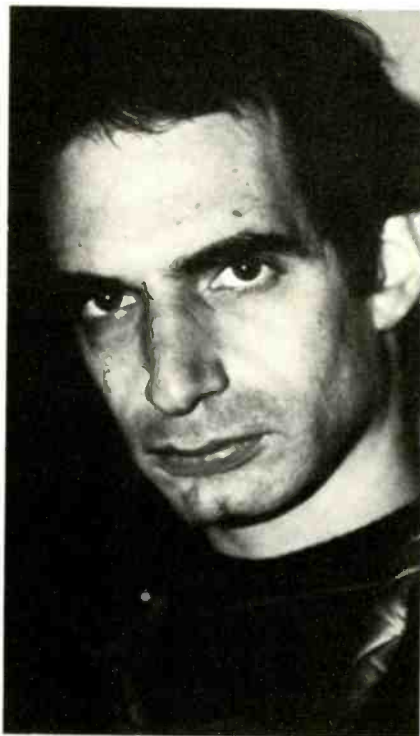
Donald Fagen Talks

From the dark, jaded regions of Steely Dan emerges an intellectual with an album about innocence.
by Sam Sutherland

FEW POP OR ROCK MUSICIANS in recent memory have remained as intentionally faceless as Steely Dan's Walter Becker and Donald Fagen. In defiance of the usual course of events for platinum record winners, they succeeded in creating a provocative, richly stylized body of music while becoming, if anything, less recognizable as "personalities," tucking the intimate details of their private lives cryptically into their oblique lyrics. As they transformed their original working band into an elusive entity that emerged only in recording studios, the duo edited out the few clues of earlier songs, where allusions to their days together in college evoked the cultural ferment of the late '60s.

Even photographs of the two men were rare. Their album portraits and publicity glossies were usually grainy black and white shots that looked more like wanted posters than the idealized images of their rock peers. The unsmiling faces, often hidden behind sunglasses, looked uncomfortable before the camera lens. In the interviews they cautiously granted, their day-to-day lives remained undiscussed beyond the most superficial and fragmentary details. Music was the only topic that could reliably lure them beyond a closely guarded perimeter of ironic detachment.

That reclusive aura explains the ultimately startling impact of Donald Fagen's first solo disc. His perverse croon was the duo's vocal persona, and it remains unchanged on "The Nightfly." Likewise his melodies, arrangements, and intermittent keyboard work are extensions of Steely Dan's sleek, precise pop synthesis. On closer examination, though, the album is a departure in its most fundamental respect, the songs' content. In contrast to the Dan's large cast of distinct characters and disparate settings, "The Nightfly" revolves



JAMES HAMILTON

around just one individual—Fagen.

He himself is quick to confirm that. And the record's specific time frame strongly suggests that the idea for "The Nightfly" predated the duo's decision to stop recording.

"I had wanted to do something by myself for a year or so," says Fagen, "before we decided to 'take a vacation,' as Robert Palmer put it," in a *New York Times* article. The concept of a theme piece was an early element, if not a motive, in that decision. "In all the albums I did with Walter, we never said, 'We're going to write about a certain period or a certain motif.' And I

think that accounts for a lot of the difference right there."

Not that "The Nightfly" is an autobiographical narrative. Fagen cites as its unifying premise his own recollection of childhood, and of the dreams that carried him through adolescence. In the atypically straightforward liner note, he describes those dreams as "certain fantasies that might have been entertained by a young man growing up in the remote suburbs of a northeastern city during the late Fifties and early Sixties, i.e., one of my general height, weight, and build."

Those fantasies weren't entirely unique. Rather, they touched upon what he now describes as the "myths" of that era, shared by young Americans struggling to cope with a culture he repeatedly damns as "stultifying." The hipster myth, the science fiction myth, the romantic myth, above all, for Fagen, the jazz myth were doors outside a repressive everyday existence.

"The 'E.T.' in my bedroom was Thelonious Monk," he recalls. "Everything that he represented was totally unworldly in a way, although at the same time jazz to me seemed more real than the environment in which I was living. It was one of those developments with a thousand homes that all looked exactly the same. The houses had just been built, so there were mounds of dirt instead of a front lawn, and twigs held up by wires instead of trees.

"It was pretty barren, actually. But jazz was an escape, not only from the architecture and the landscape, but also from the climate of thought at the time, the Cold War mentality and all that."

As a child, he had been smitten by early black rock & rollers like Fats Domino and especially Chuck Berry, but as he grew older that strain of rock was supplanted by

more formularized, safer fare: "When I discovered jazz—I was about eleven or twelve—it sort of coincided with the time when rock & roll was losing a lot of its vitality. It had been taken over, and there were a lot of white groups. I don't know if I was conscious of what was at work there; in fact, I probably didn't connect it to a racial thing."

He refers to the jazz he heard on late-night radio stations in New York as "my lifeline to urban life." His first jazz LP was "probably the first jazz record a lot of people got, a Dave Brubeck record, 'Dave Brubeck at Newport, 1958'—a great album, which I still have." Brubeck led to Miles Davis and his seminal '50s quartet and quintet records, and then to Sonny Rollins, Monk, Mingus, and beyond.

It's no accident that "The Nightfly" begins at about this point in jazz history, or that its title character, Lester the Nightfly, is Fagen's wry but fond composite of those wee-hours deejays he listened to, and portrays in the cover portrait. "I was born in 1948," he says. "In '58, the International Geophysical Year, I was ten years old. I sort of started [the record] in that year and covered the territory up to about the Kennedy era."

I. G. Y., the opening track and first single, is a sharply rendered portrait of the technological optimism and underlying ideological turmoil that reverberated during that global celebration of post-war science. From there, Fagen proceeds to offer personalized vignettes punctuated by carefully chosen details of the culture at hand. He also provides glimpses of the era's mores: Romantic encounters are edged with dewy innocence, sex is spicy and forbidden, confined to exotic fantasies set in far-off lands or back alleys.

The music, too, bears evidence of the age, although here Fagen's handiwork is less obvious since Steely Dan's later albums incorporated prominent elements of post-war pop and jazz. Still, such references have been sharpened to fulfill his goal of "mating the lyrics stylistically to the period, and the music as well."

Walk Between Raindrops, for instance, is built around a swinging, husky Hammond organ that Fagen plays with the right mix of fluid jazz attack and r&b-derived momentum, pointing directly to the soul-jazz combos of Jimmy Smith and Jack McDuff: "The organ at the studio where we were working was very funky sounding, which is unusual. I think it was broken, which is probably why it sounds so good."

The Goodbye Look mates the gallows humor of its exotic fantasy of Caribbean revolution with an outright samba, an observation that extracts a chuckle from Fagen. "I love bossa nova," he admits, going on to cite the early '60s recordings of Luis Bonfá, Astrud Gilberto, and their peers for their "delicacy." He also offers a

surprising insight into his singing when he cites an array of favorite vocalists like Frank Sinatra and Mose Allison ("he was an influence on the phrasing") and singles out Brazilian vocalists for their studied lack of vibrato and offhand precision.

But Fagen asserts that while the arrangements and lyrics consciously refer back to that era, his solo vocals aren't deliberately altered from his usual approach. Still, on the coolly longing *Maxine* and Jerry Lieber and Mike Stoller's 1955 gem *Ruby Baby*, Donald Fagen is unquestionably a crooner.

"I think that's basically the way my voice sounds superimposed over those sorts of changes," he suggests. And what changes. Both songs use close intervals and chromatic relationships seldom heard in contemporary pop. He confirms that their rich choral backdrops are "takes on typical four- and five-part harmony of the period."

The chromaticism is especially strik-

ing on *Ruby Baby*, best known to most listeners from Dion's early '60s version. As it turns out, Fagen hadn't even heard that recording until after he cut his own. "I sort of based it on the Drifters' version," he says. "I threw in a lot of other jazz chords and basically made it sound like a big, r&b party situation. But it has a lot of dissonance—it's pretty strange, in a way."

"I love the lyrics," he continues, referring to the protagonist's determination to win his indifferent love object. "That song really fit in with the concept because it's very innocent."

Innocence may, in fact, be the quiet bombshell in "The Nightfly," the single most pronounced shift in tone from the Steely Dan recordings. Fagen agrees that, in that respect, the Dan was antiromantic. "I was more concerned with first love," he says of this album, "which is part of growing up. There are some extremely idealized versions of high school romance here."

(Continued on page 89)

Recording "The Nightfly": Digital Success

ENTER ANY HIGH-END audio salon to audition new equipment, and it's a safe bet one of the fixtures in its record collection will be Steely Dan's "Aja" or "Gaucho." Donald Fagen's "The Nightfly" maintains the high technical quality of those discs, yet it does differ from the band's past efforts in two respects: First, it represents Fagen's and longtime Dan producer Gary Katz's oft-discussed interest in using digital technology; second, and less obviously, the album arrived much closer to its projected delivery date than Fagen's collaborations with Walter Becker. Midway through these sessions, an ebullient Katz reported Fagen was on schedule, and the early word among musicians on both coasts confirmed the project's heartening momentum.

Fagen now says "The Nightfly" was not without its headaches, however, chief among them the decision to take the digital path. Concern over the delicate maintenance requirements of multichannel digital gear previously had led Fagen, Katz, and Becker to abandon their original plan of cutting "Gaucho" digitally.

"I was pretty wary this time, too," says Fagen. "On several occasions, I was ready to transfer to analog and give it up, but my engineering staff would keep talking me into it." "The Nightfly" was recorded and mixed on 3M's 32-track and 4-track digital recorders. Working in New York at Soundworks Digital Audio/Video Recording Studios and Automated Sound, as well as in Los Angeles at Village Recorders, most of the recording's gremlins were rooted in maintenance. "The machine was up on the rack a lot," says Fagen, "although toward the end we were using it with total

freedom from problems. It's a matter of getting to know the machine and not abusing it.

"They need a lot of maintenance. If you really take care of them, there are no problems; the problem is finding out how to take care of them."

The solution was to send three members of the technical staff, including chief engineer Roger Nichols, to 3M's Minnesota headquarters to take courses in how to operate and maintain the system. "They stayed in a sleazy motel, went to classes in the daytime, and came back knowing how to work it," reports Fagen.

Now he feels "it's a preferable way to record." Sony has expressed interest in using the album for transfers to both its Compact Disc (see page 50) and digital cassette formats for hardware demonstrations at upcoming audio trade shows.

In other respects, "The Nightfly" reflects the same meticulous studio approach used by Steely Dan. The players were, as usual, culled from the cream of both coasts and include such alumni as Larry Carlton, Rick Derringer, Hugh McCracken, Jeff Porcaro, Ed Green, Chuck Rainey, Rob Mounsey, and Greg Phillinganes, among many others.

As for the front man, who continues to claim he usually prefers keyboard players other than himself (on this project, Phillinganes and Michael Omartian), Fagen did take center-mix on piano, electric piano, organ, and synthesizer on various tracks. And on the lush ballad *Maxine*, his renowned one-man chorus reaches a new zenith in its deft overdubbing and close harmonies.

S.S.

Reviews

Ronstadt Gets Closer, Closer, and Closer....

Linda Ronstadt: Get Closer
Peter Asher, producer
Asylum 9 60185-1

Let's hear it for Gilbert, Sullivan, and Joe Papp. All three deserve credit for luring Linda Ronstadt away from her Malibu lair and bringing her to New York where she stretched her cords beyond anyone's wildest dreams as Mabel in Papp's production of G&S's *The Pirates of Penzance*. The result of her Broadway (and forthcoming film) light-opera experiences has been that Ronstadt, already in possession of one of pop music's finest vocal instruments, is now singing with such unwavering control and gusto that all (fourteen) of her past studio efforts sound reed-thin by comparison.

There's really no other reason to account for the sustained level of quality on "Get Closer." Everything else is as before: The players include drummer Russell Kunkel, bassist Bob Glaub, keyboardist Bill Payne, guitarists Waddy Wachtel, Danny Kortchmar, Dan Dugmore, and the ever-present Andrew Gold; the material is a mix of snappy rock & roll, country oldies, mushy Jimmy Webb ballads, and contem-



Ronstadt: Messrs. Gilbert and Sullivan have had a profound effect.

porary ditties by the likes of Rod Taylor and Kate McGarrigle; the production is Peter Asher's sleekest.

Ronstadt wraps her voice around these songs with incredible finesse. On McGarrigle's nostalgic *Talk to Me of Mendocino* she unleashes bursts of melisma that are at once spare and intense. In fact, this piece is so exquisitely beautiful that it's worth the price of the entire album. Accompanied by Dennis Karmazyn on cello, Lindsey Buckingham on accordion, David Grisman on mandolin, Kenny Edwards on acoustic bass, and Gold on acoustic guitar, she gives what has to be the single most stunning vocal performance of her career.

But there's more. Her aggressive warble rides Payne's weird, wheezy Wurlitzer electric piano on the title track. The Knickerbockers' Sixties smash *Lies* sounds at first like just another cover version, but then grows on you with its insidious, nervous little guitar riffing and Kunkel's thumping, crashing drums. The solid, speedy reading of the Exciters' *Tell Him* (featuring Gold and Wachtel's gear-grinding guitar intro) is destined for radio-hit heaven.

The final two tracks are pre-Mabel sessions. Smokey Stover's *Sometimes You*

Just Can't Win is a duet with J. D. Souther, recorded around the time of "Simple Dreams." Dolly Parton's *My Blue Tears* is one of the few finished tunes from the aborted Ronstadt-Parton-Emmylou Harris project. Though both are pretty enough, neither has the positively exuberant energy that permeates the rest of "Get Closer." Their inclusion is something of an anticlimax to what is, in fact, Ronstadt's best and brightest album.

STEVEN X. REA

Toni Basil: Word of Mouth

Greg Mathieson & Trevor Veitch, producers. Chrysalis CHR 1410

Mickey is a stomping, peppy tribute (with authentic high school cheerleaders) to a boy who's "so fine," and a plea for his attention. It's one of those novelty records that jumps out at you from the radio. Written by Mike Chapman and Nicky Chinn, who have a string of such pop artifacts in their oeuvre, the song harks back to the sound of the early-'60s girl groups while its synthesizer-driven pulse places it squarely in the modern age of rock technology. Not much else on Toni Basil's album debut, "Word of

Mouth," manages to get the spirit so right. *Shoppin' A to Z* is an amusing alphabetical run-through of the items on a supermarket list ("... liver! matzoh! nuts! onions! pizza!"), and Basil does an earnest version of Burt Bacharach and Hal David's *Little Red Book*, but the rest of the LP is ordinary and overly mechanical rock.

A message on the album's cover gives a clue to the motivation behind its content: "Motion on record. Music on video. The complete Toni Basil experience. Get it on video cassettes. Conceived, directed, choreographed, and edited by Toni Basil." Basil is primarily known as a choreographer/actress. Recently she worked with David Byrne on Talking Heads' promotional videotapes, and her terpsichorean involvement with rock goes back to the mid-'60s. One can assume, then, that the videos for some of these cuts are more fun than their audio renditions; I'd rather see her dance to David Essex's *Rock On* than hear her sing it.

The members of Devo (whose robot antics were prefigured by Basil's dance troupe the Lockers) have contributed instrumental support on three songs that they wrote, and like so much Devo material, the tracks gurgle and blip to little purpose. They make a tedious band, and they drag Basil into their groove. And much as she tries, with the help of drummer Rick Parnell (a thumper in the Dave Clark tradition), she can't make *Nobody*, *Thief on the Loose*, and *Time After Time* into anything exciting. The arrangements seem constructed to sound like arcade games and the songs themselves are academic exercises. (Nick Gilder's *Time After Time* pinches its chorus from Lennon & McCartney's *You Won't See Me*.) By album's end, the bubbly vigor of *Mickey* and *Shoppin' A to Z* has almost been forgotten, gobbled up by all the humorless rigmarole that characterizes most of Basil's "Word of Mouth."

MITCHELL COHEN

Grandmaster Flash & the Furious Five: *The Message*

Sylvia, Inc. & Jigsaw Productions, producers. Sugar Hill SH 268 (96 West St., Englewood, N.J. 07631)

Aside from issuing several highly recommended "Greatest Rap Hits" configurations, Sugar Hill Records specializes in funky twelve-inch rap singles. Give a band a major hit, though, and all the rules change: To wit, Grandmaster Flash & the Furious Five's "The Message."

The title track is, quite simply, the state of a most troubled union. "It's like a jungle, sometimes it makes me wonder, how I keep from going under," is the tie that binds *The Message*'s seven minutes of urban imagery. It's that song's very volatility that renders the rest of the album slight, as if a switchblade had been packaged alongside butter knives. Rap is not neces-



EBET ROBERTS

Mitchell: a teasing self-awareness

sarily a singer's medium. A club deejay like Grandmaster Flash mixes records together to create a brand new beat; the Furious Five then adds words to flesh out the groove. With an album to fill, however, Grandmaster and the Five try to be everything to everybody; while the results aren't totally desultory, much of it is second-rate soul.

Take *Dreamin'*, a literal love song to Stevie Wonder. Though the singing and arrangement are competent, its moment of revelation comes when one of the Five steps back into character and says, "Hey Flash, do you think we'll ever meet Stevie?" That very line, guileless and grand, illuminates the distance between studio soul and the art of the street.

But *The Message* itself remains loud and clear—"Don't push me 'cause I'm close to the edge." Over a hypnotic synthesizer squiggle and a lock-step beat, it paints a picture of mean streets getting meaner. Peppered with details of homes hooked to the TV set and hero hustlers spending twenties and tens, the song is a nightmare that builds to a screaming climax. The last verse, a wicked thicket of words, is a bone-chilling biography of a kid who is born of the ghetto and dies by it. Buy the twelve-inch, but by no means fail to get *The Message*.

JOHN MILWARD

Hall & Oates: *H₂O*

Daryl Hall & John Oates, producers. RCA AFL 1-4383

The tag of blue-eyed soul is so easily pinned on Hall & Oates that people tend to forget their quick touch with a pithy pop tune or a blast of rock & roll. They're an elemental pair—Daryl Hall the piano-playing soul man, John Oates the swarthy guitarist with the hearty harmonies. The duo's albums are consistently spiced with standout tracks buffed shiny by meticulous studio tech-

nique. The result is that we don't remember LPs as much as individual songs, and often lift the needle from favorite to favorite. But then, good songs are nothing to sneeze at, and "H₂O" has a healthy share of them.

Maneater starts things off by adapting the bass line from the Supremes' *You Can't Hurry Love* to introduce a finger-snapper about a shark of a woman. Although their mix of pop and soul is often reminiscent of Motown, Hall & Oates's performing spirit is more in tune with the clean, crisp style of Philadelphia soul. Their attention to detail is especially evident on ballads like *One on One*—on which Daryl's falsetto skates atop the slick surface of his electric piano—and on the side-ending big-beat production numbers, *Open All Night* and *Go Solo*.

Family Man showcases the rock element of "H₂O," its grinding guitar telling a tale of temptation that blends a loose and limber verse with a stone-hard chorus. *Delayed Reaction* is a sprightly pop-rocker built on a featherbed of rhythm guitars and a melody that's pleasantly twisted by a Caribbean patois. Similarly charming, albeit more characteristic, is *Guessing Game*, a midtempo soul shuffler about the games lovers play.

Though rarely deep, Hall & Oates are profoundly professional, and theirs are among the most stylish songs to grace the top of the charts. With seven out of eleven likely candidates, "H₂O" is not apt to dampen their commercial fire.

JOHN MILWARD

Joni Mitchell: *Wild Things Run Fast*

Joni Mitchell, producer. Geffen GHS 2019

Previews of Joni Mitchell's first album for Geffen Records hinted at a return to the rhapsodic pop bloom of 1974's "Court and Spark," her most popular recording to date. While there's truth in that early assessment, Mitchell's new songs still bear the stamp of her more recent experiments with jazz instrumentation and vocal stylization, elevating "Wild Things Run Fast" beyond the cynical prospect of mere commercial retrenchment.

The studio lineups do opt for a fuller, ostensibly more pop-oriented ensemble sound than the skeletal chamber settings of "Hejira" or the fusion and bebop that prompted catcalls from the rock intelligentsia in the late '70s. Yet Mitchell retains specific traits from those controversial forays. Larry Klein's electric bass employs the thick chordal textures and fretless tonal slurs Jaco Pastorius brought to his sessions with her. Guitarists Steve Lukather and Michael Landau may bring a more pointed rock kick to her work than before, but their use of dissonance fits squarely within Mitchell's post-"Spark" harmonic palette.

Eccentric time signatures and the singer's own modal guitar figures, played on a



DEBORAH FEINGOLD

Terre, Maggie, and Suzzy Roche: as much fun as eavesdropping on a pajama party

warm and emphatically electric hollow-bodied guitar, also give the new songs their own flavor. But ultimately it's her singing and topical concerns that suggest this music's current vintage. The overdubbed vocal choruses and girlish asides may point back to the Mitchell of the late '60s and early '70s, but the romantic weariness and sense of mortality identify a sadder but wiser adult.

Chinese Café intercuts lyric fragments from a remembered jukebox (prominently quoting *Unchained Melody*) with intimations of a new generation gap—this time, between yesterday's rock & roll rebels and their own children. On *Be Cool*, Mitchell suggests that cynical gamesmanship is a means for romantic survival, advice that seems far removed from the ebullient lover of so many early songs. On *Man to Man*, she turns a hard gaze on her own lack of romantic constancy and the underlying spiritual dissatisfaction.

That track reunites Mitchell with one of her most publicized paramours, James Taylor, and the pairing works both musically and thematically as each singer's overdubbed choir calls and responds from opposite sides of the stereo mix. These and other touches suggest a level of self-awareness that sometimes teasingly hints at parody, an angle from which "Wild Things Run Fast" largely benefits. There's even a successful version of Leiber and Stoller's (*You're So Square*) *Baby, I Don't Care*, which succeeds in updating its message with an unexpectedly hard-edged, guitar-driven arrangement.

SAM SUTHERLAND

Gerry Rafferty: Sleepwalking
Christopher Neil & Gerry Rafferty,
producers. Liberty LT 51132

It has been over four years since *Baker Street's* mesmerizing saxophone refrain

dominated the airwaves. Since then, Scottish singer/songwriter Gerry Rafferty has been plodding merrily along, his pleasantly nasal timbre delivering fine if unremarkable songs about life and love and loneliness.

"Sleepwalking" isn't much of a departure, but it is so ingratiating and so straightforward in intent that it's hard not to like. From Hugh Burns's Knopfler-esque guitar work to keyboardist Alan Clark's synthesizers to Maurice Pert's clangy percussion, all the elements are forged into one smooth sound. Over, in, and through it, Rafferty's easygoing wail prevails. So, occasionally, does his McCartney persona (understandable, since, as one-half of Stealers Wheel, he used to make his living sounding like the Beatles). *The Right Moment*, a dreamy ditty of a ballad in the best Pauly tradition, features Rafferty's high, aching notes floating over a soft swirl of synthesizers and strings to wonderful effect.

The album abounds with nifty little nuances and embellishments: Ian Lynn and Alan Clark's percolating rhythms in *On the Way*; Rafferty's muffled "yeah-yeahs" on the fadeout of *Standing at the Gates*; the subtle Dylan motifs and loping drum synthesizer on *Good Intentions*; the spacy clicks and pings Pert brings to *As Wise as a Serpent*. Rafferty's smart, polished sound is seductive in a way that's neither smarmy nor pretentious. There's nothing earthshaking on "Sleepwalking"; just good old-fashioned, easy-listening pop.

STEVEN X. REA

The Roches: Keep on Doing
Robert Fripp, producer
Warner Bros. 23725-1

Listening to the Roches can be like eavesdropping on a late-night conversation at a pajama party: these three sisters communi-

cate an infectious intimacy and a guileless ability to share their private jokes and points of vulnerability. Their whimsy seemed strained on "Nurds"—the title song and *The Death of Suzzy Roche* took their goofy self-deflation too far. But "Keep on Doing" is a charming return to the form of the trio's debut, "The Roches." They have struck a balance between the subtly crafted romantic songs of Maggie and the off-the-wall spontaneity of Terre and Suzzy, keeping the production simple while achieving a lush texture with the interweaving of their guitars and voices.

Terre and Suzzy's point of view has slowly been asserting itself, as Maggie's role as a composer has been diminishing. On "The Roches," Maggie wrote or cowrote seven songs; on "Keep on Doing" only two: *Losing True*, a simple dissection of an affair coming to a bad end, and the obscure *The Scorpion Lament*. The snappier, less studied approach of Terre and Suzzy provides the album's lighter moments. The younger sisters seem to come out with whatever pops into their heads, from the rapid-fire confusion of Terre's *The Largest Elizabeth in the World* to the casting aside of possessions and expectations on the dual effort, *Want Not Want Not*, which has the creamy harmony and brisk tempo of pop-jazz vocal groups such as the Boswell Sisters.

Another Terre-Suzzy collaboration, *I Fell in Love*, is a delightfully performed ode to a "switchblade flashing motorcycle freak" who shows up at his mother's house in a suit and tie. The singer, spying on him in this uncharacteristic garb, falls in love. This standard rock subject—a girl who sees the softer side of a notorious rogue—is given a plaintive folk treatment. So is David Massengill's traditional-sounding ballad *On the Road to Fairfax County*, whose quaint phrasing ("joyful did we dance") and musical clarity make it an example of an old form handled with skill and feeling.

"Keep on Doing" starts with an a cappella version of *The Hallelujah Chorus*, and winds up with advice to someone on a (metaphorical?) ledge: "You work too hard to take this abuse/Be on your guard/Jerks on the loose." It's that dichotomy that helps make the Roches' new album such a rebound. Their flakiness is under control, their music is tuneful and unfussy, and their practical philosophy makes perfect sense.

MITCHELL COHEN

Supertramp:
". . . famous last words. . ." Supertramp & Peter Henderson, producers
A&M SP 3732 (LP); CS 3732 (cassette)

Supertramp's long-awaited followup to 1979's highly successful "Breakfast in America" offers subtle revisions to that set's lush pop/rock songwriting and arrang-

ing. As before, Rick Davies and Roger Hodgson's deceptively straightforward pop melodies are mated with tinges of introspection and disillusionment and sung in alternately robust and airy voices. Multiple keyboards, falsetto harmonies, and Bob Siebenberg's widescreen drum sound continue to achieve an orchestral sweep, and John Helliwell's saxophone injects mirth or soul-deep brooding as needed.

Yet "... famous last words ..." isn't quite the sequel it may seem. Production style has been softened slightly but significantly. Although the LP uses a new high-tech American pressing compound and the first-rate cassette reaches for an audiophile standard through the use of chromium dioxide tape, the recording's sound-field eschews the quintet's usual mindboggling sonics to create an often dreamy, soft-focus image. More pointedly, the band's collective persona seems to have undergone additional self-criticism since "Breakfast." The opening *Crazy* promises that Supertramp has no heavy messages to deliver, offering the cynical explanation that "Nobody listens when you're singing the blues," yet the singer's unspecified angst recurs even as he insists the song is mere diversion. Likewise, *Put on Your Old Brown Shoes* emerges as a curiously upbeat exercise in fatalism with the flat pronunciation, "We're all helpless."

Such bittersweet juxtapositions reap-



Young: one tough marsh-mellow

pear throughout, as on the album's most immediately infectious song, *It's Raining Again*, already shaping up as a single hit. An internal dialogue, the piece is designed as a pep talk after a collapsed affair; as elsewhere, the jaunty melody line and joyful arrangement prove more convincing arguments than Hodgson's intermittently mournful vocal.

Supertramp's preoccupation with disillusionment may provide an easy target for

some critics, but the group's soaring music is difficult to dismiss. As declaimed against a wash of twelve-string guitars on *C'est le Bon*, Davies and Hodgson see their craft as the one unerring positive in their lives. When the results are this ear-filling, that sentiment seems sincere indeed.

SAM SUTHERLAND

**Jesse Colin Young:
The Perfect Stranger**

Michael James Jackson, producer
Elektra 60151-1

The advance word on Jesse Colin Young's new LP was that the ex-Youngblood with the honeydew voice was going to toughen up his act. That was good news, for the solo career of one of rock's sweetest singers has emphasized mush at the expense of muscle. "The Perfect Stranger," however, turns out to be tough only in the California sense, which is to say add a pinch of the Doobie Bros., a dash of the Eagles, and shake well.

The album opens with its two best tunes—*The Perfect Stranger* and *Fight for It*—both composed by Young and Wendy Waldman. The title track is a warm and languid picture of a most chilly affair; *Fight for It* is a stylish duet with Carly Simon that presents a more agreeable picture of romantic wrestling. The trouble is that its fairly basic theme ("If you want this love, you're going to have to fight for it") is presented as

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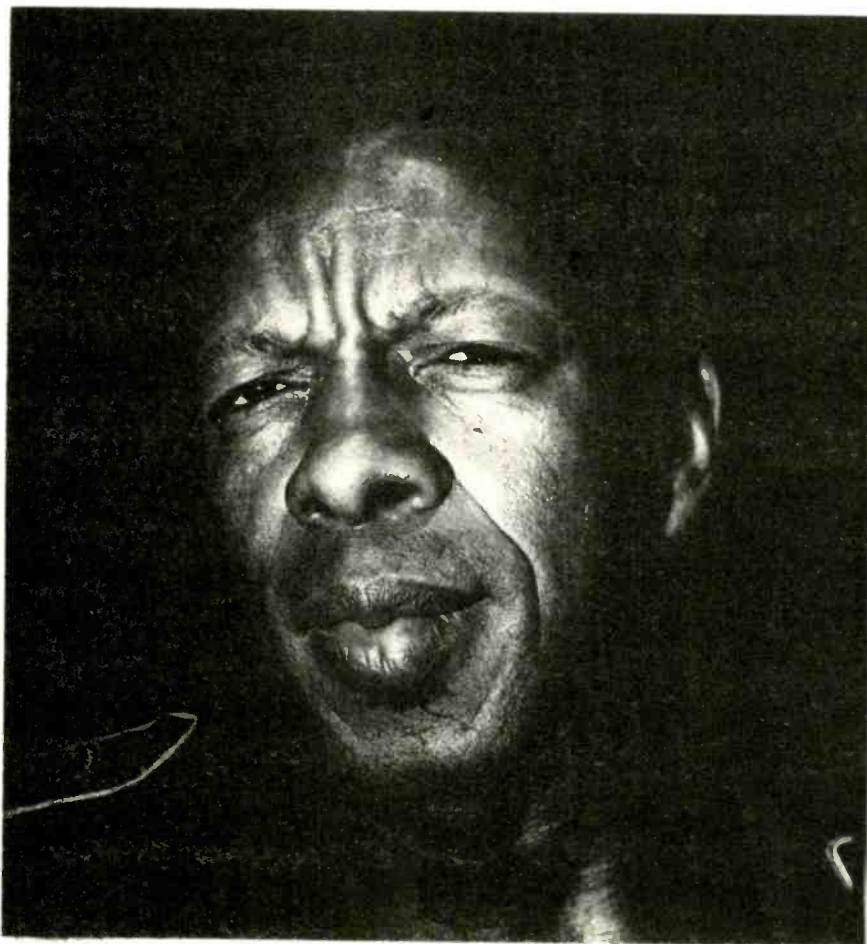
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83

Ornette Coleman's Legacy to Black Rock

"Broken Shadows," recorded a decade ago, finally sees the light.

Reviewed by Don Heckman



DEBORAH FEINGOLD

Ornette Coleman: Broken Shadows
James Jordan & Jim Fishel, producers
Columbia FC 38029

WHEN ORNETTE COLEMAN signed with CBS in 1971, it was his seventh label in a little over a decade. The hope for the saxophonist's fans was that he had found a home, as Miles Davis had before him, at Black Rock. But it was a short-lived dream: "Science Fiction" was released in September; "Skies of America" followed the next year; and, in 1973, Coleman (along with Keith Jarrett, Charles Mingus, and Bill Evans) was dropped from the roster.

Unreleased material remained. And

incredibly, CBS has waited nearly ten years to make it available. So much for the jazz enlightenment of the various regimes at West 52nd Street. Reissue producer Jim Fishel should be given special credit for finally bringing this extraordinarily valuable chronicle to light. I have no doubt that it took a great deal of effort on his part.

It was worth it. At least two-thirds of "Broken Shadows" approaches the brilliance of Coleman's classic Atlantic performances. And all of it is creatively and commercially superior to the shallow meanderings that have dominated his recent work. *Happy House*, *Elizabeth*, and *Broken Shadows* are performed by an ensemble similar

to the Coleman Double Quartet of the early '60s. With bassist Charles Haden as a firm, middle foundation, trumpeters Bobby Bradford and Don Cherry and drummers Ed Blackwell and Billy Higgins are placed to the right and left, respectively, in the mix. Coleman and tenor saxophonist Dewey Redman are nearer the center.

The wide stereo spread works perfectly for Coleman's music. *Happy House*, a herky-jerky, stop-and-go line that rebounds between the drums and the horns, brims over with musical joy. Blackwell and Higgins, at top of their form, build throughout the various solos until they reach a dramatic, pas de deux improvisation near the close of the piece. Despite the devil-may-care ground rules, they exercise an amazing degree of discipline as they echo, imitate, and vary each other's phrases.

Elizabeth, one of Coleman's New Orleans dirge-style lines, provides a stunning sample of his improvisational methods. Placed directly in the middle of a nonstop filigree of sounds from his peers, he rips off phrase after phrase. He is, at heart, a sequential player who builds solos fragment by fragment: a two-bar phrase followed by the same phrase a note higher or lower; a sweeping run countered by another one, a half-tone away. But Coleman is far too sophisticated to be restricted by such an admittedly simple method of construction. Using his rhythm section as a backdrop rather than as a framework, he plays his sequences in uneven patterns; a two-bar phrase starting on a downbeat may be followed by the same phrase slightly altered and starting on an upbeat or, perhaps, somewhere between the beats. Another sequential repetition will be varied by an additional eighth note or a stretching of the rhythm. (This accounts, I suspect, for the notion that Coleman plays in unusual meters. The truth is that most of his phrases are based on an *implicit* 4/4 feeling.)

On *Broken Shadows*, Coleman had the (again) simple, but extremely effective idea of permitting the players to solo over a continuous repetition of the keening, melodic theme. First comes a trumpet (presumably Cherry), chipping away as the line continues; next, an interplay between Haden's

bass and Redman's tenor saxophone; then another trumpet plays a querulous, poky line that builds into a series of wild, swooping runs; finally, Coleman arrives with an aggressive, but unexpectedly lighthearted improvisation that, in his typically quixotic fashion, plays against the feeling of the theme. The piece is a virtual jazz classic. (But why the unnecessary fade-out at the end of the track?)

School Work, performed with a quartet (Redman, Bradford, Haden, and Blackwell), uses an unusual metric device in the melody. After each six bars of 4/4 phrasing, a faster, out-of-sync phrase is inserted. Yet, confirming Coleman's desire to keep all options open for the improvised sections, this unusual phrasing does not occur in the solo passages. No one seems to particularly benefit from the openness of the environment. Redman, in fact, resorts to running diminished chords and a whole-tone scale or two. The total impression is one of a performance that is too head-centered.

They say that going out with an old lover only reminds you of why you left in the first place, but hearing the original Coleman quartet (with Cherry, Higgins, and Haden) revived on *Country Town Blues* should rekindle anyone's affections. Quite simply, they sound as good as they did a decade earlier—maybe better. Among the high points on this downhome Texas chiller is the way Coleman enlivens his diatonically-oriented lines with bent notes, blues calls, and gospel-styled declamation. And it's nice to hear Haden playing figures that minimize the open-string pedal phrases so prevalent in his more recent work.

Rubber Gloves unites the leader with Redman, Haden, and Blackwell. The combination produces sheer musical electricity. The melody is pure Coleman—a flowing, post-bebop uptempo line that really does sound like the next logical step after Charlie Parker. The competition between Coleman and Redman benefits both players. Playing like true alter egos, they match, challenge, and sometimes surpass each other. It's a shame that they have not had the opportunity to build a more extended creative partnership. Is it too late to try it again?

The final two tracks, *Good Girl Blues* and *Is It Forever*, are sung by Webster Armstrong and represent Coleman's reach toward commercialism. Easy targets though they may be, it would be wrong to minimize their craft. Coleman clearly could produce effective commercial material if he chose to do so, but I think he has bigger fish to fry.

One final footnote. Since CBS neglected to send me a review copy of "Broken Shadows," I picked one up from my local record dealer. The clerk, uncertain about the album's price, checked a long list of figures and then, looking at me uncertainly, inquired, "Is this jazz?" **HF**

a grand lesson. *Ophelia* suffers from a similarly false sense of significance and creaks under the dramatic baggage.

Aside from Waldman, who cowrote half of the tunes, Young worked with Danny O'Keefe, Tom Snow, and Michael McDonald. *Fire on the Water*, the McDonald collaboration, is a slight piece of jazzy pop that sounds like it was composed while the steaks were on the grill. While undeniably pleasant, it flounders in the kitchen-sink production that characterizes much of the album. There is some spark to O'Keefe's *On the Edge* and an airy attractiveness to Snow's *Jamie*, but these are transient pleasures. Recorded with a wide range of top-notch talent, "The Perfect Stranger" offers precious little character beneath its musical precision and high-gloss luster. **JOHN MILWARD**

Neil Young: *Trans*

Neil Young, producer
Geffen GHS 2018

As five of the nine song titles on Neil Young's new album indicate, the veteran songwriter and guitarist has made his own analog-to-digital conversion. Computer technology looms large in both the sound and the content of "Trans," toppling Young's rustic image in a startling reinvention of the artist as a rock technocrat.

Not that he has jettisoned his raw but righteous command of melodic rock altogether. *Little Thing Called Love*, the album's opener, is one of his more lighthearted uptempo electric works, its slightly fuller ensemble sound comes from the addition of Joe Lala's congas and Nils Lofgren's lead guitar. But older fans in search of Young's early pop accessibility are likely to be distracted, if not dismayed, by the electronic focus that sharpens midway through the first side and prevails through all but two of the remaining songs.

Young's guitars retain their characteristic rough edges and dramatic chords, but his vocals and keyboards make it clear that his recently avowed affection for Kraftwerk is no joke: Using vocoders and digital keyboards, he builds choirs of perfectly-pitched, pointedly synthetic voices against ethereal polyphonic synthesizer backdrops. That combination's initial appearance, on *Computer Age*, might be written off as a sonic joke were it not for the single-mindedness with which it is applied to other taglines like *We Are in Control*, *Transformer Man*, *Computer Cowboy*, and *Sample and Hold*.

Transforming computer technology into romantic metaphor does bring some humor ("I need a unit to sample and hold," he bleeps at one point). But Young's apparently mixed feelings about the digital age tend to muddy the waters, rather than create any sense of dramatic tension. His reedy tenor has always been his weakest, if also one of his most distinguishing traits; per-

haps the opportunity to inject pitch control and rounded timbre explains the vocoders. But whether the inherent loss of identity those devices create is intended as a statement in itself is immaterial, for their soft-focus consonants repeatedly blur the lyric content.

There are moments of eerie beauty here that would work handsomely in a sci-fi B movie. But this is a new Neil Young album; with the star himself hiding behind the circuitry, only his unmistakable melodic logic remains to tell us who is at the controls. **SAM SUTHERLAND**

Jazz

Jaki Byard: *To Them—to Us*

Giovanai Bonandri, producer
Soul Note SN 1025 (Polygram Special Imports, 137 W. 55 St., New York, N.Y. 10019)

The fascination in Jaki Byard's playing is his range of interest, feeling, and understanding for the whole history of jazz piano. Although he tends toward self-indulgence on his own compositions, "To Them—to Us" has enough of Byard the eclectic to compensate.

He can refresh even the most well-worn classic simply by bringing it his own point of view. He plays *Tin Roof Blues* with insight, humor, and imagination while still keeping the theme very much at hand. To *Land of Make Believe* he first brings a sense of brooding involvement (which its composer, Chuck Mangione, misses completely), and then moves on to capture its effusive joyousness.

Byard is as close to the Ellington mode as any contemporary pianist: *Solitude* is full of appreciative insights; *Caravan* mixes some stark, swirling flurries of Art Tatum into the Ellington mood. Given his diverse interests, it is not strange to find Stevie Wonder's *Send One Your Love* here. *Ode to Billy Joe*, that folksy, bluesy hit of the Sixties, doesn't work as well; its gawky, chicken-legged walk eventually becomes a rhythmic strut. For a pianist who is so imaginative with other composers' works, his three originals are surprisingly uninventive. Suffice it to say that Byard needs a more solid creative foundation than he himself can provide. **JOHN S. WILSON**

Judy Carmichael: *Two-Handed Stride*

Judy Carmichael, producer
Progressive PRO 7065 (P.O. Box 500, Lifton, Ga. 31794)

Pianist Judy Carmichael has an unusually impressive list of supporters. Sarah

Vaughan and onetime Basic drummer Harold Jones both urged her to make this debut record. (Carmichael was apparently afraid that, at age twenty-eight, she was not yet ready.) Benny Carter has been asking people to listen to the disc and name the pianist (they never can). Lyricist and onetime *Downbeat* editor Gene Lees wrote the liner notes. The accompanying group is equally impressive: Basic-ites Jones on drums, Marshall Royal on alto saxophone, and Freddie Greene on guitar; Red Callender on bass.

According to Lees's notes, Carmichael discovered jazz pianists chronologically. She started with stride, on which she focuses here, and then went on to Bud Powell, Oscar Peterson, Tommy Flanagan, and Hank Jones. Only two of the eight selections on "Two-Handed Stride" are solos. Fats Waller's *Viper's Drag* and *Handful of Keys*. She plays them both with a confident flair, no doubt causing Carter's auditioners to guess Waller himself was playing. (Lees discovered that, when he told listeners this ruggedly two-handed pianist was a woman, they reported hearing "feminine qualities" in the playing. In fact, Carmichael is no more identifiably feminine than Mary Lou Williams or Patti Brown.) Two more Waller tunes, *Honeysuckle Rose* and *Ain't Misbehavin'*, find her in the dual role of soloist and ensemble pianist, romping joyously behind Royal's saxophone.

Carmichael is even more interesting on several '20s tunes that Waller did not write but played. She lends Claude Hopkins' *Anything for You* such authenticity that it sounds like a vintage Waller small group (with Royal as Gene Sedic). Even in a showcase for Royal, *Ja-Da*, she makes her presence felt.

The charm of this collection is that there is nothing forced about it. Everyone appears to be him/herself and in the process, an era comes vividly to life. One interesting footnote: In identifying the author of the liner notes, Progressive Records president Gus Statiras writes, "I hardly [sic] recommend that all jazz fans subscribe to Gene Lees's *Jazzletter*." Come on, Gus, you must be able to find *something* nice to say about it.

JOHN S. WILSON

**Baikida Carroll:
Shadows and Reflections**

Baikida Carroll, producer
Soul Note SN 1023

We are all acquainted with the Hollywood scenario in which the starving artist is discovered playing his saxophone on a street corner and is rocketed to stardom overnight. The harsh truth is much less dramatic. Like trumpet player Baikida Carroll, an artist can be respected by his peers and even have a small following, yet *still* be struggling to get heard, to earn a living. This is hardly Baikida's first record; he may even be familiar to you as a sideman on alto sax-



Carmichael: two-fisted stride

RICHARD ADAMS

ophonist Julius Hemphill's "Dogon A.D." (Arista) or Oliver Lake's "Prophet" (Black Saint). But it is the first disc under his own name likely to get any promotion, largely because Polygram Special Imports is now distributing the Soul Note catalog.

Carroll and Hemphill were both members of the Black Artists Group of St. Louis, a focal meeting place for contemporary musicians. Like many B.A.G. graduates, Carroll's roots are firmly in the blues, having cut his chops with such acts as Little Milton and Albert King. One of an entire generation of post-Ornette jazzmen whose vision is essentially non-European, he helped develop the vocabulary of the avant-garde.

Carroll's melodic inventions are unpredictable yet appropriate to the musical moment, his tunes blocked out with draftsmanlike clarity; if a motif fades it is to make room for a countermotif. It's not surprising then that "Shadows and Reflections" has the kind of continuity one would expect from a through-composed suite. Despite odd-length phrasing (the lines are alternately three, four, and five bars) and displaced accents, the otherwise stable first selections provide a sturdy framework for a series of narratives that gradually build (like bebop that won't stay put) to outgrow their original outline. Side 2 is a continuation of this process, climaxing in the breezy, free-blowing *Pyramids*, a piece that will unquestionably knock your socks off.

Backing Carroll, along with Hemphill, are Dave Holland on bass, Anthony Davis on piano, and Pheeroan Ak Laff on drums. Hemphill, who once described playing on prescribed changes as "good exercise," provides harmonically well-located episodic solos. His impassioned style is a good foil for Carroll, who, unlike most modern trumpeters, prefers economy

to pyrotechnics. Both men have passed through periods of profligate introspection and abstraction; now free from doubt, they will pacify the most anxious listener.

JOE BLUM

Jonah Jones—Hot Lips Page

Milt Gabler, producer
Commodore XFL 16569

Two fine jazz trumpeters of the '30s and '40s are brought into proper perspective on this reissue. Jonah Jones is probably more well-known than Hot Lips Page, having had some post-jazz success in the '50s and '60s playing shuffle rhythm treatments of pop tunes. Jones played in Cab Calloway's band, and all the numbers on his side of the disc were recorded in the mid-'40s with Calloway sidemen (except for clarinetist Buster Bailey). It is a rough, ready, and swinging group with a typically loose 52nd Street sound. Jones plays with a fervent driving attack that rises to a shout on *Rose of the Rio Grande* and shades down to a warm whisper on *Stompin' at the Savoy*. Tyree Glenn contributes some trombone solos that float somewhere between Jack Teagarden and Lawrence Brown, and Ike Quebec—one of the great undervalued tenor saxophonists of the time—swaggers through some Hawkins-styled solos.

Page's side reveals one of the most underappreciated major jazz personalities of the era. A great blues singer with a dark, grainy quality, he sometimes reflects Big Joe Turner's style, but, on *Frantic Blues* (which ends with a demonstration of his wild growl trumpet technique), one can also hear that he was a superb emotional interpreter. There is a raw rasp in his trumpet that recalls Roy Eldridge, though on this blues-dominated set he is generally more laidback than the agitated Eldridge. The side also offers some superb glimpses of Lucky Thompson's dark-toned tenor sax and Ace Harris' easy, flowing piano.

Both sides include one ballad showcase for a saxophonist: Don Byas' *These Foolish Things* (Page) and Hilton Jefferson's melting *You Brought a New Kind of Love to Me* (Jones). There's a lot of good blues and jazz on this record, but the best thing about it is the exposure it gives to Page.

JOHN S. WILSON

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(Continued on page 92)

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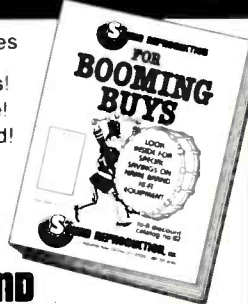
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COMPACT DISC

(Continued from page 55)



tions, and claims for the new system's superiority to the LP. One seemingly incidental yet entirely practical claim was that the CD is virtually indestructible. Yet a report in a recent issue of the British *Gramophone* noted that CDs may require careful handling after all. Since nonaudiophiles are sometimes careless with their LPs—leaving them out of their sleeves to collect dust and cat hairs, or handling them carelessly, with fingers on the grooves—we thought some sort of endurance test should be performed.

We had, in fact, had one example of a CD mistracking, apparently because of dirt, during the pop session, but a quick pass with a handkerchief over the smooth, plastic surface (the clear bottom surface, which protects the aluminized layer holding the digital information in a series of microscopic pits; the top surface simply contains label information) put things right. According to the literature, dirt and scratches on the CD's surface are read as out-of-focus by the laser, which scans past it; also, the coded music contains redundant information for

error correction. What, we wondered, would it take to make the player mistrack?

By critical consensus, we targeted *The Planets* for demolition and subjected it to treatment that would have destroyed an LP. First we smudged fingerprints all over it. It played perfectly. Then, testing it between each attempt, we wrote on it with pencil and with pencil eraser: we scratched it with a key; we even smeared powdered coffee creamer on it, all to no avail. Bending or melting it would probably have done the trick, but we had to conclude that under normal—well, even under severe-bordering-on-hostile—conditions, the CD is indeed indestructible. Even had we been able to block the laser enough to cause mistracking, the discs are easily cleaned.

Conclusions? Most everyone found the display of the CD's and CDP-101's capabilities impressive—but exactly *how* impressive varied among the critics. In the pop session, there was a general admission that the CDs sounded clearer and boasted a better bass response than the LPs, and that the sounds of vocals and mid- to low-range and percussive instruments sounded more natural. But there was also the feeling that upper-range instruments sounded "wrong" or "uncomfortable," and that the older material sounded better in its original form. Of course, if Moore's analysis is correct, and if companies do remaster their tapes before issuing them on CD, that objection may evaporate.

On the classical side, where we had the advantage of digitally mastered recordings, the tests saw a certain amount of cynicism about digital sound disappear as the critics were confronted with the CD's seemingly limitless ability to accurately reproduce pure orchestral sound in all ranges. As Oestreich observed after the sessions, "the problems we had with the high strings in the pop recordings were exactly what I expected to hear, but didn't, in the classical samples." Here too, it was suggested that producers are going to have to listen more closely to their master tapes for CD releases than they have for LP productions; and the prospect that CD might lead to an extensive cleansing of the catalog was perceived as a potential benefit in itself.

Yet even among the classical critics, who generally found the LP/CD comparisons more striking, there remained a feeling that the advent of CD would be less than earth-shaking. "I can't say that I wasn't impressed," Peter Davis reflected a day after the session. "but I don't think that, in purely sonic terms, this is anywhere near as dramatic an advance as I found when we went from mono to stereo. This is just a further refinement, and as far as I'm concerned, its most important aspects are the physical ones—the convenience of the player, the longevity of the discs, the elimination of clicks, pops, and wow, and the fact that you can't really harm them. All that seems much more significant to me than the marginal improvement in sound reproduction." **HF**



MESSIAH

(Continued from page 62)

edged master unabashedly working in the style of his own age, their validity and propriety have been debated. The negative view was perhaps best expressed by Moritz Hauptmann, who complained that Mozart's arrangement "resembles elegant stucco-work upon an old marble temple, which easily might be chipped off again by the weather." Perhaps: but to extend the architectural analogy, I, for one, find Mozart's work as congruent with and as complementary to Handel's as Sir Christopher Wren's late-seventeenth-century additions are with the original Tudor portions of the palace at Hampton Court.

The arrangement was published by Breitkopf and Härtel in 1803, with editorial assistance from Thomascantor Johann Adam Hiller, who had done much to promote *Messiah* in Germany. Influenced no doubt by reports of the 1784 London com-

memoration, he had presented the oratorio, with additional accompaniments of his own, using enormous forces; at the first performance he directed, in Berlin in 1785, 302 vocalists and instrumentalists participated.

Editing Mozart's arrangement must have been a bittersweet task for Hiller, who surely would have preferred to have seen his own performing edition published (the score and parts, alas, appear to have been lost), but his alterations were not as extensive as Prout and others believed. (The autograph Mozart score and the original performing materials turned up only some twenty-five years ago, and the arrangement was not published in Urtext form until 1961.) Hiller's only crucial change was to substitute his own arrangement—with bassoon obbligato!—of Handel's "If God be for us" for the accompanied recitative Mozart had written.

There have been two recordings of the Mozart *Messiah*. The first, recorded live in Salzburg in 1953 under the direction of Josef Messner, is based on Mozart-Hiller. Crippling cuts (can you imagine a *Messiah* without "All we like sheep"?), lugubrious tempos, dry and wan singing, and cramped sound make this out-of-print recording expendable for all but the archivist. By con-

trast, the second, glorious in almost every way, is essential to the library of anyone seriously interested in *Messiah* or Mozart. Conducted by Charles Mackerras (his second *Messiah*) and produced by Andreas Holschneider, who prepared the Urtext edition for the New Mozart Edition, the recording accurately represents the original production in all important respects save two: Firstly, the chorus consists of fifty-two singers rather than twelve, and the solo passages Mozart indicated in some choruses are sung by a *Favoritchor* rather than by the soloists. Secondly, the second soprano's part is divided between soprano Edith Mathis and alto Birgit Finnilä, who, with tenor Peter Schreier and bass Theo Adam, make up one of the finest groups of soloists to grace any account. Overall, the performance is indescribably charismatic and atmospheric and, despite use of modern instruments and other minor inauthenticities, succeeds admirably in conjuring up images of the Palffy Palace premiere in Vienna on March 6, 1789.

Although it met with resistance initially—especially in Great Britain—the Mozart-Hiller version quickly became the performing edition most frequently encountered during the nineteenth century—though not for lack of numerous others. As

the century progressed, Handel, revered like a demigod, fell victim to the notion that bigger is better. The most notorious and elephantine performances of his music, without question, were those given at the triennial Handel festivals held in the Crystal Palace, Victorian London's prototype of the Houston Astrodome. At the 1859 commemoration of the centenary of Handel's death, before an audience of some 20,000 people, Sir Michael Costa led 2,765 vocalists and 460 instrumentalists in *Messiah*; he added parts for a full Romantic orchestra that included contrabassoons and ophicleides. Emma Albani, Adelina Patti, Nellie Melba, and Clara Butt were among the galaxy of opera stars who appeared as soloists in the Crystal Palace festivals, which continued until the mammoth edifice was destroyed by fire in the 1930s. This facet of *Messiah*'s history has not been documented on record, and I hope that the next time one of the giant choruses like the Mormon Tabernacle Choir or the Huddersfield Choral Society is tapped to record the work, the record company will have the guts to ignore the purists' howls of horror, resurrect Costa's score, engage topflight opera stars, and re-create a full-blown Romantic Crystal Palace production, right down to the string portamentos, thereby not only performing an invaluable musicological service, but also avoiding the use of the lackluster Prout scoring or a misguided attempt at a pseudo-authentic *Messiah* with anachronistically gargantuan forces.

In the 1870s and 1880s, German organist Robert Franz made quite a reputation by preparing editions of choral works by Bach and Handel with additional accompaniments for "modern orchestra." His edition of *Messiah*, published in 1885, was used for many years by the Handel and Haydn Society of Boston, which had given the first complete American performance in 1818, and formed the basis of the score used by the late Thompson Stone for the society's 1955 Unicorn recording, now out of print. Although Stone made numerous cuts and alterations and was cajoled—or more accurately, shamed—into allowing a harpsichord in his orchestra, his recording gives a clear idea of Franz's approach, which, "though founded on Mozart[-Hiller], with the necessary completions," is both tasteful and inventive. Nonetheless, the society should one day resurrect Franz's performing edition and record it authentically and in its entirety, as a pendant to its recording of the "pure" score, conducted by Thomas Dunn—the best available budget version, which will be discussed next month.

Messiah as it was performed in nineteenth-century Britain is documented in the first comprehensive recorded representation of the oratorio, a remarkable series of twenty-five single-sided G&T 78s made in 1906. Although arranged for woodwinds and brass to accommodate the primitive

recording methods, the Mozart score was followed. Tempos are consistent with those considered the norm today. The soloists, however, provide surprises. Theirs are not large, vibrato-ridden operatic voices; the tone is light, pure, well focused, and free of vibrato. Vestiges of the performance practice of earlier times can also be detected in the treatment of cadential points; the soloists actually dare, albeit conservatively, to interpolate high notes and other embellishments. Tenor John Harrison's interpolations at the end of "Thou shalt break them" bear a close enough resemblance to Paul Elliott's in the Hogwood recording to drive the point home: These soloists could have walked into Hogwood's recording sessions, and with only a modicum of coaching in baroque embellishment, recorded *Messiah* in an impeccably stylish manner. *Plus ça change, plus c'est la même chose!* **HF**

CLASSICAL REVIEWS

(Continued from page 76)

Theater and Film

E.T. Original motion-picture soundtrack recording.

Composed, conducted, and produced by John Williams. MCA 6109, \$8.98. Tape: 6109, \$8.98 (cassette).

POLTERGEIST. Original motion-picture soundtrack recording.

Composed, conducted, and produced by Jerry Goldsmith. MGM MG 1-5408, \$8.98. Tape: CT 1-5408, \$8.98 (cassette).

STAR TREK II: THE WRATH OF KHAN. Original motion-picture soundtrack recording.

Composed, conducted, and produced by James Horner. ATLANTIC SD 19363, \$8.98. Tape: SD 19363, \$8.98 (cassette).

Interestingly enough, the major efforts of 1982 by Hollywood's two busiest and most celebrated film composers are both tied to films closely identified with *Wonderkind* director Steven Spielberg.

For the space-age Peter Pan fantasy *E.T.*, John Williams has woven a sweeping but tasteful sound-tapestry, with an altogether suitable stress on childlike wonder and tender enchantment. This is perhaps Williams' most intimate and gracious score, insistently sounding notes of wistful fancy, innocent yearning, and rhapsodic nonsensual rapture.

Music accompanies much of the film's parablelike action and thus serves as a very conspicuous factor in its touching and compelling suspension of disbelief. Williams makes the most of several opportunities to create extended, symphonic passages, orchestrated with almost crystalline buoyancy and delicacy by veteran Herbert Spencer.

Some may discern strong residues

from the more airborne moments of *Superman* and *Close Encounters*, but the overtones of grandiosity and awe are kept to a merciful minimum. MCA's sonics, somewhat superior to the general run of its recent product, afford a reasonable facsimile of the Dolby theater soundtrack.

For the suburban horror tale *Poltergeist*—which also centers around children—Jerry Goldsmith has pulled out all the stops. But instead of settling for a kind of *Omen III*, he has dropped the chorus (except for a couple of brief segments) and attempted to meld his characteristic strengths—asymmetric ostinatos, dissonant harmonies in contrary motion, and the like—with more conventionally expressive modes. A deceptively innocuous lullaby theme—complete with ghostly children's choir—laces the whole score; it is heard at the start of Side 1 in a rather maudlin arrangement that in the theater merely backs up the closing credits. There are passages of almost Ravelian opulence, and the "redemption" theme heard during the exorcistic struggle for a little girl's soul is comparable in its ecstatic chromaticism to Williams' "Ark" theme in *Raiders*.

But the larger part of Side 2 presents fairly lengthy symphonic elaborations of typical Goldsmith cellular motifs, which reach truly numbing peaks of frenzy and terror. MGM provides a clean, balanced digital acoustic for orchestrator Arthur Morton's dense yet always intelligible textures.

James Horner, a comparatively little-known composer who has heretofore specialized in low-budget horror and science-fiction films, graduates with *Star Trek II* into the cinematic big time. His score, resplendently outfitted by orchestrator Jack Hayes, is an appealing, but not terribly individualistic, farrago of elements now (since *Star Wars*) mandatory for the genre: ceremonial fanfares, heroic themes, eerie "outer space" tremolos, and pulsing tension music, with only one unusual device—a recurring series of overlapping trills in the brass. All of this handsome clangor is superbly rendered in a very warm and full-bodied digital ambience.

All three of these tracks belong in any self-respecting film-music buff's collection. Yet one cannot completely banish a perhaps subversive reflection on the tremendous discrepancy between all the sophisticated paraphernalia of subsidiary film artistry in special effects, production design, photography, and—most pertinent here—music, and screen stories whose psychological content and adult interest are nil and whose imaginative range is restricted to the wish-fulfillment banalities and manipulative terror-tactics of a comic-book vision of the world. When will composers of the caliber of Williams and Goldsmith get another chance to score films with at least a marginal concern with real people in a real world?

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BACKBEAT REVIEWS

(Continued from page 86)

La Marche's singing is consistently soft and intimate, even on the brassy old Clarence Williams tune *I Got What It Takes*—which includes such couplets as "You can look at my bank book/But I'll never let you feel my purse"—and *That's What I Call Sweet Music*, a song introduced by the lusty-voiced Sophie Tucker. La Marche is at her best on *Minnie the Moocher's Wedding Day*, on which she re-creates all three voices of the Boswell Sisters through overdubs. She not only captures the vocal texture, but the soft accents and phrasing of this popular trio of the '30s. Her reading of *Blues My Naughty Sweetie Gives to Me* is also effective, her gentility lending a sense of coy allure.

Waldo has given La Marche more exposure than usual on "Vamp 'Til Ready," somewhat at the expense of his band. Roy Tate's bristling trumpet, Frank Powers' soaring clarinet, and Jim Snyder's bushy-voiced trombone are largely relegated to supporting roles, although all three growl and moan effectively behind La Marche. Just how much more the group could have contributed is made clear through the exuberant reading of the old King Oliver piece *Wa Wa Wa*, the only number devoted solely to the band.

JOHN S. WILSON

Gene Mayl's Dixieland Rhythm Kings: Jazz Concert

Jerry Grady, producer
Red Onion 5 (P.O. Box 366,
Dayton, Ohio 45401)

Gene Mayl's Dixieland Rhythm Kings have been recording since 1948 with bassist/tuba

player Mayl as their continuing link and leader. Over the past thirty-five years, the sound, personnel, and capabilities of the band have varied: There have been times when it has been heavy-footed and clumpy, sometimes drawing on the West Coast Turk-Murphy sound, sometimes aiming at the old-time New Orleans groups. This version, recorded in Burlington, Iowa, in 1979, comes out of the '50s Eddie Condon group sound and is one of the best Mayl ensembles on record.

Its key and spark is cornetist Ernie Carson, who plays with the exuberant abandon of Wild Bill Davison. Carson comes charging on with a piercing, abrasive attack, decorated with lifts and lights. John Ulrich contributes crisp solos that have the texture, but not the typically dead sound, of a tack hammer piano. Kim Cusack's clarinet is an interesting combination of New Orleans smoothness and Pee Wee Russell's rasp. Unfortunately, Cusack also sings with that empty, colorless sound so characteristic of semiprofessional Dixieland band singers.

As befits a band with Condon instincts, the repertory is more Chicago than anything else: *Nobody's Sweetheart*, *Everybody Loves My Baby, I Never Knew*, and *I've Found a New Baby*. Even the one New Orleans tune, *Just a Little While to Stay Here*, is transformed to the Condon style by Carson's Wild Bill brassiness, and the Whiteman Rhythm Boys's *From Monday On* is as much Wild Bill as it is Bing Crosby.

The consistent star of the set is Carson. Both open and muted, he lends the kind of energy, enthusiasm, and dedication that keeps traditional jazz styles going forever.

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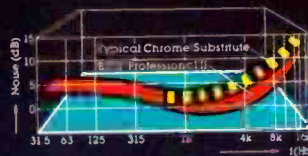
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