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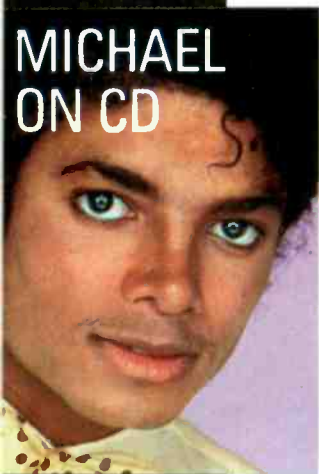
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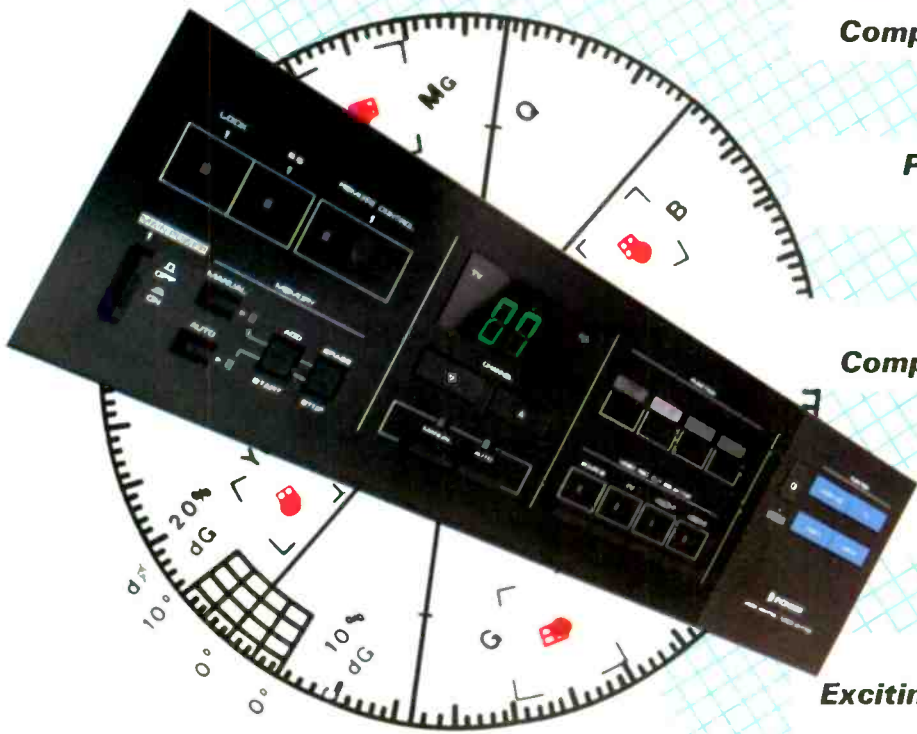
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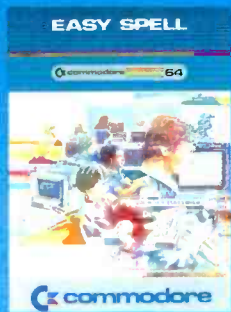
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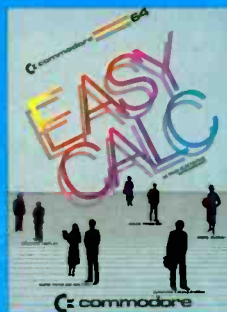
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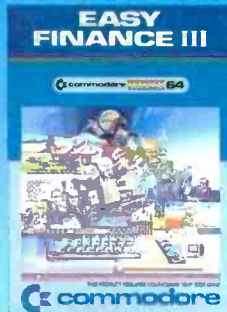
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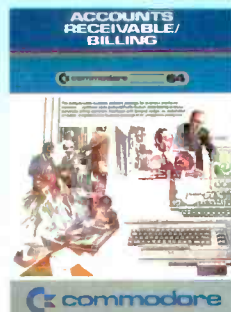
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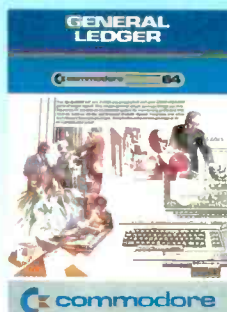
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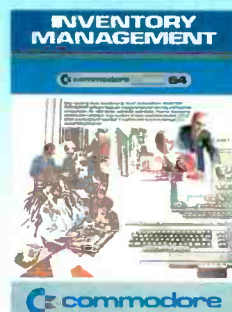
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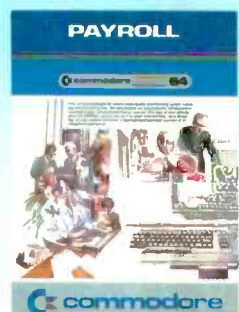
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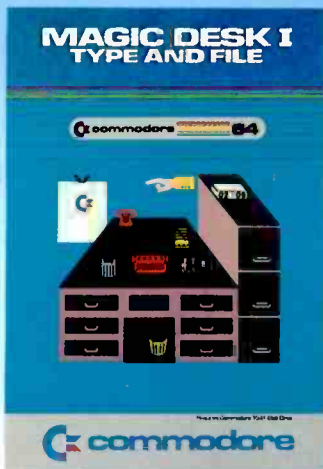
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VOLUME 34 NUMBER 1 JANUARY 1984

AUDIO

Currents: New audio and video gear at the Tokyo Audio Fair; First consumer Compact Disc test record.....	13
CrossTalk by Robert Long	18
CD vs. LP; In search of good AM reception; Cassette splicing advice	
Basically Speaking by Michael Riggs.....	20
How HF tests turntables	
The Autophile by Gary Stock	23
Apprentice to the masters: Our columnist spends a day as an installer	
*New Equipment Reports	
Akai CD-D1 Compact Disc player.....	26
Yamaha R-90 receiver.....	28
Infinity RS-8a loudspeaker.....	34
Sony CDP-200 Compact Disc player.....	36
DB Systems DB-1B preamplifier.....	38
Aiwa AD-F770 cassette deck.....	39
Acoustic Research SRC-1 remote control.....	41
Amber Series 50B integrated amplifier.....	42
Thorens TD-147 turntable.....	44
Boston Acoustics A-400 loudspeaker.....	45

NEW TECHNOLOGIES

*Video Lab Tests	
Sony KX-1901A video monitor.....	47
Pioneer VC-T700 TV tuner.....	52
*Stereo Video to Go by Frank Lovece.....	55
A comparative guide to choosing a portable VCR/camera setup	
State of the Arts by Paul D. Lehrman.....	60
Behind the scenes at Digicon '83, the first international conference on the digital arts	
*Compact Disc Reviews: Handel's <i>Water Music</i> ; Donald Fagen; Michael Jackson; Weather Report.....	62
Videodisc Reviews: James Taylor in concert; Carole King's "One to One".....	67

CLASSICAL MUSIC

In Praise of Brahms's Songs Reviewed by Will Crutchfield.....	68
DG's tribute offers a <i>Magelone</i> cycle that is never stultifying and often moving	
Reviews: Philip Glass's <i>Koyaanisqatsi</i> ; Wolf-Ferrari's <i>Sly</i> ; Maria Callas in Paris.....	75
Critics' Choice	78
Field: An Irish Expatriot Who Beguiles the Ear Reviewed by Irving Lowens.....	82
Piano concerto recordings reveal a new side of the inventor of the nocturne form	
Before Moulin Rouge There Was Margot Reviewed by Matthew Gurewitsch.....	86
Delius's classic comes to life in its first BBC recording	
The Tape Deck by R.D. Darrell.....	89
Three new subseries; Silver Rose's first release	

BACKBEAT/Popular Music

Sting: Rock 'n' Roll Intellectual by Samuel Graham.....	90
The Police prove that artistic achievement can coexist with commercial success	
Paul Simon. Stunning. Reviewed by Sam Sutherland.....	93
His new album, sans Garfunkel, is among the best of 1983	
Pop Reviews: Michael Bloomfield; Bob Dylan; John Hiatt; Tom Waits.....	93
Jazz Reviews: Woody Herman; Dick Hyman; John Surman; Windham Hill artists.....	98

DEPARTMENTS

About This Issue	7	Reader-Action Page	104
Letters	8	Advertising Index	104
		*Cover Story	

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If noise, hum and distortion turn you off, turn on Sansui's new AU-D77X* integrated amplifier for pure, true sound.

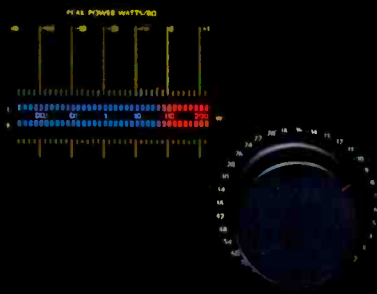
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About This Issue

Inside the Pages of January's High Fidelity

WHEN IT COMES TO forecasting what audio and video components will appear next in the U.S., the mist in the crystal ball usually clears first at the annual Tokyo Audio Fair. And 1983's event was no exception. For example, visitors saw the first Compact Disc changers and a new generation of lower-price CD players, as well as the latest in Beta and VHS Hi-Fi video recorders. A



Exhibit at the Tokyo Audio Fair

report on the Audio Fair appears in "Currents," a new column combining the content of "High Fidelity News" and "TechFronts."

The first issue of a new year always highlights our test reports, and this January we've added two video components, bringing the total to 12. In selecting the audio gear for evaluation, we focused not only on the latest high-technology products, such as Akai's first Compact Disc player and Sony's new \$700 CD player, but also on components from small specialist companies, such as the DB Systems preamplifier and Amber's new integrated amp.

Moving from state-of-the-art to "State of the Arts"—an article by regular contributor Paul D. Lehrman—we travel to Vancouver for the first international conference on the digital arts. Digicon '83 saw musicians and visual artists in workshops and performances, demonstrating the use of computers as creative tools. Electronic-music synthesis was a focal point of the session.

This month's music coverage concludes a two-part exploration of Brahms's music. "In Praise of Brahms's Songs," by Will Crutchfield, centers on a new performance of *Mugelone* in Deutsche Grammophon's Brahms Edition. The BACKBEAT interview finds Sting, the driving force of the Police, exploring how the band has meshed commercial success with consistent creativity. And of course, our NEW TECHNOLOGIES section contains reviews of the latest pop and classical Compact Discs and music videodiscs.

One final music note (no pun intended): Classical music buffs will have an opportunity to enjoy eight more pages of reviews beginning in April. The new section will appear in our MUSICAL AMERICA edition and will be in addition to the reviews appearing in the regular HIGH FIDELITY.—W.T.



COVER DESIGN: Skip Johnston

Photos: Ronald G. Harris

ON THE COVER: Akai CD-D1 Compact Disc player, Pioneer VC-T700 TV tuner

Michael Jackson: Photo by Matthew Ralston, Courtesy Epic Records

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Number 11 in a Series

Down With the Masses!

One of the major goals of any cartridge designer is to keep the effective moving mass of the unit as low as possible. In premium cartridges the smallest diamond styli are used, cantilevers are made as light as possible, and magnet size is reduced to the minimum.

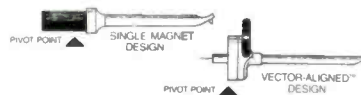
Lighter and Smarter

But making parts smaller and lighter is just one approach to the problem. Careful and creative location of each moving cartridge element can make the mass seem even lower. For instance, the geometry of our two Vector-Aligned™ magnets reduces the effective magnet mass seen by each groove wall to barely more than half the total magnet mass. With single-magnet designs each groove wall must move the total magnet mass, thus increasing the load on the record and stylus.



One-sided Design

But we go an important step further by locating all of the moving parts of our stereo cartridges on the same side of the pivot point. With most other designs the stylus and cantilever are on one side of the pivot (or fulcrum) and the magnet is on the other. This traditional, longer construction is inherently more massive.



The Payoff

Any reduction in the effective moving mass of a phono cartridge will improve record reproduction. First, it reduces the stress on the groove walls, extending record and stylus life. It makes it possible for the stylus to accelerate more quickly in response to very high frequency signals. High frequency tracking is also enhanced by low effective moving mass. This improves frequency response and lowers distortion, especially during musical climaxes which often combine high signal levels with very complex wave shapes.

Across the Board

This basic concept of geometric mass reduction is not limited to our most expensive models. It is inherent in every Audio-Technica Vector-Aligned cartridge. And its benefits have made even our least expensive models unusual values, while enhancing the capability of our most sophisticated stereo cartridges.

Good listening.

Jon R. Kelly

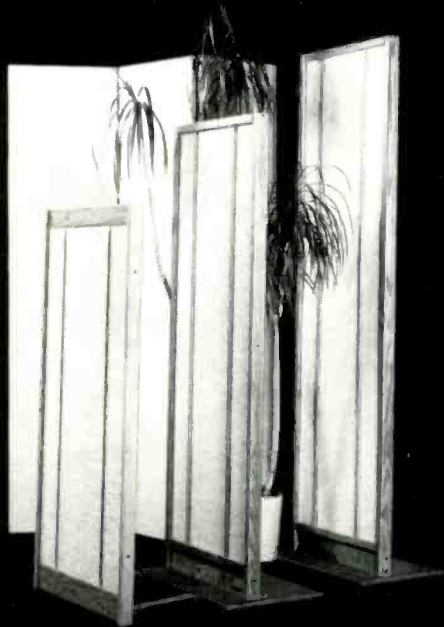
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Letters

Tread with Care

Being knowledgeable is not enough; a reviewer should also be somewhat tactful and modest in presenting his views.

Peter G. Davis's "Charting the Prima Donna Sweepstakes" (September 1983) is a fine example of mature and thoughtful criticism. He introduces the negative and major portion of his commentary with the words, "Treading with care and trying not to appear ungrateful. . . ."

Would that all your reviewers were so circumspect in presenting their opinions. For example, Will Crutchfield's review of Verdi's *Nabucco* in the same issue: Not only is it ungrateful to all concerned, but it might well be described as "stomping with callous disregard and trying to appear authoritative." Besides such a juvenile attempt at sensationalism as "Sinopoli is in fact so stimulating that one might wish he were conducting . . . some good music" (a phrase your layout editor decided to quote in boldface, no less), Crutchfield's essay is patently self-serving: We end up knowing much about his ideas on opera, conductors, and singers, and precious little about whether this recording would be worth purchasing.

Lawrence B. Porter
Nashville, Tenn.

One person's irony, evidently, is another's sensationalism. The purpose of the boldface quote is to pull the passerby into the text, where he would find, immediately following: "Nabucco is good music, yet it is not through this treatment that its stature is revealed."—Ed.

Cassettes Ascendant

Long have we heard that true audiophiles do not buy cassettes because records have better fidelity. Last week I compared two copies of DGG's 1981 Von Karajan recording of the Mahler Ninth: One was a virgin LP, the other a prerecorded cassette. First I played ten seconds of the record on my Mitsubishi LT-5V turntable with a Stanton 980-HZS cartridge, then ten seconds of the cassette on my Nakamichi Dragon. The cassette version was cleaner and had greater stereo separation—better than the record in every way.

In the Fifties and Sixties, each new advance in the reproducing equipment surprised me with how good the records sounded. Perhaps now, with automatic azimuth adjustment, this is happening for cassettes.

William M. Smith
Long Beach, Calif.

Declining Quality

I began reading HIGH FIDELITY in 1954, the year I assembled my first Heathkit. I was in high school then. As soon as I could afford to, I bought McIntosh electronics for the heart of my system, and I still use them to enjoy my 1954 Stephens Tru-Sonic coaxial speakers. For many years I drifted away from being a high-fidelity hobbyist and just enjoyed the music. Recently, my son pointed out the convenience of the cassette format, so I put

the dust covers on my Ampex and Sony open-reel decks and started learning something about cassette decks.

Naturally, I turned to HF as my first and most trusted source of information; I was elated to find that you were still on the newsstand. With your help and that of apparently knowledgeable dealers, I selected an autoreverse cassette deck that seemed to fit my needs well. It worked smoothly, looked slick, and sounded quite good. It didn't have the wide-range, open, full sound of my open-reels, but I wasn't expecting that, so I enjoyed the quiet background provided by Dolby B and the unquestioned convenience of dropping in a cassette for easy listening.

After several months, however, I began to learn the dark side of contemporary audio: a malfunctioning transport, burnouts of panel lights that are not user-serviceable, endless delays in the repair shop, and either lazy or uninformed technicians. Thinking it might just have been bad luck, I bought another deck, but experienced the same problems. My conclusion: Plastic toys are being dressed up to look like the real thing and are being sold as though they were. I am a little disappointed that I found no hint or warning of this in your pages. Although I can understand why you might be loathe to bite the hand that feeds you—your advertisers—we subscribers deserve a little more. But then, maybe you don't remember how it was many years ago: perhaps this is the new normality.

Ted Blishak
Menlo Park, Calif.

We agree that finding good service is difficult, though we're not so sure that this is anything new. In fairness to the technicians, however, it should be noted that today's components are more complicated than those of yesteryear, that there are more different models, and that they change more rapidly. Keeping up with all the variations and changes is much harder than it used to be.

Nor are we convinced that audio equipment has become significantly less reliable. Certainly the last few years have seen a growing emphasis on reducing production costs, and we have experienced more failures out-of-the-box on the test bench over the same period, but most of our own components, including those of recent vintage, have been quite dependable. Whether we've just been lucky is hard to say. In our testing program we don't use any single piece of gear long enough to tell whether it has any unusual tendency to break down. And even if we did, it would be only one sample—hardly a valid basis for a sweeping indictment (or vindication).

Your problems with panel lights sound a little freakish. Nowadays, most of these are LEDs (light-emitting diodes), which don't burn out. But anything mechanical (such as a tape transport) eventually will require service. And autoreverse cassette transports, being more complex than unidirectional ones, are more trouble-prone than average.—Ed.

Kremer vs. Goldsmith (cont.)

I became aware of the very interesting Kremer/Goldsmith debate ("Kremer and Goldsmith on Schnittke (and Each Other)," February 1983) after reading the letters in the September 1983

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issue. In reference to the original debate, I would like to point out Mr. Goldsmith's slip in attributing *Ludwig Van* to Stockhausen. The real author is Mauricio Kagel, one of the most interesting of today's composers. Kagel compels us with his works to "rethink" music in time and sociological context, as Mr. Goldsmith implicitly stated in his letter to Gidon Kremer.

Somewhat neglected today on records, Kagel deserves at least as much attention as his more exposed colleague Stockhausen.

Paulo Pastor-Braga
Rio de Janeiro, Brazil

Grunters of Note

I was struck by John Canarina's statement in his review of Neville Marriner's Mozart recordings ["Mozart Symphonies: Classical or Romantic?," July 1983]: "... I never thought of Mozart as a composer to grunt by." Perhaps Mr. Canarina has never heard Pablo Casals's recording of Mozart's Symphony No. 36, recorded live at the 1959 Festival Casals de Puerto Rico. The 83-year-old Casals gives us one of the loveliest, most satisfying performances of the Mozart Symphony that I have ever heard.

In the art of grunting while conducting Mozart, Marriner has a very distinguished predecessor indeed!

Guy Bagley
Orange, N.H.

Loudspeaker Phasing

I have long been familiar with the battery technique for phasing loudspeakers described by Mr. Plaessmann in your August '83 issue ["Letters"]. As I understand it, loudspeakers are engineered so that the positive (red) input should be connected to the positive amplifier terminal, and ground (black) to ground. (If this is correct, then there is a right way and a wrong way to hook up a speaker to a mono amplifier.) To test a speaker's phasing, you connect its ground terminal to the ground terminal on an amplifier. Then you connect the positive terminal of the loudspeaker to the positive terminal of a flashlight battery and the negative terminal of the battery to the positive terminal of the amplifier. When this circuit is closed, the woofer should move forward.

Kenneth W. Doak
Murrysville, Pa.

Technical Editor Michael Riggs replies: The convention is as you describe, although not all loudspeakers follow it. But it doesn't really matter. No harm will come from connecting a speaker's positive input to an amplifier's ground terminal and its negative input to the positive terminal. Just make sure the other speaker is connected the same way. The wrong way to connect a loudspeaker is out of phase with the other speaker in a stereo pair. Phasing is irrelevant in a single-speaker mono system.

FM Overcrowding

I find Michael Riggs's occasional articles on FM basically very clear and accurate. However, he always throws in one remark with which I must take exception. Before stressing the importance of the capture ratio in reducing multipath problems, he always mentions how rare it would be to

have two stations on the same frequency. No doubt that was true back in the '50s and maybe even in the '60s, but not in the '80s. The FCC now stipulates that Class A commercial stations need be only 65 miles apart, and low-power educational stations can be much closer together than that. Anyone living in a metropolitan area is sure to have competing stations on several channels.

Here in Pleasanton (a suburb of San Francisco), I have two or more reliably usable signals on no fewer than 18 frequencies (that is, they would be usable except for walking on each other). Excluded from that count are two San Francisco stations with co-channel boosters near here (to fill the shadow area behind some hills). On another 17 frequencies there are at least two consistently receivable signals, only one of which is normally usable, and on three more frequencies there are two consistently receivable signals that are not quite usable because of multipath or inadequate signal strength.

Although the above stations are counted on an excellent system (a McIntosh MR-80 tuner connected to a Channel Master Stereoprobe-9 FM antenna on a rotor 55 feet off the ground), it must be noted that on at least two frequencies a portable radio with a whip antenna can easily be coaxed into delivering either of two stations. And these numbers represent "dead band" conditions. When reception picks up, things really get crowded: At various times there can be as many as five usable signals on 97.7 alone.

John M. Jefferson
Pleasanton, Calif.

Michael Riggs replies: For the last three years I have lived in New York City, and for seven years before that I lived in Boston. In that time, I have not once been troubled by co-channel interference. But then I've never used a high-gain antenna on a 55-foot mast. I can readily believe that you have problems using that kind of setup in a metropolitan area and that they are getting worse. Your circumstances are very unusual, however.

Sound Instincts

In his review of Adrian Boult's recording of the Schubert "great" C major Symphony [September '83], Harris Goldsmith refers fleetingly to "current opinion that Schubert wanted an alla breve" for the first-movement introduction. Actually, the matter does not involve opinion at all: The alla breve signature appears clear as a bell in the autograph score, the only primary source for the work. Unfortunately, the old Complete Edition somehow transformed the marking into an uncut C (4/4); and while the editors later noted their mistake in the fine print of the "Critical Report," the correction has gone unnoticed. I trust that the thoughtful Mr. Goldsmith—who rightly asks for a "more flowing tempo"—will take some pleasure in finding his musical instincts borne out by the composer's explicit testimony.

Joshua Rifkin
Cambridge, Mass.

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.

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Currents

News, new products, and new technologies

**Seen in Tokyo:
Hot New
Audio and Video
Gear**



Yamaha CD player; Sansui read/write digital disc system (right).



The place to spot the latest trends in audio and video gear is Japan, and for a one-stop overview of products being prepared for eventual export to the U.S., the Tokyo Audio Fair can't be beat. Here's a capsule look at the highlights of the most recent exposition.

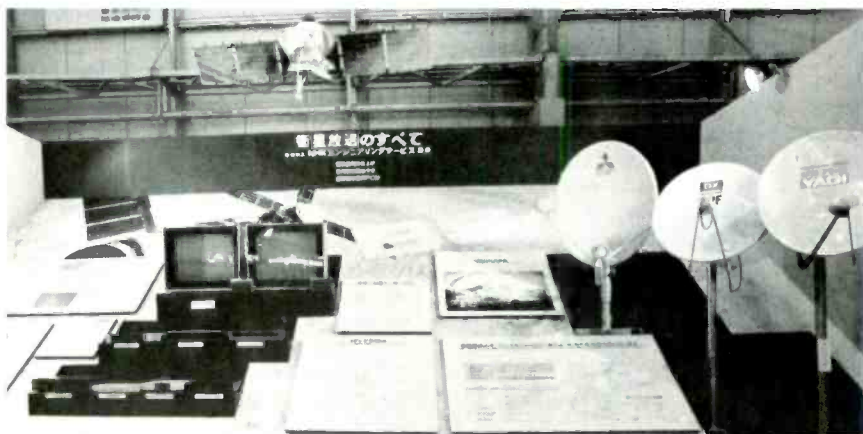
- Now that well-heeled Japanese audiophiles have bought their Compact Disc players, sales in Japan have started to slump and manufacturers are hastening to introduce lower-price models. Several companies demonstrated units priced at about \$500 (in Japan), but Yamaha's CD-X1, at \$430, was the least expensive of all. (U.S. prices will be higher: The CD-X1, for example, will list for \$650.)

- Though DBS broadcasts won't begin here until 1985 at the earliest, there won't be any lack of hardware when they do. Demonstrating small-dish antennas suitable for direct reception of high-power audio and video broadcasts by satellite were Sansui, Kenwood, Kyocera, Technics, Toshiba, Mitsubishi, Sharp, and NEC. Part of Kenwood's DBS system is a digital decoder capable of converting digital audio programs, should they show up on DBS.

- Sansui's prototype digital audio disc (DAD) recorder uses a 20-centimeter (7 7/8-inch) disc that holds an hour of music per side and can be recorded only once. Sansui says that the machine could be modified to play CDs as well as the larger-diameter recordable discs. Judging from its "bread-board" look, however, we'd say it's a long way from any sort of commercial introduction.

- Also from Sansui is a digital tape recorder

using a miniature rotary head. It is said to be capable of making six-hour recordings on a cassette that's only slightly larger than the standard Compact Cassette. The tape is the 8-millimeter-wide metal formulation being developed for use in superportable VCRs. The machine actually caused something of a furor at the Audio Fair, with the show management demanding that Sansui remove it from exhibition. Reason: Several Japanese makers are meeting to agree on standards for digital cassette recorders, and



Toshiba, among others, devoted lots of floor space to DBS dish antennas and receivers.

HARRIS GAFFIN

there is a tacit understanding among them that until they reach an accord, no prototypes are to be displayed. But because Sansui chose not to join this group, it was free to demonstrate its machine—a point that the show management finally acknowledged when the recorder returned to the Sansui booth on the last day of the fair. Rumor has it that the group will develop two standards: one for rotary-head machines and one for fixed-head recorders.



Marantz (top) and Hitachi CD changers

- The ultimate in long-play convenience may well be a Compact Disc changer. Aiwa, Marantz, and Hitachi have developed programmable CD changers capable of handling from ten (Marantz) to 99 (Aiwa) discs. Each manufacturer stresses that its device is still in prototype. The Aiwa unit, for instance, will probably have to go on a diet to attain commercial viability: Right now, it's the size of a microwave oven.

- VHD videodiscs may never make it to the U.S., but the JVC-developed capacitance system using a grooveless disc is said to have overtaken RCA's CED format in Japan and is running a close second to the optical laserdisc. Panasonic, JVC, and Mitsubishi have new VHD players in the \$650 range, and there are some 400 VHD titles available in Japan. The VHD system claims to offer the best features of CED and laserdisc (stereo audio, random access, and so on), plus one capability the other two cannot match: VHD discs are "universal," in that the same disc is compatible with players equipped for the NTSC, PAL, and SECAM television systems.

- Beta Hi-Fi units abounded at the Audio

Fair, including new tabletop models from NEC (the VC-727) and Toshiba (the L8V-L8) and a second portable from Sanyo (the VTC-H5). But the most intriguing new design comes from Aiwa. Its AV-5 is a conventional portable Beta deck that converts to Beta Hi-Fi operation with the addition of a small, add-on module (SV-5M) containing frequency-modulation and compansion circuits. VHS Hi-Fi recorders also showed up in considerable force, with tabletop models from Hitachi, Panasonic, Sansui, and JVC.

In the "Digital Domain"

We're eager to try out the first consumer-oriented demonstration/test Compact Disc. Produced by Warner Special Products in conjunction with Stanford University's Center for Computer Research in Music and Acoustics, "Digital Domain" contains examples of digital recording and synthesis, plus an extensive test section for fine tuning an audio system.

The description of the CD's selections paints a fascinating picture of technology and art combining to create what should be an extraordinary sonic experience. The title piece, for instance, was composed and mixed on the Lucasfilm Audio Signal Processor (see "State of the Arts," page 60) and contains both environmental sounds—cicadas, a jet plane, the ocean—and synthesized ones. A selection called "Study for Reverie" demonstrates the capabilities of digital signal processing as sounds recorded in a nonreverberant room are "grafted" into two reverberant spaces—a cathedral and a concert hall. The test section contains square waves, pink noise, and sine waves for analyzing the behavior of Compact Disc players and other audio components. "Digital Domain" is distributed by Elektra (catalog number 9-60303-2) and sells for \$19.



Budget EQ from Radio Shack

A ten-band graphic equalizer with pre/post switching, two tape monitor loops, and two-way tape-dubbing controls, the Model 31-2005 from Radio Shack seems quite a value at \$120. The unit's 20 sliders offer 12 dB of boost or cut in each band. For more information, write to Radio Shack (1800 One Tandy Center, Fort Worth, Tex. 76102).



A Front End for Pedestrians

Press a button on the new KS-Q8 cassette/receiver from JVC, and the tape section pops out, ready for use as a battery-powered personal portable. While that feature alone would distinguish it from all but a handful of others, the KS-Q8 (\$500) is also capable of recording stereo FM broadcasts in the car. The unit has a frequency-synthesis tuner with presets for five AM and five FM stations, a music-search function for cueing up to the beginning of taped selections, Dolby B, and a small built-in power amplifier. For more information, write to JVC Company of America (41 Slater Dr., Elmwood Park, N.J. 07407).



A Delicate Balance

While Compact Disc technology promises to bring uniform sonic performance regardless of price, it is still true in analog audio that more money will usually buy better performance. And if it's the new Koetsu SA-100D Mk.II tonearm that catches your analog fancy, it'll cost you to the tune of \$700. The new unit uses a tri-pivot lateral-balance system—a sort of three-point gimbal affair that provides center and side supports. The tonearm and tri-pivot bracket are themselves supported on another center pivot, which Koetsu claims reduces vertical vibrations. The S-shaped arm has a detachable zinc-alloy headshell. For more information, write to D&K Imports, Inc. (146 East Post Rd., White Plains, N.Y. 10601).



Plexus's Compact Subwoofer

Said to be capable of low-frequency output down to 27 Hz, the SWS-1 subwoofer from Plexus Audio Systems consists of two 10-inch drivers housed in a single, compact enclosure and comes with a separate active equalizer. A passive crossover network built into the subwoofer makes it easy to connect the system to the main speakers. The equalizer is also available separately, and the company says it can be safely used to increase the low-frequency output of full-range speakers equipped with 8-inch or larger woofers. The SWS-1 costs \$500; the equalizer alone, Model ABE-1, costs \$125. For more information, write to Plexus Audio Systems (RD 2, Box 327B, Brickyard Rd., Freehold, N.J. 07728).



Foiling Feedback

Both of Vector Research's new turntables are said to have floating-subchassis suspension systems for resistance to acoustic feedback. The fully automatic VT-250 (shown here) uses a quartz-lock direct-drive motor, a straight tonearm, and costs \$200. The semiautomatic VT-200 has automatic tonearm return and costs \$150. For more information, write to Vector Research (20600 Nordhoff St., Chatsworth, Calif. 91311).

The leader in equalizers still stacks up best with improved specs, more features and a new look.

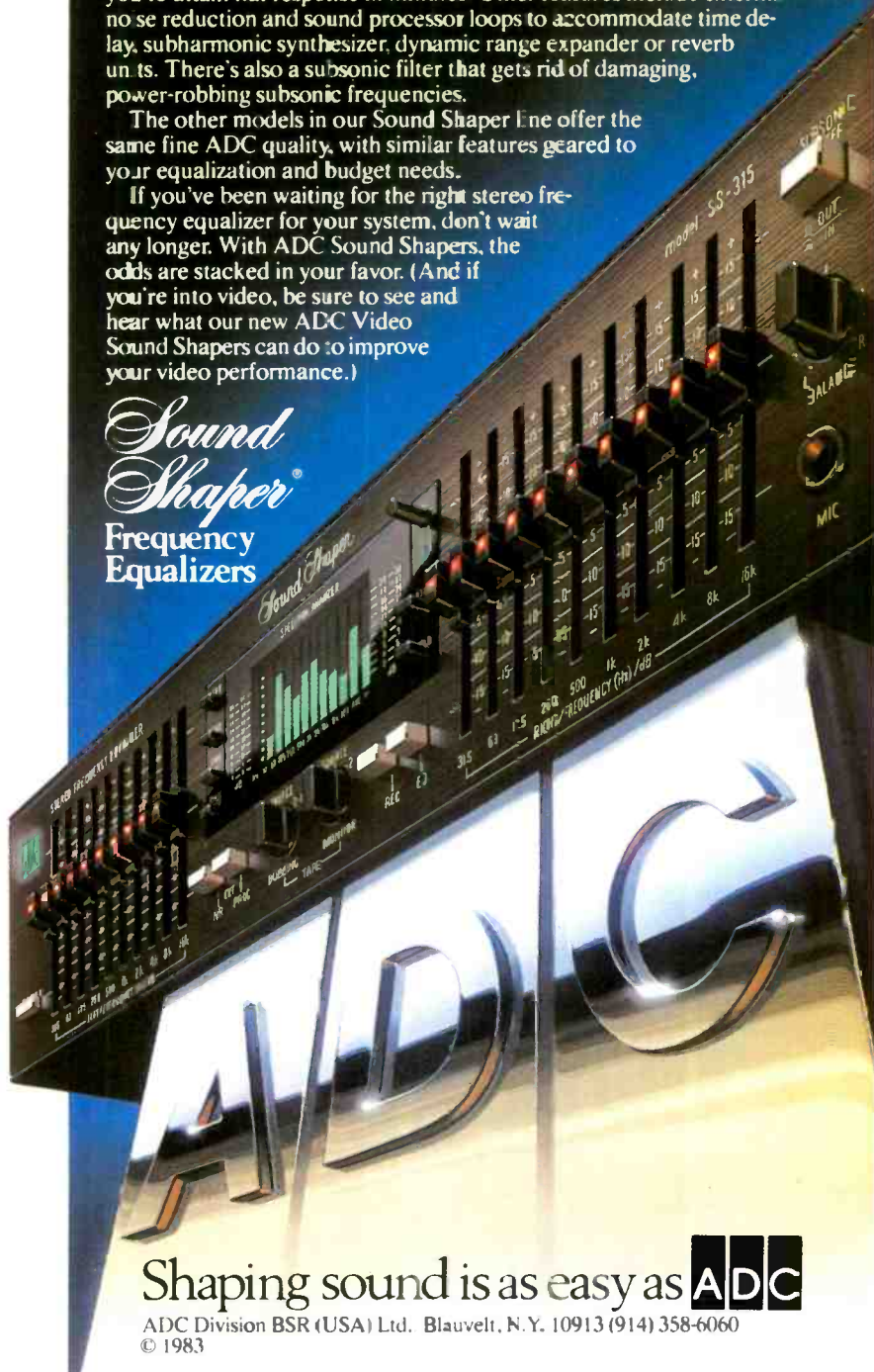
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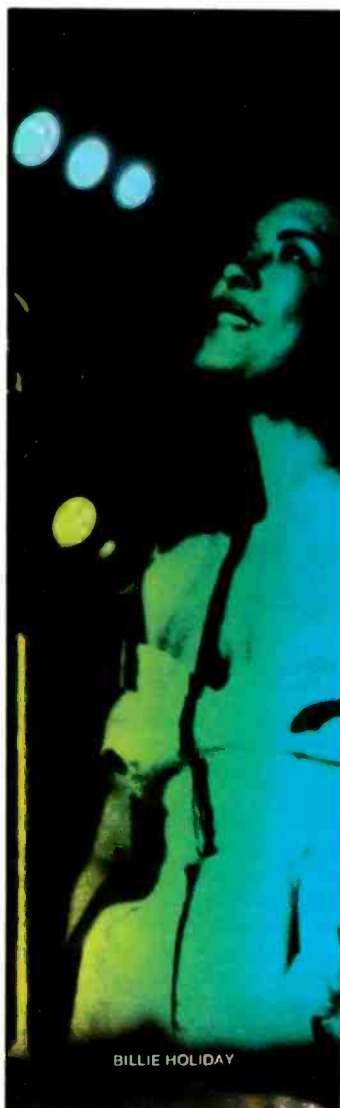


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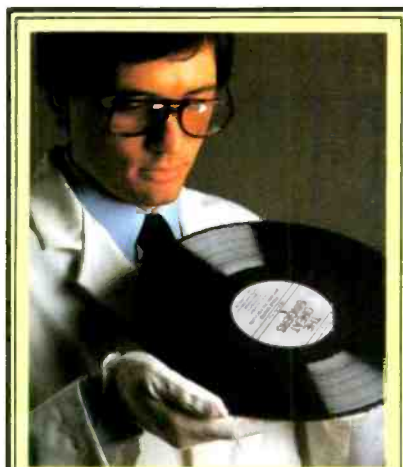
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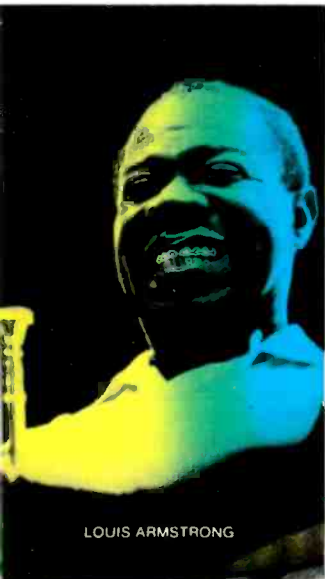
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CrossTalk

Practical answers to your audio and video questions by Robert Long

CD Awakening

Recently I bought a Compact Disc player and a Telarc CD to compare with the LP version of the same recording. I had thought the LP sounded great through my system: a Dual 505 turntable, a Shure M-97HE pickup, and a Kenwood integrated amp—usually with headphones, rather than speakers. But when I tried the CD, it was like taking off earmuffs. Is the LP really that inferior to the CD? How much are my cartridge, tonearm, and preamp to blame, and where would upgrading be most important?—Fred Hudon, New Orleans, La.

In part, you may be hearing the consequences of the wear you've inflicted on a favorite LP with repeated playing—something CDs aren't subject to. You may also be hearing the results of resonances and reflections within the LP's vinyl or in the mat and platter beneath it; if so, a weight or spring-loaded clamp could improve matters at modest cost. Poor LP sound can also be attributed to a dirty or worn stylus, so make sure yours is not to blame. The capabilities of the CD technology are astounding, however, and it would take a major investment in new record-playing gear and exceptionally fine LP pressings to approach its quality.

What's Watts?

I'm considering upgrading to separates from a Yamaha CR-2040 receiver, but I don't know how to choose the amp. I've been told that power (watts) is not as meaningful as current (volts) and that an Audionics amp at 70 watts per channel, because it has no current limiters like the Yamaha's, would actually be in the same class as amps rated at 150 watts or more. Please explain.—Paul Kaufmann, Highland Park, Ill.

You're confusing current (which is measured in amperes) with voltage (volts)—the analogs of flow and pressure, respectively, in hydraulics. The confusion isn't surprising, since solid-state amplifiers actually produce voltage but deliver current. That is, the output transistors develop so many volts in response to the input signal voltage and leave it up to the power supply to deliver the corresponding current to the attached load. According to Ohm's Law, this current (amps) should equal the voltage (volts)

divided by the load resistance (in this case, the speaker impedance, in ohms). The resulting power (in watts) is the voltage times the current.

So far, so good, but as the output voltage goes up and the load impedance goes down, the current—and, more specifically, the heat it creates—can become too much for the amp to handle. To prevent catastrophe, most designers include some form of current limiting. But there can be circumstances in which the signal will "bump its head" on the current limiting when the amp really is in no danger, and if the design is optimized for 8-ohm performance (which U.S. law specifies as the basis for power ratings), performance into loads of lower impedance can be restricted.

An alternative is to design the amplifier's output stage so that it can handle a lot of current (eliminating the need for heavy-handed protection circuitry) and make the power supply hefty enough to deliver all the current a low-impedance load will demand at the amp's maximum output voltage. Such an amplifier will provide almost twice as much power into 4 ohms as it will into 8—which can indeed give it the edge over a low-current design with a higher 8-ohm FTC power rating if you use loudspeakers whose impedance is low or highly reactive. Our by no means infallible rule of thumb is that if your speakers are rated at 8 ohms, your amp should deliver at least as much power into 4 ohms as into 8, and that if they are rated at 4 ohms, it should pump out at least 50 percent more power into 4 ohms. With most American loudspeakers, you'll want the latter.

AM Infidelity

Although FM performance is a frequent subject of your column, I watch in vain for mention of AM. We enjoy certain AM programming, so I want to replace our tubed FM receiver with a new AM/FM model. I tried the Realistic STA-2080 and STA-850, and though both performed very well on FM, I decided against them because of noisy AM reception with lots of interference. When I bought a Sherwood S-9600, I found it super in every way—except AM reception. Nothing I tried improved matters. An electronics technician tells me that nearly all AM tuners built into receivers are included as a convenience only and that no real care is put into their design. Have I overlooked a

receiver that does have a good AM section?—M.E. Morand, Bay City, Mich.

You haven't overlooked a thing—except my complaints on this score over many years. The only high fidelity AM sections I know of have appeared in separate tuners, with the possible exception of an almost-forgotten Fisher AM/FM/short-wave receiver. As a rule, if you want good AM reception of anything but strong local stations, get a multiband radio.

Toenail Tape Editor

I do a lot of recording and tape editing. I've been looking for some cassette splicing machines, but they aren't very popular. Can you suggest a device? I use toenail clippers; they get the job done, but that's all.—Larry M. Russell, Greenville, Tex.

There are splicing blocks (which I heartily recommend over anything that can be described as a splicing "machine") for cassette tapes, but the results are vastly inferior to those that can be obtained in the open-reel format. The reasons have to do with transport speed, ease of audible cueing, tape-backing stiffness, and the size of human fingers, among other things. So if you're really serious about tape recording and editing, use an open-reel deck.

Old Friend

I cannot bear the thought of parting with my Bogen turntable, which I have had for 25 years and which has given me good service. Can any company supply me with spare parts?—George A. Theros, Kula, Maui, Hawaii

From the vintage, I'd guess that it is one of the Bogens manufactured by Lenco, whose models changed only gradually over the years. If so, you might be able to get some parts from Benjamin Electroproducts, Inc., 75 Austin Blvd., Commack, N.Y. 11725. (Be sure to mention the model number when you write.) Otherwise, try scouring yard sales and "junk" shops for a similar model to buy for parts. However, I'd expect a tonearm that old to be excessively clunky by today's standards, however well the rest of the turntable works.

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

AUDIOPHILE FILE™ XL-S

GREATER DYNAMIC RANGE

Maxell XL I-S and XL II-S are the ultimate ferric oxide cassette tapes. Precision engineered to bring you a significant improvement in dynamic range.

XL I-S provides exceptionally smooth linear performance characteristics with high resolution of sound and lower distortion.

While XL II-S has a greater saturation resistance in higher frequencies resulting in an excellent signal to noise ratio.

How did we achieve this?

IMPROVED EPITAXIAL PARTICLES.

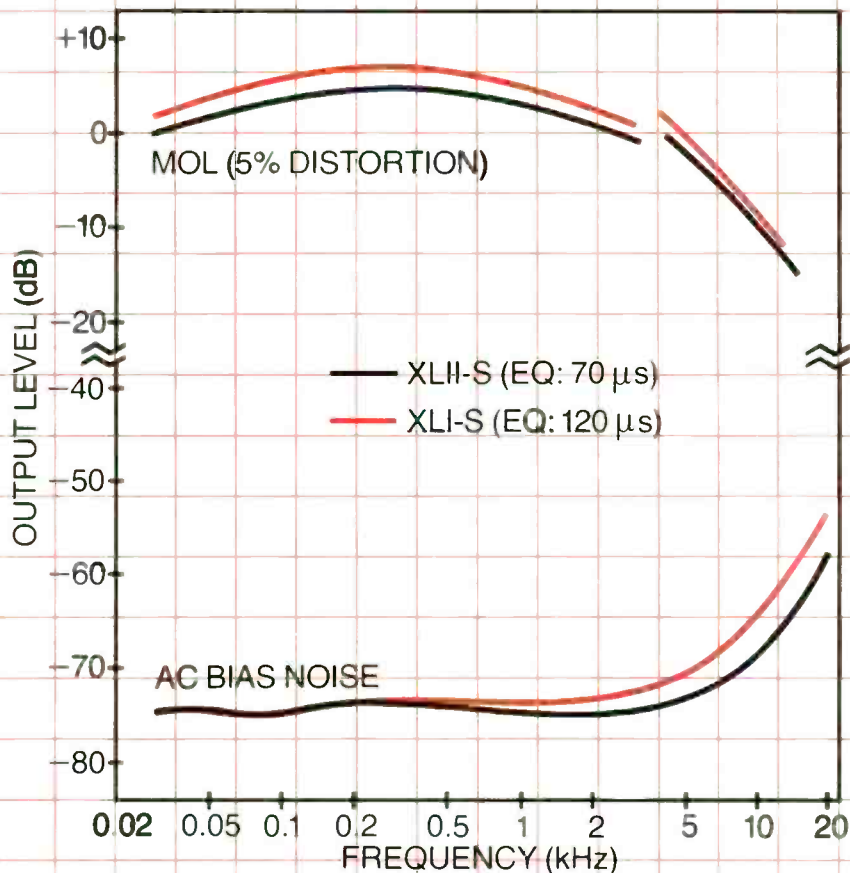
Maxell engineers have managed to improve the Epitaxial magnetic particles used on both tapes.

By developing a crystallization process that produces a more compact, smoother cobalt ferrite layer on the gamma ferric oxide core, they've been able to pack the particles more densely and with greater uniformity on the tape surface.

This increases maximum output level and reduces AC bias noise which in turn expands the dynamic range.

IMPROVED EPITAXIAL PARTICLE CHARACTERISTICS:
 MORE UNIFORM COBALT-FERRITE LAYER | SMOOTHER PARTICLE SURFACE

GAMMA-FERRIC OXIDE
 COATING THICKNESS: 10-11A (1A = 1/10,000,000 mm)



So you get a better signal to noise ratio, greater resolution of sound and higher output levels.

Of course, greater dynamic range isn't the only reason to buy Maxell high bias XL II-S or our normal bias equivalent XL I-S.

Both tapes have more precise tape travel and greatly reduced distortion levels.

You'll see both these improvements covered in detail in future Audiophile

Files. In the meantime, we suggest you listen to them.

For technical specification sheets on the XL-S series, write to:

Audiophile File, Maxell Corporation of America, 60 Oxford Drive, Moonachie, New Jersey 07074.



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Basically Speaking

Audio concepts and terms explained by Michael Riggs

How HF Tests Turntables

AS AUDIO COMPONENTS GO, the turntable is pretty simple. It performs two basic tasks. One is to turn the record being played at a constant, correct speed. The other is to hold a phono cartridge in the proper position with just the amount of force necessary for good tracking. (We're assuming here that the turntable comes with its own tonearm; some high-end models don't.) And it must perform both of them as self-effacingly as possible, to prevent any unwanted additions to the signal picked up from the groove.

Diversified Science Laboratories checks speed accuracy at 105, 120, and 127 volts, which covers the normal range of AC line voltages. Ideally, the speed should be the same at all three, and for most modern turntables it is. In any case, the variation should not be enough to make the turntable run excessively off-speed. How much error is too much is hard to pin down exactly. We like to see 1/2 percent or less, but even twice that much is unlikely to cause a pitch change that is apparent except by direct comparison.

Even turntables that have near-perfect long-term speed accuracy exhibit tiny short-term variations, called wow and flutter. (Wow—which usually is the more audible of the two—is just low-frequency flutter.) Such fluctuations can add an unpleasant sourness or coarseness to the sound, especially on sustained notes. Since an off-center spindle hole in a record can cause substantial wow, quality-control in disc manufacturing is often more of a limiting factor than turntable performance. DSL therefore uses a special test lacquer for its measurements and applies ANSI weighting to the results. The weighting is designed to compensate for the way the ear's sensitivity to flutter varies with frequency.

We report two flutter figures: average and maximum. Both, however, are really peak measurements. The former ignores atypically large and infrequent peaks, while the latter represents the largest peak observed during the test period. Wow and flutter of more than 0.1 percent is rare in today's turntables—which means that it's almost always low enough to be inaudible. You may observe, however, that the figures we give are higher than those printed in the manufacturer's specifications for the same product. Usually the better numbers are the result of a looser measurement technique,



called "WRMS" (weighted root-mean-square) or "JIS." Because this is a type of averaging measurement, it tends to be rather optimistic and can mask the difference between a unit with a steady, well-behaved flutter characteristic and one that has a somewhat lower base level punctuated with large spikes.

A similar situation prevails regarding rumble. Rumble is low-frequency motor noise transmitted through the platter to the pickup stylus. It is reported in dB below a specified reference level (much like a signal-to-noise ratio, which is essentially what it is). Part of the problem is that not everyone uses the same reference level, but most of the confusion stems from the multiplicity of weighting schemes. The one most commonly used is the DIN-B curve, which excludes all but a narrow band of frequencies. We prefer the ARLL (Audible Rumble Loudness Level) curve, which approximates the frequency response of the human ear, yielding a more meaningful number than an unweighted or DIN measurement.

DSL uses a special lacquer disc for this test, but even it has more residual noise than the very best turntables. When the lab thinks the measurement is being limited by the lacquer, it takes a second reading (if possible) with the Thorens *Rumpel-Messkoppler*, which couples the stylus to the platter by means of a precision, low-friction bearing. Either way, the result is not a single number, but a range of several dB. Since the *Rumpel-Messkoppler* cannot be used with all turntables, the figure we report in our data column is the average of the maximum and minimum readings obtained with the lacquer. We expect to see no worse than -60 dB. Figures of -65 dB or better are typical these days with good turntables, and the very best models push -70 dB.

Provided that pivot friction is negligible (as it routinely is nowadays), a tonearm's most important mechanical characteristic is its effective mass. This is not the arm's physical weight, but the inertia a stylus feels as it moves the arm while playing a record. Effective mass has no inherent significance: It matters only because of the role it plays in determining the frequency of the main arm/cartridge resonance. The other factors are the cartridge's weight (which adds directly to the arm's effective mass) and low-frequency dynamic compliance. Increasing any of these tends to lower the resonance frequency, while decreasing any of them tends to raise it.

Ideally, the resonance should be at about 10 Hz. If it is too much lower than that, the system will overrespond to record warps; if it is too much higher, the system's low-frequency response and tracking ability will be adversely affected. We normally consider anything within the range from 8 to 12 Hz acceptable. DSL measures an arm's effective mass using a calibrated cartridge. The result is reported in our data column and can be used with the weight and compliance figures for any phono cartridge we have tested to determine whether the two are a good match. Details on how to do this are provided in the January 1983 edition of this column and with each test report on a turntable or cartridge.

A tonearm's most important electrical characteristic is its lead capacitance, which also is reported in the data column. This, too, has no inherent significance. It matters only because the frequency responses of many fixed-coil pickups are affected by capacitive loading. You therefore need to know the sum of the phono-input and arm-lead capacitances to determine whether they make (or can be made to make) a good match for a particular pickup. **HF**

HARMAN KARDON INTRODUCES THE MOST ADVANCED STATE-OF-THE-MIND RECEIVER



Thirty years ago Harman Kardon introduced the world's first high fidelity receiver. It was built on the philosophy that quality audio must evolve from creative, quality thinking.

That quality of thought has served as the foundation of all Harman Kardon audio products.

In 1958 Harman Kardon introduced the world's first stereo receiver.

In 1963 Harman Kardon introduced Ultrawideband Frequency Response and in 1970 Harman Kardon became the first company to use Dolby¹ in a cassette deck.

Today, Harman Kardon audio products continue to be so technologically advanced that "state-of-the-art" falls short of describing them. They have become "state-of-the-mind," the highest level at which the mind can create.

A distinct example of Harman Kardon's state-of-the-mind technology is the hk690i receiver, which leads their line of quality receivers and possesses their most important state-of-the-mind concept to date: High Instantaneous Current Capability.

Harman Kardon has consistently used High Instantaneous Current Capability (HCC) in all of their amplifier sections. HCC provides the instantaneous power that is vital to precisely drive and control nearly any loudspeaker system.

With its HCC of 45 amps, the hk690i will develop far more power under peak loads than its rated 60 Watts per channel² while

maintaining the low distortion and widebandwidth required for accurate sonic reproduction. This means that the hk690i gives you louder, clearer sound than any other 60 Watt² receiver.

The digital synthesized quartz-locked hk690i has an Ultrawideband Frequency Response of 0.2Hz to 150kHz, as well as low negative feedback for extremely fast and accurate transient response. The result is the virtual elimination of TIM distortion.

The phono section of the hk690i has a unique dual RIAA equalization circuitry which maintains a constant low level of negative feedback throughout the audio frequency range. An exclusive sample-and-hold MPX decoder decreases high frequency switching noise while eliminating the need for much of the filtering normally required in FM processing.

Among performance features included are: Provisions for two tape decks (with tape copy capability), switchable bass and treble turnover frequencies, a Moving Coil head amplifier, and subsonic and high cut filters.

The hk690i provides the combination of pure power and sonic excellence that the true audiophile demands.

So, while other manufacturers continue to pile on unnecessary features and gimmicks, Harman Kardon continues to develop fundamentally advanced audio equipment.

1. Dolby is the registered trademark of Dolby Laboratories, Inc.

2. 60 Watts RMS per channel into 8 Ohms, 20Hz-20kHz with less than 0.6% THD.

harman/kardon

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If you are ever dissatisfied with Memorex High Bias II, mail us the tape and we'll replace it free.

YOU'LL FOREVER WONDER.

**IS IT LIVE,
OR IS IT
MEMOREX**



The Autophile

Going on the road with stereo by Gary Stock

Apprentice to the Masters

ONE OF THE GREAT frustrations of magazine writers is that they generally don't have much chance to practice what they preach. Opera critics rarely get the chance to sing in one, and this car-stereo columnist has precious little time to devote to the nuts and bolts of car-stereo installation—a topic that I am usually forced to cover from an expedient, if less than satisfying, distance.

That frustration was relieved recently when I had the opportunity to spend three days, wrench in hand, as a car-stereo installer's apprentice in southern California, being instructed in the subtleties of the craft by the masters at Yamaha's new car-audio division. Though I received no wages for my work, the experience was not without its rewards: Aside from the lessons I received, I had the chance to work in Yamaha's showpiece installation lab, which looks for all the world like a Grand Prix team's prep center. And the object of my labors would've gladdened any car buff's heart—the sleek new Audi 5000S, said to be the world's most aerodynamic passenger car.

Yamaha has entered the car-audio market rather late—a good five years after many of its Japanese competitors. The delay can be traced back to the company's well-known caution and deliberateness when it comes to beginning a new endeavor. And, as the Yamaha people emphasized, the engineering department took special pains to make sure that the initial product offerings would stand out from the crowd in performance and features. In this, Yamaha has succeeded in spades. The new line of front ends, electronics, and speakers is different enough from the market's mainstream leaders in sound quality, cosmetics, and human engineering to win a warm spot in the hearts and minds of the American autophile.

In a move that is definitely out of the ordinary for many Japanese electronics companies, Yamaha turned to its American staff for design direction. The Americans didn't want front ends with dozens of switches and knobs. A typical driver over here, they explained to the Japanese engineers, doesn't want to fiddle about with umpteen tiny controls while driving. Consequently, Yamaha front ends and electronics are equipped with automatic microprocessor-based circuitry that replaces several switches with multifunction controls. A

Yamaha's new car components are designed to be easy to use. The \$550 YCR-900 cassette/receiver (top) even alerts you when it's time to clean the tape heads. And the \$200 five-band YGE-600 equalizer lets you store three EQ settings for instant recall.



seek/scan tuning bar, for instance, converts to a fast-wind control when the front end is in the tape mode. And an equalizer is equipped with enough memory to store three EQ settings, making it possible to adjust the system instantly as road-noise conditions change.

The American marketing staff also wanted a line with good-sounding speakers so that a customer could assemble a complete system without having to mix brands. The result: Yamaha's car speakers, especially the plate-type two-way systems, are among the only Far Eastern units I know that rival the best German and American designs. And it is possible to mount them in almost any car without having to redesign the entire passenger compartment.

I convinced myself of all this the old-fashioned way: I put on old clothes and spent three days doing what my installation guides, Kerry Shrode and Pat Hart, called "assumin' the position"—lying on my back for hours under the Audi's trunk lid and dashboard, running wires and trying to decipher German abbreviations. Here's a rundown of the insights I gained during my apprenticeship that should prove useful if you're facing an installation project.

Think twice, cut once. In fact, think three or four times before you cut open a door panel. In an installation project, almost anything except a large hole is reversible. Even my instructors, veterans of hundreds of installation jobs, spent ten times as long measuring, talking, and thinking about the alternatives as they did cutting things apart. And when they did finally take saw in hand, it was always with a bit of hesitation and a last moment of contemplation.

Take the direct route. This is a general statement that applies to mechanical and electrical considerations. While I spent much of the first day proposing incredibly complex installation ideas, my savvy teachers just listened, smiled benignly, and then steered the plan gently onto a safer, more direct path. For instance, my plan for completely rebuilding the Audi's center console to accommodate the equalizer evolved into a simple but elegant scheme for placing the equalizer in one corner of the glovebox. And when I suggested mounting the power amp under the dash, I was reminded that such a placement made little sense because the car's battery was in the rear and there was lots of room for the amp under the rear deck.

Don't disassemble anything more than is absolutely necessary. I found this out after taking apart a power-window mechanism to get at a wire lurking behind it. Had I known that the whole mechanism could simply be snapped out of the door in one piece, I could've saved hours of reassembly work.

So much for rules of thumb. Back in front of the typewriter, I recall my week of physical labor as a pleasant memory. The mistakes I made and the disasters that were averted by the intercessions of Kerry and Pat have convinced me that I have a long way to go before I can consider advertising myself as a part-time installer. Let my experience be a warning to you Sunday-afternoon mechanics: Before tackling a car-stereo installation, bounce your ideas off an expert first. And, if at all possible, make sure that there's a pro available who's willing to finish the installation if you become hopelessly lost. **HF**

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—Reese Haggott,
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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.

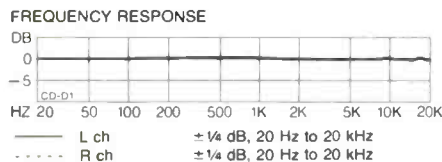


STEVEN MARK NEEDHAM

A Full-Feature CD Player From Akai

Akai CD-D1 Compact Disc player. Dimensions: 17 1/2 by 5 1/2 inches (front panel), 12 1/4 inches deep plus clearance for connections. Price: \$1,000. Warranty: "Unlimited," one year parts and labor. Manufacturer: Akai Electric Co., Ltd., Japan; U.S. distributor: Akai America, Ltd., 800 W. Artesia Blvd., Compton, Calif. 90224.

All data obtained using the Sony YEDS-7, Technics SH-CD001, Philips 410 055-2, and Philips 410 056-2 test discs.



DE-EMPHASIS ERROR
 +1/4, -0 dB, 1 to 16 kHz

CHANNEL SEPARATION
 ≥ 87 3/4 dB, < 100 Hz to 20 kHz

CHANNEL BALANCE (at 1 kHz) ± 0 dB

S/N RATIO (re 0 dB; A-weighted)
 without de-emphasis 108 dB
 with de-emphasis 108 dB

HARMONIC DISTORTION (THD+N; 40 Hz to 20 kHz)
 at 0 dB < 0.01%
 at -24 dB ≤ 0.051%

THERE'S SCARCELY A COMPANY producing a complete line of audio equipment that hasn't announced a Compact Disc player, and Akai is no exception. For though it forged its reputation in tape equipment, Akai has been a true full-line company for years. The CD-D1 is among the relatively luxurious models that cluster around the \$1,000 price and offer a full complement of music-finding features, as opposed to the stripped-down players selling for a few hundred dollars less.

You can program tracks in any order and begin within tracks by specifying index codes (if your discs have them) or elapsed time. For repeating an individual passage, you use a "phrase" button to set beginning and end cues. REPEAT plays a single track over until you press STOP or one of the fast-wind buttons, which move the laser pickup toward the start or end of the disc. (A front-panel gauge helps you keep track of the pickup's position on the disc.) Another pair of buttons lets you skip ahead to the beginning of the next track or back to the beginning of the one that's playing. The time

readout normally tells how far into the track you are (in minutes and seconds), but at the push of a button, it will read time from the start of the entire disc.

Particularly welcome in this control scheme is the ability to play a series of tracks in the middle of a disc with absolutely no mechanical clicks or other intrusions as the player checks on its next move at the end of each band. The music just seems to thrum along without interruption, as it should. Few players we've tried will do this with such complete success. (Although, as we've complained before, the fault is really with those who make the discs: If they would code each *work* as a single track and index each movement within it, playback would be easier and less subject to intrusion.) Unfortunately, our sample sometimes balked at playing a programmed track. And we are not very happy with the way the CD-D1 automatically starts over at the beginning instead of stopping when it reaches the end of a disc. This feature should be optional—or at least defeatable.

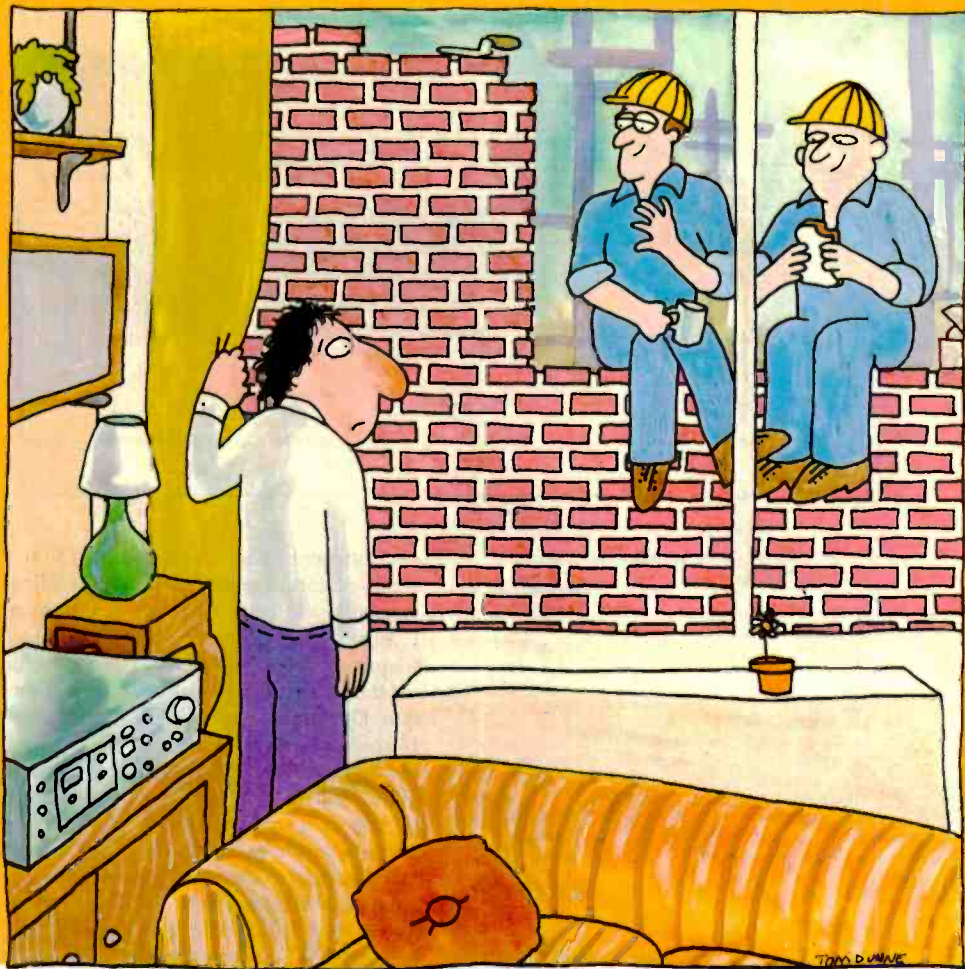
As Diversified Science Laboratories'

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Perfect Reception

(Even when things are changing around you.)



Onkyo's new APR system

There are many factors—distance, buildings, temperature—that can create a loss of FM reception. Thanks to our TX-35 receiver, though, all our friend above is going to lose is his view.

That's because Onkyo's new APR (Automatic Precision Reception) insures crystal clear FM no matter where you listen. APR is a microprocessor controlled system that instantly judges the quality of the incoming signal and then auto-

matically controls the key reception modes: local/distant input sensitivity, stereo/mono, and high blend. The

latter eliminates the noise associated with weak stereo transmissions by mixing the left and right channel high frequency signals (if necessary) while preserving the critical midrange. And, it takes only 1/30th of a second for APR to accomplish these critical functions, producing the finest FM you've ever heard.

The 45W per channel TX-35 also offers an array

of features that make it the best receiver value you'll find: 8AM/8FM presets, Delta Power Supply for "digital ready" use, two tape monitors, A/B or A + B speaker selection, two muting levels, and a special multiplex filter for FM recording.

So remember, when things are changing around you, only Onkyo's APR guarantees your music won't be one of them.

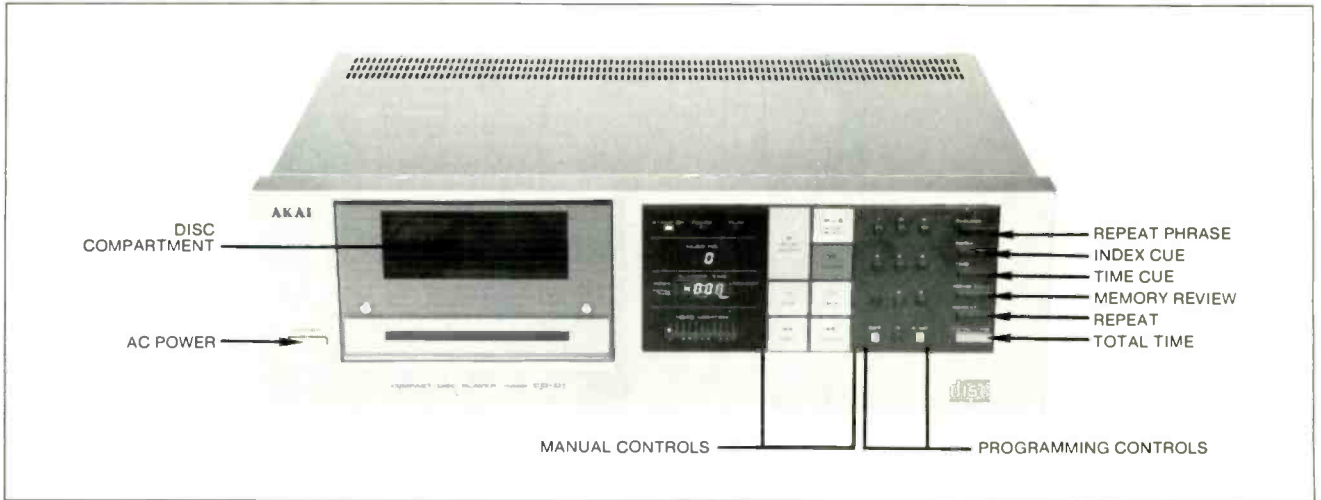
APR is also featured on Onkyo's new Integra Series Tuner, the T-4017. For complete literature, write directly to Onkyo.



Nobody knows more about audio than Onkyo.

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200 Williams Drive, Ramsey, NJ 07446



IM DISTORTION (70-Hz difference frequency, 300 Hz to 20 kHz)

at 0 dB	<0.01%
at -10 dB	<0.01%
at -20 dB	≤0.014%
at -30 dB	≤0.022%

LINEARITY (at 1 kHz)

0 to -60 dB	no measurable error
at -70 dB	+ 1/2 dB
at -80 dB	+ 1 dB
at -90 dB	+ 3 dB

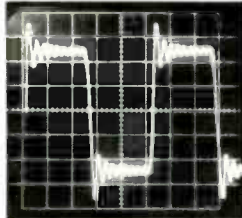
TRACKING & ERROR CORRECTION

maximum signal-layer gap	≥ 700 μm
maximum surface obstruction	< 300 μm
simulated-fingerprint test	pass

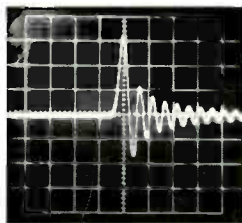
MAXIMUM OUTPUT LEVEL 2.28 volts

OUTPUT IMPEDANCE 1,500 ohms

SQUARE-WAVE RESPONSE (1 kHz)



IMPULSE RESPONSE



measurements demonstrate, the CD-D1's sonic performance is up to the excellent standards we have come to expect from Compact Disc players. The hint of high-frequency rolloff is entirely negligible, as are the miniscule levels of noise and distortion. (The signal-to-noise ratio is particularly spectacular.) Compression at extremely low signal levels (the output error reported in our data under "linearity") is about par. In fact, our only reservations about the player's performance center on the tracking and error-correction tests. The test disc's simulated fingerprints presented no problem to the CD-D1, which also successfully negotiated information gaps as much as 700 micrometers (μm) wide (and produced only a single "bump" on the 800-micrometer blank). But on the band in which black dots are superimposed on the playing side of the disc, the player failed to read even the least obscured portion of the track.

However, the CD-D1 gave no evidence of difficulty in playing commercial

CD releases, even when there were visible fingerprints, dust, or abrasions on the playing surface. This is doubly reassuring, because the loading process inevitably gives us qualms about disc handling. The top of the disc-holder/door tilts forward automatically when you press EJECT, but you must drop the disc in, push it down into the slot very firmly, and then close the door assembly. When you eject the disc, it is pushed high enough that you can get a grip on it—but not without pressing your fingers against both surfaces near the edge. You cannot handle it strictly by the edge, as instinct and the owner's manual dictate. Thus, some fingerprints near the rim are unavoidable.

Our reservations aside, the CD-D1 is a well-conceived player both in its functions and in the way they interrelate—and, in this context, is fully competitive with other models in its price range. In terms of sound quality, it need concede nothing to any other player on the market.

Yamaha's Radical Receiver

Yamaha R-90 AM/FM receiver. Dimensions: 17 by 4 1/2 inches (front panel), 13 1/2 inches deep plus clearance for controls and connections. AC convenience outlets: one switched (200 watts max.), two unswitched (200 watts max. total). Price: \$595. Warranty: "limited," two years parts and labor. Manufacturer: Nippon Gakki Co., Ltd., Japan; U.S. distributor: Yamaha Electronics Corp., USA, 6660 Orangethorpe Ave., Buena Park, Calif. 90620.

THERE ARE COMPANIES that seem to lead the way without looking to see if anyone's following, and Yamaha is one of these innovators. Some of its concepts have been readily imitated, while others remain virtually proprietary. Whether the departures incorporated into the R-90 will generate competitive envy remains to be seen, but the approach is, at very least, interesting and thought-provoking.

The key to that approach—and certainly the most dramatically radical element in the design—is found in the way the R-90 handles tone control, loudness compensa-

tion, and filtering: the Computer Controlled Sound System (CCSS), as Yamaha calls it. Essentially, it is a five-band graphic equalizer that combines a set of preprogrammed options with three that the user can program. The nominal center frequencies of the five bands are 60 Hz, 250 Hz, 1 kHz, 4 kHz, and 16 kHz. Each can be stepped in nominally 4-dB increments from the flat setting to 12 dB of boost or cut. When you press BAND in the main CCSS controls, one of the five LED indicators representing the frequency bands on the panel above will start flashing. If you then press the UP or

Sneak preview

The other day one of our engineers made an interesting observation.

He was trying to illustrate how much better the new ADS speakers sound.

"Think of the speaker as a camera lens," he said. "What we've done is improve resolution, extend depth of field, magnify detail, produce a finer image."

Not a bad analogy, we thought, and asked him to go on.

"We've done it with a lot of new technology," he explained, "but precision is critical. Take voice coil gaps. Ours are no thicker than your business card. About twice as fine as the gaps in most drivers, which has a lot to do with improving efficiency and reducing high end distortion.

"We've improved power-handling in the high end, too, by using a new high-gravity cooling fluid made to our own specifications.

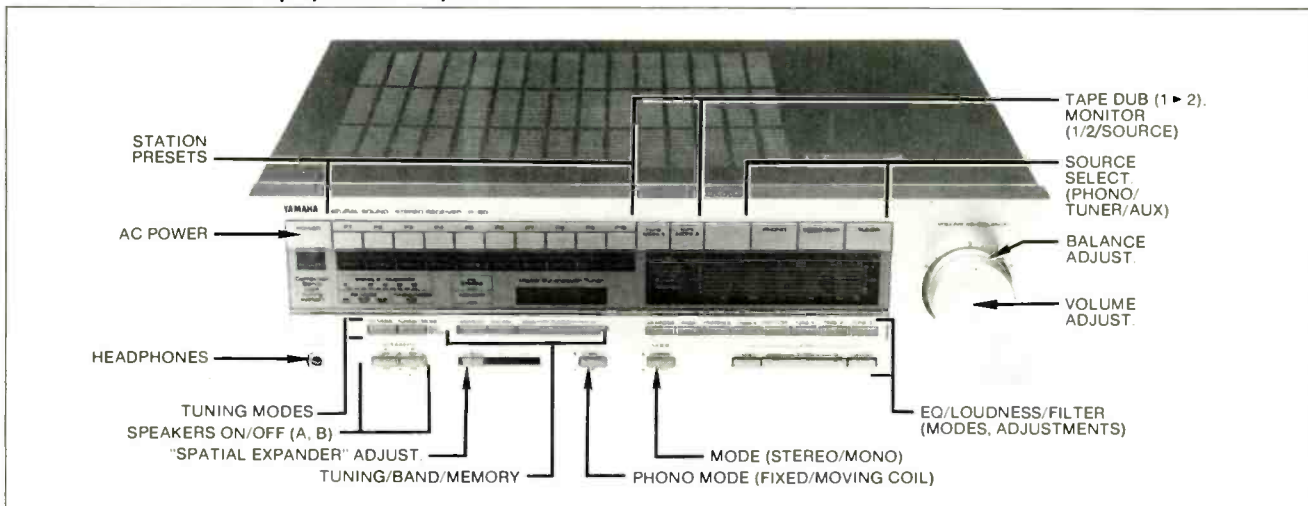
"We've developed a new Linear Drive, long-voice-coil woofer which really improves bass response. The cone is Stiffite, an expensive, low-mass material used only by ADS. The result is a woofer with very high force-to-mass ratio, which means it goes lower, is more accurate and has more dynamic range."

As you read this, new ADS speakers are on their way to an ADS dealer near you. For his name write us: Analog & Digital Systems, Inc. 235 Progress Way, Wilmington, MA 01887. Or call toll free: 800-824-7888 (in CA 800-852-7777) and ask for Operator 483.

They're truly magnificent speakers. Sneak your own preview soon.

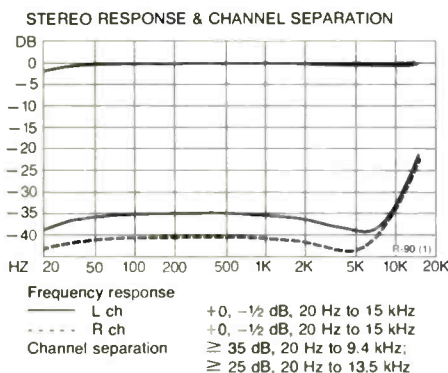
ADS Audio apart.

The new L780 is one of seven new ADS speakers available in black or walnut finish. You'll recognize it by the new angled corner and distinctive deep-drawn metal grille.

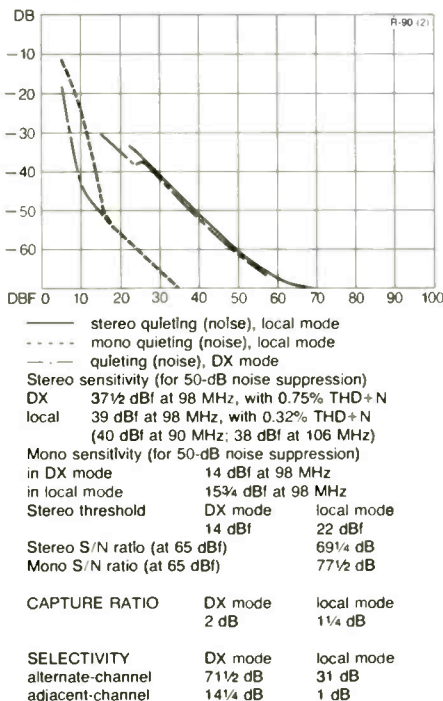


FM tuner section

Data measured in local mode except as noted



FM SENSITIVITY & QUIETING



DOWN end of the long bar next to BAND. the boost or cut in that band will be stepped up or down accordingly. Another press on BAND switches control one band upward. When you achieve the response pattern you want, you can memorize the result by pressing MEMORY (on the other side of the up/down bar) and then one of the three user-programmable setting buttons.

The preprogrammed options are a loudness-compensation curve (which takes a broad 6-dB bite, centered at around 2 kHz, out of the response curve, leaving the deep bass untouched and attenuating the top treble less than the lower treble), a bass boost (+4 dB in a broad range centered on about 100 Hz), a presence boost (a similar rise centered near 4 kHz), a treble boost (around 16 kHz), and a "high filter" (the inverse of the treble boost, with a droop to -4 dB). Any of these—or the three user-programmable settings—can be exaggerated or minimized by pressing the appropriate end of the up/down bar. Boost functions are exaggerated by UP, cut functions by DOWN. Because there is no bass or treble control as such, only the loudness compensation and filter among the preprogrammed options are increased by pressing DOWN. (On preprogrammed curves that involve both cut and boost in different bands, it's sometimes difficult to predict which end of the bar will deliver the desired effect.)

If you don't like the preprogrammed options, you can employ the user-programmable memory settings to "roll your own." You can also use the memory to store a speaker equalization curve, a touch-up to compensate for, say, a cassette deck's dull top end, or any other function that you may want to invoke frequently. This is, in fact, the central advantage of such a system: At the touch of a button, you can select any of a variety of customized sounds that ordinarily would require a combination of control settings—if, indeed, they were available at all. For some users, this can be a major advantage.

Unfortunately, we're less impressed by the way the concept works in this receiver

er than we are by the concept itself—which, in the end, may prove better adapted to separates than to the price constraints and relatively crowded front panel of a receiver. If there were more frequency bands with closer spacing, extreme settings could yield smoother, less obviously colored curves than is possible with only five bands. And if the boost/cut scale were divided into smaller steps, subtler control could be achieved. As it is, slight alterations are impossible, making the controls more crude in their action than conventional ones. The "high filter" is particularly ineffective: If you think of it as a treble cut, you'll be closer to what it actually does. But, again, the concept is fascinating, even if its realization here is not all that it might be.

The tuning system is less exotic, equally radical, and much more satisfying. Tuning proceeds by 10-kHz (one-channel) steps on the AM band, 100-kHz (half-channel) steps on FM. Each of the ten memory presets will hold one station frequency—AM or FM, as you choose—and will switch bands automatically when you select a preset requiring it. Manual tuning defeats the stereo mode in FM; once you find your station, you can go back to stereo by switching to automatic scan tuning.

The radical element in the tuner section is the approach to handling extremely weak or strong RF (radio-frequency) signals—the RX switching, in Yamaha's words. Occasionally—particularly in car-stereo systems—you'll find a local/distant (or "local/DX") switch. That sort of switching is incorporated here, but with two important differences. First, there is a third option: automatic switching, in which the tuner itself evaluates signal strength and chooses its mode accordingly. Second, the difference between local and DX reception is not simply one of padding down the input from the antenna in the local mode. The R-90's selectivity is greater in the DX mode, apparently because of an automatic narrowing of the IF (intermediate-frequency) passband, with some consequent (but minor) increase in distortion. And judging

Pick up a Dyna*Mite pair tonight and discover why even the critics are saying: thanks Koss, for the dynamite sound in a small package. Just 12 $\frac{3}{4}$ " high, 5 $\frac{1}{4}$ " wide, and 5 $\frac{1}{4}$ " deep, the Koss Dyna*Mite's sensational 3-driver system packs a punch that puts even big floor models to shame. And they offer perfect mirror-image performance, whether they're placed upright or on their side.

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veneer cabinets, the Koss Dyna*Mites are as beautiful to look at as they are to listen to.

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VT7P



DA800

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One Federal Court has held that recording of copyrighted television programs for in-home non-commercial use is wrongful. Copyrighted programs should not be recorded.

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Hitachi's new 20" diagonal flat screen receiver/monitor integrates all your home entertainment functions. VCR, VideoDisc Player, Stereo System, games, computer and total TV reception. The flat screen picture tube gives you more on-screen picture, less distortion and minimal reflection of room light. And only Hitachi has SIGNAL TRACKER™ control, the most advanced color control system ever.

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AUDIO New Equipment Reports

HARMONIC DISTORTION (THD+N)		
DX mode	stereo	mono
at 100 Hz	0.92%	0.07%
at 1 kHz	0.71%	0.23%
at 6 kHz	0.54%	0.21%
Local mode		
at 100 Hz	0.084%	0.062%
at 1 kHz	0.094%	0.055%
at 6 kHz	0.205%	0.027%

STEREO PILOT INTERMODULATION	
DX mode	0.49%
Local mode	0.025%

IM DISTORTION (mono)	
DX mode	0.15%
Local mode	0.027%

AM SUPPRESSION	
DX mode	65½ dB
Local mode	61¾ dB

PILOT (19 kHz) SUPPRESSION	59½ dB
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SUBCARRIER (38 kHz) SUPPR.	87 dB
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Amplifier section

RATED POWER	18½ dBW (70 watts)/channel
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OUTPUT AT CLIPPING (both channels driven)	
8-ohm load	19½ dBW (89 watts)/channel
4-ohm load	20½ dBW (115 watts)/channel

DYNAMIC POWER	
8-ohm load	20¼ dBW
4-ohm load	21¾ dBW

DYNAMIC HEADROOM (re rated power, 8-ohm load)	+1¾ dB
---	--------

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)	
at 18½ dBW (70 watts)	≤ 0.073%
at 0 dBW (1 watt)	< 0.01%

FREQUENCY RESPONSE	
+0, -½ dB, 33 Hz to 24.8 kHz;	
+0, -3 dB, 12 Hz to 71.4 kHz	

RIAA EQUALIZATION	
fixed-coil phono	+¼, -1½ dB, 20 Hz to 20 kHz;
	-11¾ dB at 5 Hz
moving-coil phono	+0, -3 dB, 21 Hz to 20 kHz;
	-20½ dB at 5 Hz

SENSITIVITY & NOISE (re 0 dBW; A-weighting)		
sensitivity	S/N ratio	
aux input	14 mV	81¾ dB
fixed-coil phono	0.33 mV	74½ dB
moving-coil phono	21 µV	77 dB

PHONO OVERLOAD (1-kHz clipping)	
fixed-coil phono	130 mV
moving-coil phono	8.6 mV

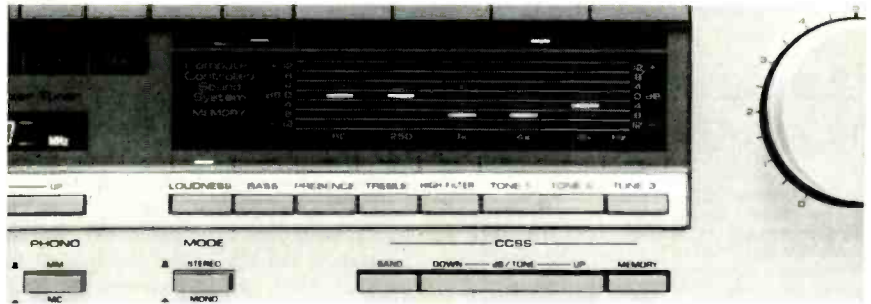
INPUT IMPEDANCE	
aux input	52k ohms
fixed-coil phono	49k ohms; 270 pF
moving-coil phono	100 ohms

OUTPUT IMPEDANCE (to tape)	
from aux input	5,000 ohms
from tuner input	9,500 ohms
from phono inputs	4,800 ohms

DAMPING FACTOR (at 50 Hz)	75
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CHANNEL SEPARATION (at 1 kHz)	36½ dB
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FILTERS	see text
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Yamaha's CCSS is a five-band equalizer with an illuminating display and eight presets; the three bars at the bottom enable you to adjust EQ manually and memorize settings.

from the tuner's behavior, an automatic high-blend operates on weak stereo stations in the DX mode only.

All this may sound very complicated, but it's actually simplicity itself to operate: Just leave the receiver set for automatic RX switching, and, barring some arcane reception problem, it should adjust itself for optimum reception of any station you tune. This enables you to concentrate on antenna orientation, with the aid of the R-90's genuinely helpful "signal quality" (signal strength minus multipath) display. Its five elements (with a pair of LEDs per element—not ten elements, as the manual implies) light progressively at thresholds approximately 6 dB apart, beginning at 16 dBf in the DX mode and 21½ dBf in LOCAL. They thus cover the range from just above the mono 50-dB quieting point to nearly full mono quieting, the span in which the display's help is most needed. And the display flickers in response to multipath, adding still more useful information.

Another interesting feature—though one that has appeared on past Yamaha products—is the spatial expander. Its slider is calibrated from zero to ten, suggesting that it can feed progressively greater quantities of out-of-phase signal between the two channels. When the correct degree of cross-feed is achieved, the acoustic cancellations that result should, in theory, enhance the stereo imaging. The effect will vary to some extent with your speaker setup and room acoustics, but as we've commented in the past, it can lend vividness to the stereo image.

The preamplifier section is very well behaved in most respects. A nondefeatable

infrasonic filter rolls off the response at approximately 9 dB per octave below 12 Hz. This is good, but a steeper slope or higher cutoff frequency would have taken yet a bigger bite out of the unwanted signals generated by warped records. Our one other quibble is with the rather elevated tape output impedances: From the tuner section, particularly, it may be high enough to reduce the level or dull the high frequencies of signals feeding a tape deck or signal processor having a low input impedance or high-capacitance connecting cables. But this usually will not be a problem.

The power amplifier section's measured clipping levels show that it is quite conservatively rated and amply muscular for most purposes, while the dynamic figures indicate that it will deliver the equivalent of 106 watts per channel into 8-ohm loads and 150 watts into 4 ohms. Distortion is very low. It consists mostly of the third harmonic at rated power, though in such small amounts as to be completely inaudible.

But the star of this very fine receiver is unequivocally the FM tuner. Yamaha's rallying cry for some years has been technology for the sake of listening quality, and the present design establishes that attitude as more than a slogan—if corroboration still is needed. Incidentally, though we find no mention of the fact in the manual, our test sample's memory even stores the RX setting chosen for each preset station, ensuring that it is received in whichever mode suits it best. But the automatic RX option is so effective that we used it for everything once we had finished putting the R-90 through its paces.

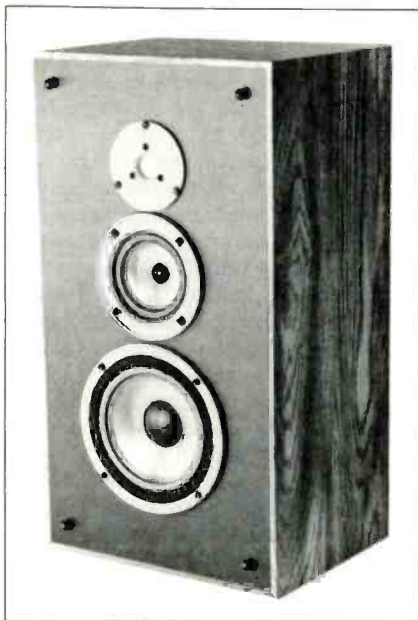
About the dBW . . .

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.

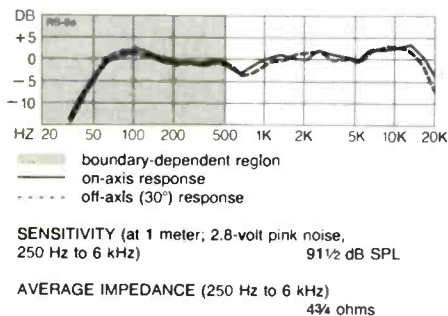
WATTS	dBW	WATTS	dBW
1.00	0	32	15
1.25	1	40	16
1.6	2	50	17
2.0	3	63	18
2.5	4	80	19
3.2	5	100	20
4.0	6	125	21
5.0	7	160	22
6.3	8	200	23
8.0	9	250	24
10.0	10	320	25
12.5	11	400	26
16	12	500	27
20	13	630	28
25	14	800	29

An Infinity Sans Emit

Infinity RS-8a loudspeaker, in particle-board enclosure with oak-grain vinyl finish. Dimensions: 12 by 21 3/4 inches (front), 10 inches deep. Price: \$170 each. Warranty: "limited," five years parts and labor, transferable. Manufacturer: Infinity Systems, Inc., 7930 Deering Ave., Canoga Park, Calif. 91304.



ROOM RESPONSE CHARACTERISTICS



HOW WOULD YOU FEEL if you got a Big Mac with no Special Sauce? Perhaps the way we did upon discovering that Infinity's RS-8a has no Emit tweeter. The company's proprietary planar-diaphragm tweeter has been a showpiece of the line to such a degree that its omission seems almost heresy. But the tweeter in the RS-8a (as opposed to the original RS-8, which did have an Emit) exemplifies another trend in Infinity speaker design, toward the use of polypropylene as a driver diaphragm material. The recently developed 3/4-inch Polycell dome tweeter (previously available only in the two-way RS-9) is made of an "expanded cell" polypropylene, whose benefits are said to be low coloration and insensitivity to atmospheric moisture. The cones of the RS-8a's 4 1/2-inch midrange driver and 6 1/2-inch woofer also are made of this material.

The three drivers are mounted along a single vertical axis on the sealed enclosure's front baffle. On the back panel are color-coded spring-clip connectors for the leads from the driving amplifier. The crossovers are at 800 Hz and 4 kHz. The appearance is typical of bookshelf-format speakers, except that the vinyl finish mimics oak rather than the traditional walnut—a welcome change, it seems to us.

Infinity's manual recommends that the speakers be set up away from room boundaries—side walls, back wall, and floor. Diversified Science Laboratories selected several positions for measurements. In the recommended position, the deep bass suffered visibly in the response curves, though the rest of the range proved quite flat. When the lab measured response with the speaker against the back wall, but still raised on a stand, the deep bass improved markedly, but a sag in the midbass region deepened. With the speaker just in front of the back wall but on the floor and tilted up toward the measuring mike, DSL reported exceptionally flat, extended response; the lab therefore chose this position for all remaining measurements, with the results shown in our data column.

The effective on-axis response is $\pm 3\frac{1}{4}$ dB from below the 63-Hz measurement band to above that centered on 16 kHz. Off-axis response is very similar except for a slightly sharper high-frequency rolloff. The similarity of the two curves at high frequencies bespeaks unusually consistent delivery of highs (a property our listening tests later confirmed). The sensitivity measurements show that the RS-8a produces more than the usual amount of sound per volt—but not necessarily per watt, since the average impedance is atypically low.

Infinity rates impedance at 4 to 8 ohms. DSL's measurements show it to average 4 3/4 ohms over our "music band" and 5 ohms over the full audio band (20 Hz to 20 kHz). The latter figure is driven up somewhat by the inclusion of two imped-

ance peaks—12 ohms at about 60 Hz (bass resonance) and 8.5 ohms just below 5 kHz (in the crossover/tweeter-resonance range)—that are at least partly excluded in the music-band measurement. Outside of these not-so-high maxima, the lie of the curve is quite low. It is below 4 ohms from 85 Hz to 1 kHz, a span that contains much of the energy in typical music, and its minimum of only 2.3 ohms falls squarely in the midrange, near 350 Hz. Amplifiers with output transistors or power supplies that cannot deliver high current into low-impedance loads may have difficulty driving this loudspeaker.

The low impedance influenced the measurements in another way, as well. In the 300-Hz pulse test, the lab amp's protective circuitry triggered at 34 volts peak output (the equivalent of 21 1/2 dBW, or about 140 watts, into 8 ohms), for a calculated sound pressure level of 113 dB at 1 meter. This is high enough to establish excellent dynamic range, but the test might have been carried successfully to an even greater level if the speaker's impedance were higher. Distortion increases steadily with drive level, from a moderate average of less than 1/2 percent above 63 Hz at 85 dB SPL to about 2 percent in the same range at 100 dB, which seems on the high side until you take into account the small woofer, the low price, and the much higher distortion rates that many competitive speakers (particularly minis) suffer at this level.

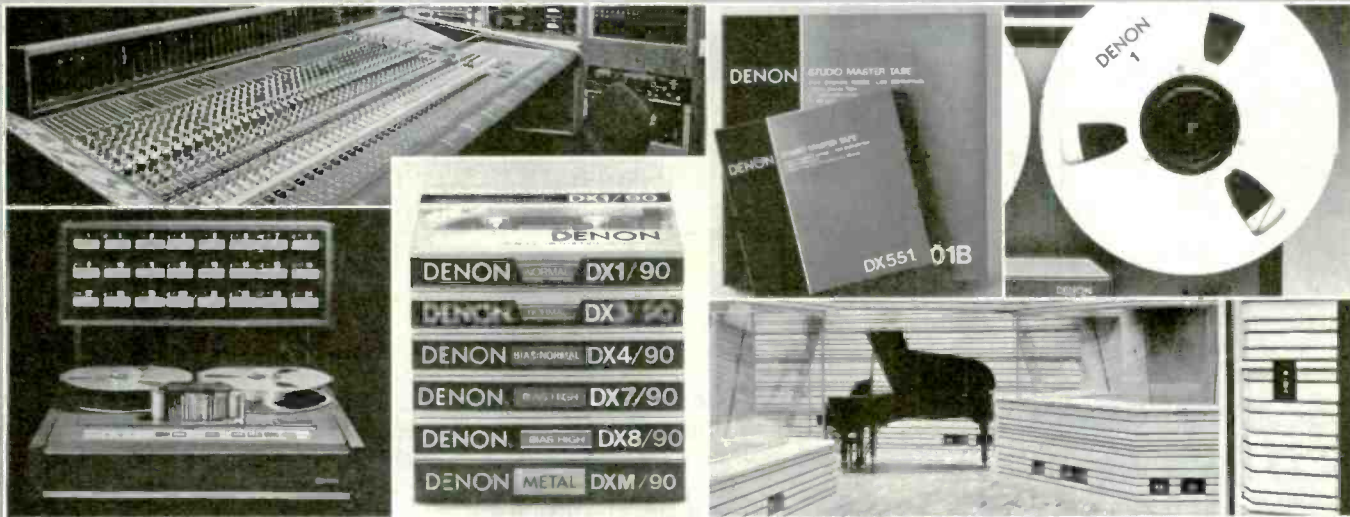
Our experience in the listening room was a bit of a surprise, considering the measured results. We would have predicted a somewhat bright sound on many recordings, with excellent stereo imaging, and here we were not disappointed. But when we tried the speaker on the floor (as measured), the bass proved altogether too heavy. Positioned as recommended by Infinity—on stands and away from any of the listening-room walls—the sound was vivid and quite exciting, and it was this position we finally chose. The bass still struck us as quite rich—richer than we would have predicted from the bass end of the applicable lab curve—though some tastes might prefer a slight boost at the very bottom of the range. But the brightness remained throughout our trials—even when we experimented with a modest treble cut—and this we believe, contributes to the sense of excitement the speakers generate.

The sound is very appealing. Its liveliness is bound to seem a little hyper if you compare it directly to more laid-back speakers, but many listeners are sure to find this strongly-etched quality far more to their liking. Certainly it proves that the absence of an Emit is not a big obstacle to Infinity's engineers. Polypropylene has served them well in this capable and remarkably inexpensive little three-way.

TO MAKE A CASSETTE TAPE SOUND LIKE MUSIC, YOU'VE GOT TO KNOW WHAT MUSIC SOUNDS LIKE.

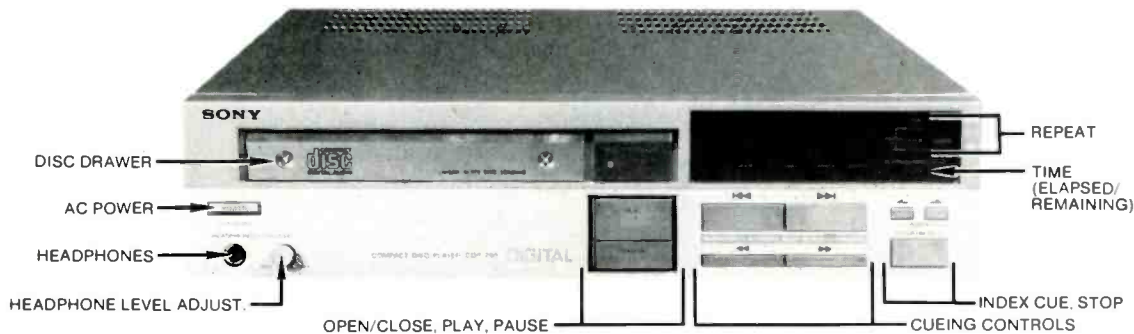
Think about it. What other tape manufacturer also builds professional recording equipment including 24-track and digital studio tape recorders? What other tape manufacturer has 72 years of experience as a major record company? Other tape manufacturers may talk about "digital ready," but do you know Denon developed the digital recording process in 1972?

It is this unique combination of technical and musical expertise that led Denon to use Dynamic Distortion Testing to optimize DX cassette tape performance in the presence of real musical signals, not mere laboratory test tones. The result is the most *musical* of all cassette tape. Denon DX-Cassette tape. When we claim it's better, we say it with music.



DENON

D E S I G N I N T E G R I T Y

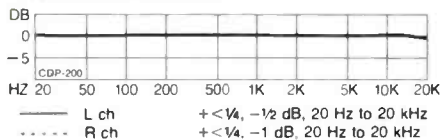


Sony's Simpler CD Player

Sony CDP-200 Compact Disc player. Dimensions: 14 by 3¼ inches (front panel), 13 inches deep plus clearance for connections. AC convenience outlet: one unswitched (100 watts max.). Price: \$700. Warranty: "limited," one year parts and labor. Manufacturer: Sony Corporation, Japan; U.S. distributor: Sony Corporation of America, Sony Dr., Park Ridge, N.J. 07656.

All data obtained using the Sony YEDS 7, Technics SH-CD001, Philips 410 055-2, and Philips 410 056-2 test discs.

FREQUENCY RESPONSE



DE-EMPHASIS ERROR

+½, -0 dB, 1 to 16 kHz

CHANNEL SEPARATION

≥ 92¾ dB, <math>< 100</math> Hz to 20 kHz

CHANNEL BALANCE (at 1 kHz)

±¼ dB

S/N RATIO (re 0 dB; A-weighted)

without de-emphasis 98 dB

with de-emphasis 102 dB

HARMONIC DISTORTION (THD+N; 40 Hz to 20 kHz)

at 0 dB ≤ 0.18%

at -24 dB ≤ 0.051%

IM DISTORTION (70-Hz difference frequency; 300 Hz to 20 kHz)

0 to -30 dB <math>< 0.01</math> %

LINEARITY (at 1 kHz)

0 to -60 dB no measurable error

at -70 dB +½ dB

at -80 dB +1½ dB

at -90 dB +4 dB

TRACKING & ERROR CORRECTION

maximum signal-layer gap see text

maximum surface obstruction see text

simulated fingerprint test pass

MAXIMUM OUTPUT LEVEL

line 2.1 volts

headphone 5.6 volts*

OUTPUT IMPEDANCE

line output 435 ohms

headphone output 230 ohms

*This is the maximum output into an open circuit. Maximum output into the IHF standard load (50 ohms) is 0.78 volt, or 12 milliwatts.

A FEW ISSUES AGO (October 1983), we reviewed Sony's perfectionist approach to the Compact Disc format: the \$1,500 CDP-701ES. Now we come to the company's least expensive model, the CDP-200, at less than half the price. (The \$900 CDP-101, which we reported on in December 1982, falls between the extremes.) The two share a number of features, though the present unit lacks the deluxe player's elaborate music-programming automation and wireless remote control. But considering the price differential, the 200 comes surprisingly close to the 701ES in performance as well as operating convenience.

The disc holder is a motorized drawer that is very easy to load and reasonably easy to unload without touching more than the edges of the CD. The player reads the disc index in the usual fashion and can then display either the time remaining on the disc as a whole or the current track and index numbers and the elapsed time within the track. The latter display mode is generally the more useful; the former is handy if you're not sure you've got time to hear the rest of a record.

There are two pairs of "fast cue" controls. A single tap on either of the large keys in the upper set, labeled "automatic music sensor," will take you forward or backward to the nearest intertrack space and recommence playback there almost instantaneously. Multiple taps advance or reel in the laser beam the requisite number of tracks and reset the band and time display accordingly. The lower, smaller pair of buttons move the pickup across the disc at about 20 times normal speed, sampling the music continuously as it goes. You can thus "flip through" the music of a 60-minute disc in about three minutes. (Unlike comparable features in tape equipment, this accelerated playback doesn't alter audible pitch: It just omits about 19 out of every 20 seconds of music.)

Also included are forward and reverse index keys that work like the track controls,

except that they recue the laser to the next or previous index number within the track that is playing. Multiple taps reset the laser and the index readout accordingly.

If you want to study a particular musical passage or hear any section of a disc more than once, you can easily do so by setting a repeat marker at the beginning of the segment and another at the end; the CDP-200 will then play it over and over until you reset the repeat feature. A separate button, labeled "all," repeats the entire disc. Once we adjusted our room lighting so we could read the gray-on-gray legends for these controls, we found that they worked flawlessly. And two other nice touches deserve mention: the level adjustment for the headphone output and the accessory AC outlet on the back panel.

Performance comparisons aren't much help in picking a CD player. The flatness of the frequency response and the absence of noise and distortion are remarkable by contrast to most other component categories, making those differences that can be discerned between CD models almost vanishingly small. In the measurements from Diversified Science Laboratories, the CDP-200 does exhibit a slight rolloff in the extreme treble, a tiny output-level (balance) disparity between the two channels at 1 kHz, and compression of extremely low-level signals that is a hair more severe than average—nit-pickers all.

Otherwise, the performance data are utterly above reproach, with one rather curious exception. Usually, a CD player either "tracks" or fails to do so in the three tests designed specifically to exercise the error correction. When the breaks in the digital signal stream grow wide enough—either because of deliberate omission or because of the interposition of opaque dots on the surface of the test record—the resulting thumps, clicks, or instantaneous silences leave no doubt that the capabilities of the error-correction circuitry have been exceeded. The CDP-200 created no gross



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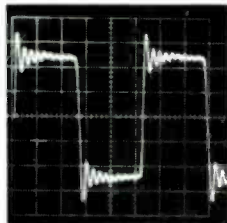
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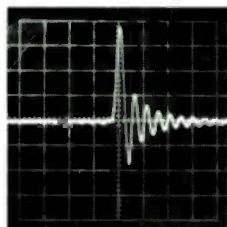
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SQUARE-WAVE RESPONSE (1 kHz)



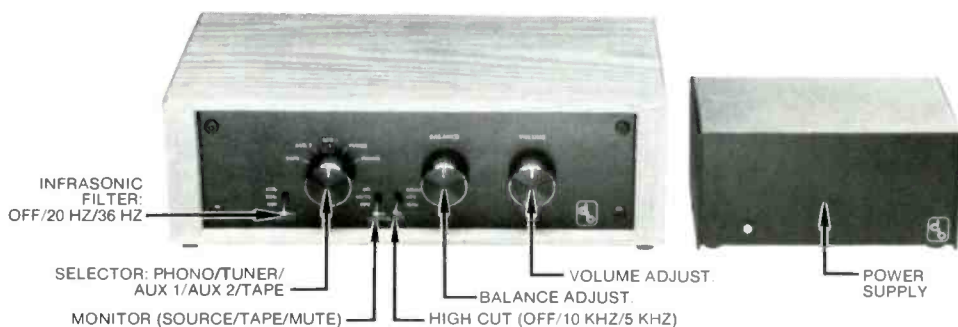
IMPULSE RESPONSE



artifacts of this sort in either test (and it successfully negotiated the simulated fingerprints in a related test), but at all "levels of difficulty" it generated at least some "ticking" effects. Certainly this is preferable to total failure, but it also is less desirable than the unperturbed reproduction provided by the very best players. So the Sony might be said to have passed all levels of these tests, but only marginally.

In listening to regular commercial

CDs, however, we could hear nothing amiss, even when some dust could be seen adhering to the disc before play. So the economies that set this relatively inexpensive model apart from the fanciest strike us as well considered: You might conceivably spend the extra \$800 for Sony's top model without realizing any practical or sonic advantage, depending on the demands placed on the music-finding features and on how well you care for your CDs.



DB's Two-Part Preamplifier

DB Systems DB-1B preamplifier, in oak cabinet, with DB-2A power supply. Dimensions: 12 by 4 inches (front panel), 6 3/4 inches deep plus clearance for controls and connections (preamp); 6 1/4 by 3 1/4 inches (front panel), 4 1/4 inches deep (power supply). Price: \$595. Warranty: "limited," five years parts and labor. Manufacturer: DB Systems, Main St., Rindge Center, N.H. 03461.

DB SYSTEM'S FIRST PRODUCT was about as austere a preamplifier as anyone had ever seen, with just three knobs and three switches on its small, black metal faceplate. A long, detachable cable linked the DB-1 to its remote power supply, the DB-2, housed in a still smaller and plainer box. The use of a separate, stiffly regulated power supply served to isolate sensitive audio circuits from the hum-inducing fields that emanate from AC line currents and transformers.

Other manufacturers have used this dual-chassis scheme, but recently only DB has carried the concept to its logical conclusion. In the company's current line, the DB-2A power supply is the heart of a very flexible modular preamplifier "system," each of whose elements is designed to perform a limited range of functions extremely well. These elements include the DB-4A pre-preamplifier for low-output moving-coil cartridges; the DB-5 tone-control module; the DB-7 polarity switch, amplifier-bridging adapter, and bandpass filter; and the DB-3 series of electronic crossovers. A single DB-2A can power about as many of these units as you're ever likely to use at one time (DB estimates six). This makes it easy to start with just one and add more as time goes on. And you can use any of the modules (plus the power supply) with other brands of components, as well.

The new DB-1B preamp, under review here, is slightly more expensive than

the DB-1A version. Its distinguishing features are said to include lower noise in the high-level stage, a volume control specially selected for tight tracking between channels (within ± 1 dB over a 50-dB range), all gold-plated input and output jacks, and a solid oak cabinet. Functionally, however, the two preamps are identical—and quite Spartan.

On the back panel of the DB-1B are two sets of electrically isolated main outputs and two pairs of individually buffered tape outputs. There is one set of phono inputs, plus four high-level inputs, including a single pair of tape jacks (though any of these can be expanded by a factor of four with the addition of a DBP-2J passive switchbox). The only other prominent features are a thumbscrew grounding post and two DIN sockets. One socket is for patching components that use DIN connectors and cables into the tape-monitor loop, supplanting the pin jacks that normally are used. The other is for attaching the power supply or one of the auxiliary units, such as the tone-control module; in the latter case, the power supply attaches to the auxiliary unit, and the cable between the unit and the preamp carries input and output signals as well as power. Additional modules are added by daisy-chaining in this fashion, with the DB-2A bringing up the rear.

The DB-1B's front panel provides little beyond the most basic controls: a VOL-

OUTPUT AT CLIPPING (1 kHz) 7.4 volts

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)
aux or phono input <0.01%

FREQUENCY RESPONSE
+0, -1/4 dB, <10 Hz to 21.5 kHz;
+0, -3 dB, <10 Hz to 79.4 kHz

RIAA EQUALIZATION $\pm 1/4$ dB, 20 Hz to 20 kHz;
-1/4 dB at 5 Hz

SENSITIVITY & NOISE (re 0.5 volt; A-weighting)
sensitivity S/N ratio
aux input 62 mV 91 dB
phono input 0.92 mV 79 dB

PHONO OVERLOAD (1-kHz clipping) 150 mV

INPUT IMPEDANCE
aux input 36k ohms
phono input 47.9k ohms, 105 pF

OUTPUT IMPEDANCE
tape output 980 ohms
main output 1,200 ohms

CHANNEL SEPARATION (at 1 kHz; aux input)
74 dB

INFRASONIC FILTER
-3 dB at 27 or 47 Hz; 6 dB/octave*

HIGH FILTER
-3 dB at 9.7 or 18.6 kHz; 6 dB/octave

*Affects phono response only

UME, an undetented BALANCE, a source selector, a tape-monitor switch, and switches for the high- and low-cut filters. The tape-monitor control is unusual in having three positions, one of which serves as a MUTE. And tradition is honored by having a tape position on the main selector, as well as on the monitor switch. This can be convenient at times, but it has the drawback of enabling you to induce feedback by turning the selector to TAPE while recording with a three-head deck.

Both filters have gentle slopes of about 6 dB per octave, and their three-position switches enable you to set them for either of two cutoff frequencies or to defeat them altogether. Diversified Science Laboratories found the lower-filter cutoffs to be 7 to 10 Hz higher than indicated by the switch markings (not a significant discrepancy). At the lower setting, response is down only 1 dB at 50 Hz, about 3 dB at 30 Hz, and about 16 dB at 5 Hz. It thus provides some protection against warp-generated infrasonics without significantly attenuating the output at frequencies where there is likely to be any musical energy. The higher cutoff setting drops the response by 1 dB at 90 Hz, about 3 dB at 50 Hz, and about 20 dB at 5 Hz. This makes it more effective in the war against warps, but at the risk of some thinning of the sound. The low filter affects only the phono response.

The high filter influences the response through all inputs. Its switch markings indicate the frequencies at which the filter's response is 1 dB down, which DSL's measurements confirm. Neither setting produces enough rolloff in the audio band to take much of a bite out of hiss (the less

severe of the two is just 2 dB down at 15 kHz), but the one with the lower cutoff, especially, can help take the edge off a loudspeaker, cartridge, or recording with a hot high end. For this purpose, it is better than many tone controls.

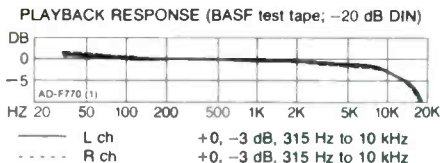
As we mentioned earlier, the point of the DB-1B is not "bells and whistles," but performance—and that is where it truly shines. DB Systems claims that distortion of all types is less than 0.001 percent, which is at least two orders of magnitude below the threshold of audibility for any conceivable musical signal and one order below the level at which we stop reporting improvements (0.01 percent). In fact, it is so low that DSL was unable to detect any distortion at all, indicating that any circuit nonlinearities that may exist are beyond the resolution of the lab's test instruments.

The other measurements are equally impressive. Frequency response and phono equalization are flat over the entire audible range, and noise is extremely low. (Particularly noteworthy is the total absence of audible hum, even through the phono input with the volume control turned all the way up.) Phono overload and channel separation are more than adequate, and the input and output impedances are well-chosen. This fine performance assures that the DB-1B will add no sonic character of its own to the signals passing through it.

Clearly, this is not a preamp for everyone. But if you want maximum performance with a minimum of frills, and DB's modular design approach appeals to you, it is an excellent choice, fully capable of standing up sonically to any other preamp on the market.

A Top-Value Cassette Deck From Aiwa

Aiwa AD-F770 cassette deck, with automatic tape-matching system, Dolby B and C noise reduction, and Dolby HX Pro headroom extension. Dimensions: 16 1/2 by 4 inches (front panel), 11 inches deep plus clearance for connections. Price: \$495; optional RC-R200 remote control, \$95. Warranty: "limited," one year parts and labor. Manufacturer: Aiwa Co., Ltd., Japan; U.S. distributor: Aiwa America, Inc., 35 Oxford Dr., Moonachie, N.J. 07074.



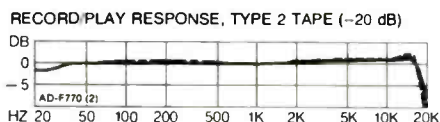
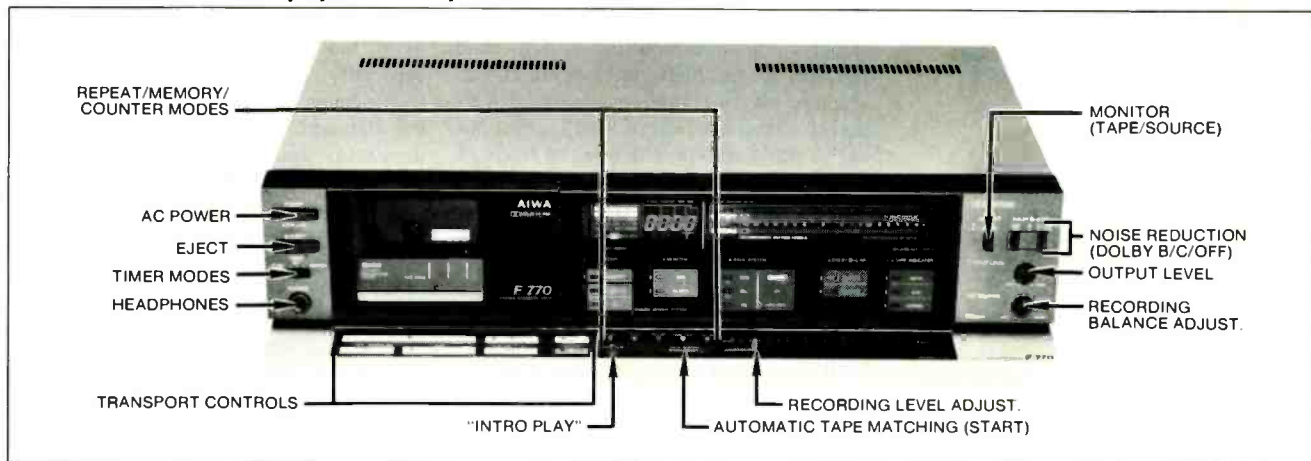
AT FIRST GLANCE, you might easily mistake the Aiwa AD-F770 for the AD-F990, which we tested last September. But the present model dispenses with some of the F990's most exotic features—the automatic recording-level adjustment and the automatic noise reduction switching—thereby shaving \$100 from the price and bringing the advantages of Aiwa's current cassette-deck design within reach of a larger audience.

The innovation we're most fond of is the horizontal control shelf, which makes operation much easier than with conventional front-loaders when the machine is placed below eye level. On the shelf is the button controlling the automatic tape-matching system (which Aiwa calls DATA—Digital Automatic Tape Adaptation). When you push it, the deck records a series of tones, sets bias, sensitivity (Dolby) calibration, and recording EQ from them, and then rewinds the tape to the spot where the operation began. Also welcome is the option of either arbitrary counter

numbers or a time-remaining readout (with calibrations for all standard cassette lengths, including C-120s). Unlike some others of its ilk, the latter works in the fast-wind modes, as well as during recording and playback.

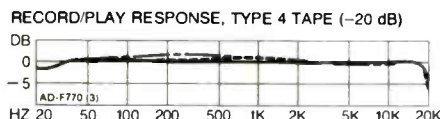
The AD-F770's head complement includes separate recording and playback elements in a single housing (contacting the tape through the main central port in the cassette shell), making it possible to monitor from the tape during recording and to make instantaneous source/tape comparisons. An automatic degaussing system clears the heads of residual magnetization each time you turn on the power. The closed-loop dual-capstan drive system has Aiwa's Micro-grain treatment on the capstan surfaces, which the company credits with reducing modulation noise and flutter. And there's Dolby B and C noise reduction—plus Dolby HX Pro, for significantly improved high-frequency headroom.

An added benefit for most users is the



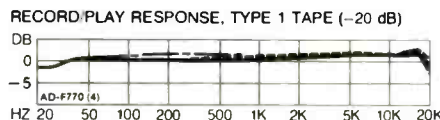
AD-F770 (2)

— L ch +1 1/2, -3 dB, <20 Hz to 18 kHz
 - - - R ch +1 1/2, -3 dB, <20 Hz to 18 kHz
 with Dolby B noise reduction
 - - - - R ch +1 3/4, -3 dB, <20 Hz to 17.5 kHz
 with Dolby C noise reduction
 - - - - R ch +2 1/4, -3 dB, <20 Hz to 17 kHz



AD-F770 (3)

— L ch +1/2, -3 dB, <20 Hz to 19 kHz
 - - - R ch +1/2, -3 dB, <20 Hz to 19.5 kHz
 with Dolby B noise reduction
 - - - - R ch +1, -3 dB, <20 Hz to 19 kHz
 with Dolby C noise reduction
 - - - - R ch +2, -3 dB, <20 Hz to 19 kHz



AD-F770 (4)

— L ch +2, -1 dB, <20 Hz to 20 kHz
 - - - R ch +1 1/2 dB, <20 Hz to 20 kHz
 with Dolby B noise reduction
 - - - - R ch +1 3/4, -3 dB, <20 Hz to 19.5 kHz
 with Dolby C noise reduction
 - - - - R ch +2 3/4 dB, -2 dB, <20 Hz to 20 kHz

MULTIPLEX FILTER (defeatable)
 flat at 15 kHz; -36 1/2 dB at 19 kHz

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

	Type 2 tape	Type 4 tape	Type 1 tape
without noise reduction	54 1/4 dB	54 1/4 dB	50 3/4 dB
with Dolby B noise reduction	64 1/2 dB	64 1/4 dB	60 3/4 dB
with Dolby C noise reduction	73 dB	73 dB	69 3/4 dB

automatic tape-type switching, which senses the keyways in the cassette shell and sets the deck for Type 1, 2, or 4 tapes. Type 3 ferrichromes (like Type 1 ferrics) have no keyways and therefore are treated as ferrics, losing the benefit of the hiss-reducing 70-microsecond EQ that is normal to them (as well as Type 2 "chromes" and Type 4 metals). So if you want to play or record on ferrichromes—or on old or off-brand cassettes without the now-standardized keyways—you're out of luck: There is no manual override.

Diversified Science Laboratories used three TDK formulations for its record/play tests: SA as the Type 2 tape (used for all tests in which the type is not specified), MA for Type 4, and D (TDK's least fancy ferric) for Type 1. In each case, the automatic tape-matching system was used (as it should be in normal recording practice) to "tune" the deck to the tape. The results, as the response curves show, are all very fine.

The playback curves also are excellent, except that an evident disparity of azimuth standard between Aiwa—among other manufacturers—and the BASF test tape produces a droop at the high end that would not otherwise appear. As the record/play curves demonstrate, however, no such roll-off occurs with cassettes recorded on the F770, and similarly extended response should be obtained from recordings made on other decks calibrated to the alignment tape used by Aiwa. The defeatable multiplex filter (the switch is on the back panel) is effective at the 19-kHz stereo-FM pilot frequency and introduces neither attenuation nor peaking at 15 kHz.

DSL's high-level (0-dB) response

curves (not shown) document the excellent high-frequency headroom that you would expect from a deck incorporating HX Pro. With Type 2 tape and no noise reduction, the curve shows little evidence of compression as high as 5 kHz, which is excellent; with Type 4 tape and Dolby C, response is, if anything, slightly better at 0 dB than at -20 dB, which is astonishing. And even the curves made with the moderately priced Type 1 tape are very good in this respect—comparable to those for metal tape in many decks without HX Pro.

Midrange headroom, too, is admirable: DSL's measurements for 3 percent third harmonic distortion at 315 Hz are generally about one "step" (2 dB at the top of the metering range) above the maximum recommended signal level for each tape group, as shown on the recording level indicators. These "suggestions" light automatically when you insert a cassette, in response to the shell keyways. They are based on the presumption that metals will have some 2 dB more midrange headroom than chromes (and ferricobalts), and the latter 2 dB more than ferrics.

The assumptions are valid as long as the comparison is between first-rate metal or chrome formulations and budget ferrics; these days, the best ferrics have a good shot at outperforming the competition in the other two groups. So for the best possible results, your response to the deck's recommendations must be tempered by a knowledge of the tape you are using. However, the benchmarks Aiwa supplies—together with the fast metering action, the finely divided metering scale (1-dB increments from -4 to +6 dB), the peak-hold feature, and the high-frequency "insurance" of HX

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.

INDICATOR READINGS FOR DIN 0 DB (315 Hz)

Type 2 tape	+6 dB (with 2.0% THD)
Type 4 tape	+5 dB (with 0.62% THD)
Type 1 tape	+6 dB (with 2.3% THD)

INDICATOR READINGS FOR 3% DISTORTION (315 Hz)

Type 2 tape	+8 dB (for +1½ dB DIN)
Type 4 tape	> +10 dB (for +5¾ dB DIN)
Type 1 tape	+6 dB (for +¾ dB DIN)

DISTORTION (THD at -10 dB DIN)

Type 2 tape	≤ 0.73%, 50 Hz to 5 kHz
Type 4 tape	≤ 0.34%, 50 Hz to 5 kHz
Type 1 tape	≤ 0.72%, 50 Hz to 5 kHz

ERASURE (100 Hz)

Type 2 tape	75 dB
Type 4 tape	57 dB

CHANNEL SEPARATION (315 Hz)

53 dB

INDICATOR "BALLISTICS"

Response time	3.4 msec
Decay time	≈ 450 msec
Overshoot	0 dB

SPEED ACCURACY no measurable error,
105 to 127 VAC

FLUTTER (ANSI weighted peak; R/P) ±0.068%

SENSITIVITY (re DIN 0 dB; 315 Hz)

line input	125 mV
mike input	0.215 mV

MIKE INPUT OVERLOAD (clipping)

34 mV

INPUT IMPEDANCES

line input	65k ohms
mike input	5.6k ohms

OUTPUT IMPEDANCE

3,150 ohms

MAX. OUTPUT (from DIN 0 dB)

0.71 volt

Pro—make it easy to get good results even in relatively casual use.

Most of the measurements represent performance that is, at minimum, very good. The spot-on speed accuracy is the most eye-catching; it sent us scurrying to look at old reports in search of other models in which no speed error could be measured. (We had to go back to August 1982; there may be other, earlier examples.) But the usual figures—around ½ percent fast—are quite satisfactory. The erasure of metal tapes is not quite up to the level of the other data (including the Type 2 erasure figure), but it is certainly adequate for most purposes. As with many other decks, perfectionists will want to bulk- or double-erase metal tapes to ensure the cleanest possible recordings.

There are a number of little extras whose value is a matter of the recordist's personal assessment. The deck has mike inputs—on the back panel, and, therefore, evidently intended for occasional use only. There are the usual timer playback and recording options. Less ordinary is the "intro-play" feature, which sequentially samples several seconds of each selection on

the tape. The automatic mute, which creates a four-second blank on the tape to help intro-play identify the points where one selection ends and another begins, can be made to create longer or shorter blanks as well for special purposes. There are multiple options of automatic rewind and repeat play, and the deck will seek out unrecorded portions of the tape on command. Moderately fast forward wind or rewind with some audible output (CUE and REVIEW) for locating a specific passage by ear is achieved by pressing either fast-wind button and PLAY simultaneously during play-back.

That's a lot of features for any cassette deck—even one in this price range. When you consider the more important attributes cataloged at the beginning of this review, it should be obvious that the AD-F770 follows what we recognize as the true Aiwa tradition—representing good "value for money," as the British say. Some features will doubtless strike some recordists as mere flourishes, but in light of the solid design virtues and performance, the over-riding impression is one of capability and finesse.

AR's Remote For All Systems

Acoustic Research SRC-1 wireless remote control system. Dimensions: 11½ by 1¾ inches (front panel), 5½ inches deep plus clearance for connections. Price: \$160. Warranty: "limited," one year parts and labor. Manufacturer: made in Taiwan for Teledyne Acoustic Research, 10 American Dr., Norwood, Mass. 02062.

OUTPUT AT CLIPPING (1 kHz) 3.15 volts

MAXIMUM INPUT LEVEL (clipping) 3.15 volts

S/N RATIO (re 0.5 volt; A-weighted) ≥ 90¾ dB

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz) ≤ 0.025%

FREQUENCY RESPONSE (at 0-dB attenuation)
+0, -¼ dB, <10 Hz to 53 kHz;
+0, -3 dB, <10 Hz to 181 kHz

CHANNEL SEPARATION (at 1 kHz) 90¾ dB

INPUT IMPEDANCE 100k ohms

OUTPUT IMPEDANCE

tape output	source plus 220 ohms
EPL output	source plus 220 ohms
main output	340 ohms

BEFORE NOW, IF YOU wanted to get remote control in an audio system, you had to buy a one-brand package engineered for that capability from the ground up. But with the appearance of AR's SRC-1 add-on remote control unit, owners of multibrand systems can enjoy some of the same benefits. We say "some" because no add-on device can order a tuner to change stations or a cassette deck to go from playback to recording, for example. What it can do is turn the system on and off and manipulate the audio signal after it has left a component. As we found after extended use of the SRC-1 in a variety of systems, even this degree of control can prove very welcome.

The SRC-1 comprises a base station and a small, hand-held transmitter. Four of the base station's five front-panel lights give visual confirmation of operating status; the fifth blinks momentarily to signal that a command has been received and acted on. Since the base unit contains the control circuitry, you must hook it into your audio system so that it receives line-level inputs from all sources. For owners of receivers and integrated amps, that usually means putting it into the tape-monitor loop, which is therefore duplicated on the SRC-1 with the appropriate input and output jacks and a switch on the base station. Plus, there's a second "external processor" loop for a signal processor or another source feed, and a key on the transmitter that lets

you insert it remotely into the signal path. You can also use the remote to turn your system on and off via a switched AC outlet on the back of the base station (provided your components draw no more than 600 watts).

The battery-powered transmitter has four rocker panels, but because of two-panel procedures for some operations, it actually can initiate 15 separate actions. The functions of the power, volume, balance, and mute/EPL rockers are reasonably self-evident from their labels. However, the power-on key also acts as a shift key, modifying the effects of the other function keys. Thus, pressing POWER ON followed by either end of the volume panel will result in a fast volume change; the volume panel used alone gives a slow change with constant key pressure or a 1½-dB step with each quick tap. Using the power-on key and the balance panel in the same way, you can immediately change to left- or right-channel-only output. Similar procedures transform the normal -20-dB mute into a full mute and cause the EPL to restore center balance. And for unattended system shut-off, you can press POWER ON followed by POWER OFF to trigger a 30-minute count-down timer.

Out of the box, the SRC-1 is preset to turn on with the mute engaged, the volume set all the way down, the balance centered, and the external processor loop disengaged.



As long as it receives AC power, the SRC-1 will retain its last volume, balance, and EPL settings, but will stay in mute when activated by the transmitter so that you can set a lower volume level if necessary. (If power to the base station is interrupted, it will forget this information and return to AR's presets when power is restored.)

The remote transmitter has a range of approximately 40 feet, which should be quite sufficient in most rooms. The ability to control volume and balance from the listening position is a terrific convenience—though mastering the two-panel procedures is tricky. Especially bothersome is the return-to-center-balance procedure: If you forget to hit the power-on key before tapping EPL (or just accidentally hit EPL when you really want to press the MUTE at the panel's other end), all sound disappears if there is no component in the loop. Trying to restore sound occasionally involved us in a fruitless round of key pushing until we realized what was wrong. One of us finally concluded that an EPL release procedure should always be attempted first, while another obviated the problem by installing jumper cables across the EPL jacks on the back of the base station. AR will soon start silk-screening instructions on the back of the transmitter to head off confusion.

On the test bench, however, there was no confusion about the excellence of the unit's circuitry. Diversified Science Laboratories measured attenuation and channel balance at each of the unit's 52 steps and

found precision rivaling that of the best laser-trimmed resistor networks, far surpassing the performance of the volume controls on most preamps and receivers. The attenuation increments are within ¼ dB of the ½ dB specified by AR, and total attenuation is more than adequate at 79 dB. More outstanding, however, is the finding that channel balance deviates less than ±¼ dB from 0 to -72 dB. Noise is also well controlled, ranging from -90¼ dB at minimum attenuation to -103¼ dB at full cut. Such signal-to-noise (S/N) figures are better than those of most signal sources and preamps—enough so that the SRC-1's noise can, for all practical purposes, be considered nonexistent. Equally impressive are the unit's distortion figures, which are well below the threshold of audibility, and its frequency response, which remains ruler flat at any volume setting throughout the audible band.

The SRC-1 will find a welcome place in many systems. If yours is composed of separates, you may even choose to hook a tuner or tape deck into the EPL inputs on the back of the base station and perform a little remote source switching. And if you don't mind a bright green light blinking to remind you that it has been activated, the unit's sleep timer may well prove a pleasant soporific. Even as a simple volume and balance control, the SRC-1 is so far superior to the ones built into most components that we can imagine some audiophiles buying it for that reason alone.

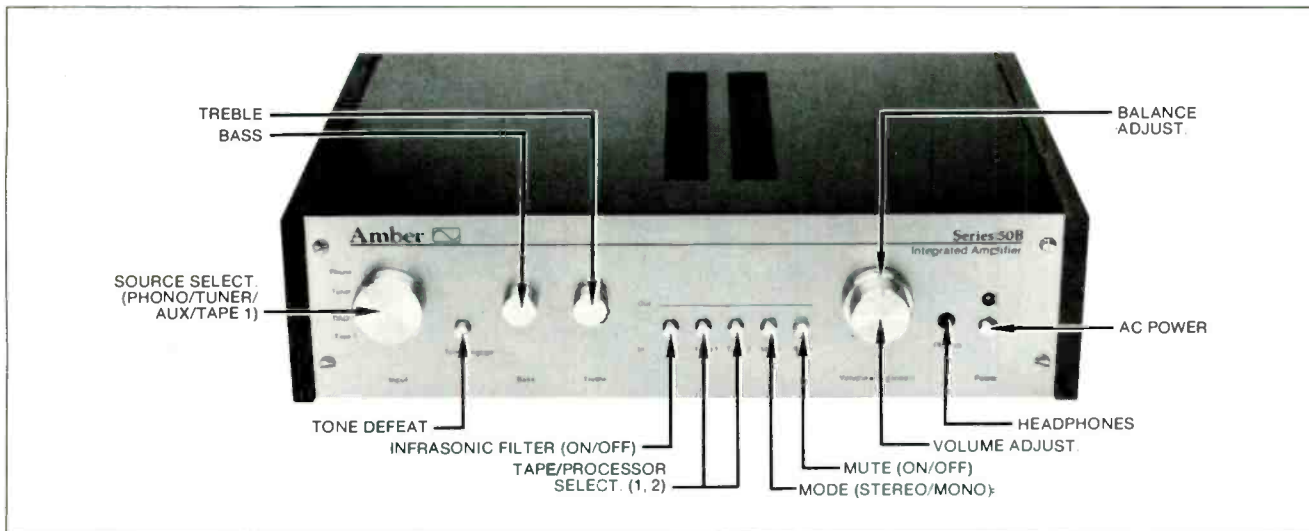
An Integrated Amp from Amber

Amber Series 50B integrated amplifier, in metal case with wood ends. Dimensions: 17 by 4¼ inches (front panel), 12½ inches deep plus clearance for controls and connections. AC convenience outlets: five switched (300 watts max. total), one unswitched (100 watts max.). Price: \$600. Warranty: "full," three years parts and labor. Manufacturer: Amber Electronics, Inc., 500 Henry Ave., Charlottesville, Va. 22901.

ONE OF THE ATTRACTIVE THINGS about the audio industry is that it still can support small, specialist companies. Amber is one of them, working exclusively in amplifiers and preamplifiers, and this is an updated version of its first integrated model. The 50B's circuitry includes such niceties as totally defeatable tone controls; absence of current limiting for distortion-free, full-power operation into low-impedance and otherwise difficult loads (a particular interest of Amber's designers); and a custom low-flux power transformer and hefty

capacitors in the power supply.

The front-panel controls are unusual in two relatively minor respects. First, the MUTE cuts output completely (rather than just attenuating it by 20 dB or so). Second, the tape-loop design puts "Tape 2" ahead of "Tape 1." According to Amber, this is so that signal processors—which the manual says should be connected to Tape 2—will affect the signal going to the recorder when you push the Tape 2 monitor button. This setup is also used to dub from 2 to 1; if you want to monitor from Tape 1, you push



RATED POWER	17 dBW (50 watts)/channel
OUTPUT AT CLIPPING (both channels driven)	
8-ohm load	17 $\frac{3}{4}$ dBW (60 watts)/channel
4-ohm load	19 $\frac{1}{2}$ dBW (90 watts)/channel
DYNAMIC POWER	
8-ohm load	19 dBW
4-ohm load	20 $\frac{3}{4}$ dBW
DYNAMIC HEADROOM (re rated power, 8-ohm load)	+2 dB
HARMONIC DISTORTION (THD: 20 Hz to 20 kHz)	
at 17 dBW (50 watts)	\leq 0.031%
at 0 dBW (1 watt)	\leq 0.053%
FREQUENCY RESPONSE	
	+0, - $\frac{1}{2}$ dB, <10 Hz to 16.9 kHz;
	+0, -3 dB, <10 Hz to 46.6 kHz
RIAA EQUALIZATION	+< $\frac{1}{4}$, - $\frac{1}{4}$ dB, 20 Hz to 20 kHz;
	-3 $\frac{1}{2}$ dB at 5 Hz
SENSITIVITY & NOISE (re 0 dBW; A-weighting)	
	sensitivity S/N ratio
aux input	17 mV 73 dB
phono input	0.18 mV 66 $\frac{3}{4}$ dB
PHONO OVERLOAD (1-kHz clipping)	105 mV
INPUT IMPEDANCE	
phono input	49.4k ohms (complex)
aux input	9.3k ohms
OUTPUT IMPEDANCE (to tape)	
from aux input	direct
from phono input	50 ohms
DAMPING FACTOR (at 50 Hz)	50
CHANNEL SEPARATION (at 1 kHz)	55 $\frac{1}{2}$ dB
INFRASONIC FILTER	-3 dB at 37 Hz; 6 dB/octave

its monitor button as well. To dub from 1 to 2, you can choose the playback of Tape 1 on the main selector and monitor the dub with the Tape 2 monitor button. But switching the selector to Tape 1 when it's connected to a deck that's set to monitor its source can produce a nasty feedback. And many signal processors (speaker equalizers or expanders, for instance) should follow, not precede, the recorder in the signal chain.

There is another option for such processors, however: preamp output and power-amp input jacks on the back panel. Diversified Science Laboratories measured an unusually low output impedance of 50 ohms, assuring minimum signal degradation, even with relatively long, high-capacitance cables. A push button nearby uncouples the two sections when you want to insert an outboard component between them. There are also three fuses on the back panel: one in the power line and one in each of the output channels. The latter are particularly important, since they constitute the Amber's sole protection circuitry—not only for the output transistors, but for the speakers connected to them. The manual tells you how to determine what fuse values to use for speakers of any given maximum-power rating.

There is also a built-in muting circuit, intended to spare your speakers the indignity of turn-on thumps; Amber rates it at three seconds, but disturbingly loud transients continue even after the output is unmuted. The complement of convenience AC outlets on the back panel is unusually lavish: six in all, five of them switched.

Also exceptional is the gentleness of the tone controls' action. A moderate twist of the BASS in either direction yields only a slight tilt in the response curve below about 100 Hz; the maximum settings produce a rising boost to about +5 dB at 100 Hz and +10 dB at 25 Hz or a shelving cut of about 5 dB below 100 Hz. Maximum rotation of the treble control yields some 7 dB of boost or 4 dB of cut above 10 kHz. Both controls yield essentially flat response in their (un-

detented) center positions, and neither impinges significantly on the other's frequency domain. The controls are thus well adapted to achieving moderate rebalancing, rather than radical alterations. Also very moderate is the infrasonic filter slope, though its relatively high turnover point enables it to suppress warp disturbances somewhat better than the rolloff rate alone would imply.

The amplifier's basic frequency response is quite flat, and distortion is inaudibly low, though we were surprised to find traces not only of the third harmonic at some frequency and power levels, but also of the fifth harmonic in the midrange and treble at 0 dBW (1 watt). The Amber's 2-dB dynamic headroom means that it can generate as much as 80 watts into 8 ohms on musical signals; into a 4-ohm load, the dynamic test yielded 20 $\frac{3}{4}$ dBW (120 watts).

The AUX input impedance is unusually low; if the output impedance of a component connected to it is any higher than 5,000 ohms or so (which is not unheard-of, especially in old tubed components), reduced output may result. Noise is acceptably low for most purposes, though uncommonly high levels of line hum (at 60 Hz and its harmonics) were apparent both in listening and on the test bench. The phono input is intended for fixed-coil pickups or moving-coil models of roughly equivalent output; low-level moving-coil cartridges require an outboard head amp or step-up transformer. Capacitance, to which many fixed-coil pickups are sensitive, can be adjusted by means of a set of internally mounted switches (you must open the chassis) over a nominal range of 0 to 700 picofarads (pF). The impedance of the phono input is complex, however—meaning that the effective capacitance varies with frequency—so that matching is not as clear-cut as the switching system presupposes. But this did not seem to cause any audible response anomalies with the cartridges we used in our listening trials.



Simple Elegance From Thorens

Thorens TD-147 two-speed (33 and 45 rpm) semiautomatic belt-drive turntable, with mahogany-veneered wood base. Dimensions: 17¼ by 14¼ inches (top), 6½ inches high with cover closed; additional 11 inches clearance above and 3¼ inches behind required to open cover fully. Price: \$475. Warranty: "limited," five years parts and labor. Manufacturer: Thorens-Franz, Switzerland; U.S. distributor: Epicure Products, Inc., 25 Hale St., Newburyport, Mass. 01950.

THOUGH SEVERAL COMPANIES can trace their history back to the dawn of the audio age, few can boast a lineage as direct and unbroken as Thorens's. Founded in 1883 as a manufacturer of music boxes, the firm branched out to make Edison-type phonographs in 1898 and has been delighting discriminating music lovers ever since with its record-playing equipment. Specializing in belt-drive single-play designs, the company has consistently put performance ahead of flash; indeed, the simple European look and generally excellent performance of the new TD-147 epitomize the Thorens approach.

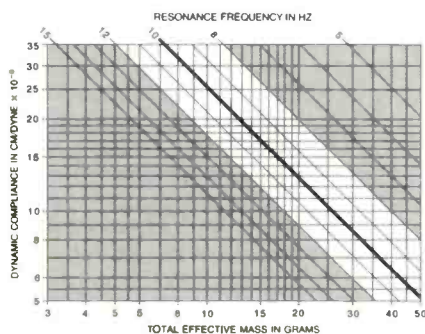
Unlike some of the company's other models, however, the TD-147 does not sacrifice all creature comforts. The turntable (which resembles the established TD-160 Super) comes equipped with what the company calls its best tonearm, the dynamic-balance TP-16 Mk. III. Thorens specially treats the surface of the arm shaft to damp tube resonances. A velocity-sensing mechanism lifts the tonearm at the record's run-out groove and trips a relay that shuts off power to the platter motor. Both the arm and the platter are mounted on a subchassis isolated from the base, dust cover, and

drive motor by a three-point spring suspension. The seven-pound zinc-alloy platter is treated on its underside with a damping compound said to minimize ringing and is fitted with a relatively hard rubber mat.

Setting up the turntable takes only a few minutes, and if you're deft at following very detailed instructions, mounting a cartridge in the tonearm's pickup wand should prove equally easy. This wand comprises most of the tonearm's length, mating with the rest of the arm mechanism close to the fulcrum. This approach avoids putting the headshell connector at the end of the tonearm, where its weight would contribute much more to the arm's effective mass. After balancing the arm, you dial in the appropriate amount of vertical tracking force (VTF) and antiskating bias. (Unfortunately, the VTF calibration is not very accurate; we would suggest using an external stylus-force gauge.) And finally, unlike other Thorens units we've seen, this one uses a small outboard step-down transformer to convert AC line current to a level usable by the turntable's 16-pole synchronous motor.

Diversified Science Laboratories

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^{-9} 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.

SPEED ACCURACY (105 to 127 VAC)	
at 33 rpm	no measurable error
at 45 rpm	1.0% fast
WOW & FLUTTER (ANSI weighted peak)	
average	±0.05%
maximum	±0.08%
TOTAL AUDIBLE RUMBLE (ARLL)	-67¼ dB*
EFFECTIVE TONEARM MASS	≈18½ grams
VTF-GAUGE ACCURACY	
reads 0.5 gram high from 0.25 to 1.5 grams;	
reads 0.4 gram high from 2.0 to 3.0 grams	
TOTAL LEAD CAPACITANCE	240 pF

*See text.

found the TD-147's speed accuracy dead-on at 33 rpm, but 1 percent fast at 45 rpm—not a big error audibly, but rather high by comparison to other turntables. Measured with a test lacquer, rumble varied from -65½ to -69 dB, which is about average for modern, high-quality units. Switching to Thorens's own precision rumble-testing device—the *RumpelMesskoppler*—extended the lower limit to an excellent -72 dB. Flutter is also very low.

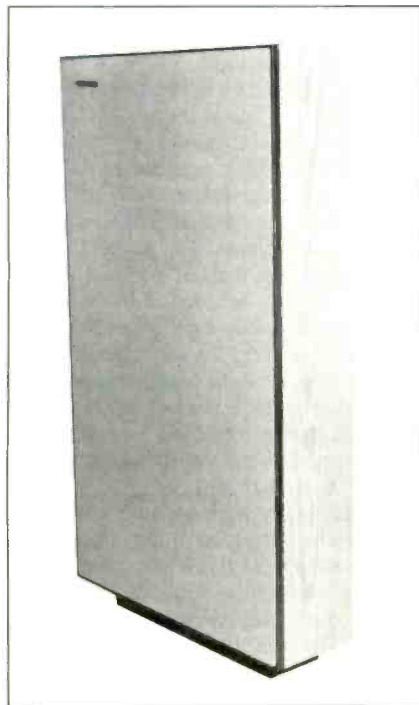
Despite Thorens's efforts to keep the tonearm light, DSL measured a moderately high effective mass. This implies that the best match will be obtained with a medium-to-low-compliance or very lightweight cartridge. Assuming the cartridge weighs 6 grams (which is about average), a dynamic compliance of 7 to 16×10^{-6} centimeters per dyne (cm/dyne) would be required to keep the arm/cartridge resonance in the "safe" range between 8 and 12 Hz. Such figures are more typical of good moving-

coil pickups than of top fixed-coil models. Another incentive for using a moving-coil is the tonearm's relatively high lead capacitance. In combination with the input capacitance of a phono preamp, it could be enough to cause some high-frequency roll-off in many fixed-coil cartridges. Moving-coil pickups are largely insensitive to capacitive loading.

The TD-147 acquitted itself very well in the listening room. Its suspension kept acoustic feedback at a minimum, though sharp raps to the table on which it was placed were transmitted through the system. The two-position cueing lever works smoothly, causing rapid arm ascent and slow descent with no drift. And the combination start/speed-selection lever has the positive feel of a control that should hold up for many years. In fact, everything about the TD-147 bespeaks quality and durability—the sort of construction we've come to expect from the craftsmen at Thorens.

Boston-Bred Refinement

Boston Acoustics A-400 floor-standing loudspeaker, in particle-board enclosure with oak or walnut veneer finish. Dimensions: 21 by 41 inches (front), 7½ inches deep plus ¾ inches additional clearance in back and 2¾ inches in front for feet. Price: \$450 each. Warranty: "limited," five years parts and labor. Manufacturer: Boston Acoustics, Inc., 247 Lynnfield St., Peabody, Mass. 01960.



BOSTON ACOUSTICS' NEWEST loudspeaker replaces the highly regarded A-200 at the top of the company's line. Like its predecessor, the A-400 is a three-way system in an unusually tall, wide, and shallow acoustic suspension enclosure. But there are important departures as well, apparently aimed at combining more fully than before the smoothness and coherence that distinguish the best two-way designs with the higher power handling, lower distortion, and more uniform dispersion that can be obtained in a good full-range three-way.

The most obvious change is from a single 10-inch woofer to dual 8-inch drivers. Their larger effective radiating area (equal to that of a 12-inch cone) and twin voice coils increase the system's low-frequency power-handling capacity. More important, however, is the distribution of that radiating surface. Stacking the woofers one above the other creates the acoustical equivalent of a tall, narrow oval driver, positioned on the baffle so that it is at once close to the floor, for optimum room coupling, and not too far from the midrange driver, to minimize any possible sonic discontinuity in the crossover region.

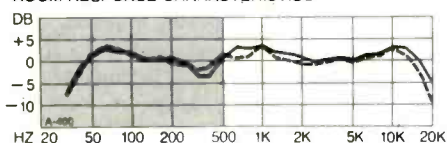
The crossover is at 300 Hz, rather than 450 Hz, so that more of the musical information is delivered through the midrange driver. Since it is approximately at ear height, immediately below the tweeter, this helps assure a stable and properly placed stereo image. The midrange unit is a 6-inch cone in its own acoustic suspension sub-enclosure. A 1-inch soft-dome tweeter takes over at 3 kHz, which is low enough that the midrange driver is still providing good dis-

persion and high enough that the tweeter doesn't have to strain at the bottom of its range. All of the A-400's drivers are manufactured by Boston Acoustics.

Although the company doesn't talk much about it, the shape of the A-400's cabinet is an important element of the speaker's design. All commercially available loudspeakers act like point sources at low frequencies (where their baffles are small relative to the wavelengths of the sound) and like infinite baffles at high frequencies (where the wavelengths are relatively short). A perfect point source would radiate uniformly in all directions, whereas a speaker with a truly infinite baffle would radiate only into the forward hemisphere. The size and shape of the enclosure determines the frequency at which the transition occurs. And since a driver will be more efficient as a half-space radiator than as a full-space radiator, this effect must be allowed for in tailoring a speaker's response.

Boston Acoustics feels that the most natural balance and imaging will be achieved if the transition between full- and half-space radiation is kept out of the audible band or, failing that, as close as possible to one of the frequency extremes. Most manufacturers who have addressed the problem have resorted to narrow or pyramidal enclosures to raise the transition frequency. Boston Acoustics has taken the opposite tack, using wide cabinets to more closely approximate an infinite baffle. Carefully fashioned grilles and flush-mounting of the drivers are said to minimize undesirable reflections and edge diffraction.

ROOM RESPONSE CHARACTERISTICS



— boundary-dependent region
 — on-axis response
 - - - - off-axis (30°) response

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

AVERAGE IMPEDANCE (250 Hz to 6 kHz)
 7 ohms



Boston Acoustics' A-400 loudspeaker with grille cloth removed.

Setting up the speaker requires attaching two long, narrow metal feet to its underside. These protrude a few inches fore and aft to prevent the shallow speaker from tipping over. Amplifier connections normally are made to a pair of color-coded spring clips in a recess near the bottom of the back panel. For biamplified operation, jumper wires between two more pairs of clips near the middle of the panel are removed and the amplifier leads are attached there. In this configuration, one amplifier drives the woofers while the other powers the midrange and tweeter. The clips work and undoubtedly are cost-effective, but we were a little surprised at a speaker of this caliber using them instead of binding posts.

Diversified Science Laboratories made the measurements reported in our data column with the loudspeaker placed as close as possible to the back wall, but away from any side walls. The A-400's impedance is low, with a minimum of 3.4 ohms at 85 Hz and peaks of just 12.5 ohms at 45 Hz (the woofer resonance frequency) and 11 ohms at 3 kHz (the upper crossover frequency). Over the rest of the audible range, it meanders smoothly between 4 and 7 ohms, and this is reflected in DSL's average-impedance figure. We would not expect an amplifier to have any difficulty driving a pair of A-400s, but you should avoid running another set of speakers in parallel with them.

The A-400's dynamic range is excellent. Its sensitivity is several dB higher than average (partly because of the low impedance), and the speaker can handle large amounts of power without strain. On DSL's 300-Hz pulse test, it accepted the full out-

put of the lab's amplifier, delivering a calculated peak sound pressure level (SPL) of 117½ dB at 1 meter. And total harmonic distortion (THD) is very low at all levels, averaging 1½ percent through the entire test range (30 Hz to 10 kHz) at 100 dB SPL and less than ½ percent from 100 Hz up. Reducing the output brings down the distortion, as well; at a moderately loud 85 dB, it averages less than ½ percent from 30 Hz up and well under ¼ percent above 100 Hz. The highest figure recorded was 6.25 percent at 63 Hz and 100 dB SPL. These are superb results. The lab also noted that the A-400 produced none of the non-harmonic noises that many lesser speakers generate during the distortion tests.

The A-400's third-octave response is smooth, flat, and extended. On-axis, it is within ±3½ dB from below 40 Hz to above 16 kHz; off-axis, it is a bit better still, remaining within ±3 dB. Response below 40 Hz rolls off at slightly more than 12 dB per octave. Near-field response measurements of the woofers and midrange driver suggest that about 2 dB of the dip at 300 Hz (the lower crossover frequency) is inherent in the loudspeaker. The rest of it, and perhaps the slight rise between 600 Hz and 1.2 kHz, probably is due to interference effects caused by reflections off the floor.

Because one of Boston Acoustics' avowed design goals was for the A-400 to be capable of good bass response away from the back wall as well as near it, DSL also ran response curves with the speaker four feet into the room. In that position, the low end starts rolling off about an octave higher than it does near the wall, but otherwise the curves are virtually identical. And in both positions, there is very little difference between the on- and off-axis response, even at very high frequencies. All of which implies that the speaker's perceived balance should be fairly independent of where it or the listener is situated.

Our experience in the listening room confirmed this speculation: Good results are possible with a wide variety of speaker placements and listening positions. The A-400's sound is invariably smooth, clean, and detailed, without a trace of harshness at any bearable volume. The top and bottom are all there, yet without artificial emphasis. The A-400's essential neutrality is particularly evident on male voice, which it reproduces in a very lifelike manner. (Many loudspeakers create a false warmth that is inoffensive on most music, but that gives voices a chesty, closed-in sound.) In all these respects, the A-400 is as good a speaker as we have heard.

What really surprised us, though, was the A-400's superb imaging, which combines precise localization with an engaging openness and three-dimensionality. Few loudspeakers achieve this—especially at the A-400's price. As one of our listeners put it, this is a lot of speaker for the money. We couldn't agree more.

SONY KX-1901A VIDEO MONITOR

Sony Profeel KX-1901A 19-inch color video monitor, with NTSC and RGB video inputs and a built-in stereo power amplifier. Dimensions: 20 by 17¾ inches (front), 18½ inches deep. AC convenience outlets: one switched (200 watts max.). Price: \$800. Warranty: "limited," two years on picture tube, one year on all other parts, 90 days labor. Manufacturer: Sony Corp., Japan; U.S. distributor: Sony Corporation of America, Sony Dr., Park Ridge, N.J. 07656.



STEVEN MARK NEEDHAM

SONY'S NAME HAS LONG been synonymous with high-quality television, its enviable reputation based largely on its award-winning Trinitron CRT. With but a step from that foundation, the company launched the component-TV revolution with its Profeel series. The 19-inch KX-1901A is one of Sony's latest Profeel

monitors, and needless to say, it uses a Trinitron picture tube.

Conventional CRTs have three electron guns, one for each of the primary colors (red, green, and blue). The intensity of their beams is modulated to produce a spot of the proper brightness and hue. A Trinitron CRT uses only one gun, whose

All measurements were made through the composite-video input.

HORIZONTAL RESOLUTION	≈ 300 lines
INTERLACE	perfect
OVERSCAN	
horizontal	≈ 9%
vertical	≈ 8%
CENTERING	
horizontal	left ≈ 2%
vertical	up ≈ 1%
BLOOMING	none

emission level determines brightness. The correct hue is obtained by splitting the output into three beams of the appropriate relative strengths. A single electron lens converges the beams so that they pass through vertical slits in an aperture grille behind the screen. Each then diverges and strikes its own phosphor stripe on the inside face of the screen to produce the proper mix of primary colors.

Each phosphor stripe is separated from its neighbors by a black guard grille, which is said to eliminate color spilling and to allow a brighter picture with higher contrast. The aperture grille is said to create a picture with unusually little moiré—the rippling, wave-like pattern that sometimes can be seen coursing across the screen.

and VOLUME. Another button selects between standard NTSC-composite and RGB operation.

There are two power switches. As long as the one labeled "master" is on, the system remembers the last PICTURE, VOLUME, and RGB/NTSC settings; when it is turned off, PICTURE and VOLUME revert to factory-preset levels, and the system is set for NTSC operation. Normally, the master switch is left on and the other power button is used to turn the set on and off. If you use the KX-1901A with a Sony tuner, you can mute the sound remotely.

With a normal composite video signal, Sony's factory settings produce the best picture, so there is little need to fiddle with the controls. If you do want to touch things up, however, you



THE KX-1901A'S CONTROLS are behind a flip-down panel. As long as the master power switch at the far left is on, the monitor remembers its last PICTURE, VOLUME, and RGB/NTSC settings even when it has been turned off with the regular power switch. Three lights above the right end of the control panel indicate system status.

Finally, the Trinitron screen is cylindrical, rather than spherical, to reduce distortion when viewed from the side, lessen the reflection of overhead ambient light, and sharpen the image at the corners of the screen.

Indeed, in Diversified Science Laboratories' bench and viewing tests the KX-1901A's geometric linearity was virtually perfect both vertically and horizontally right up to and including the corners of the screen (which are squarer than those of many CRTs). And with standard settings of brightness, color, and hue (indicated by detents on the controls), the picture is visibly brighter than average and has excellent contrast and color saturation. The controls are behind a flip-down door below the screen. Besides BRIGHTNESS, COLOR, and HUE, these include SHARPNESS, VERTICAL HOLD, and up/down push buttons for PICTURE

may find the hue and color controls overly sensitive. The slightest rotation off the detents creates a substantial change in the picture. The other controls are easier to use. PICTURE simultaneously adjusts contrast, color intensity, and brightness to keep all three balanced over a range of room-lighting conditions. SHARPNESS affects only picture detail (as it should) and is useful for softening a snowy picture or snapping up an already good one. (Because it boosts the video response mainly above 3 MHz, you'll see less effect on a videotape than on a good broadcast or videodisc.)

Inputs and outputs are clustered on the right side of the cabinet in the rear, where connections can be made out of sight. The regular audio and video inputs are color-coded RCA phono jacks; RGB video and audio are brought in through a 34-pin jack, for which a mating connector and wiring

Laboratory data for HIGH FIDELITY'S video-equipment reports are supplied by Diversified Science Laboratories. Preparation is supervised by Michael Riggs, Peter Dobbin, and Edward J. Foster. All reports should be construed as apply to the specific samples tested. HIGH FIDELITY and Diversified Science Laboratories assume no responsibility for product performance or quality.



Why this is the tape that sets the standard.

JVC sets the standard for all **VHS** videotapes, no matter who makes them.

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Why Your First Compact Disc Player Should Be A Second Generation Mitsubishi.

No wow. No flutter. Dynamic range over 90dB. Plus complete freedom from dust, dirt, surface noise, rumble and speaker feedback.

The truth is, the basic technology of the digital audio disc is so vastly superior to analog sound, that deciding on a player becomes very tricky indeed.

That is, until you check the record.

YOU DON'T BECOME A DIGITAL AUDIO EXPERT OVERNIGHT.

Most companies now introducing digital audio players were just recently introduced to digital audio themselves.

Mitsubishi has been at the leading edge of digital audio research since the beginning. Moreover, much of the second generation technology found in the Mitsubishi DP-103 compact disc player you see here is a direct result of that experience.

For example, the DP-103 employs a three-beam optical pickup in place of the conventional single beam. These two insurance beams constantly correct for imperfections in the disc, ensuring stable, error-free tracking.

The retaining springs for the laser optics pickup, which are susceptible to vibration, have been replaced by Mitsubishi's exclusive linear-sliding cylinder—in effect eliminating a problem before you've had one.

These second-generation refinements also allow simplified servo circuitry which results in fewer parts, less to go wrong.

The play, fast forward, fast reverse, skip, and repeat functions are yours all at the touch of a button. With track number and elapsed time visually displayed. And when you've experienced the music that emerges in its full power and range, every nuance etched in magnificent relief, you'll know you've heard the future.

Like stereo componentry that preceded it, the compact disc player of the future will offer improved technology at a lower price.

Just like the Mitsubishi DP-103 does. Today.

 **MITSUBISHI**

Even If You Can't Have The Best Of Everything,
You Can Have The Best Of Something.

Mitsubishi Electric Sales America, Inc., 3030 E. Victoria St., Rancho Dominguez, CA 90221.

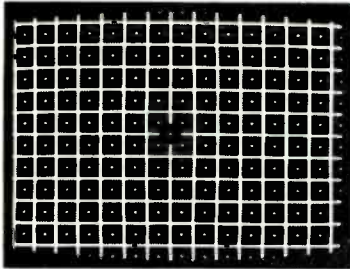


instructions are supplied. When the composite-video input is used, video level can be adjusted over a ± 6 -dB range via a center-detented screwdriver control near the RCA phono jack. An eight-pin DIN signal jack and miniature control jack simplify connection with a Sony Profeel TV tuner and permit operation of the normal power switch and the picture and volume controls via the tuner's remote control.

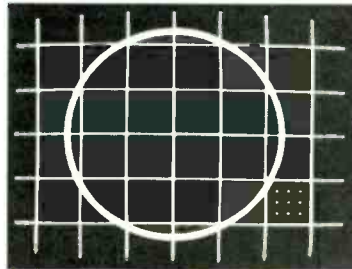
The KX-1901A incorporates a low-power stereo amplifier with color-coded spring-clip connectors for hookup, and Sony SS-X1A shielded loudspeakers can be mounted to the

and phase are particularly noteworthy, and the picture is free of blooming (enlargement of individual color dots due to defocusing) at all brightness and contrast settings. There's enough overscan and misconvergence to limit its value as a computer display for word processing, but it is fine for many other applications. The overscan is well within acceptable bounds for TV viewing, and the misconvergence, although greater than we've found on some monitors, is difficult to see at a normal distance. Black retention is fairly good, and interlace is perfect.

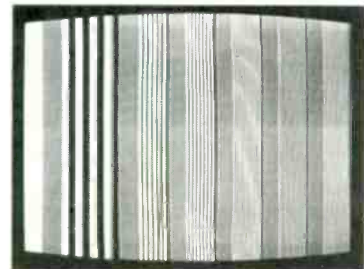
The Sony Trinitron tube produces



CONVERGENCE is tested with this cross-hatch display. Narrow, well-defined white lines indicate good convergence, with all three electron beams (for red, green, and blue) properly aimed. Whenever the monitor begins to lose convergence, the lines will broaden and become fuzzier. The KX-1901A exhibits good convergence, overall, but there is some error towards the edges of the screen, especially in the corners.



GEOMETRIC DISTORTION, overscan, and centering are checked with this display, consisting of a cross-hatch, a circle, and a set of dots. The KX-1901A's linearity is excellent, ensuring straight lines and accurately rendered shapes, and overscan is low. But the centering is slightly off on both axes, shifting the image up and to the left.



HORIZONTAL RESOLUTION is tested with a signal consisting of six tone bursts from 500 kHz to 4.2 MHz (the upper limit of the NTSC system). The monitor's video frequency response is approximated by finding the last band in which the individual vertical lines remain clear and distinct. The KX-1901A performs very well, with clear reproduction to 3.58 MHz, for a horizontal resolution of about 300 lines.

sides of the cabinet. A bass boost can be engaged to enhance bass response when using these speakers. A switched convenience outlet enables you to turn other components on and off along with the KX-1901A.

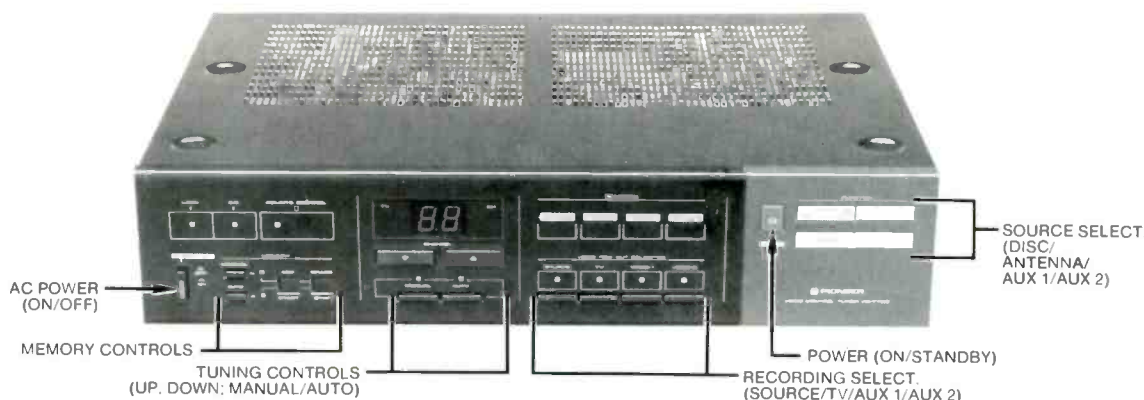
Sony's "System Connection Guide" is a model of clarity. Almost every conceivable situation is covered, so even if you use the monitor with a microcomputer, tuner, and VCR, you'll know exactly how to configure the system.

The KX-1901A performed very well in DSL's tests. Geometric linearity, raster purity, gray-scale linearity, and chroma differential gain

excellent flesh tones, with bright, high-contrast, well-saturated colors that are very appealing. If you look very closely at a white raster, you will see each individual color stripe separated from its neighbors by the black guard grille. (At normal viewing distances, the eye cannot resolve the individual lines and merges the colors into white.) Perhaps because of the extra space taken up by the guard bands, measured horizontal resolution is about 300 lines—less than the NTSC system's capability, but as much as any TV tuner can deliver. If this tradeoff is needed to create the brilliance of the Trinitron picture, we'd say it is well worth making.

PIONEER VC-T700 TV TUNER/SWITCHER

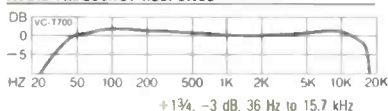
Pioneer VC-T700 television tuner and switchbox, with wireless remote control. Dimensions: 16¾ by 3¾ inches (front panel), 11¼ inches deep plus clearance for connections. AC convenience outlets: one switched (350 watts max.). Price: \$500. Warranty: "limited," two years parts and labor. Manufacturer: Pioneer Electronic Corp., Japan; U.S. distributor: Pioneer Video, Inc., 200 W. Grand Ave., Montvale, N.J. 07645.



TV TUNER SECTION

All measurements were taken at the direct audio and video outputs.

AUDIO FREQUENCY RESPONSE



AUDIO S/N RATIO (A-weighted)

best case (black raster)	66 dB
worst case (multiburst)	39 dB

RESIDUAL HORIZONTAL SCAN COMPONENT (15.7 kHz)

best case (black raster)	< -80 dB
worst case (multiburst)	-39 dB

MAXIMUM AUDIO OUTPUT

	0.58 volt
--	-----------

VIDEO FREQUENCY RESPONSE

at 500 kHz	+1/2 dB
at 1.5 MHz	+1 dB
at 2.0 MHz	+1/2 dB
at 3.0 MHz	-1/2 dB
at 3.5 MHz	-3 1/2 dB
at 4.2 MHz	-18 3/4 dB

LUMINANCE LEVEL

	15% high
--	----------

GRAY-SCALE NONLINEARITY (worst case)

	≈ 19%
--	-------

CHROMA LEVEL

	2 3/4 dB low
--	--------------

CHROMA DIFFERENTIAL GAIN

	≈ 18%
--	-------

CHROMA DIFFERENTIAL PHASE

	≈ ± 5°
--	--------

ALTHOUGH THE VC-T700 will stand on its own as a flexible TV tuner and switcher—the way we tested it—it can't do all of its tricks unless mated with the Pioneer SA-V700 stereo amplifier and TVM-190 or TVM-250 monitor. These components have special interconnection jacks that permit remote control of power switching and audio volume and muting—features that are lost when the VC-T700 is used with other units.

This is not to say that the VC-T700 is incompatible with other amps and monitors—standard video and audio pin-jack outputs are provided—but merely that not all features are available. You can even use the VC-T700 with a conventional TV receiver, for in addition to a direct video output, it generates a Channel 3 or 4 RF output. But since the audio is not modulated onto the RF carrier, you will still need a separate audio amplifier and speaker system to hear programs routed through the VC-T700.

At first we found this logic rather strange, but the more we thought about it, the more sense it made. (Pioneer's manual, though relatively

straightforward, makes few suggestions for different hookups.) Assuming you now have a stereo system and a conventional TV, you can start off with just the VC-T700. Its video and audio switching arrangement enables you to add as many as three direct audio-video sources and view them on your regular TV set while listening through your stereo system.

You can view broadcast or cable programs either by receiving them on the VC-T700's tuner or by routing them directly to your set's front end. In the latter case, the VC-T700's tuner is free to receive a different channel for recording on either or both of the VCRs that you may have connected in the system. Thus, you would not need a separate tuner to record one broadcast on a portable VCR while viewing another on the TV.

Viewing and recording switching are completely independent. Signal routing to the monitor and stereo system is controlled locally or remotely by four push buttons, labeled "Laser Disc," "TV," "Video 1," and "Video 2." The signals fed to the Video 1 and Video 2 tape outputs are

chosen by front-panel push buttons, called "Source," "TV," "Video 1," and "Video 2." (In this case, "Source" refers to the program chosen by the viewing selector.) The switching logic is arranged so that two VCRs (connected to the Video 1 and 2 output jacks) can record simultaneously from either LASER DISC or TV and each can record from the other. The source being taped and the source being fed to the monitor are indicated by clearly illuminated legends on the front panel. An RF-output switch enables you to select whether the monitor or the tape signal is modulated onto the VC-T700's RF carrier.

All connections are made on the back panel and (except for the special "auto-function" jacks used to interconnect with other Pioneer components) employ standard pin jacks for audio and direct-video inputs and outputs, and F connectors for the RF wiring. All audio jacks come in stereo pairs with separate stereo/mono mode buttons for the Video 1 and 2 audio inputs. The Video 2 direct-video input has a level control with a nominal ± 6 -dB range, to accommodate "non-standard" video inputs.

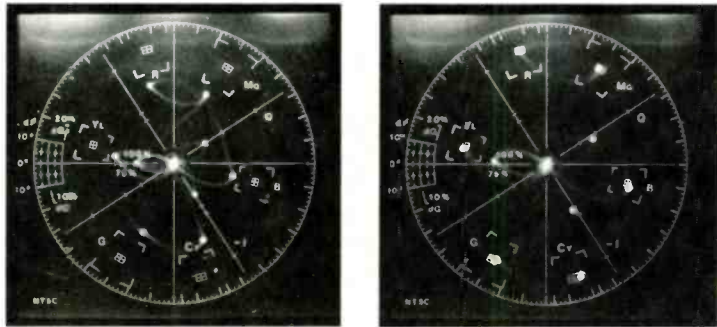
The TV tuner has an audio detector output for feeding an outrigger stereo decoder when the U.S. adopts stereo TV broadcasting. Audio input jacks are provided to accept the stereo signals returning from the decoder, which can be chosen over the standard mono signal with a push button.

The VC-T700 tunes all VHF and UHF channels, plus mid-band and super-band cable channels—127 in all. The choice between standard broadcast and cable feed is made with a rear-panel slide switch. Any channel can be tuned directly by punching up its number on the remote control, or you can scan up or down the band via front-panel up/down buttons that are duplicated on the remote.

The first time you turn the system on you can request the VC-T700 to scan all the channels and automatically memorize the active ones by pressing AUTO and START. The tuner stops for a second on each active channel and "beeps" to inform you that it has memorized its existence. You may find (as we did) that the tuner stops on some channels that are too weak for good viewing. You can delete these from memory by pressing MANUAL, recalling the station either via the

remote's keyboard or the up/down buttons, and pressing ERASE. A beep indicates that your command has been received. You also can enter stations into memory manually.

Once you've loaded the memory, you needn't concern yourself with the



COLOR ACCURACY of the VC-T700 is very good. The vectorscope photo at left indicates low color saturation (chroma level) and a small amount of hue (chroma-phase) inaccuracy. The photo at right—made with 2¼ dB additional chroma gain and a clockwise phase rotation of approximately 7 degrees—simulates the best results obtainable using the color and tint controls on a monitor. This puts all six color vectors (white dots) on their targets, which is excellent performance.

front panel again (except when choosing the source being recorded). The AWX-244 remote-control unit enables you to select the viewing source and to change channels at will either by sequentially scanning the memory bank or by calling a channel directly via the keyboard. A press on the channel-return button tunes back to the previously chosen channel; a bright two-digit LED display indicates the channel being received.

Remote commands are carried by an infrared light beam. Transmission of each command is indicated by an LED on the remote, reception by the flashing of a light on the VC-T700. You can prevent accidental changes in the settings by pressing LOCK on the remote. A light on the tuner indicates the locked condition, which is canceled by pressing LOCK again. Similarly, Pioneer's stereo-simulation circuitry is turned on and off by pressing SS on the remote; a front-panel lamp indicates when the stereo simulator is on.

If the VC-T700's main power switch is on—indicated by a yellow

CHROMA PHASE ERROR	
red	+4°
magenta	+5°
blue	+2°
cyan	+8°
green	+6°
yellow	+6°
median error	+5°

SWITCHING SECTION

MAXIMUM AUDIO OUTPUT (at 1 kHz for 1% THD+N)	
to tape output	3.8 volts
to main output	3.1 volts

MAXIMUM AUDIO INPUT (at 1 kHz for 1% THD+N)	
to tape output	4.0 volts
to main output	4.2 volts

AUDIO GAIN	
to tape output	-1½ dB
to main output	-2¾ dB

S/N RATIO (re 0.5 volt; A-weighted; main output)	
	103 dB

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)	
	≈0.033%

AUDIO FREQUENCY RESPONSE	
to tape output	+0, -1 dB, 26 Hz to 30.2 kHz
to main output	+0, -1 dB, 26 Hz to 29.7 kHz

AUDIO INPUT IMPEDANCE	
	43k ohms

AUDIO OUTPUT IMPEDANCE	
	4,000 ohms

VIDEO FREQUENCY RESPONSE	
	-½ dB at 4.2 MHz

LUMINANCE GAIN	
	0 dB

GRAY-SCALE NONLINEARITY	
	none

CHROMA LEVEL	
	-¼ dB

CHROMA DIFFERENTIAL GAIN	
	none

CHROMA DIFFERENTIAL PHASE	
	<±1°

CHROMA PHASE ERROR	
	0°

lamp on the front-panel power key—the VC-T700 is brought to life by pressing either the front-panel or the remote power button. This also activates the rear-panel convenience outlet and so can be used to turn on a monitor or amplifier as well. (The outlet will not accept the “keyed” two-prong AC plugs used on some equipment, however.) The remaining three remote controls (VOLUME UP/DOWN, MUTE, and TV MONITOR) function only in conjunction with a Pioneer monitor and the SA-V700 stereo amplifier—a pity in that we believe that the VOLUME and MUTE could have been made part of the VC-T700’s audio circuitry.

Diversified Science Laboratories tested the VC-T700 both as a tuner and as an audio-video switcher. In the latter role, it is essentially transparent. There is virtually no loss of video bandwidth, chroma or luminance level, or chroma or luminance accuracy. Audio response is within ½ dB from below 40 Hz to above 20 kHz, and distortion is inaudibly low at all frequencies at the 2-volt level. The system supplies upwards of 3 volts before generating 1 percent THD, which should be adequate, and its signal-to-noise (S/N) ratio is outstanding. Input impedance at the audio-in jacks is high enough that you needn’t worry about it loading down the source, and the output impedance, though a little higher than we’d like to see, should present no problem in most systems.

The video level control on the Video 2 input provides a bit more range than specified (+6, -8 dB), enabling you to adjust signals ranging from 0.5 volt peak-to-peak to 2.5 volts peak-to-peak to the standard 1-volt peak-to-peak level.

DSL reports that the simulated stereo is generated by creating a frequency-dependent phase difference between the left and right channels. The two are in phase at very low and very high frequencies, 90 degrees out of phase at 340 Hz and 2.4 kHz, and a maximum of 110 degrees out of phase at 940 Hz. Amplitude is essentially uniform and equal in both channels, which suggests that at frequencies at which the channels are in phase there will be a net increase in acoustic output. And indeed, when simulated stereo is used, there is an apparent increase in bass output and the sound takes on a diffuse quality that can

detrimentally affect intelligibility. The effect is not unpleasant, but neither is it appropriate for all viewing, and we do not find it as realistic as simulations produced by reciprocal comb filters that redistribute the energy between the channels.

As a broadcast tuner, the VC-T700 performs well. Audio response is extended (for a TV tuner) and the signal-to-noise ratio is much better than average. Even though audio response is down only 3 dB at 15.7 kHz (the horizontal-scan frequency), residual horizontal-scan whistle is down a remarkable 67 dB on typical program material. Audio output level is perfectly adequate for driving a stereo system.

Video response holds up very well to 3 MHz and is down only 3½ dB at the color-burst frequency (3.58 MHz), suggesting horizontal resolution of about 300 lines on a decent monitor—close to but not quite at the limit of the NTSC system. This is typical performance for a TV tuner. The 1-dB boost at 1.5 MHz adds a little extra snap to the picture, which can be quite pleasant. Luminance level is a bit high and chroma level a bit low, but neither is off the mark by an unusual amount. And though the gray-scale nonlinearity reported in our data column persists over several luminance steps, it is difficult to see on ordinary program material.

Chroma differential phase (how much hues vary with scene brightness) is quite low, and the differential gain (how much color saturation changes with brightness) is confined to the highest luminance level. Median color accuracy is off by a modest 5 degrees with an uncorrectable spread of ±3 degrees. This is quite good, but chroma noise (indicated by the size of the fuzzballs in the vectorscope photos) is somewhat worse than we’ve come to expect from a component tuner.

The Pioneer VC-T700 Video Control Tuner is an unusual and interesting device with competent performance and excellent switching flexibility at an affordable price. If you’d like to get your toes wet in component TV and aren’t averse to plunging in for the rest of the Pioneer system when you find you like the water, we suggest you check out the VC-T700 very carefully.

STEREO VIDEO



TO GO

BY

FRANK LOVECE

HOW TO CHOOSE ONE OF THE NEW BREED OF PORTABLE STEREO VHS RECORDERS AND A MATCHING VIDEO CAMERA

PORTABLE VCRs with stereo recording ability lately have skyrocketed in popularity. The reasons are straightforward: At home, a portable stereo VCR and companion tuner/timer can perform all the functions of a tabletop deck, including the reproduction of Dolby Stereo films [see "A New Dimension for Video Sound," November 1983]. And when used in the field with a video camera and a pair of mikes, a portable stereo deck can capture events with natural-sounding ambience and a high level of intelligibility.

Your choice of formats in portable stereo VCRs is quite limited. Aside from one stereo Beta portable—Sanyo's VCR-7300 equipped with Beta Hi-Fi [see test report, November 1983]—all two-channel portables are VHS designs using fixed audio heads. If you want to hold off buying a portable stereo deck until the appearance of VHS Hi-Fi (a frequency-

modulation technique similar to Beta Hi-Fi that should approach digital audio fidelity), you might have a long wait. The first VHS Hi-Fi machines probably won't arrive on these shores until mid-year or later, and there is no guarantee that the technology will be available in portable models initially. And at least one company—JVC—has announced that its VHS Hi-Fi recorders will be equipped with a pair of fixed audio heads for playback of all mono and stereo VHS recordings, thus ensuring compatibility with tapes recorded on current stereo VHS decks. (The VHS Hi-Fi stereo soundtrack is recorded along with the video via heads mounted on the deck's rotating head drum.)

Choosing a portable stereo deck from the 11 or so models available (see table) is a relatively simple process.

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Obviously, you'll want one with features that make sense both in the field and at home; for the latter application, be sure that the unit's companion tuner/timer has sufficient programming flexibility. Also, a deck with four heads—two optimized for SP and two for EP speeds—will ensure best-possible video recordings, all else being equal.

Finding the right video camera, however, is more challenging. In general, it makes sense to buy the same brand camera as VCR, as camera-VCR connectors are not standardized across brands and hooking up units by different manufacturers can be a problem. Since the large manufacturers generally offer a wide assortment of cameras at varying prices, sticking to one brand is not all that limiting. The trick is to figure out which one satisfies your creative and budgetary requirements in terms of lens quality, pickup tube characteristics, and degree of automation. (The

accompanying chart lists one or two of the top models from each manufacturer.)

The video pickup tube transforms light, transmitted through the lens, into electrical signals that can be used to record the image on tape. It is the heart of a video camera. Tubes differ by type in spectral sensitivity (inherent color balance) and in resistance to wear and image retention, among other things. Most of the least expensive cameras use Vidicons. Rugged and reliable, but prone to image-retention problems, these were standard in home video cameras until recently. Of late, Saticon pickups have started appearing in higher-priced cameras. These pickups are more sensitive and less prone to image retention than Vidicons. (Some manufacturers offer proprietary versions of standard tube designs in their cameras: Sony, for one, calls its version of the Saticon a Trinicon.) One type, however, beats all the others in low-light sensitivity. Usually found in expensive cameras, the Newvicon tube

is sensitive to both visible light and a portion of the infrared spectrum.

The newest variety of cameras does away with pickup tubes entirely. Priced from about \$1,500 to more than \$2,000, they use silicon-chip image sensors, which are virtually immune to image retention and burnout caused by prolonged exposure to very bright light. Unfortunately, these tubeless cameras require much more ambient light than traditional designs and so far haven't provided particularly high image quality.

On the accompanying chart, a camera's light sensitivity is measured in lux, defined as approximately one-tenth of a footcandle. In practical terms, a video camera rated at 100 lux (10 footcandles) will not reproduce images well in the ambient light of a normally-lit living room. A camera rated at 30 lux will do fine in the same room, and one with a rating of 10 lux should be able to record images on a lamp-lit sidewalk at night.

Virtually all video cameras are

PLANNED



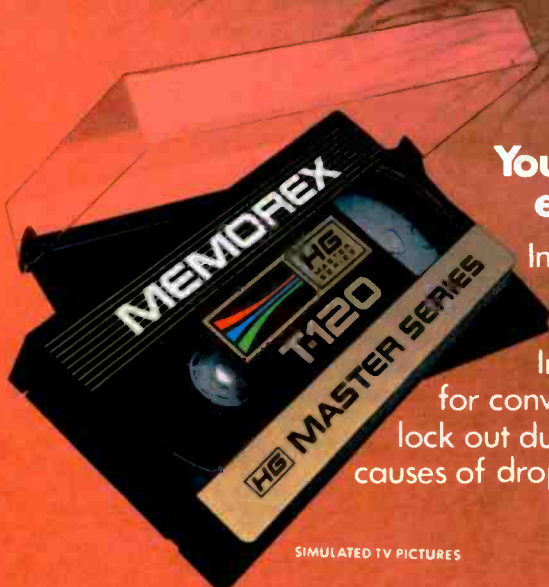
You should never lose a magic moment, even if it's the 100th re-recording.

Introducing Memorex® HG Master Series, superior to ordinary tapes on every level: chroma, luminance and audio... even after 100 re-recordings.

Introducing the V-200 storage case. Crystal-clear lid for convenient tape identification. Fully enclosed to help lock out dust, dirt and smoke, major causes of dropouts.

IS IT LIVE, OR IS IT

MEMOREX™



SIMULATED TV PICTURES

equipped with zoom lenses, which are usually specified in terms of zoom ratio, focal range, and "speed." The zoom ratio describes the relative size of an image captured at the lens's extreme settings. A 6:1 zoom ratio, for instance, means that an object would appear six times larger (or six times closer to you) with the lens adjusted to its maximum "length" than it would with the lens untelescoped. A lens's field-of-view characteristics are given via a focal-length range; the smaller the numbers (in millimeters), the wider the lens's maximum field of view. Zoom ratio, in fact, states the relationship between a lens's focal-length extremes. Two lenses, one with a range of 12–72mm and one with a range of 8–48mm, can each be said to have a 6:1 ratio, but the former will be capable of greater magnification at its longest setting (72mm) while the latter will have a wider field of view over part of its range (8–12mm).

The f-stop is often referred to as the "speed" of the lens. It specifies

the lens's maximum iris opening: the smaller the stop number, the larger the maximum iris opening and the "faster" the lens. Lenses rated at f/1.4 or f/1.6—as are many found on video cameras—should be quite sufficient for most lighting conditions. An automatic iris, which saves you the bother of manually adjusting the f-stop under changing light conditions, is standard on most video cameras.

Another convenience feature showing up with increasing regularity is automatic focus. There are several methods used by manufacturers to achieve an automatic focusing lens, and none is completely accurate all of the time. Cameras that bounce an ultrasonic beam off objects to gauge distance won't focus through a car's window, for example. And cameras that use infrared echoing or light-based triangulation systems have a hard time focusing on dark objects. Whatever system you choose, make sure that it is defeatable.

All cameras include at least a single microphone. Some have a stereo pair of mikes, usually mounted side by side in a single housing. Many times you'll want to bypass the camera's own mikes and use outboard ones—a simple procedure because mikes plugged directly into the VCR's inputs will override the camera's mikes. (Some cameras even have inputs for outboard mikes.) And since microphones mounted on the body of a camera tend to pick up noise from motor-operated zoom lenses, it's best to select a camera equipped with a telescoping mike boom.

In our table we have included the suggested retail prices of VCRs and cameras. However, when you look at the video ads or walk into a discount outlet, you'll realize that these prices have little to do with actual sale prices. Discounts in video gear are remarkably deep—almost 50 percent in many instances. And you might even save a few dollars by buying the VCR, tuner/timer, and camera in a package deal. **HF**

PERMANENCE





Canon VR-20A



Quasar VP-5435WQ

VHS STEREO PORTABLE VCRs

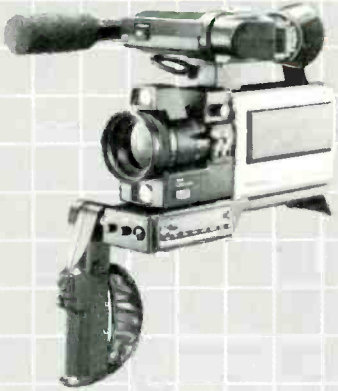
MODEL	PLAYBACK EFFECTS	VCR			TUNER/TIMER			PRICE
		FEATURES	SIZE & WEIGHT ¹	MODEL	PROGRAM	CHANNELS ²		
CANON VR-20A	Freeze frame, frame stepping, slow motion, scan (SP, EP)	Dolby B, 4 video heads, video dub, wired remote control	9¼ by 3½ by 9½; 8½ lbs.	VT-10A	14-day, 4-event	105/14	VCR: \$825 T/T: \$475	
GE 1CVD-4020X	Freeze frame, frame stepping, slow motion, scan (SP, LP, EP)	Dolby B, 4 video heads, video dub, wireless remote control	9¼ by 3¼ by 9½; 8½ lbs.	1CVT-625	14-day, 8-event	128/128	VCR: NA T/T: NA	
HITACHI VT-7P	Freeze frame, frame stepping, slow motion, scan (SP, EP)	High-frequency noise reduction, 5 video heads, video dub, headphone jack, wireless remote control	10 by 3¼ by 10¼; 8½ lbs.	Incl.*	21-day, 8-event	134/134	\$1,400	
JVC HR-2650	Freeze frame, frame stepping, slow motion, scan (SP, EP)	Dolby B, 4 video heads, video dub, headphone jack, wireless remote control	10¼ by 4 by 10½; 10 lbs.	TU-26U	14-day, 8-event	105/14	VCR: \$1,150 T/T: \$375	
MAGNAVOX VR-8480BK	Freeze frame, frame stepping, slow motion, scan	Dolby B, 4 video heads, video dub, wireless remote control	9½ by 3¼ by 9¼; 8½ lbs.	Incl.*	14-day, 4-event	105/14	\$1,400	
MAGNAVOX VR-8481BK	Freeze frame, frame stepping, slow motion, scan	Dolby B, 4 video heads, video dub, wireless remote control	9½ by 3¼ by 9¼; 8½ lbs.	Incl.*	14-day, 4-event	188/188	\$1,500	
MINOLTA V-770S	Freeze frame, frame stepping, slow motion, scan (SP, EP)	ANRS noise reduction, 5 video heads, video dub, wireless remote control	10 by 3½ by 10½; 8 lbs.	T-770S	14-day, 7-event	133/80	VCR: \$1,015 T/T: \$400	
OLYMPUS VC-103	Freeze frame, frame stepping, slow motion, scan (SP, EP)	Dolby B, 4 video heads, video dub, headphone jack, wireless remote control	9½ by 3¼ by 9¼; 8½ lbs.	VR-201	14-day, 4-event	105/14	VCR: \$950 T/T: \$475	
PANASONIC PV-6110	Freeze frame, frame stepping, slow motion, scan (SP, EP)	Dolby B, 4 video heads, video dub, wired remote control	9½ by 4½ by 10; 8½ lbs.	Incl.*	14-day, 4-event	105/14	\$1,100	
PANASONIC PV-6500	Freeze frame, frame stepping, slow motion, scan (SP, LP, EP)	Dolby B, 4 video heads, video dub, wireless remote control	9½ by 4½ by 10; 8½ lbs.	Incl.* (PVA-500)	14-day, 4-event	105/14	\$1,300	
QUASAR VP-5435WQ	Freeze frame, frame stepping, slow motion, scan (SP, LP, EP)	Noise filter, 4 video heads, video dub, wired remote control	9½ by 3½ by 9¼; 8½ lbs.	VA-531	14 day, 4-event	105/14	VCR: \$1,000 T/T: \$400	
				VA-540	14-day, 4-event	128/128	VCR: \$1,000 T/T: \$485	
RCA VJP-900	Freeze frame, frame stepping, slow motion, scan (SP, EP)	High-frequency noise reduction, 5 video heads, video dub, wireless remote control	10 by 3½ by 10¼; 8½ lbs.	Incl.*	21-day, 8-event	133/133	\$1,300	
SYLVANIA VC-4530	Freeze frame, frame stepping, slow motion, scan	Dolby B, 4 video heads, video dub, wireless remote control	9½ by 3¼ by 9¼; 8½ lbs.	Incl.*	14-day, 4-event	188/188	\$1,500	

¹Dimensions in inches, width by height by depth; weight with battery.

²Total number of channels tuneable/total number preselectable.

³Unless otherwise indicated, all have color temperature, automatic iris, and automatic white-balance controls, as well as a boom-mounted (rather than a built-in) mike.

*Tuner/timer included with VCR as one-price package.



Sylvania VCC-130BK



Minolta K-800SAF camera, V-770S VCR and T-770S tuner/timer, K-770S camera

COMPANION CAMERAS

MODEL	LENS	PICKUP TYPE	FEATURES ³	MIKE(S)	STEREO JACKS	VIEWFINDER	MIN. ILLUM.	WEIGHT	PRICE
CANON VC-20A	f/1.6, 8:1 (10-80mm) variable-speed power zoom, macrofocus	Saticon	Infrared autofocus, audio/video fade-in/out, character generator	Stereo	Yes	1 in. b&w, adjustable eyepiece	15 lux	5½ lbs.	\$1,400
GE 1CVC-4035E	f/1.6, 8:1 (12-96mm) variable-speed power zoom, macrofocus	Newvicon	Infrared autofocus, audio/video fade-in/out, character generator, VCR remote control	Stereo	Yes	1 in. b&w, adjustable eyepiece	10 lux	5½ lbs.	NA
HITACHI VKC-3400	f/1.2, 6:1 (10.5-62mm) 2-speed power zoom, macrofocus	Silicon chip	Edge-detection autofocus, black or white audio/video fade-in/out, character generator	Mono	No	1½ in. color, adjustable eyepiece	35 lux	5¼ lbs.	\$2,000
JVC GXN-70	f/1.4, 8:1 (9.8-80mm) 2-speed power zoom, macrofocus	Newvicon	Infrared autofocus, black or white audio/video fade-in/out, character generator, VCR remote control, timer-controlled recording	Mono	Yes	1 in. b&w, adjustable eyepiece	10 lux	5¾ lbs.	\$1,300
MAGNAVOX VR-8280BK	f/1.4, 8:1 (9.8-78mm) 2-speed power zoom, macrofocus	Newvicon	Infrared autofocus, black or white audio/video fade-in/out, character generator, VCR remote control	Mono	Yes	1 in. b&w, adjustable eyepiece	10 lux	5¼ lbs.	\$1,400
MINOLTA K-800SAF	f/1.4, 6:1 (8.5-51mm) 2-speed power zoom, macrofocus	Saticon	Contrast-comparison autofocus, audio/video fade-in/out, character generator, VCR remote control	Mono	No	1 in. b&w, adjustable eyepiece	10 lux	5¾ lbs.	\$1,330
OLYMPUS VX-303	f/1.6, 8:1 (12-96mm) variable-speed power zoom, macrofocus	Newvicon	Infrared autofocus, audio/video fade-in/out, character generator, VCR remote control	Stereo	Yes	1 in. b&w, adjustable eyepiece	10 lux	5½ lbs.	\$1,300
PANASONIC PK-957	f/1.6, 8:1 (12-96mm) variable-speed power zoom, macrofocus	Newvicon	Infrared autofocus, audio/video fade-in/out, character generator, VCR remote control	Stereo	Yes	1 in. b&w, adjustable eyepiece	10 lux	5½ lbs.	\$1,250
PANASONIC PK-973	f/2.0, 12:1 (9.5-114mm) power zoom, accepts C-mount lenses	Newvicon	Audio/video fade-in/out, character generator, VCR remote control	Stereo	Yes	1 in. b&w, adjustable eyepiece	30 lux	6 lbs.	\$1,300
QUASAR VK-747WE	f/1.6, 8:1 (12-96mm) manual zoom	Newvicon	Infrared autofocus, character generator	Stereo	Yes	1 in. b&w, adjustable eyepiece	10 lux	5½ lbs.	\$1,300
RCA CC-030	f/1.2, 6:1 (10.5-65mm) 2-speed power zoom, macrofocus	Silicon chip	Edge-detection autofocus, black or white audio/video fade-in/out, character generator	Mono	No	1 in. color, adjustable eyepiece	35 lux	5¾ lbs.	\$2,000
SYLVANIA VCC-120BK	f/1.3, 6:1 (11.5-70mm) 2-speed power zoom, macrofocus	Newvicon	Audio/video fade-in/out, character generator	Mono	Yes	1½ in. b&w, nonadjustable eyepiece	10 lux	3½ lbs.	\$1,000
SYLVANIA VCC-130BK	f/1.6, 8:1 (12-96mm) variable-speed power zoom, macrofocus	Newvicon	Infrared autofocus, audio/video fade-in/out, character generator, VCR remote control	Stereo	Yes	1½ in. b&w, adjustable	20 lux	5½ lbs.	\$1,300

Chart by Frank Lovece

S T A T E O F

AT DIGICON '83, MUSICIANS AND VISUAL ARTISTS EXPLORED
NEW USES FOR THE COMPUTER AS A CREATIVE TOOL.

BILLED AS THE FIRST international conference on the digital arts, Digicon '83 set a new tone for high-tech gatherings. Bits, bytes, and other binary buzzwords were, happily, largely absent from the proceedings in Vancouver this past August; instead, musicians and visual artists got down

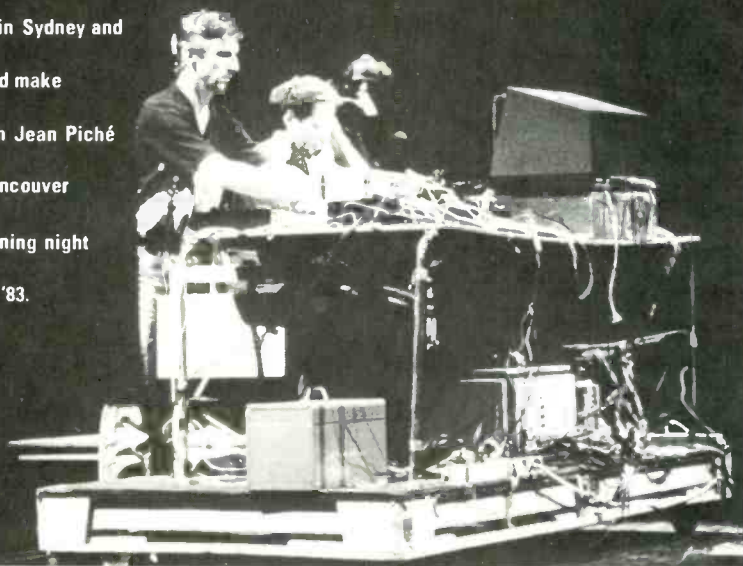
School for Continuing Education—attracted people from all over the world, but at least two participants, one in Sydney and one in Tokyo, managed to play in a live concert on opening night without leaving home. This bit of electronic magic was made possible by satellite relays and the very special musical instrument the players used—the Fairlight CMJ, a synthesizer built around a minicomputer. Jean Piché, the concert's organizer, sat at his own Fairlight console in Vancouver's Queen Elizabeth Playhouse and performed with these two unseen musicians thousands of miles away. Because the Fairlight can receive and store sounds as well as produce them, the three performers could trade sounds with one another, modify them, and send them on again.

With the vast distances involved, coordination was something of a problem. Though the progression of musical events was all carefully preplanned, the performers had no chance for a run-through; all rehearsal time was devoted to testing the satellite connections. And because each satellite link added a 300-millisecond delay, the musicians had to think ahead as they played. Even getting started was tricky: When Japan started its sequences on the command "go," Canada had to count three beats before joining in, and Australia had to wait another three beats before starting.

Digicon '83 also enabled the movers and shakers in the world of electronic-music synthesis to share their feelings on the direction of the art. At one seminar, Bill Buxton, a computer music composer and researcher working at the University of Toronto, made an impassioned plea for engineers to lift electronic instruments from the realm of "glorified electronic organs." He stressed the need for new "gesture controllers," non-keyboard

Vancouver

VIA SATELLITE RELAYS,
musicians in Sydney and
Tokyo could make
music with Jean Piché
(left) in Vancouver
on the opening night
of Digicon '83.



BY

PAUL D. LEHRMAN

to business in a three-day round of workshops and performances focusing on the computer as a creative tool.

The conference—sponsored by the University of British Columbia's

Paul D. Lehrman is a musician and freelance writer specializing in electronic-music synthesis.

THE ARTS

interface devices that could respond to body movements. Robert Moog, whose analog synthesizer helped to revolutionize electronic music in the '60s, showed a touch-sensitive pad that reacts to finger movement in a variety of axes—front to back and left to right, as well as up and down. He also described a keyboard composed of such pads—each inlaid on a separate key. The computer program necessary to analyze all this finger-placement information and then relay it to a synthesizer is so complex that Moog has so far been able to construct only an eight-key model.

But the most impressive development discussed at Digicon was something a science fiction writer might call the ultimate sound machine—the Audio Signal Processor (ASP) now being worked on by engineers at Lucasfilm's Digital Audio Project. Andy Moorer, head of the group, said that the impetus for the ASP was the need for a machine that could handle the constant cutting and recutting of sound effects, dialogue, and music during the editing of a film, without the clumsiness of magnetic tape. For the past 18 months, the engineers have been using a prototype that can edit, record, mix, sweeten, and even synthesize speech and music entirely in the digital domain. A year from now, Moorer declared, the machine should be available commercially.

The ASP's electronic "guts" will be housed in a 19-by-72 inch equipment rack, and all its functions will be accessed on a digital control panel—a series of knobs and sliders resembling those on a typical multitrack mixer. The commercial version will use 16-bit linear pulse-code modulation with a sampling rate adjustable between 10 and 60 kHz. It will be capable of handling 32 channels of audio simultaneously, with 800 minutes of sound in on-line storage. The machine will cost about

\$700,000—a whopping sum until you consider that the ASP will replace mixing consoles, tape recorders, signal processors, musicians, their instruments, and at least half of an audio studio's staff.

Digicon '83 was not all performances and lectures, however. A computer art show, consisting of photos, plotter drawings, and even tapestries created from computer-generated patterns, filled a large room in the exhibition area. Computer-

Tokyo

graphics systems were demonstrated. Among other hardware displayed by manufacturers were music synthesizers ranging from self-contained instruments by Yamaha, Oberheim, and Roland to microcomputer-based synthesizers like the AlphaSyntauri and the Passport Designs Soundchaser to impressive minicomputer systems like the Fairlight CMI and the PPG Waveform.

The Waveform deserves some acknowledgment. Though it has gained quite a following in Europe (synth-pop star Thomas Dolby is one of its biggest fans), it is largely unknown in the U.S. Two configurations are available. For about \$8,000 you can get a stand-alone digital synthesizer with 2,000 built-in waveforms, a 16-channel digital oscillator, a 4,000-note eight-track sequencer, and a digitally controlled analog filter bank. For another \$9,000 you can add a powerful minicomputer to the system, enabling you to create waveforms, envelopes, and filters, as well as to sample and edit natural sounds and store vast amounts of information.

Among synthesizer makers and users, the hottest topic of discussion was the Musical Instrument Digital Interface (MIDI), being codeveloped by a dozen large manufacturers. MIDI

will allow a wide variety of synthesizers to "talk" to each other through a high-speed data buss. The specifications of the interface call for a transmission rate of 31,250 bits of information per second via a shielded balanced line terminated with five-pin DIN connectors. The interface can simultaneously carry as many as 16 channels of any sort of information relevant to a synthesizer's operation: notes, envelopes, rhythms, filter settings, key velocity, and so on. MIDI data can be stored and manipulated on a microcomputer, so that any Apple or TRS-80 can easily control any number of outboard synthesizers.

A demonstration of the MIDI system by Ralph Dyck, a Los Angeles studio musician and synthesizer designer, had onlookers applauding. He connected two synthesizers to a Roland Model 400 piano via the MIDI buss.

Sydney

The synthesizers were programmed for brass and string sounds and set to respond to key velocity information from the Roland. First, Dyck played a quiet chordal passage on the piano, and the synthesizers remained mute. Then he replayed it louder, and the synthesizers responded by filling out the orchestration with brass sounds. On a second replay, this time louder still, the strings came in, soaring over several octaves. As one listener commented, the demo gave new meaning to the phrase "conducting from the keyboard."

The pace of change in music synthesis is so rapid that it's hard to imagine what will be discussed and demonstrated at the next Digicon (August 1985). One thing, however, is certain: The computer as a creative tool will become an ever more potent force in music.

HF

Pop and classical
music releases
on videodisc
and digital
Compact Disc

CLASSICAL COMPACT DISC

HANDEL: Water Music (Complete).

English Baroque Soloists, John Eliot Gardiner, cond. (Robert Auger, sound engineer) ERATO ECD 88005 (analog recording, digital Compact Disc) [price at dealer's option] LP, STU 71461, \$10.98. Tape: MCE 71461.

COMPARISON:

Hogwood/Acad. of Ancient Music Oiseau Lyre CD 400 059-2

This original-instruments *Water Music* has a good deal going for it, and it fares well even in comparison with Christopher Hogwood's excellent account (reviewed in August 1983, page 70). First, John Eliot Gardiner offers all three suites plus the variant movements from the 1715 concerto, while Hogwood's CD has only the F major Suite and the 1715 variants, coupled with *Fireworks Music*.

Second, Gardiner's performance seems somehow more relaxed—although it's difficult to pinpoint why, since both conductors are fond of sharp dotting, and Gardiner's tempo and scoring preferences are for the brisk and robust. Both ensembles use a good number of the same personnel, and the playing on both discs is impeccable.

Textually, Gardiner's version (based on his own edition) affords several unique views, some of them a mite questionable. For instance, he splits the two 1715 movements and uses them to bracket the F major Suite, making for a rather strange configuration. Not only is the Overture preceded by a brief, lone movement, but that movement's logical extension is delayed by about 25 minutes. Better to put them together at the end of the Horn Suite, as Hogwood does.

Gardiner's other (and usually more successful) emendations are in his scoring details. In the movement preceding the Air in the F major Suite

(Gardiner calls it a *Passepied*), he shifts the repeat signs back a few bars, in the first and second sections, so that they fall before the horn duos, rather than after them. The duos are therefore changed into transitional passages and are not repeated until the *da capo*; the rest of the movement is presented in a variable scoring, with strings first, then strings and horns. In the G major Suite, he gives the lute a more prominent continuo role, and brings in percussion, deployed sparingly, to complement the trumpets of the D major Suite. Gardiner also allows his players a good deal of freedom at several cadential points, and there is some lovely embellishment throughout the disc by the oboist, Sophia McKenna, who plays a beautiful sounding instrument of her own making.

What's especially hard to resist is the energy of this performance. All the musicians—even the horn players—manage to maintain an invigorating pace without compromising the precision of either their ensemble or their intonation.

On the debit side, there are several audible edits, all of them at phrase ends and none especially bothersome, but exposed nonetheless. There are also a few minor reproduction problems that can be heard during headphone listening. One is a faint "chugging" sound that is momentarily introduced in some of the longer between-movement pauses; the other is a quiet, high-pitched tone audible during the wind-only repeats of the F major Suite's *Bourrée*.

Otherwise, the recording is bright, spacious, and full bodied. Erato gives each movement its own access number, and the printed listing even provides timings for the blank spaces between movements.

—ALLAN KOZINN

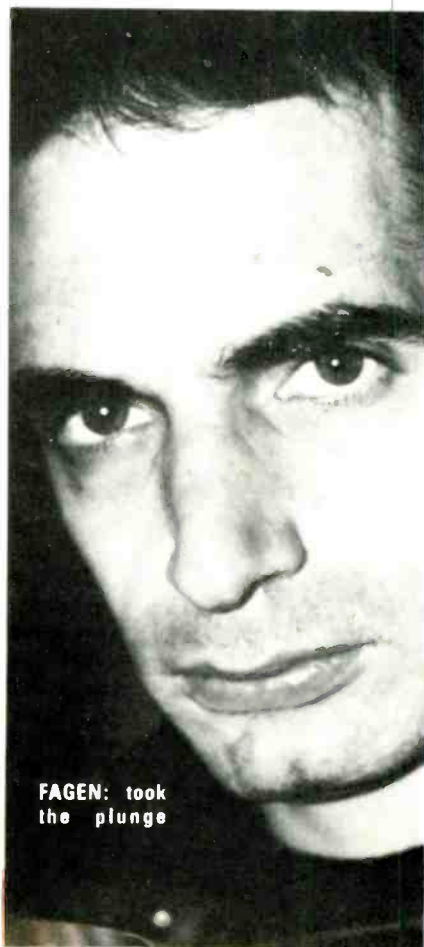
POPULAR COMPACT DISC

DONALD FAGEN: The Nightfly.

Gary Katz, producer. WARNER BROS. 23696-2 (fully digital Compact Disc) LP 23696-1, reviewed 12/82.

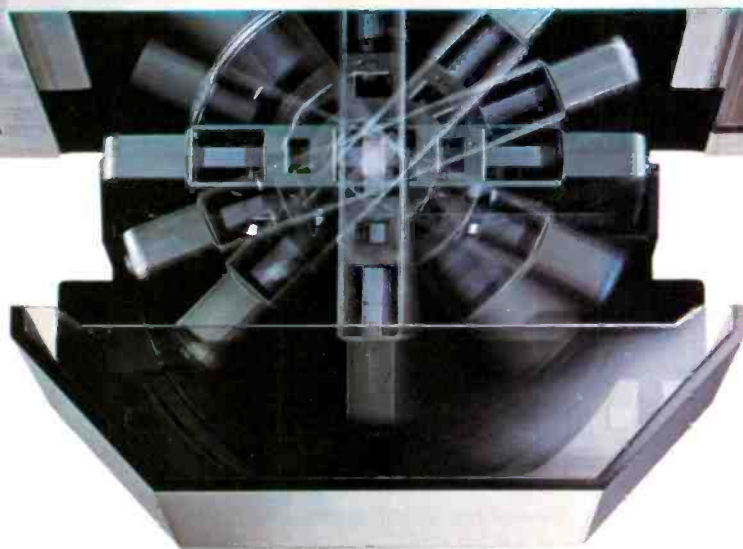
The original sessions for this solo bow by former Steely Dan partner Donald Fagen were themselves commitments to digital audio. Fagen and producer Gary Katz had tried without success to record the final Dan album, "Gaucho," with digital gear, only to balk; but for "The Nightfly" they made the plunge, sending chief engineer Roger Nichols to Minneapolis to learn 3M's multichannel system from the inside out. That thoroughness yielded a sonic triumph that pays off handsomely as a Compact Disc.

Ironically, "The Nightfly" was slated to be among the first CD releases from Warner Communications, only to be pulled from the schedule when it was discovered that the label had mistakenly shipped an analog copy for digital CD mastering. Now, however, the true digital disc is finally available and should be of particular



FAGEN: took
the plunge

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interest to those bemused by some of the less successful, early analog-to-digital transfers.

An impressive production in conventional LP, this sleek pop masterpiece exacts fresh nuance and palpably greater presence on Compact Disc. The opening track alone inventories many of the subtle improvements with its swarms of keyboard notes, shimmering cymbals, and effortless, deep bass. Likewise, *I.G.Y.*'s backing vocals remain silken while gaining bite, and Fagen's synthesized harmonica is clean and piercing, its counterpoint to the lyrics' starry-eyed optimism all the more mocking.

From the pure acoustic piano intro on *Maxine* to the throaty Hammond organ accents in *Walk Between the Raindrops*, the broad palette of keyboard timbres is rendered with greater precision. Backing voices, especially where Fagen's arrangements call for a creamy closeness, achieve better definition without unravelling.

Fagen's deft extension of Steely Dan's astute fusion of pop, jazz, rock, and r&b made "The Nightfly" one of last year's best albums. As a Compact Disc, it's irresistible. —SAM SUTHERLAND

MICHAEL JACKSON: Thriller.

Quincy Jones, producer. Epic CDEPC 85930 (analog recording; digital Compact Disc) LP: QE 38112, reviewed 8/83.

Already the runaway album hit of the year (and the most successful since the music business's recession), "Thriller" is also reported to be CBS's biggest CD seller. That seems more a side effect of Jackson's current career stature than a reflection on the quality of this Compact Disc. It's not that Quincy Jones's typically lavish sonics aren't heightened, but rather the baroque arranging style and the immaculate standard set by the LP counterpart leave minimum room for noticeable improvement in a digital conversion.

Compact Disc's fundamental virtues of vanishingly low noise and distortion further touch up the glossy surfaces of Jones's and Jackson's ebullient pop/funk. But beyond that, any refinements escape notice behind the sheer, strutting richness of the deceptively large ensembles. Dancefloor enthusiasts may even object to the deeper, less punchy bass and bass synthesizer lines, particularly on

Billie Jean, although it can be argued that the digital rendering is more open in character.

That said, "Thriller" still stacks up mightily against other analog-derived CDs. Its improvements are slight, but the basic work is already an careful. If you're among the half-dozen left who don't own the LP, buy the CD. —S.S.

WEATHER REPORT: Night Passage.

Zawinul, producer. CBS/Sony 35DP 8 (analog recording; digital Compact Disc) LP: Columbia PC 36793.

Weather Report evidently is regarded even more highly in Japan than the U.S., a fact suggested early on with a three-disc live album produced exclusively for the Japanese audience, and reinforced by the release of the last three studio albums in Compact Disc. For new fans and some CD patrons, that enthusiasm may prove fortunate, since the ensemble remains perhaps the most elegant exponent of fusion. Long-term followers, however, will be perplexed by the choice of albums, which represent neither a musical nor technical peak.

Of the three, "Night Passage" holds the most interest, since it features some of Jaco Pastorius's final moments as a member and frequent enfant terrible. Pastorius brought an underlying tension that sometimes spilled over into mere grandstanding, but here he proves generally restrained. As deepened acoustically by the digital format, his vaulting electric bass figures often take up the slack left in the melodically weaker pieces.

If keyboard sculptor Joe Zawinul is captured here with his eye more on texture than shape, his typically evocative synthesizer lines are etched more lucidly in CD. The gains are modest but significant, in that portions of the album were built around tapes made in Zawinul's own living room. Peter Erskine's cymbal work and Wayne Shorter's saxophones are both enhanced slightly. At its best—the typically dreamy title piece, the loopy, cybernetic retelling of Ellington's *Rockin' in Rhythms*—this is rich fusion burnished brighter in the new format.

Still, the availability of these recordings in CD begs the question of why earlier, more substantial works weren't released. A digital rebirth for "Black Market," "Mysterious

Traveller," or "Heavy Weather" would be far greater cause for celebration. —S.S.

JOURNEY: Frontiers.

Mike Stone, producer. CBS CK 38504 (analog recording; digital Compact Disc) LP: Columbia QC 38504.

This Bay Area quintet achieved mainstream pop acceptance after glossing its deep-dish hard rock with such elements as Steve Perry's mellifluous, blue-eyed soul twists and Jonathan Cain's expansive keyboard textures. That balance of thunder and light serves them well on Compact Disc, which handles the music's melodramatic surges adroitly.

On charging, uptempo rockers like *Separate Ways (Worlds Apart)*, the impact of Steve Smith's fat drum sound is stronger, his cymbal and high-hat work never jarring or overly brilliant. (Presumably aiding in this department is the stereo placement, which adheres to center positioning for drums.) Ross Valory's bass lines also benefit from additional depth and clarity.

Guitarist Neal Schon suffers from a fate familiar to highly amplified rock on CD: Given the searing timbre of his more aggressive leads, it's a toss-up as to whether digital mastering has had any effect. Restrained picking and hovering guitar harmonics fare more impressively. Lead singer Perry's lusty, arena-sized rock renditions compete with the rest of the ensemble for attention, also somewhat mitigating any improvements. On the other hand, his meticulous crooning (notably on ballads like this set's *Send Her My Love*) offers just the right foil for digital gains.

This is well-crafted if conventional pop/rock, which, because of its radio-conscious approach to compression and equalization, can't offer much latitude for exploiting CD's dynamic range. Fans won't be disappointed in the clarity of the new version, but those looking for impressive additions to their Compact Disc collection will find "Frontiers," like others in its genre, far from the finest of audiophile reproductions. —S.S.

Many of the Compact Discs available at the retail level are imported from Europe and Japan. Likewise, some of the CDs reviewed here are imported, and eventually may appear in the U.S. with different catalog numbers, if not on different labels.

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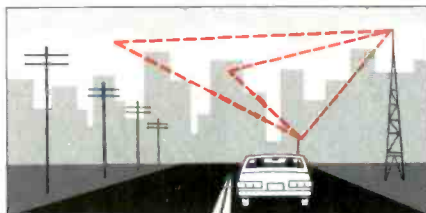
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POPULAR VIDEO

JAMES TAYLOR IN CONCERT.

Stanley Dorfman, director; Peter Asher & Stanley Dorfman, producers. Sound recorded by Val Garay. CBS/Fox 7023 80. \$29.98 (CX-encoded laser disc).

This straightforward 1979 concert recording finds James Taylor as laidback as ever, with cuts like *Steam Roller* and *Honey Don't Leave L.A.* unleashing the full rocking powers of guitarists Waddy Wachtel and Danny Kortchmar, keyboardist Don Grolnick, bassist Leland Sklar, drummer Russ Kunkel, and saxman David Sanborn. The rest is easy folk-rock of the most pleasant sort, complete with *Fire and Rain*, *Carolina on My Mind*, and *Sweet Baby James* in good if not inspired performances. —IRA MAYER

CAROLE KING:
One to One.

Scott Garen, director; Michael Brovsky, producer. MGM/UA MD 100219. \$29.95 (CED disc).

"One to One" is a better program than a critical analysis of it would suggest. Understand that it is worth seeing. But the flaws are numerous.

First, the gimmick of switching back and forth between (unidentified) concert settings and what appears to be King's living room at home gets tiresome very quickly. (So do the cricket and bird sounds in the background of the latter.) Second, many of the stage performers, including the singer-composer, appear stiff and ill at ease. King seems more comfortable at home on her upright, but the recording of the piano is full of echo and amateurish. Third, the disc has no continuity. Obviously shot over several days, it's disconcerting to see King's outfits change from one song to the next. A pink poodle skirt and white cardigan for *Chains* is a humorous salute to the '50s, but the effect is quickly lost in the sudden transition to a stage and piano lined with candles for *So Far Away*.

More complaints: *Locomotion* and *Take Good Care of My Baby* get barely a chorus each, with other home-taped numbers similarly shortchanged. The band, unidentified on the jacket and with names passing by too quickly in the credits, is not up to the standards of the session aces King usually uses.

And yet, Carole King did not sell 12 million copies of "Tapestry" or

enjoy scores of hits as a songwriter because she couldn't come up with a memorable song. Though "One to One" may not be among their better recordings, *One Fine Day*, *Tapestry*, *Up on the Roof*, *I Feel the Earth Move*, and *You've Got a Friend* are pretty damn resilient. *Smackwater Jack* even finds King and band rising to the moment, rocking out feverishly with some hot guitar and saxophone lines.

The unusual, very slow solo reading of *Hey Girl* is quite effective save for the piano sound, and *One Fine Day* (the old Chiffons hit) finds the band once again driving hard and adding great backup harmonies. As I said, "One to One" has its problems, but the combination of great songs and an at-home glimpse of their surprisingly vulnerable creator makes it worthwhile.

—I.M.



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BETTMANN ARCHIVE

In Praise of Brahms's Songs

Deutsche Grammophon's tribute to the composer offers a *Magelone* cycle that is never stultifying and often moving.

Reviewed by
Will Crutchfield

THE ONLY TIME I PASSED UP a chance to hear Dietrich Fischer-Dieskau in recital was in 1977, for a Chicago performance of Brahms's *Schöne Magelone* cycle with Jörg Demus. Now that he no longer makes an annual American visit (and now that I know the songs better), how I wish I had gone!

The great baritone has been less identified over the years with Brahms than with Schubert, Schumann, and Wolf, and indeed his biographer Kenneth Whitton ventures the suspicion that Brahms's songs "are not among Fischer-Dieskau's greatest personal favorites," but the *Magelone* cycle holds a special place both in the composer's oeuvre and in the singer's repertoire. For that reason, because the new performance of it in Deutsche Grammophon's Brahms Edition is slated for separate release, and because it points the way to a renewed appreciation of author and interpreter alike, it is worth a close look in a review that can give most of this rich collection only a cursory glance.

These songs, composed in the 1860s for Brahms's friend and collaborator Julius Stockhausen, stand with the much later *Vier ernste Gesänge* to "place him beside Schubert in the ranks of Lieder composers," according to the *New Grove* contributor on Brahms. The judgment is bold, because the cycle is by no means so well known or loved, and Brahms is in fact not generally held on a par with his great predecessor in this sphere. But he said himself that there was not a single Schubert song from which one could not learn something, and the closer one looks at the *Magelone*-Lieder the more one feels, not a parity, but a deep and (for me) moving *affinity* with Schubert. At its simplest level the kinship is expressed in things learned, things borrowed: The side-stepping back to the tonic key in the first song immediately evokes "Die Sterne," where Schubert did it the same way (and in the same key); "Liebe kam aus fernen Landen" (the fourth *Magelone* song) para-

This concludes our two-part coverage of DG's commemorative Brahms Edition. Last month Harris Goldsmith reviewed the instrumental recordings.—Ed.

phrases Schubert's "Wanderer" (the one with text by Schlegel); the prolongation of the penultimate six/four chord in "Wie soll ich die Freude," alternating it with diminished chords under melodic sixths and raised fourths, is an irresistibly thrilling Schubertian device for musical emotion straining toward the release of a cadence. Unlike most other Brahms songs, but like several of Schubert's, some of the *Magelone*-Lieder move into progressively faster tempos (sometimes returning, sometimes not); the technique comes from such Schubert songs as "Sehnsucht," D. 636, where the motion does not flag between sections, but accelerates (either by quickening of pulse or reduction of note values) from one into another.

There is an emotional affinity too, but it is more elusive and only partial; it's easier to say what it is not. Brahms does not create a specific human character and limn his soul for us in music, as Schubert did with Gretchen, the old recluse by his cheery hearth, the tormented harper, and a hundred others. In the *Magelone* cycle we do not feel the young knight's inmost hopes and fears as we do those of Schubert's miller lad; rather we sense Brahms's appreciation for the "type" he represents, and for the clear priorities and uncomplicated motivations of the chivalric story.

To delve into this is to touch on what Gregory Sandow has recently called the "Brahms Problem": a widely shared feeling that here was a composer fleeing his emotions, repressing his impulses, shielding himself from human risk with formal craftsmanship. The Brahms Problem has often impinged on my appreciation of his songs. So many of them have sappy texts; so few grapple with the issues that set Wolf and Schubert burning; so often the passions are kept at arm's length and replaced with bluster. Yet the days spent with this recorded collection were for me (one can only put it personally) never stultifying and often moving. It occurred to me that a person who represses his feelings does not for that become unfeeling. We know that Brahms's own emotional life was complex and problematic. His songs bespeak deep yearning for a simple past, regret for what can never be recovered, an ache for untainted beauty; even though the music never expresses the struggles from which these longings sprang, the songs can touch in a way that they would not, I think, from the pen of a creator more secure in his identification with the values he seeks to embody in his art.

It is this, I would say, that separates the Brahms songs from those of, say, Robert Franz, who shares in large measure his melodic gift and his penchant for the lush and sentimental. Those things are easy enough to see in Brahms; the other quality, that *Sehnsucht* that links him most deeply to Schubert, wants committed advocacy to

bring a listener to it, and my own response to these songs was guided by and intimately linked to the singer's here.

What of Fischer-Dieskau, then, as he enters the '80s and nears the end of his own fifties? "The voice," wrote John Steane greeting the recent Liszt songs (DG 2740 254), "seems hardly to have changed at all"—but that seeming must have been colored by the excitement of discovery, for the voice has changed quite a bit. Mostly it has dried and thinned—or perhaps one should say that the basic instrument has been shorn of some of its accessories. In particular there was a dark, vibrant, "charged" forte that now comes to him seldom, and the loud sustained singing, though never extraordinary for sheer power, had once a beauty and tonal thrill that it has lost. Fischer-Dieskau, in other words, can no longer imitate convincingly the big rich voice he never had, but often needed to suggest. This means that we have to give up certain of the old satisfactions of his singing: the way he could suddenly stride forward into a grand phrase as though seven feet tall ("Bleib ich ihr ferne, sterb ich gerne" in the third *Magelone* song), or put the full power of his voice behind an impulsive marcato (as in the lines about scolding wind and wave in the tenth). But in piano-accompanied music at least, this "deterioration" has simply been integrated into the process that has always been going on with this singer of fresh discovery, new entry into a composer's world and a song's poetic province each time it is performed.

So there is no question of late, post-prime performances here, and one takes the mono and earlier stereo versions from the shelf not to answer a need unmet in the present, but to provide a fascinating counterpoint and to give insight into the work of an interpreter of genius. Fischer-Dieskau's Brahms output is a little confusing, and the sketchy discography in the Whitton book is not much help, so a brief note is in order. Until the early '70s he was indeed less involved with this composer than with others. There had been versions of the "Ernste Gesänge" (1949) and seven of the Op. 32 Songs (1955), both with Hertha Klust, and a group of Heine settings on the flip side of his first *Dichterliebe*, with Demus (1957). In 1957–58 came an album of love songs with Karl Engel, and (all with Demus) a reflective, autumnal collection (over which the discography stumbles badly), a first version of the *Magelone* cycle, and a second of the *Four Serious Songs*. In 1964 EMI/Engel issued a thrilling, vibrant program of early works (including all nine of Op. 32) with Gerald Moore, and in 1970 a *Magelone* remake with Sviatoslav Richter. A further version of the "Ernste Gesänge" appeared in 1972 as the fourth side of a Requiem led by Barenboim on DG (2707 066). All of these except the disc with Engel were available in America at one

time or another, but only the last-mentioned is in the current SCHWANN. (Omitted from this reckoning are folksongs done with Elizabeth Schwarzkopf and the Op. 28 duets with Kerstin Meyer and then Janet Baker—all deleted.)

Then in 1974 appeared a large, excellent, but confusingly organized set on German EMI. It began with the 1964 Moore disc, continued with eight sides accompanied by Wolfgang Sawallisch (who gamely filled the gaps in opus groups that were sampled on the anthology with Moore), and concluded with two discs with Barenboim (once again finishing the opuses left hanging in the Sawallisch sessions). It's maddening to try to listen to this ill-ordered box with scores in hand (doubly so if you have the Peters edition, which also begins with selected goodies—different ones, of course—and fills in the holes later), but the performances are often tremendously rewarding.

Of the 149 songs in the Electrola set, six have been reassigned here (along no particular line of reasoning that I can descry) to Jessye Norman, who also contributes 46 specifically "female" songs. Fischer-Dieskau remakes the remainder, adding a new *Magelone*-Lieder (not done in the earlier set) and one song from Op. 43 that was unaccountably lost in the shuffle on Electrola. Opus 121 (which Sawallisch played on Electrola) is here represented by the version with Barenboim mentioned above; the rest is new.

Present vocal limitations, perhaps,

BRAHMS: Songs.

Jessye Norman, soprano*; Dietrich Fischer-Dieskau, baritone†; Daniel Barenboim, piano. [Cord Garben, Renate Kupfer, Wolfgang Stengel, and **Günther Breest, prod.] DEUTSCHE GRAMMOPHON 2740 279, \$79.80 (digital recording††; 10 discs, manual sequence). Cassettes (4; Opp. 3, 7, 32, 43, 47, 49, 59, 63, 86, 91, 94, 121; Mondnacht, Regenlied; plus vocal ensembles: 337B 124, \$51.92. [**From DG 2707 066, 1972.]

Op. 3 (6; No. 1*; Nos. 2–6†); Op. 6 (6; No. 1*; Nos. 2–6†); Op. 7 (6; Nos. 1–4, 6†; No. 5*); Op. 14 (8)†; Op. 19 (5; Nos. 1–3, 5†; No. 4*); Op. 32 (9)†; Op. 33†† (Die schöne Magelone: 15)†; Op. 43 (4)†; Op. 46 (4)†; Op. 47 (5; Nos. 1–4†; No. 5*); Op. 48 (7; Nos. 1–2, 5–7†; Nos. 3–4*); Op. 49 (5)†; Op. 57 (8; No. 1*; Nos. 2–7†); Op. 58 (8)†; Op. 59 (8; Nos. 1–4, 6–7†; Nos. 5, 8*); Op. 63 (9)†; Op. 69 (9; Nos. 1–2, 4, 6, 8–9*); Nos. 3, 5, 7†); Op. 70 (4)†; Op. 71 (5)†; Op. 72 (5; No. 1*; Nos. 2–5†); Op. 84 (5)*; Op. 85 (6; Nos. 1–2, 4–6†; No. 3*); Op. 86 (6; Nos. 1, 6*); Nos. 2–5†); Op. 91 (2; with Wolfram Christ, viola)*; Op. 94 (5; Nos. 1–3, 5†; No. 4*); Op. 95 (7; Nos. 1, 4–6*); Nos. 2–3, 7†); Op. 96 (4)†; Op. 97 (6; Nos. 1–3, 5–6†; No. 4*); Op. 103 (Zigeunerlieder; 8)*; Op. 105 (5; Nos. 1–3*); Nos. 4–5†); Op. 106 (5)†; Op. 107 (5; Nos. 1–2, 4†; Nos. 3, 5*); Op. 121** (Vier ernste Gesänge)†. Mondnacht.† Regenlied.* Five Songs of Ophelia.*

have directed Fischer-Dieskau's attention increasingly to the lyrical possibilities in these songs, and urged on him a more varied exploitation of the shades between pianissimo and mezzo-forte. The results are fresh, diverse, and (it needs to be emphasized, because there is also a Fischer-Dieskau Problem) spontaneous-sounding to me. There is in the DG set a new and special feeling for the dynamic of statement and echo; sometimes the echoes are indescribably tender (the lines about the dying sound of the lute, or about the distant, yearned-for goal in the *Magelone* Songs); sometimes intense (as in "*Ich muss hinaus*," where we feel the second and fourth phrases as the spent recoil from the vaulting impulse of the first and third). This new gentleness can spread itself wonderfully over a whole song ("*Sonntag*" was soft enough already, but rather bouncy and tip-toed; now it's sweet, dreamy, and reminiscent) or be localized at a key moment (with Barenboim's participation, the line "*der mir so lieb war*" in the song to the Aeolian harp pierces with sudden poignancy; in "*Von ewiger Liebe*" one feels the girl's strength of heart in the *slow*, almost unimpassioned growth to the climax of her verse). The contrast does not always work that way, of course: The riding-song in *Magelone* is more truculent; the despair at "*Nimmer wird es gut*" in "*Verzweiflung*" more towering, and immediately after "*Sonntag*," as though quickened by an elixir of youth, Fischer-Dieskau launches "*O liebliche Wangen*" with even more breathless energy than before. There is also "*Meerfahrt*," that intense song of love passed by and bleak vistas ahead (most suited of all Brahms's, perhaps, to stand with Wolf and Schubert on their own ground), which has become more neurotic and desperate in this performance.

The most striking change in approach concerns phrasing: I would guess that about a hundred breathing-places in the earlier recordings, including perhaps two dozen literal rests in the score, are now sung through. The gain might be simply better verbal sense (in the famous lullaby), or more continuous impetus (in "*Sehnsucht*," from the Op. 49 group, the singer yearns for his "[forte] distant, [piano] sweet maiden"; in the older recording, he breathed at the comma, so that the nuance came at the expense of flow, but the passion of the new version is thrilling). It is as though his long experience has now made him willing to take bold freedoms in showing us the large shape of these songs. If his tone no longer presents him seven feet tall, his breadth of line shows him "as a giant to run his course."

No one could deny that there is loss as well, in beauty, strength, and (I suspect, since the condition of the voice varies) stamina. There are also songs that, to my mind, have always eluded him and still do. This singer, so excitingly involved in the



Ensemble singers (left to right) Mathis, Fassbaender, Schreier, and Fischer-Dieskau: in the more animated numbers of the *Liebeslieder Waltzes*, a hectic feeling of competition

progress of a song, can sometimes seem impatient with one in which the need is for stasis, for the sustenance of a single image. An accent, a change in tone, or a bounciness of line will often find its way in. (The words "*Nach oben*" in "*Feldeinsamkeit*" are a good example in the present set; "*An ein Veilchen*," "*O wüsst ich doch*," and "*An die Nachtigall*," in which Fischer-Dieskau has always seemed to take on some of the agitated feeling of the Schubert setting, are among the songs that seem unsuccessful in this regard.)

That all this covers about a twentieth of my notes for this review gives some indication of the stimulation the series can give, though. The grave beauty of the Op. 94 group should not pass without mention, but then neither should Op. 96, where the "*Meerfahrt*" already noted is complemented by a rapt and (again) very broadly phrased "*Wir wandelten*." When all is said and done, it is probably true that Brahms asks less than the other great songwriters for Fischer-Dieskau's special skills, and more than they for the skills he lacks, but I still would not have wished for another singer in the bulk of this set. With the Brahms of artists who suit him more fully (say Alexander Kipnis, Christa Ludwig, Kirsten Flagstad), the pleasure is great, but I find that by the end of enough songs to make a solid recital group, while I have no complaints, I've also heard enough for the time being. With Fischer-Dieskau, I listened through the set more or less continuously, and played the earlier records too—not dutifully, but wanting to. This is not meant as a value judgment (why should one listen longer than to a solid recital group? and what would one not give to go to a recital and hear vocalism like Kipnis's today?), but simply to suggest that Fischer-Dieskau's gifts are indeed the aptest for so

comprehensive a survey.

Not that one doesn't sometimes reflect, perusing one or another of his comprehensive boxes, that it would have been nice to engage a quartet of singers and thus to present all the songs in their original keys, with male and female poems alike included. The only trouble would be finding singers who wouldn't make one want to skip over their bands to the next Fischer-Dieskau. I confess, that's how I often play the Wolf sets he shares with Schwarzkopf, Irmgard Seefried, and Ludwig, and, although I didn't think so at first, I imagine that's how I'm likely to return to this one. No question. Norman has a major voice, an instrument that can provide, just when the baritone's lack of it begins to nag, radiance and fullness of tone. And she sings here with a more vivid sort of involvement than I have found before in her German song recordings. But perhaps six sides into the collection I began to feel that her nuances were not ringing true, especially in the "charming" feminine songs—almost that she might be imitating Fischer-Dieskau's highly inflected style without really feeling sympathy for it. And (this is easier to pin down) she simply does not provide the big-soaring-voice satisfactions that her capabilities lead one to expect. She transposes down almost as often as the baritone (up too, when she wants), putting most of the material into a perfectly adequate but less exciting part of her voice. And her legato is unreliable, both in moving from one note to another without an aspirate "h" (try "*Der Jäger*") and in sweeping through a phrase with impulse—the breath support (or is this just the way she feels the music?) seems to come in spurts instead of a steady flow. It is terribly unfair to carp about this while overlooking her partner's similar faults (the way, for instance, he so often goes sharp at high notes on the "i" or "ü" vowels, or

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loses focus at ones on "e"). But (again, one can only put it personally) the compensation in his case seems sufficient, in hers only partially so.

(A word on transposition, now that the topic has been raised. It should be borne in mind that Brahms, much more often than Schubert, Schumann, Wolf, or Strauss, wrote for low voice to begin with, and that many of the songs are raised for the standard "hohe Stimme" editions. "Sapphische Ode," "Immer leiser," "Maienacht," and "Von ewiger Liebe," to name only a few chestnuts, were written originally in the low keys. But "original" is an ambiguous idea with Lieder anyway. We know that Schubert's principal song-collaborator was the baritone Johann Michael Vogl, yet Schubert published many of the pair's "pet Lieder" in keys much higher than Vogl could possibly have sung them, and a few have come down to us in Vogl's hand—lowered. Brahms wrote the *Mage-lone-Lieder* expressly for Julius Stockhausen, again a baritone, but in the "original" keys they lie high and reach often to top A flat. Did Stockhausen sing them thus? Key choices in the Schubert orchestrations Brahms made for him do not suggest so. [Fischer-Dieskau transposes them.] Furthermore, as far as I can tell, many of Brahms's songs appeared from the start in high and low versions, often separated by the unusually wide interval of a major third or a fourth. In fact a lyric baritone or mezzo often finds that neither key is comfortable; Fischer-Dieskau must often ask his pianist to play in a key between the printed ones.)

Who, meanwhile, would be a satisfying female counterweight for Fischer-Dieskau? The Schwarzkopf Problem blocks for me what would be a simple answer for some. If Lotte Lehmann could be time-transported to 1983 she would be ideal, full of heart as keen of mind, though she'd probably be as reluctant to cede the male songs to Fischer-Dieskau as he to share the neutral ones with her. Of present-day singers, Anelung the Delightful lacks something in range and weight (as Elisabeth Schumann would have before her—though I'd rather have had either here). Margaret Price, whose Brahms is among promised Orfeo offerings for 1984, is like Norman—big-voiced without really letting you enjoy it, and capable of blandness. Edith Mathis, Gundula Janowitz, Lucia Popp, and especially Helen Donath have shown themselves fine *Liedersängerinnen* without, yet, suggesting the stature needed to balance the baritone's: Edda Moser, Brigitte Fassbaender, and (at this stage) Ludwig and Elisabeth Söderström seem to me vocally unsatisfying in various ways. Can Yolanda Marcoulescou sing in German? Might Janet Baker rise to her best for a shared "big box"? (When she does, she has something of what it takes.) Or might the best hope come from Mrs. Fischer-Dieskau herself,

Julia Varady, who has yet to record a solo song recital, but whose contribution to the Schumann duets with her husband is full of promise?

Let me apologize for leaving so little room to the vocal-ensemble and choral boxes by saying right off that to many collectors who aren't going to buy the whole Brahms Edition these will be more essential acquisitions than the songs, simply because much of the music is otherwise unavailable on record. I don't want to overstate the apology—there is a reason for the comparative lack of attention—but there are some lovely things to be heard here.

The *Liebeslieder Waltzes* are familiar, of course; these four voices don't blend as suavely as some on earlier versions (in fact in the more animated numbers there is a rather hectic feeling of competition), but of those currently available they seem to me on a par with the one on Seraphim (S 60033) and superior to the others. The remaining ensembles do not offer as many delightful discoveries, or quite such polished performances, as the Schubert discs that appeared as pendants to Fischer-Dieskau's song boxes on DG. (Only those *Gypsy Songs* omitted from the solo arrangements are recorded in their quartet forms, although several less interesting pieces that exist both as solos and choruses are included both ways.) Still, the duets have some dramatic life (a smoother version of the female ones by Judith Blegen and Frederica von Stade is available on CBS M 33307), and the quartets outside the *Liebeslieder* are by no means negligible. (Fischer-Dieskau never goes to sleep: When in an ensemble he cannot be responsible for individual expression of the words he turns his attention to isolating pivotal harmonic moments in the bass line.) The folksongs, except for the final group with chorus, come from the

attractive 1975 set with Schreier and Mathis; all the rest is new.

The choral works (not all "a cappella" as the box cover suggests, but including also those with piano or chamber-scaled accompaniment) include a good deal of *Gebrauchsmusik* from the days of Brahms's choral directorships. Some were probably never intended to hold the interest of people who weren't singing them, but there are again some lovely moments (the quickening triplets announcing spring in "Darthulas Grabgesang"; the witty setting of "the fiddler struck up a merry dance" to the open-string notes of the fiddle in Op. 93a). Günter Jena and his choir cultivate a clear, not-lush sound and a plain style: no dramatic hushings or passionate swellings, and very little strophic variation (which does not stop them from singing multiple stanzas). It's just the kind of choral singing that—hearing a moving inner part fussily brought forward or a dynamic nuance triply underlined—one so often thinks one wants; perhaps it is only a comment on the music itself that I found myself wishing for something more vivid. Either the recorded sound or the choir's style gives great prominence to consonants, especially sibilants; when a line like "das Knösplein ist erschlossen" comes round in canon one wishes for the days of acoustic recording, when "s" had to be supplied by one's imagination.

Each box comes with a handsome booklet and useful essays; I won't pretend to have read all the translations, but the names of Lionel Salter and William Mann on them suggest clarity and reliability, and where I checked, I found them. The labels, on the other hand, are the only indicators of the distribution of songs, and several times they fail to give Norman proper credit (suggesting that Fischer-Dieskau sings, among other things, the Op. 91 songs for alto and viola). **HF**

BRAHMS: Vocal Ensembles.

Edith Mathis, soprano; Brigitte Fassbaender, alto; Peter Schreier, tenor; Dietrich Fischer-Dieskau, baritone; Karl Engel, piano.*† North German Radio Chorus (Hamburg). Günter Jena, cond.; Gernot Kahl, piano.‡ [Cord Garben*, Rudolf Werner†, Hanno Rinke‡, Gerd Ploebisch‡, and Friedrich Karl Wagner‡, prod.] DEUTSCHE GRAMMOPHON 2740 280, \$39.90 (digital recordings*; five discs, manual sequence). Cassettes (4; Opp. 52, 61, 65; plus songs): 3378 124, \$51.92. [†From DG 2709 057, 1974.]

Duets: Op. 20 (3; s, a); Op. 28 (4; a, b); Op. 61 (4; s, a); Op. 66 (5; s, a).* Four Ballads and Romances. Op. 75.* Quartets: Op. 31 (3); Op. 64 (3); Op. 92 (4); Op. 103 (Zigeunerlieder: 3); Op. 112 (6).* *Liebeslieder Waltzes*, Op. 52 (18); *Neue Liebeslieder Waltzes*, Op. 65 (15) (with Wolfgang Sawallisch, piano).* *Volkskinderlieder* (14; s).† *Deutsche Volkslieder*: Books I–VI (42; s, t)†; Book VII (7)‡.

BRAHMS: Choral Works.

Gernot Kahl, piano*; Gerhard Dickel, organ†; North German Radio Chorus (Ham-

burg), North German Radio Orchestra (Hamburg) members, Günter Jena, cond. [Hanno Rinke, Gerd Ploebisch, and Friedrich Karl Wagner, prod.] DEUTSCHE GRAMMOPHON 2741 018, \$47.88 (digital recordings; six discs, manual sequence). Cassettes (4; Opp. 12, 17, 27, 74, 104, 109. *Volkslieder* [8]; plus choral-orchestral works): 3382 018, \$51.92.

Songs. Op. 17 (4; with Jan Schroeder and Hans-Ulrich Winkler, horns; Julia Raines Hahn, harp); Op. 41 (5); Op. 42 (3; No. 2*); Op. 44 (12)*; Op. 62 (7); Op. 93a (6; No. 2 with Edith Mathis, soprano); Op. 104 (5). Motets, Op. 29 (2), 74 (2), 110 (3). Ave Maria, Op. 12†; Begräbnisgesang, Op. 13; Marienlieder, Op. 22 (7); Psalm 13, Op. 27†; Geistliches Lied, Op. 30†; Three Sacred Choruses, Op. 37 (No. 3 with Mathis; Ann Murray, alto); Tafellied, Op. 93b*; Fest- und Gedenksprüche, Op. 109; Thirteen Canons, Op. 113. Canons (7; No. 7 with Martin-Albrecht Rohde, viola). Kleine Hochzeitskantate.* Dem dunkeln Schoss der heil'gen Erde. *Deutsche Volkslieder* (23; No. 23 with Mathis).

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CLASSICAL

Reviews



Philip Glass's score for *Koyaanisqatsi* provides the aural counterpoint to the film's stream of visual images, while surviving the translation to disc. See page 25.

GABRIEL CARLOTA RODRIGUEZ

FALLA: *The Three-Cornered Hat**; *El Amor brujo*†.

Colette Boky, soprano*; Huguette Tourangeau, mezzo-soprano†; Richard Hoenich, bassoon*; Montreal Symphony Orchestra, Charles Dutoit, cond. [Ray Minshull, prod.] LONDON LDR 71060, \$12.98 (digital recording). Cassette: LDR5 71060, \$12.98.

FALLA: *The Three-Cornered Hat**; *El Amor brujo*: *Ritual Fire Dance*.

Frederica von Stade, mezzo-soprano*; Pittsburgh Symphony Orchestra, André Previn, cond. PHILIPS 6514 281, \$12.98 (digital recording). Cassette: 7337 281, \$12.98.

For years, one heard almost nothing of *The Three-Cornered Hat* except the famous dances from Part 2. Occasionally someone would play the "Scenes and Dances" from Part 1. More recently, several recordings of the complete score have demonstrated that it is as attractive and viable a concert work as the complete *Daphnis and Chloe* or the complete *Firebird*.

This is my first encounter with the much-praised team of Charles Dutoit and the Montreal Symphony, and very pleasing it is. They perform some of the most colorful and exciting music imaginable with tremendous flair and authority. Though one could quibble over details (and I will presently), the work's brilliance and external spirit are all there.

And its internal spirit? Most Spanish

music, be it by Falla, Albéniz, Granados, or whomever, operates on two levels. No matter how superficially glittering it may appear, there is usually a deeper, more profound element beneath the surface. For that I went back to the deleted version by Ernest Ansermet and the Orchestra de la Suisse Romande, which I hope London will reissue in its Treasury series. The playing may not be quite so brilliant, and a few moments in the finale could use more animation, but, oh, does Ansermet get to the heart and soul of the piece!

Nevertheless, Dutoit's is a splendid achievement, and I recommend it almost wholeheartedly. Colette Boky is effective and affecting in her few incidental solos, for which she is properly heard from the distance. The many droll bassoon solos are superbly played by Richard Hoenich, appropriately given a credit. However, a beat is missing from the English-horn solo in "The Miller's Dance," perhaps an editing error.

André Previn's Pittsburgh version generally takes slower tempos than either Dutoit's or Ansermet's, but lacks the buoyancy to make them effective. Neither does it have the dash and brio provided by Dutoit. It strikes me as a largely abstract treatment of the score, as if the various passages and sections had no relation to events and happenings on the stage. Frederica von

Stade is not heard from the distance, but placed front and center; I guess you can't engage someone of her reputation to sing just a few lines and then put her in left field. In any case, she comes across blandly. The Pittsburgh bassoonist, though certainly the equal of his Montreal counterpart, labors in anonymity.

And now the promised quibbles: Both Dutoit and Previn inexplicably ignore a most important score marking. Eight separate bars in the "Dance of the Miller's Wife" have large asterisks over them. You can't miss them. At the bottom of the first page is the instruction, in plain English, "In all the bars marked * the last two quavers [eighth-notes] must be very slightly held back." This is meant to provide an unsettling disruption of the beat and to distinguish those bars from later repetitions without asterisks. Dutoit and Previn don't hold back the two notes even very slightly; one can beat through those bars without any disruption at all. Ansermet does hold them back, with telling effect. Neither does Dutoit or Previn (or Ansermet!) make the required *accelerando* leading into the finale's coda.

The London disc is generously rounded out with the complete *El Amor brujo*. This is a more serious, brooding work than the *Tricorne*, and again Dutoit impresses, giving one of the best performances I've

heard. The impassioned and gutsy violin passage at figure 16 in the "Dance of Terror" could be stronger, but the famous "Ritual Fire Dance" is delivered with an apt sense of foreboding—not as just another pops concert piece. The tender slow sections, such as "The Magic Circle" and the "Pantomime," are beautifully done, and Huguette Tourangeau is a fine soloist. She appropriately introduces just a touch of rawness to her voice but still sings the part, doesn't yell it as in some versions. Again Dutoit fails to observe an important marking. (Does he specialize in this?) Throughout the "Pantomime" the trumpets are mut-

ed. The final solo, to sound from a distance, is marked without mute. Dutoit mutes it as well. Why? After all, Falla was the most fastidious indicator of what he wanted in his scores. Still, I enjoy both of Dutoit's performances very much and am highly impressed by the work of the Montreal orchestra. There is no loss of recording quality in spite of long sides, and surfaces are immaculate.

In the past I have criticized Philips for its lack of generosity in filling a record. This could not be more dramatically demonstrated than here: Dutoit's disc offers the complete *El Amor brujo*. Previn's only its

brief "Ritual Fire Dance." Well played though it is, at \$12.98 or whatever, which would you buy? JOHN CANARINA

MENOTTI: Missa "O Pulchritudo."

Renatta Baldissari, soprano; Wilma Borelli, mezzo-soprano; Beniamino Prior, tenor; Ferruccio Furlanetto, bass. Westminster Choir, Joseph Flummerfelt, dir.; Bel Canto Chorus of Milwaukee, James Keeley, dir.; Spoleto Festival Orchestra, Christian Badea, cond. FONIT CETRA FDM 0001. \$9.98 (distributed by International Book and Record, 40-11 24th St., Long Island City, N.Y. 11101).

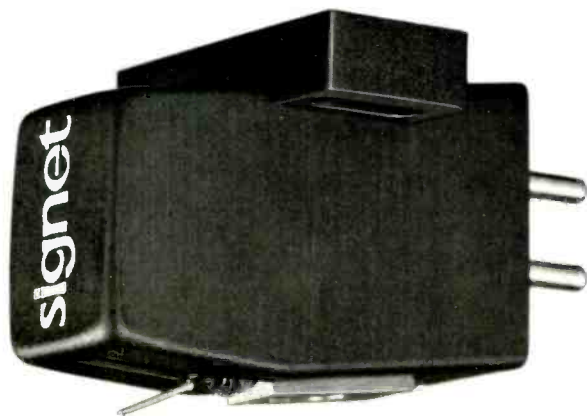
Although Gian Carlo Menotti is best known for his copious operatic output, he has also composed quite a few concert works. Among them are about a half-dozen choral pieces, the present Mass being a recent addition. On the surface, it would seem natural for Menotti to turn late in life to the Mass—after all, his operas have been packed with mysticism and religious symbolism, as well as with crises of faith, or conflicts between faith and reason.

These tensions are apparent in the Mass, though to a less obvious degree. The overall tone is less one of pure devotion than of turbulence and a kind of inner anguish—the key to which appears in a central Motet, a setting of a verse by St. Augustine that confesses and deplores a preoccupation with superficial vanity at the expense of divine beauty. Less visible is Menotti's spiritual grappling with the very structure of the Mass: The Motet replaces the Credo, and although the liner notes suggest that the Credo would be added later, Menotti eventually refused to set it on the grounds that he did not believe in all of its provisions.

Philosophical dilemmas aside, the work does have its attractions, particularly when it drops its neo-nineteenth-century bombastic cover and waxes lyrical—in the whole of the Motet, for instance, and in parts of the Gloria. But it is also an eclectic score, and the broad range on which it draws can keep a listener waiting for the Mass to settle on a single direction. The first moments of the Kyrie wash across several centuries: The almost Gregorian first statement is followed by a bit of tense Romantic-cum-Gothic orchestration, and then by a more elaborate, melismatic restatement and, surprisingly, an orchestral parody of the Kyrie from Bach's B minor Mass. Perhaps this sweeping historical overview was part of Menotti's plan; soon enough, the Mass finds a more consistently Romantic voice of its own.

Alas, the performance and particularly the recorded sound here work against the piece. When I heard the Mass performed at the Spoleto U.S.A. Festival in Charleston, it didn't sound nearly as shapeless as it does here; rather, it flowed out into the hall with an admirable grandeur. That performance was conducted by Joseph Flummerfelt in

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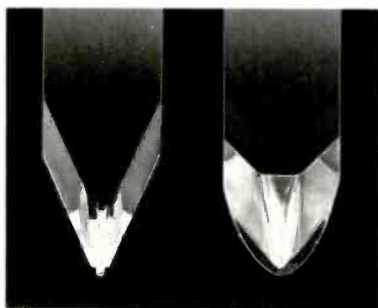
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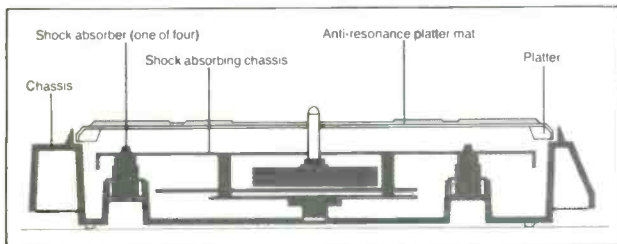


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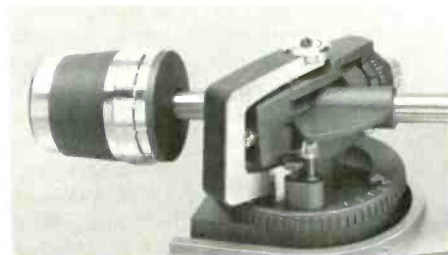
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BRITTEN: Our Hunting Fathers; Folksong Arrangements. Söderström, Armstrong. EMI ASD 4397, Oct.

CARTER: Night Fantasies; Piano Sonata. Jacobs. NONESUCH 79047-1. Rosen, ETCETERA ETC 1008, Sept.

CARTER: Sringa; Concerto for Orchestra.

DeGaetani, Paul, Sollberger; New York Philharmonic, Bernstein. COMPOSERS RECORDINGS SD 469, Sept.

CRUMB: Apparition. IVES: Songs (9). DeGaetani, Kalish. BRIDGE BDG 2002, Dec.

ELGAR: Enigma Variations; Pomp and Circumstance Marches (5). Philharmonia, A. Davis. CBS IM 37755, Sept.

GLUCK: Orfeo ed Euridice. Speiser, Baker, Leppard. ERATO NUM 750423 (3), Aug.

GRIEG: Piano Sonata; Lyric Pieces. Kocsis. PHILIPS 6514 115, Nov.

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MENDELSSOHN: String Quartets (complete). Melos Qt. DG 2740 267 (4), Sept.

MENDELSSOHN, TCHAIKOVSKY: Violin Concertos. Chung; Montreal Symphony, DuToit. LONDON LDR 71058, Oct.

MOZART: Opera Arias. Te Kanawa; London Symphony, C. Davis. PHILIPS 6514 319, Sept.

MOZART: Serenade No. 10, K. 361. Collegium Aureum. PRO ARTE PAD 137, Oct.

MOZART: Symphonies Nos. 38, 39. Bavarian Radio Symphony, Kubelik. CBS IM 36730, July.

PROKOFIEV: String Quartets Nos. 1, 2. Sequoia Qt. NONESUCH 79048-1, Nov.

PUCCINI: Orchestral Works; Operatic Excerpts. Berlin Radio Symphony, Chailly. LONDON LDR 71107, Nov.

SALLINEN: The Red Line. Valjakka, Hynninen, Kanu. FINLANDIA FA 102 (3), Nov.

SCHUBERT: Songs (16). Ameling, Baldwin. ETCETERA ETC 1009, Oct.

SCHUBERT: Symphony No. 9. London Philharmonic, Boult. EMI SXLP 30558, Sept.

TIPPETT: Concerto for Violin, Viola, Cello, and Orchestra. Pauk, Imai, Kirshbaum; Boston Symphony, C. Davis. PHILIPS 6514 209, Aug.

WAGNER: Operatic Excerpts. Various. SERAPHIM IG 6139 (7), Nov.

NELLIE MELBA: The American Recordings. RCA AUSTRALIA VRL 5-0365 (5), Nov.

1981; Badaea's was recorded at the festival's Italian home during a concert performance in 1979, and its indistinct orchestral and choral sound is plagued with all sorts of extraneous noise—everything from pages rustling and unedited applause (after the Gloria—but not at the end of the work) to a child loudly complaining after the first statement of the Kyrie to a persistent high-pitched chirping that gives you the impression the performance took place near an aviary.

ALLAN KOZINN

SCHUBERT: Die schöne Müllerin, D. 795.

Martyn Hill, tenor; Graham Johnson, piano. [Libor Mathauer, prod.] HYPERION A 66075. \$13.98 (distributed by Harmonia Mundi U.S.A., 2351 Westwood Blvd., Los Angeles, Calif. 90064).

This is the kind of performance one loves to encounter in the concert hall: a singer and pianist excited over the piece, sensitive to its and to each other's possibilities, energetically involved and involving. One can listen through at a sitting and relive afresh the familiar story. Hill has an ingratiating voice that has grown considerably in strength, vibrancy, and color since the records of the mid-'70s by which I first got to know him. I'm not sure this disc adds anything irreplaceable to the recorded history of *Schöne Müllerin*, but it proves competitive with the other stereo versions currently listed in SCHWANN and has several points of interest.

For the first time, as far as I know, the New Schubert Edition is used. (The fascinating Schreier version with guitar accompaniment, Seraphim S 60369, employs the vocal half of it, and there are a couple of European recordings I haven't caught up with yet.) It involves many minor changes. Most are improvements; none is revelatory; and one is a real disappointment: in "*Eifersucht und Stolz*," at the words "*Er*

schnitz," and "*und bläst*," the voice suspends D against the accompaniment's C major rather than moving up to the more urgent and optimistic E. I don't find this very convincing even from a purely musical standpoint (the chord shifts *before* the D resolves, not unheard-of, but atypical for Schubert), yet the editors have their reasons, and perhaps I'm just resistant to change.

A change I like, though, is the readiness of this pair to shape phrases with a kind of rubato that many modern performers seem to consider sentimental or over-Romantic. The great models for this in recent decades have been Pears and Britten, and I would not be surprised to learn that Hill and Graham had gotten to know the cycle through that pair's performances. But the influence has resulted not so much in imitation of specific interpretive choices as in absorption of a certain range of stylistic possibilities—the healthiest kind of learning-from-one's-elders.

It is precisely because this performance is so good, and because we need fine tenor Lieder-singers so badly, that it is worth detailing some reservations as well (as it would not be for a lesser artist). One is technical: Hill's legato is poor. At an obvious level, he has the habit of chopping apart notes that share a syllable with an "h" in between: This limits pleasure considerably in the first two songs but only now and then thereafter. More important and pervasive is the lack of even flow in declamatory and lyrical lines alike. Sometimes it is a matter of beginning each note without full resonance and then letting it swell; sometimes of hitting an attack hard and failing to follow through with solid tone. This is all the more a pity because Hill clearly *thinks* in sentences and phrases (in "*Der Jäger*," for instance, he sees more than the usual tour de force of spitting diction)—but his technique trips him up, and the result is often a

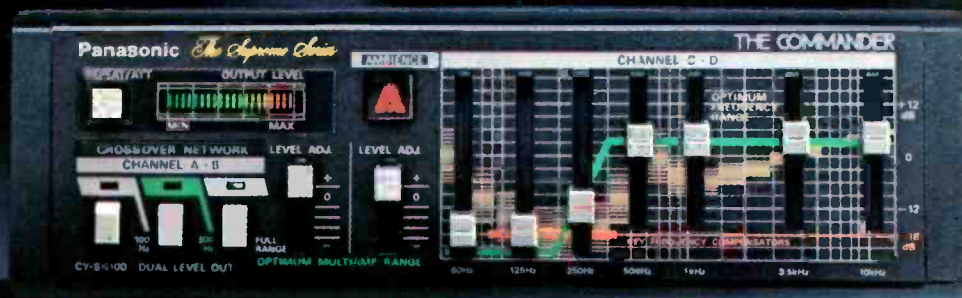
series of individual notes.

One also senses a certain lack of growth through the cycle. (Even early on, the simple narrative of "*Tränenregen*" does not broaden into the soul-filling experience that the third verse can be.) This cheerful, optimistic miller-lad, after all, is not a stable person. He is given to extremes of excitement, falls into obsessive, overwrought jealousy, and eventually fails to pull out of a suicidal depression. I was surprised to see, after listening, that the pianist's liner note reflects on just such things in the context of Schubert's life and illness, because with Hill the involved, engaging, passionate adolescent seems still with us, saddened only, at the end. Thus his cycle begins by gripping and relaxes its hold; in this he runs counter to Gedda, who starts with fine singing but nothing out of the ordinary, and finds in later pages the depressed melancholy of his Werther and Lenski.

The pianist shares in the legato problem. Perhaps he is imitating a fortepiano in his apparent determination to reduce "accompanimental" figures (and not just in the brook songs) to a transparent, insubstantial lightness. If so he should simply play one, because when he brings the "salient" musical material forward the effect on a modern grand is spiky, clinical, dry. But in many ways, and especially in his feeling for rhythm and rubato, he sustains handsomely his reputation as one of England's two or three top accompanists.

Footnote: Fischer-Dieskau's second recording of the cycle—his best—has just been deleted by Angel (SB 3628), and I'd advise buying it; his third is still available from DG (2530 544). But Fischer-Dieskau alone won't do for these songs: They are linked not so much to their original keys as to the *character* of a lyric tenor voice. Schiøtz's classic 1945 version is still on Seraphim (60140)—long may it live, but

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don't count on it—and is partnered, like Fischer-Dieskau's, by that master of legato Gerald Moore. WILL CRUTCHFIELD

VERDI: Opera Arias.

Anna Tomova-Sintov, soprano: Bulgarian Radio Vocal Ensemble. Sofia State Philharmonia Orchestra, Rouslan Raychev, cond. [Boris Angelov, prod.] TURNABOUT TV 34786, \$5.98. Cassette: CT 4786, \$5.98.

Aida: Ritorna vincitor; O patria mia. La Forza del Destino: Madre, pietosa vergine; Pace, pace, mio Dio. Otello: Piangea cantando . . . Ave Maria.

I haven't really been keeping up with complete opera recordings, especially Karajan's, to the prospect of which I've somehow developed an aversion. Since I didn't cross her path at the Metropolitan either, this disc constitutes my first exposure to Tomova-Sintov in anything more extended than the Brahms Requiem solo.

Basically, I'm impressed. Her voice has luster and some metal to it; the performances are idiomatic and committed; the technique permits negotiation of the music (the repertory on tap here doesn't allow for much beating around the bush). At times I could wish for a firmer tone, or a richer chest voice, and I would like a chance to judge the power of the highest notes in the house (the moment of truth in *Aida*—the high C of "*O patria mia*"—suggests that there may be some insecurity there as well). But on the whole my impression is that she stands to make at least as important a contribution in these roles as, say, Ghena Dimitrova, who is more talked about as a prospect for them these days.

Tomova-Sintov's interpretations are not gripping in a way that will make anyone forget long-held preferences in these arias. But if you're the kind of record buyer who wants all major singers represented in each branch of their repertoire (no condescension intended; so am I), you'll want this.

WILL CRUTCHFIELD

WOLF-FERRARI: Sly.

CAST:

Dolly	Deborah Polaski (s)
Rosalina	Monika Frimmer (s)
Sly	Hans-Dieter Bader (t)
Earl of Westmoreland	Klaus-Michael Reeh (b)
John Plake	Siegfried Haertel (bs)
Snare	Wolfram Bach (bs)

Chorus and Orchestra of the Niedersächsischen Staatsoper, Hanover, Robert Maxym, cond. ACANTA 23.501, \$32.94 (digital recording; three discs, manual sequence) (distributed by German News Co., 220 E. 86th St., New York, N.Y. 10028).

Ermanno Wolf-Ferrari's name means little to operagoers nowadays with the possible exception of his engaging one-act farce, *The Secret of Suzanne*, still a favorite curtain-raiser with small opera companies. Some listeners may have encountered one of his five full-length scores based on Goldoni comedies—*I quattro rusteghi* had a brief fling at the New York City Opera a

generation ago, and appeared in an old Cetra recording. Collectors with access to "private" discs may have heard several of the others. On the basis of this rather mea-

Sly, an unfairly neglected opera, is effective and strangely disturbing.

ger information, Wolf-Ferrari would seem to represent the last gasp of the Italian opera-buffa tradition, a purveyor of light-fingered trifles basking in the afterglow of Verdi's *Falstaff*.

The fragile, slightly wispy charm of these elegant confections is no doubt captivating up to a point, but for all their delicate wit, aristocratic detachment, and impeccable craftsmanship, they will probably always remain connoisseur items. Alfred Einstein once summed up Wolf-Ferrari's comic operas fairly enough: "Music becomes a gesture, a game with buffo elements of the past—a game written mainly for the pleasure of the creator, who, with all his charm, does not realize the effect of his harmless work. It is as if a *charmeur* told an old joke and spoiled the punch line by giggling prematurely."

Wolf-Ferrari deserted the world of buffa on just two occasions: once with *The Jewels of the Madonna* (1911), a lurid verismo melodrama that seems totally alien to his personality, and later with *Sly* (1927), an opera that defies easy categorization and adds an entirely new dimension to this otherwise easy-going farceur. The title refers to Christopher Sly, the drunken poet who appears in the prologue to *The Taming of the Shrew*. From that slender Shakespearian episode, and taking additional hints from Calderon, Giovacchino Forzano (the librettist of Puccini's *Suor Angelica* and *Gianni Schicchi*) wove a tragic allegory about society's brutally insensitive treatment of its artists. A heartless nobleman, the Earl of Westmoreland, takes advantage of Sly's habitually besotted condition by decking the poet in finery, cynically encouraging his visions, and persuading the entire court to pay him homage. The evil Earl even supplies Sly with a "faithful" wife, Dolly, who, during the masquerade, actually falls in love with the wretched creature. When the perverse hoax is revealed in an orgiastic climax, Sly is cruelly caged like a wild animal, mocked and reviled by his tormentors until the desperate man shatters a bottle of wine and slashes his wrists.

Sly puzzled critics when it was first

performed, although the public responded warmly enough to keep it circulating through Europe until the war years. Listening to this recording, one can scarcely fail to be impressed by the opera's centrality, considering the time of its composition. This was a period when many thoughtful composers were investigating the vulnerable role of the creative artist during a time of profound social and aesthetic upheaval—one need only think of Pfitzner's *Palestrina* (1917), Busoni's *Doktor Faust* (1925), and Hindemith's *Mathis der Maler* (1938). In many respects, the dramatic theme of *Sly* also parallels Berg's *Wozzeck* (1925).

Wolf-Ferrari devised a remarkably assured and superbly crafted score for this grim fable, one that in no way radically departs from his personal style as does much of *The Jewels of the Madonna*. The first two acts graphically illustrate the Earl of Westmoreland's cunning deception; the prevailingly light tone of the music, characterized by the composer's typically economic instrumental gestures and sure instincts for effective declamation, vividly describes the drunken revels in the alehouse, The Falcon, and the sinister diversissements at the Earl's castle, subtly masking the vicious underlying ironies of the true situation. Gradually the composer strips away the buffo elements, turning comic surreality into tragic reality with Sly's final monologue, a sequence that is positively coruscating in its expressive power. In a sensitively devised production and with a gifted singing actor in the title role (a pity that Jon Vickers never discovered this part), *Sly* could be a shattering piece of theater.

This recording, sung in German, is based on a successful 1982 revival in Hanover. The cast contains no outstanding voices, but the overall performance is a persuasive, carefully prepared ensemble effort by a company that obviously believes strongly in the opera. Hans-Dieter Bader, as Sly, carries the principal dramatic burden; a resourceful, intelligent singer, he never loses his grip on the role, although his slightly beefy tenor and characteristic German whine become a bit wearing over the long run. Robert Maxym, a young American conductor active in Germany for the past several years, is the major guiding force here, relishing the delicacy of Wolf-Ferrari's imaginative orchestral scoring but never allowing the instruments to obscure the overriding importance of the vocal line. Technically, the digital recording is first-rate, crisply defined, well balanced, and immediate; Acanta supplies a German-English synopsis, but no libretto in any language, an unpardonable omission. Perhaps these enterprising discs will inspire some adventurous American company to investigate *Sly*, an unfairly neglected, extraordinarily effective, and strangely disturbing opera.

PETER G. DAVIS

(Continued on page 84)

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John Field, 1782-1837

BETTMANN ARCHIVE

Field: An Irish Expatriot Who Beguiles the Ear

Reviewed by Irving Lowens

WE ARE ENAMORED of round numbers; every time a 200th birthday pops up on the chronological wheel, we make a big fuss. Just why, I don't know, since a 199th birthday and a 201st birthday occur no more and no less frequently than a 200th. Still, any excuse for a party is a good one.

It so happens that 1982 was John Field's bicentennial year. Not too many music lovers celebrated, but fortunately an Irish label, Claddagh records, remembered the occasion and brought out a fine recording of all seven Field piano concertos, sensitively performed by John O'Connor with accompaniment by the New Irish Chamber

Orchestra conducted by Janos Fürst. Since then, Claddagh has licensed the recording to Fidelio.

Field was born in Dublin, and Ireland has every right to be proud of him. But in fact, he was considerably more consequential in the history of Russian than of Irish music. His father emigrated to England in 1793, and at age eleven, Field had seen his native country for the last time. He left England for Russia in 1802 with Muzio Clementi (to whom he had been apprenticed in London) and, except for occasional concert tours in the West, lived there for the rest of his life. He was a tremendous favor-

ite in St. Petersburg and Moscow social circles, and something of a legend abroad. Field is buried in Moscow, and the Russians (with some justification) claim him as one of their own.

The history books tell us that John Field (1782-1837) was the inventor of the nocturne form, later to be perfected by Chopin. That's about all they tell us. At one time or another, you may have heard a Field Nocturne for the piano, probably No. 5, in B flat. It impressed you as pretty, but pale, and if you are like most of us, you dismissed Field and filed him away in your subconscious as one of the myriad second-rate talents who fades away into the mists of the past and deserves to do so.

Those Nocturnes were the death of him. Chopin's were infinitely better. It is a pity that Field has come down to us only through his Nocturnes, because you don't really know his music if you know only a Nocturne or two. Liszt was aware of this, but few others were. "For Field," Liszt once wrote, "art consisted in the satisfaction he found in giving himself up to it. He was hardly worried about anything else, about the position which would be assigned to him, about the fame he would achieve, or about the success and survival of his works. Field sang to himself. If he pleased himself, that was enough. He asked nothing more of music. If he composed, that was a kind of diversion. Many of his works (unfortunately too few), particularly his concertos, are full of pages of striking originality and of incontrovertible harmonic merit."

Since the Field piano concertos are never performed, and since Claddagh/Fidelio are the first to make them available on disc, the listener is only now in a position to estimate the extent of Field's creative gift and to gauge the accuracy of Liszt's observation. Judging from the concertos, it is plain that Field is a much more interesting composer than his current reputation indicates.

Take, for example, the Piano Concerto No. 1, in E flat (Field made life miserable for scholars by writing three of his first four concertos in the same E flat key), which Field introduced in London in 1799, when he was seventeen. It gets off to an unpromising start with a rather pedestrian orchestral tutti, but when the piano enters, the lis-

As we go to press we are saddened to learn of the death of Irving Lowens on November 14. In addition to his many years as a contributor to HF, Mr. Lowens was chief music critic of the now-defunct Washington Star, Dean Emeritus of the Peabody Institute, and author of several books on American music.—Ed.

tener is suddenly in an entirely different world—a world in which Chopin was later to be first citizen. The second movement is an utter charmer—a delicate arrangement of James Hook's pseudo Scottish folksong, "Within a Mile of Edinboro' Town"—and the finale is delightfully naïve. One doesn't hear Mozart or Haydn or Beethoven in this work. One hears such worthies as Dussek, Giordani, Steibelt, Viotti, and, at times, the voice of a true original—John Field. This is, not surprisingly, an immature but still remarkably accomplished work.

The Concerto No. 2, in A flat (the chronology of the next three concertos is uncertain—all were published at the same time), marks a quantum leap forward. Here, strength and imagination take the place of promise. Yes, there are touches of Beethoven, but more important is the spirit of romanticism with which the work is imbued.

The A flat was once a staple of the repertory—played by such giants as Clara Wieck, Hans von Bülow, Nikolai Rubinstein, and Vladimir de Pachmann. Arthur Friedheim (in St. Petersburg) and Mark Hambourg (in Moscow) made their debuts with the work. But I have not heard a live performance in the half-century during which I have been going to concerts. It is a pity, since it is a charming work and deserves an occasional hearing.

The unique characteristic of Field's writing, both here and in the concertos that were to follow, was the extraordinary loveliness of his embellished melodic lines. If Field was deficient in an architectural sense and really did not understand the nature of development, in the Beethovenian sense, he had an instinctive knack for variation, and the way in which he could weave magical garlands around a simple melody was absolutely ravishing. The loveliness does tend to pall after the third or fourth repetition, and almost everything could have been improved with some judicious pruning, but that was not Field's way. We have to take him as he is.

The Concerto No. 3, probably written before No. 2, is in two movements. That's the way Field composed it. However, there is evidence that he sometimes used his famous Nocturne No. 5 in a version for piano and orchestra for the slow movement, and that's how the concerto is performed here. It fits beautifully. The finale, a polonaise, is reminiscent of Glinka in its fiery stateliness. This is a winning work—a shade too long, but quite supportable.

Perhaps the finest of the entire set is the fourth concerto, a piece that is distinguished by a particularly lovely siciliano as a slow movement, some real surprises in the finale, and exceptionally subtle treatment of the orchestra. No. 5, subtitled *L'Incendie par l'orage*, was probably inspired

by Steibelt's Piano Concerto No. 3, which included in its finale a naïve representation of a storm and which achieved tremendous popularity in its day. It is among the weaker Field concertos, although at one time it was considered a masterpiece, and its insistence on the key of C major allows it to overstay its welcome. No. 6 strikes me as the only out-and-out failure of the seven, and No. 7, in C minor (the only one in a minor key), is unusual for its dark, at times even tragic mood. It suffers a bit from its excessive length, even though some judicious cuts were made in the recording.

The Irish scholar Patrick Piggott, who has written a first-rate biography of Field, succinctly sums up the merits of this set in his excellent notes on the recording: "The full range of Field's pianistic mastery . . . is . . . exactly reflected in his seven concertos. In these works the composer's own dazzling finger technique, which was freed from any element of percussion, and his easy, fluent virtuosity are the very *raison d'être* of their ever-inventive pianism. Admittedly not all the concertos are faultless. Some of them are structurally weak and several of them contain a good deal of padding. But their felicities of melody, their remarkably forward-looking harmony, and the brilliance of their solo parts can hold the attention even when their form becomes uncertain or where the flame of inspiration begins to flutter dangerously. Like those of many other virtuoso composers of the nineteenth century, Field's concertos were out of fashion for many years. Recently, however, such music has begun to regain popularity through its new availability on records and cassettes. This first complete recording of Field's important contribution to the concerto repertoire may be expected, therefore, not only to arouse interest and to give pleasure but to prepare the way for the return of his concertos to the concert hall."

To which one can only say Amen.

Fortunately, John O'Connor has the same kind of silvery touch that must have distinguished John Field's virtuosity in the nineteenth century, as well as a very evident sympathy for Field's music, and he gets excellent support from the New Irish Chamber Orchestra. The surfaces are silent and the engineering is exemplary. The set can be recommended to the adventurous without reservation. **HF**

FIELD: Concertos for Piano and Orchestra (7).

John O'Connor, piano; New Irish Chamber Orchestra, Janos Fürst, cond. [James Mallinson, prod.] FIDELIO CSM 55-58, \$31.92 (four discs) (distributed by Qualiton Records, 39-28 Crescent St., Long Island City, N.Y. 11101).

Concertos: No. 1, in E flat; No. 2, in A flat; No. 3, in E flat; No. 4, in E flat; No. 5, in C (*L'Incendie par l'orage*); No. 6, in C; No. 7, in C minor.

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(Continued from page 80)

Recitals and Miscellany

MARIA CALLAS: In Paris.

Maria Callas, soprano: Orchestre National de la Radiodiffusion Française*†, Paris Conservatory Orchestra‡, Georges Prêtre, cond. [Walter Legge, prod.] ANGEL SB 3950, \$19.96 (two discs, manual sequence). Cassettes (2): 4X2S 3950, \$19.96. [* Previously unreleased, recorded 1961; from †S 35882, 1961, and ‡S 36147, 1963.]

BERLIOZ: La Damnation de Faust: D'amour l'ardente flamme.‡ BIZET: Les Pêcheurs de perles: Me voilà seule . . . Comme autrefois dans la nuit sombre.‡ Carmen: Habanera: Séguedille.† CHARPENTIER: Louise: Depuis le jour.† GLUCK: Alceste: Divinités du Styx.† Orfeo ed Euridice: Che farò senza Euridice (in French).† Iphigénie en Tauride: O malheureuse Iphigénie.‡ GOUNOD: Faust: Il était un roi de Thulé . . . Jewel Song.‡ Roméo et Juliette: Je veux vivre dans ce rêve.† MASSENET: Manon: Je ne suis que faiblesse . . . Adieu, notre petite table: Suis-je gentille . . . Je marche sur tous les chemins.‡ Le Cid: Pleurez, pleurez, mes yeux.† Werther: Letter Scene.‡ SAINT-SAËNS: Samson et Dalila: Printemps qui commence†; Amour, viens aider ma faiblesse†; Mon cœur s'ouvre à ta voix*. THOMAS: Mignon: Je suis Titania.†

Collectors who don't already own the 1961 and 1963 half-soprano, half-mezzo French-aria recitals herein reissued can now acquire some of the more attractive morsels of the later Callas discography and at the same time get the newly published "*Mon cœur s'ouvre à ta voix*," to my ears even more successful than the other *Samson* excerpts recorded in 1961. Hearing the "*Mon cœur*" before encountering Michel Glotz's explanation for its suppression, I was most struck by the intensity of those treacherous pairs of long descending phrases (beginning "*Ah! réponds*" and "*Verse-moi*"); it turns out that Callas was upset by "unmusical breathing" in these very phrases—if all artists maintained such standards, how many records do you suppose would get issued these days?

At the time of these recordings, it looked as if a new repertory had opened up for Callas, and if she had been able to hold together this delicate vocal balance, in which only the squally top was a trial, what might she have done with such roles—besides Carmen, which she did record—as Berlioz's Marguerite, Orfeo, Charlotte in *Werther*? And of course Dalila. Can you imagine the scene with the High Priest with the Bacquier of the mid-Sixties? Which is not to say that the soprano selections are without interest. Even such improbable repertory as Philine's coloratura showpiece from *Mignon* takes on new life given this brand of musical and verbal specificity, and

of course an aria of the dramatic heat of Alceste's "*Divinités du Styx*" is made for such treatment.

Prêtre's accompaniments are surprisingly well behaved—maybe a little *too* well behaved. The two programs have been left in their original sequences, with "*Mon cœur*" inserted at the beginning of Side 2 of the 1961 disc. (Some simple shuffling would have gotten all three *Samson* selections on the same side.) Complete texts are



Callas: in '61, half soprano, half mezzo

included, but Andrew Porter's number-by-number notes for the 1961 program have been chopped down to plot sketches.

Collectors who *do* have the original recitals are in a fix. The "*Mon cœur*" has been issued in France on a disc (EMI 2C 059-43263) filled out with selections from Callas's complete stereo operas, which may make it no better a buy than the Angel set. KENNETH FURIE

SALACIOUS CHANSONS AND OTHER RENAISSANCE RIBALDRY.

New York Ensemble for Early Music's Gleemen, Frederick Renz, dir. [Frederick J. Bashour and Jeffrey Nissim, prod.] MUSICAL HERITAGE MHS 4708, \$7.75 (\$4.95 to members) (add \$1.95 for shipping: Musical Heritage Society, 14 Park Rd., Tinton Falls, N.J. 07724).

BRUHIER: Frapes petit coup, petit Jehan mon amy; La douleur de mon con, père. W. CORNYSH: Blow Thy Horn Hunter: Ah, Robin, Gentle Robin. W. CORNYSH II: Hoyda, Hoyda, Jolly Rutterkin. R. COWPER: I Have Been a Foster. HENRICUS MORINENSIS: Je m'efie en tout le monde. HENRY VIII: Pastime with Good Company; Green Groweth the Holly; Helas madame. MOUTON: Je le lairay puisqu'il me bat. NINOT LE PETIT: Et leves vo gambe, Jennette: Nostre chamberière, si malade elle est; Mon amy m'avoit promis. ANON.: England, Be Glad; Tapster, Drinker, Fill Another Ale; Be Peace! Ye Make Me Spill My Ale; Up I Arose in verno tempore; Now Let Us Sing: My Heartly Service (The Pleugh Song); The Gowans Are Gay.

How racy can it be, you wonder? Plenty. Don't be led astray by the blunt album title, the demure cover art, or Lucy Cross's jacket scholarship on the provenance of the post-Burgundian chanson. In "*Frapes petit coup, petit Jehan mon amy*," the Gleemen sing in the person of a girl between the sheets with an eager lover. Short strokes, she pleads, or Maman will hear! Marion of "*Mon amy m'avoit promis*" learns (not, evidently, entirely to her dismay) that the price of a sash is a torn placket. In her first heat, the maiden of "*La douleur de mon con*" asks what to do about the pain in her crotch. (Cross's translation, here as elsewhere, obscures the matter, but the original phrases the question less delicately still.) Her parents' remedies—a lump of coal, an ee!—do no good. Her brother advises her to try her buddy's tool, which, thanks be to Our Lady, does quench the fire. The improprieties are not in the words only. The impetuous meters play their part, as do the zestily woven textures and the lusty melodies. At times, in fact, the music spouts into those spontaneous, unbridled voicings our language used to call ejaculations.

But it isn't all sparks in dark chinks. does stricken but not wounded, and taut codpieces snapping their laces. Drunkenness, that time-honored sauce to wenching and tuneable good fellowship, is commemorated, too, though not so often as one might expect. The selections that round out the recital treat matters far removed from the advertised concerns. The foster turned out of Venus's court because he can no longer shoot may pass as a butt of coarse jest, and, in some circles, the figure of a beaten wife leaving her (cuckolded) husband might excite some grim, misogynist merriment. But where is the fun when an unwed mother puzzles over what to do with her newborn priest-fathered baby—keep or kill it? Poetic contrivance—line by line, the poem is half English, half Latin—renders the dilemma all the more piteous. But there are also songs of courtly love in which the tyrannical passion displays a friendlier face.

The quality of the material varies, of course, and of course there is no correlation between ribaldry and musical interest. "*Et leves vo gambe, Jennette*" is ribald and not interesting. "*Helas madame*" is interesting and not ribald. The protominimalist droning of "*The Pleugh Song*" is neither interesting nor ribald. The aforementioned "*Frapes petit coup*," "*La douleur de mon con*," and "*Mon amy m'avoit promis*" are both, and so it goes. From Henry VIII comes one of the least imaginative numbers of the set, but also the gem "*Green Groweth the Holly*" with its twining voices. Here, the Gleemen fan in and out of unison with the smooth suddenness of a light beam, aimed through a prism, breaking at a tilt into a band of rainbow and blending back to white. The mystical purity they lend the lyric defines one pole of their collective

COURTESY ANGEL RECORDS

Before Moulin Rouge, There Was Margot

Reviewed by
Matthew Gurewitsch

Melanie Sonnenberg as
Margot in the Saint Louis
premiere of Margot la Rouge.



KEVIN HOWARD/COURTESY OPERA THEATER OF SAINT LOUIS

APART FROM ERIC FENBY, who has devoted a lifetime to the music of Frederick Delius (going so far as to spend six years transcribing the all but unintelligible growls and mutters of the blind, paralytic recluse into musical texts for a whole series of choral, chamber, and orchestral works), even the composer's most ardent worshipers must confess him to be, in the pantheon of the immortals, a minor, if distinctive, deity. In opera, his altar might be said to have collapsed—if one had ever been raised in the first place. Now that his stage works do turn up once in a blue moon, his cult is in fact flourishing as never before. Beecham, though a champion of new music and especially of the indigenous product, scoffed at *Fennimore and Gerda* and its elliptical scenes that Delius called "pictures," but, perhaps because he was the score's dedicatee, did put it on. Other works lay neglected until well into the 1970s. The 40-minute one-act *Margot la Rouge* was entered in the publisher Sanzogno's Concorso Melodrammatico Internazionale (a competition that some two decades before had attracted the young winner Mascagni and launched the only one of his operas to enjoy a worldwide afterlife), but the lurid little shocker drew no notice. With Fenby's help, Delius many years later cannibalized the score for a "new" work to lines of Whitman, entitled *Idyll*, but *Margot* itself lay in various drawers until 1981, when it was recorded for broadcast by the BBC under the baton of Norman del Mar.

As misfortune would have it, Del Mar's premiere was prepared from an inauthentic edition recently commissioned from Fenby by the quixotic Delius Trust, the full score having been presumed lost. What survived was the piano reduction (by Ravel!), and the parts recycled in *Idyll*. But even as the artists were converging on Opera The-

ater of Saint Louis for rehearsals for the world's stage premiere this past June, the Delius manuscript turned up, and where? In the holdings of the Delius Trust, which, though credited as sponsor for the Opera Theater production, for reasons that at an outsider's remove remain unfathomable, would not be persuaded to release the rediscovered materials to the company's general director, Richard Gaddes, until seconds before countdown—and possibly then only thanks to the campaign waged by Pulitzer Prize-winning music critic Frank Peters in transatlantic phone calls and in the pages of the *St. Louis Post-Dispatch*. (Indeed, approval to use the Urtext came so late, the sumptuous souvenir program went to press with the misinformation that "Eric Fenby's orchestration is what we shall hear in the present performances." Fenby, who was leading the first stage production of his long career, no doubt rejoiced more than anyone at the error.)

In light of all this, the recording one might, in theory, like to have is not Del Mar's with the BBC but Fenby's with Opera Theater of Saint Louis (which may yet, via a local or national broadcast, surface in the limbo of piracies); the imprint of Delius lies as deeply in the timbres he weaves of amber winds and dusky basses as in the narcotic decadence of his drifting melodies. On the other hand, until a detailed study of the textual variants appears, there is little reason to suppose that Fenby the orchestrator, with the *Idyll* score (containing about two-fifths of the *Margot* material) before him and his alter-ego-like intimacy with Delius's creative processes to guide him, strayed far from the composer's intent and means, and Del Mar's lush reading of the Fenby arrangement does have the advantage of being (as the St. Louis show was not) in the original French.

And language matters. Margot la Rouge (née Marguerite), a moody prostitute, loftily walks the Paris streets under the protection of a possessive sadist known as "L'Artiste," whose love she does not return. One dark and stormy night, three soldiers blow into the tavern where she hangs out, and the silent woman, though a redhead, reminds one of them, Thibault, of his long-lost blonde country darling, Marguerite, presumed dead. I will refrain from spoiling the story, but the kick of the messy ending depends on a punning concinnity between phrase and stage picture that in translation requires the hobbling support of a footnote. The libretto, by the pseudonymous nobody Rosenthal (what more do we know when "he" is identified, as has recently been done, as one Berthe Gaston-Danville?), is the stuff of dime novels, and the images it calls to mind—the glad rags, the gaslight, the squalor—are those of Toulouse-Lautrec.

The music suggests something else: the movies. The director Frank Corsaro and the stage designer Ronald Chase, the two people responsible for such visibility as the stage works of Delius have latterly enjoyed in this country, might wince at such a judgment, but they have done everything to reinforce it. "All [the major Delius operas] were troublesome in their own time, presenting musical and dramatic problems impossible to solve in conventional productions," wrote Corsaro in a program note for the Saint Louis *Margot*. "Our multimedia approach . . . gives these operas the kind of mobility the music requires—adding a dramatic dimension to its inimitable mixture of vocal and orchestral elements, thus making it possible for them to shine in their own particular way." Operas that have won wider acceptance than those of Delius have not needed to add "a dramatic dimension" to the "vocal and orchestral elements," since it is precisely in those elements that their dramatic dimension principally resides. Far from vindicating Delius, Corsaro and Chase have confirmed his unworthiness as a composer for the stage, and dealt him another, apter, place in music history as the great forerunner of such sonic decorators of celluloid epic as Erich Korngold, Miklós Rózsa, and Alex North.

For Corsaro and Chase's multimedia approach is nothing more or less than the transformation of living theater into cinema. The Saint Louis *Margot* (which I did not see but have good intelligence on) was the last in a series of Delius moving pictures. *A Village Romeo and Juliet*, shown some years back at the New York City Opera, combined front and back projections with minimal built scenery and props in a continuous gauzy Alpine fantasia in which Harold Schonberg of the *New York Times* professed to glimpse the operatic millennium. *Fennimore and Gerda*,

mounted in Saint Louis in 1981, employed only front projections (enhancing the cinematic illusion at key points by the use of a turntable), but on a scrim curved like a giant lampshade to mask the Loretto-Hilton Center's thrust stage. For this one (a sort of Nordic *Jules et Jim* followed by a conciliatory coda in which the world-weary survivor of a gloomy ménage à trois finds peace in the love of a young innocent). Chase strung together every visual cliché in the book, from sparkling spring waters, (monstrously scaled) chirping sparrows, and blowing autumn leaves to steeped Old World skylines and lace curtains adazzle in shafts of light. At one supreme, regenerative moment, a rainbow arched over towering pines. By movie-house standards, the pictures were gray and dim, but the pieces all harmonized, and in international operatic circles, the show caused such a stir that the company was invited to revive it at this year's Edinburgh Festival. There it had to be adapted to a conventional proscenium house, which must have made it feel even more like a movie, hence even less like theater (probably with the result that its truly remarkable features—a sonorous performance by Stephen Dickson as the faith-breaker Niels and a high-strung, detailed, richly colored one by Kathryn Bouleyn as the existentially discontented Fennimore—were even further absorbed into the imagist maelstrom).

Delius's music accommodates the transformation: Its soul is lyric, and its finest moments come in the interstices of action. In *Margot*, the vocal writing has a generalized verismo élan (in the main, well served by the BBC cast, though Kenneth Woollam's Thibault is wooden beyond the constraints built into his thankless part), but what sticks in mind is the whipping down-pour, the whiffling wind, and most of all, the introduction. Close your eyes to these cradling strains, and the dappled light of sunset through the leaves will play over the quiet waters of the Seine for you—all in gleaming Technicolor. **HF**

DELIUS: Margot la Rouge.

CAST:

Margot la Rouge	Lois McDonall (s)
Lili Béguin	Ludmilla Andrew (s)
Nini/First Woman	Margaret Field (s)
Second Woman	Phyllis Cannan (ms)
The Licensee/Third Woman	Ann Collins (a)
Sergeant Thibault	Kenneth Woollam (t)
L'Artiste	Malcolm Donnelly (b)
La Poigne	Richard Jackson (b)
First Drinker/First Soldier	

David Wilson-Johnson (b)

Second Drinker/Second Soldier Alan Watt (b)
 Totor/The Police Inspector Dennis Wicks (bs)
 BBC Concert Orchestra, Norman del Mar, cond. [Sylvia Cartner, prod.] ARABESQUE
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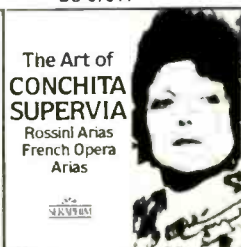
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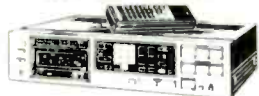
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CLASSICAL Reviews

(Continued from page 85)

score.

The second movement, "Vessels," one of Glass's most attractive pieces, begins with an ethereal a cappella choral section—bittersweet, chromatic, and gorgeously polyphonic. A false cadence is followed by one of Glass's signature moves, a quick, arpeggiated chord sequence on an electronic keyboard. This becomes an energetic accompaniment as the chorus returns with an elaboration of its earlier material. By the end of the movement, the swirling organ part has abandoned its strictly accompanying role to interact more directly with the choral shapes.

Equally intriguing for its New Wave twisting of convention is the symphonic "Pruit Igoe," a movement that, in the film, accompanies images of high-rise apartment buildings crumbling into clouds of dust. Glass introduces the section with a winding, low string figure, muted and dark-toned. This depressing atmosphere gives way to sinister vehemence when Glass brings in his arpeggiated bass, his cutting brass figures, and, eventually, his choristers. The winding string figure returns between energetic arpeggiated sections, but this time scored with a Beethovenian ferocity, punctuated by brass chords and a solo trumpet whose line strives upward as the string line descends. Gripping and grim, the last half of the movement's orchestration edges its way between Berlioz and Wagner, though the basic materials never stray far from characteristic Glass. In *Satyagraha*, this paradox is taken to an even greater extreme.

"Cloudscapes" is somehow less fascinating, perhaps because its brass orchestration uneasily pairs a ponderous, lethargic bass with crisp, bright, staccato trumpets, in material that doesn't go anywhere. And amid all this orchestral and choral work, "The Grid" seems almost a nostalgic concession. Though it, too, takes in brass figures and choral embellishment, it is the only movement that brings together all the hallmarks of pre-operative Glass: the non-stop swirling keyboard patterns, the manic bass ostinato, the honking reeds, the slow moving syllabic vocal parts that define the tonalities of the figures rushing by underneath them, and the feeling of gradual development over an extended period.

The recording itself is vivid and well balanced. It is particularly impressive in the lower reaches, where the organ pedals and the bass soloist conspire to shake the walls. Some may be curious about the disc's appearance on Antilles, a pop label. It seems that CBS turned down this intriguing score, just as it originally turned down, but later agreed to record, Glass's finest work to date, *Satyagraha*. Given that the company had at one point announced an exclusive contract with Glass, its approach to releasing his work seems a bit arbitrary.

ALLAN KOZINN

The Tape Deck

Critiques of new cassette and open-reel releases by R. D. Darrell

Proliferations

It's particularly good to welcome three just-launched subseries that admirably extend and diversify the scope of two familiar catalogs. These enticing proliferations are led by Pro Arte/Intersound, which takes over general distribution of the distinguished Smithsonian Collection of Recordings. The SCR subseries features early American and classical masterpieces played on period instruments, a series previously available only from the Smithsonian Institution itself. Inexhaustibly enterprising, Pro Arte/Intersound also introduces a mid-priced Sinfonia subseries of digitally recorded standard-repertoire programs (mostly of East German origin) in chrome tapings complete with notes. More mid-priced chrome cassettes—with the added feature of European equalization at 120 microseconds rather than the normal American-chrome 70 microseconds—bear Sine Qua Non's new Seven Star Chromium rubric and boast imported Swiss shells, head-cleaning leaders, and notes for programs drawn from various sources as well as SQN originals.

From Pro Arte/Intersound's extensive Smithsonian series, I've heard the two most ambitious projects, each in two cassettes (vs. three-disc equivalents) nestling in a disc-sized box with the handsome original booklets of richly informative notes, texts, and personnel and instrument documentations. While each is a period-instrument American first, prime honors go to the Bach *Brandenburg* Concertos from the 1977 Aston Magna Festival, which are led by Albert Fuller and star such international specialist-soloists as Jaap Schröder, Bernard Krainis, Michel Piquet, and Friedemann Immer (NC 016, \$37.98). The playing is exceptionally skillful, stylistically idiomatic, enlivened with personal relish, and recorded with admirable balances and gleaming clarity. *Vis-à-vis* other authentic versions, this one may lack some of the Harmoncourt/Telefunken's dramatic individuality, the Pinnock/Archiv's bravura, and the more pungent tonal quality of most period instruments. But it's just such dulcetly appealing sonics that make this a near-ideal introduction to the "period" genre in general as well as the Bach *Brandenburgs* in particular.

The 1980 Handel *Messiah* in the Smithsonian series proffers engaging young American soloists, the American

Boychqir with the Norman Scribner Chorus tenors and basses, and the Smithsonian Chamber Players (original or replica period instruments) under James Weaver (analog/chrome NC 025, \$37.98). It, too, has many attractions, not least being vocal freshness and intelligibility. But some soloists are still stylistically anachronistic, and the playing is occasionally labored, not vividly recorded, and seldom dramatically gripping.

Sinfonias and Seven Stars. My first few releases in the Sinfonia subseries distributed by Pro Arte/Intersound range from unexpected excellence to respectable competence. The prizewinner is the best modern-instrument Bach Orchestral Suites I've yet encountered, incomparable for the contagious zestfulness of its enthusiastic young players: the indeed "New" Bach Collegium Musicum (Leipzig Gewandhaus members) under Max Pommer (doubleplay, 2CX 700, \$14.98). This is a digital/chrome tape, as are all Sinfonia releases. They include the somewhat heavy-handed and unexciting Beethoven Fifth and Seventh (SCS 601 and 600 respectively, \$7.98 each) by Herbert Kegel and the Dresden Philharmonic, and the rather lightweight Schubert Third and Fourth by John Perras and the Vienna Symphony (SCS 603, \$7.98).

Of Sine Qua Non's initial tapes in the Seven Star Chromium series (\$7.98 each), the first three I've heard could hardly be more different. The most impressive is the digital Tjeknavorian/London Symphony Orchestra recording of Rimsky-Korsakov's *Scheherazade* (79056), which may not quite match the original Chalfont LP [see December 1980] or the later DBX-encoded disc editions, but which certainly costs far less! Neither the strong nationalistic and feminist appeals of the pioneering Amy Beach's songs and violin pieces (79061, no texts), nor the Northeastern University's persuasive D'Anna Fortunato/Joseph Silverstein/Virginia Eskin performances, are enough to convince me that this is anything but fastidiously elegant salon music. What I relished most turned out to be an old friend, for "American Brass Band Premières" (79032) is an unacknowledged retaping of Frederick Fennell's superb "American Brass Band Journal Revisited" [see "Tape Deck," October 1978]—a spellbinding evocation of long-ago summer bandstand entertainment, now played with a precision and brilliance undreamed-of then.

Silver Rose debut. Delays in the unexpected first tape representations of

Vox founder George Mendelssohn's new Pantheon line leave me with only one label debut this month: Silver Rose's "European Climates" (HB3 3031, no notes, \$8.98; P.O. Box 19935, Atlanta, Ga. 30325). This is an all-round first-rate introduction to not-so-far-out, quite mellifluous minimalism, synthetic/acoustic timbre combinations, and multitrack overdubbing. Included are Howard Wershil's title piece, three by Jill Fraser, Dutch Knotts, and Terry Nichols, and a more dramatic Wershil/Nichols collaboration. *Jericho*.

Welcome back! It is pure chance, nothing else, that has left several old-friend labels too long unrepresented here. Hence my special welcome for a triple homecoming. Ward Botsford continues his invaluable Arabesque series of mono milestones with the matchless Gerard Hüsch/Hans Udo Müller duo's still near-definitive Beethoven *And die ferne Geliebte*, augmented by their Schumann *Dichterliebe* cycle (previously unreleased in the U.S.) and four Brahms and Schubert Lieder masterpieces (9136, \$7.98; documentation but no notes or texts; labels reversed on my copy).

Everest still disdains notes, texts, or any real documentation, but at least the mechanical processing (no longer manufactured in Mexico) is markedly improved and there is further well-off-the-beaten-path repertoire. Witness John McCarthy's unaccompanied Ambrosian Singers in a fervently moving Renaissance Advent-to-Christmas church-music recital (3492, \$5.98).

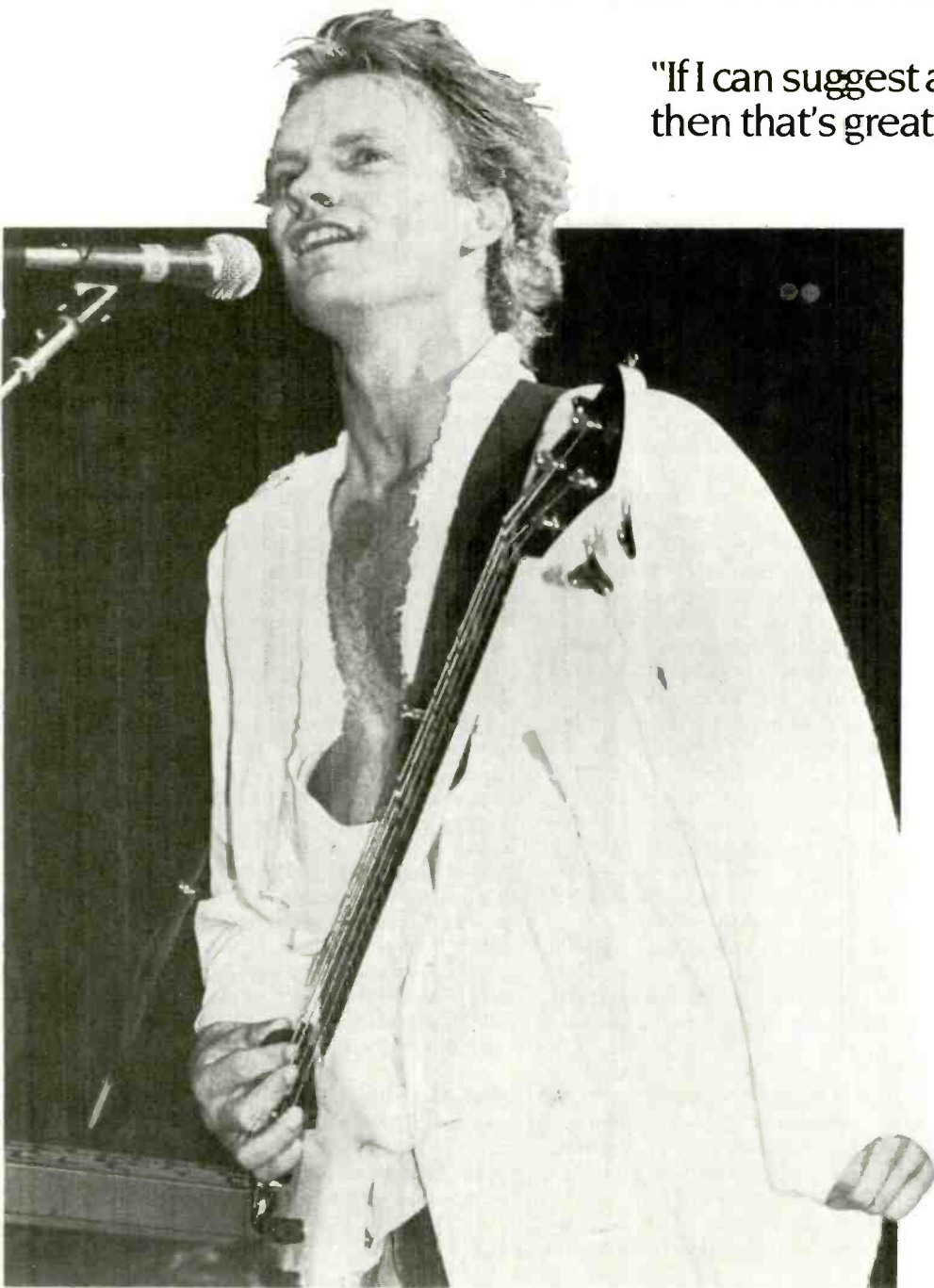
The Musical Heritage Society (14 Park Rd., Tinton Falls, N.J. 07724) currently purveys more widely appealing, yet no less substantial fare—notably a long-needed Purcell *Dido and Aeneas* that genuinely restores for the first time the nature and proportions of the original girls'-school production. The soloists are professionals, to be sure, but they sing with truly youthful zest and charm. Together, the soloists (especially Emma Kirkby and Judith Nelson) and the Taverner Choir and (period-instrument) Players are a sheer joy in this vividly lucid Chandos recording (digital/chrome MHC 6760; no texts; \$9.95; \$7.95 to members; plus \$1.95 shipping).

Belated credit is due the International Book and Record Distributors (40-11 24th St., Long Island City, N.Y. 11101) for providing the representative EMI "Portrait of the Artist" double-play cassettes reviewed in the December 1983 "Tape Deck" column. **HF**

BACKBEAT[®]

Sting: Rock 'n' Roll Intellectual

"If I can suggest a reading list in my songs, then that's great."



by Samuel Graham

IT ISN'T OFTEN THAT commercial success and genuine artistic achievement collide on the record charts these days, but when they do, the results can be spectacular. Case in point: the Police's "Synchronicity."

Consider the statistics. When the following interview was conducted, *Every Breath You Take*, the first single from that LP, was enjoying its sixth consecutive week as *Billboard's* No. 1 pop hit. That made it the top-charting single in the history of A&M records—i.e., bigger than Herb Alpert, the Carpenters, or Cat Stevens. *Every Breath* dropped from that slot two weeks later, by which time its successor, *King of Pain*, was moving into the Top 20. As of this writing, "Synchronicity" has been the top-selling LP for 12 weeks and has sold some three million copies, making it by far the most successful of the Police's five albums.

If the numbers are impressive, so is the music. Despite occasional lapses—like guitarist Andy Summers's virtually unendurable *Mother*—"Synchronicity" (see BACKBEAT, August '83) is a multilayered, masterful piece of work. Summers, drummer Stewart Copeland, and bass guitarist/vocalist Sting all play their instruments better than average rock and rollers. Yet their technical facility, surprisingly enough, results in a whole greater than the sum of its parts, a sound that emphasizes overall texture more than individual flash. What's more, the Police are unusually literate—particularly Sting, who was responsible for eight of this album's ten songs. True, *Walking in Your Footsteps*, his paean to the dinosaur, is a tad fatuous ("You were built three stories high/They say you would not hurt a

EBET ROBERTS

fly"). Elsewhere, however, Sting has incorporated references to Homer (in *Wrapped Around Your Finger*), author/composer Paul Bowles (*Tea in the Sahara*), and others with admirable lack of pretension.

Despite Sting's dominant role, it was Copeland who founded the group, early in 1977. An American fresh off a stint with English art-rockers Curved Air, he yearned for a band with a leaner, more economical approach. Copeland recruited Sting (né Gordon Sumner)—a schoolteacher and sometime jazz bassist from Newcastle, England—and guitarist Henri Padovani. The trio recorded a single (*Fall Out*) for Copeland's own label, Illegal records. Summers entered the picture later that year, bringing extensive experience with the Animals, Kevin Ayers, Kevin Coyne, and the Soft Machine. Padovani left soon thereafter, and the current lineup made its debut on August 18, 1977.

With the success of *Can't Stand Losing You* and *Roxanne*, a reggae-inflected ditty that remains one of the group's most appealing records, A&M hurried to release the Police's first album, "Outlandos d'Amour." It cost a reported \$6,000 to make, a real bargain even during the heyday of punk. Late in '78, the group made its first U.S. tour in a station wagon with a road crew of one, creating their own word of mouth from city to city. With the help of older brother Miles's zealous management, Copeland's ideal was becoming reality. And as the albums ("Reggatta de Blanc," "Zenyatta Mondatta," "Ghost in the Machine") and singles (*Message in a Bottle*, *Don't Stand So Close to Me*, *Every Little Thing She Does Is Magic*) kept coming, the small profit from that first tour quickly became a veritable fortune.

The Police were in the midst of a massive American tour when Sting and I spoke. His voice was somewhat ravaged by laryngitis, but I found him quite cordial and responsive, nonetheless. And concerning that fine line between self-assurance and arrogance, Sting seems to be safely on the former side, reports to the contrary notwithstanding.

Backbeat: A lot of people—including your own manager, Miles Copeland—have been saying lately that "new music" has really arrived, and your band is certainly among its leaders. But isn't it ironic that the Police should be leading the charge with a tune [*Every Breath You Take*] that's based on I-VI-IV-V—one of the oldest chord progressions in pop music?

Sting: Absolutely. But as archaic and as traditional as those chord changes are, there's something in the way they're played, or in the mix, or in the song itself, that's different. It's subtle, but it *does* sound modern. There's a sinister edge to the song that a lot of people miss.

But the chord changes in the "new

music" aren't even as imaginative as those in *Every Breath*. Usually, it's two chords and about three synthesizer riffs that bands seem to swap among themselves. The more I hear of it, the more samey it gets.

So if we're leading the charge, we've led it up a sidetrack. I don't have any responsibility to other groups. If they want to take our lead, I don't really care. I care about the Police being different and unique, and any strategy that will bring that about is the one worth taking. At the same time, I don't want the Police to sound like the Police. I think we sound a little different with "Synchronicity."

Backbeat: You've mentioned that you went out of your way to "stir things up" with this album. Do you make a conscious

cate on a lot of levels. I'm not aiming at highbrows; various levels of intelligence or savvy can accept it and enjoy it.

I think the record is successful because of the momentum we built up with the last four [albums]. That's pretty hard to stop once it gets going. So we've reached full speed at a time when we've produced our best and deepest work.

Backbeat: Are you suggesting that this might have happened even if the album *wasn't* your best work?

Sting: The volume of sales might have happened, yes.

Backbeat: Well, I agree that parts of the record are probably over the heads of some of the people who are listening to it. Not many buyers have read Homer and understand the reference to Scylla and Charybdis, or are familiar with the Faust legend. But, as you say, that doesn't seem to matter.

Sting: At the same time, I noticed that a lot of people picked up a book by Nabokov, just because it was in a song. [*Don't Stand So Close to Me* refers to *Lolita*.] At first, some asked, "What's a Nabokov?"

If anything, this is good for people. I mean, what are they going to read? *Hustler*, or *Playboy*? If I can suggest a reading list in my songs, then that's great. I'm still a teacher, you know; I was enthusiastic about literature then, and I still am.

Backbeat: So you don't worry about becoming "an intellectual band." Or maybe you already are one.

Sting: Maybe, but that's not a prerequisite for good rock and roll. The best rock and rollers weren't literate. The fact is that I am literate, and to be true to myself I write songs that please *me*, intellectually and emotionally. If other people can get off on them, then it's really pleasing.

Backbeat: There has been a good deal said about the level of personal sadness in songs like *King of Pain*. Are you still struggling with the eternal artistic dilemma that the best and most meaningful music often comes when you're the least contented?

Sting: Certainly that's more true of lyrics than of the abstract art of composing; it's more difficult to define what your influences are in music. With lyrics, the painful things that happen to you are more influential than, say, lying by the pool without a thought in your head. Out of every painful experience comes something good, I suppose.

Backbeat: Do you subscribe to the theory—going back to Beethoven and Van Gogh, right up through John Lennon—that one needs to be tortured to produce one's most important or deeply felt art?

Sting: If you're a writer, then you depend on your sensitivity. If you're a sensitive person with your eyes open, you can't help but be tortured by reality. If you're not sensitive, or you anesthetize yourself to reality, then you can pretend that the world is quite comfortable and everything is all right. The fact is it isn't, and anybody who is sensitive

Discography

THE POLICE

Outlandos d'Amour. A&M SP 4753; 1978.

Reggatta de Blanc. A&M SP 4792; 1979.
Also issued as two 10-inch discs: A&M SP 6018.

Zenyatta Mondatta. A&M SP 3720; 1980.

Ghost in the Machine. A&M SP 3730; 1981.

Synchronicity. A&M SP 3735; 1983.

ANDY SUMMERS

I Advance Masked (with Robert Fripp). A&M SP 4913; 1982.

SOUNDTRACKS

Brimstone and Treacle (the Police). A&M SP 4915; 1982.

Party Party (Sting, various). A&M SP 3212; 1982.

The Secret Policeman's Other Ball (Sting, various). Island 9698; 1982.

Rumble Fish (Stewart Copeland). A&M SP 4983; 1983.

decision to break new ground each time you record?

Sting: I think it's a prerequisite. It's no good going into the studio if you only intend to regurgitate what you've already done.

Backbeat: You've also said that the move with this album was toward simplifying your sound.

Sting: The great thing about it is that it sounds absolutely simple, but in reality it's quite sophisticated, in the way the music was written and performed. We're not a three-chord bash group. It took us seven years to get this far. This is quite a refined piece of work.

Backbeat: Are you ever surprised that something of genuine quality can also be genuinely successful?

Sting: Um . . . this might sound condescending, but a lot of record buyers haven't really understood this album. I think a record can communicate without necessarily being understood, and it can communi-



MICHAEL PUTLANDREINA

Summers: Zen approach to guitar playing

and awake must feel tortured. There's no way out of it.

Backbeat: Is there some sort of responsibility—I don't know if that's exactly the right word . . .

Sting: I hate that word [laughing].

Backbeat: Okay then, *duty*—to yourself or to anybody else—to use your art as a platform for your deepest fears?

Sting: I have a responsibility to myself to excavate those fears, anxieties, demons, if you like. I use my work as therapy in a way, and it's wonderful to have that valve accessible to you. Most people don't have it; they don't have a mode of expression with which they can work out their problems. I'm lucky, I'm very privileged, and therefore my responsibility is to use that ability to the maximum. We're all in the same boat, and we all have the same anxieties, really, and if I can articulate those and show a way of reaching catharsis—if I can strike a chord with people—then I'm doing my job well.

Backbeat: You also seem to be someone who values your privacy. I'm reminded of something Tom Waits said, to the effect that a performer spends so much time trying to get people to pay attention to him, and the rest of the time trying to get people to leave him alone.

Sting: It's true. My work comes from my own personal experiences, but it's all I really want to give out. It's veiled, and it's in

symbol form. I don't really feel like going into public confession all the time.

I've stopped doing confessional interviews [laughs]. I won't speak to the *National Enquirer* or *People* magazine.

Backbeat: Well, how important is it to you to be recognized by fans, critics, and peers?

Sting: It's pleasant when you're applauded and congratulated in your career, which is happening at the moment. At the same time, I've had records and performances torn to pieces by critics and still been very proud and very sure that what I'd done was the best that I could. So in a sense, you become hardened to criticism—not blind to it, but objective about it. You know, this year you're the best group in the world, but the year before you were the worst, so you have to take both things with a pinch of salt.

I'm proud if I know I've tried my best, and I'm ashamed if I've done something second best. It's my own values that matter the most.

Backbeat: How do you find yourself acclimating to the demands of stardom—including doing an interview like this at a time when you might not feel like doing one?

Sting: Well, we've been a group for seven years now. For five of those years, we've been at various levels of fame. It [fame] started when I was about twenty-six, and it happened relatively slowly: bit by bit, hurdle by hurdle. I'm now thirty-one, so in a sense I'm a mature adult. If I was nineteen and the same thing had happened, I think it would be a different story.

Backbeat: I'm glad to hear that one is an adult once he reaches thirty-one.

Sting: Well, I mean I'm still a baby, but I'm more of an adult than I was when I was nineteen!

Backbeat: The Police have played in some of the more exotic places around the world, like Egypt and India. Some of your lyrics probably have come from your travels, but has your music also been influenced by what you've heard?

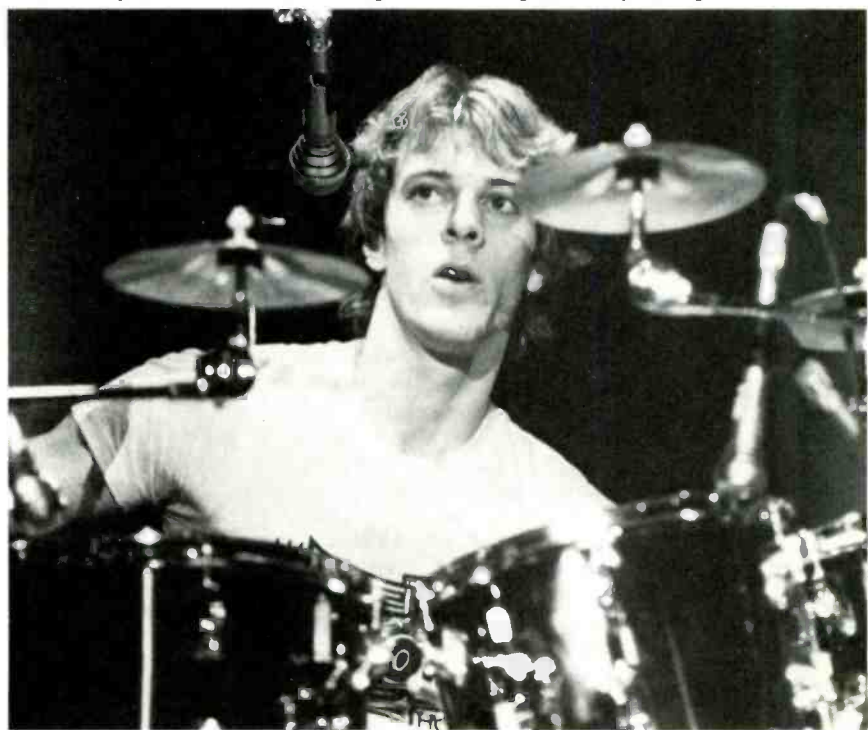
Sting: If you'll forgive me, it's a fairly naive assumption on the part of the press that just because we went to India for two weeks, we came out loaded with Indian music. The fact is, we're citizens of this global village, and we've all been living with television and radio and the gramophone since we were born. Therefore, a knowledge of Indian music, of Jamaican music, of Chinese music, is intrinsic in our musical lives. The visit to India merely confirmed what I knew already, from books and from watching television.

Backbeat: I guess what I mean is that I hear certain predominantly instrumental groups—like Weather Report and Colonna—that play something approaching a real "world music." "Synchronicity" suggests that the Police are one of the very few rock bands that also are edging toward some mixture of international influences.

Sting: Well, in citing Weather Report, you've picked my favorite group. We've all, at various stages of our musical careers, played jazz, which is more of a mongrel than rock and roll is, in that it's stolen from every ethnic culture going. So our roots are very catholic, in a way.

You know, most rock groups started off with a guitar and a Led Zeppelin album. (Continued on page 103)

Stewart Copeland: the one who brought them all together six years ago



MICHAEL PUTLANDREINA

BACKBEAT

Reviews

Paul Simon. Stunning.



BILL KING/COURTESY WARNER BROS.

Paul Simon: *Hearts and Bones*

Paul Simon, Russ Titelman & Roy Halee, producers. Warner Bros. 23942-1

"Hearts and Bones" was at one point cast as the studio testament to a formal reconciliation between Paul Simon and Art Garfunkel, so as a solo album it no doubt will be mercilessly scrutinized. But Simon's second collection of new songs since 1975's "Still Crazy After All These Years" ultimately triumphs over any specter of what might have been. This is Simon at his articulate best—spirited and eclectic, droll but serious, balancing careful poesy with flashes of conversational realism.

The worldly melancholy displayed in his early writing has now grown into a sense of mature reflection. *Train in the Distance*, for example, deals with the restless disintegration of a failed marriage; its elegance and simplicity makes it one of the set's most haunting moments. If John Cheever had written pop songs, he might have come up with one like this. On two different but thematically intertwined songs called *Think Too Much* (reportedly the album's original title), Simon explores his penchant for introspection from alternately serious and comic viewpoints. *Think Too Much (a)* is an electric cousin to *Me and Julio Down by the Schoolyard*, propelled by Nile Rodgers's typically clean but urgent guitar.

Studded with good-natured confessions in the opening verses, its image of "the left side and the right side of the brain," the analytical and intuitive, provides the fulcrum for the moodier second version.

The set is a balanced mix of tempos and vocal stances, but its most indelible songs are ballads. Two of the songwriter's strongest pieces in a decade are *The Late Great Johnny Ace* and the mouth-filling *Rene and Georgette Magritte with Their Dog After the War*. The former (a version of which is also on the Simon and Garfunkel Central Park concert video) is a eulogy for the early rock hero of its title, for John Lennon, and for the innocent optimism of rock. It is at once intimate in its detail and sweeping in its scope, with distant drums simultaneously evoking the rhythmic force of rock and the martial cadence of a funeral procession.

Rene and Georgette . . . is a modified waltz colored with the unlikely combination of traditional strings and doo-wop backing vocals. In a musical setting that alludes to the central character's art, Simon imagines the painter and his family in a surrealistic vignette, entranced by "the Penguins, the Moonglows, the Orioles, and the Five Satins, the deep forbidden music they'd been longing for."

Simon's taste in musicians continues to be astute. Fusion guitarist Al DiMeola

pops up on *Allergies* with a furious staccato solo that is the track's highlight. In addition to Rodgers and his bassist-partner Bernard Edwards, Simon taps such studio heavies as bassist Marcus Miller, drummer Jeff Porcaro, and more familiar allies like keyboardist Richard Tee and vibist Mike Mainieri, extracting performances that are as technically sharp as they are closely tailored to the songs. Production is consistently impressive, which is no surprise given Simon's cohorts. (Lenny Waronker also had a hand in the early sessions.)

There are more than a few moments where the vocal arrangements bring up the lingering question of what Garfunkel's contributions might have been, but on the basis of its songs and performances, "Hearts and Bones" is a stunning piece of work.

SAM SUTHERLAND

John Anderson:

All the People Are Talkin'

John Anderson & Lou Bradley, producers
Warner Bros. 23912-1

No matter how contrived, trivial, or simply mediocre the songs he chooses to sing, John Anderson lifts them up a few notches. Like George Jones and very few other active country singers, he has the ability to put his stamp on everything; his voice has the texture of sawdust and suds, and whether the

material is melancholy or gruff-humored, the unusual catch in Anderson's throat is one of the most arresting sounds on record. He doesn't have much to work with on "All the People Are Talkin'," and in comparison to "Wild & Blue," perhaps 1982's finest country album, it's a bit flat. Part of the problem may be that *Swingin'*, a jaunty novelty song from that LP, became his first gold single. There are too many attempts here to replicate that genial, but inconsequential genre, and not enough songs that have the honky-tonk feeling that Anderson conveys so convincingly.

"All the People Are Talkin'" tackles typical country themes: *Blue Lights and Bubbles* is a retreat to the bar to forget a woman; the title cut shakes off gossip about a woman's colorful reputation; *Things Ain't Been the Same Around the Farm* laments the loss of a woman who left him in the dirt. On the pious *An Occasional Eagle* (a salute to the U.S.'s "symbol of freedom and right"), the clichéd *Call on Me* (one more you've-got-a-friend song), and the transcendently silly *Look What Followed Me Home*, no amount of verve can come to the rescue. In fact, if it weren't for the way Anderson twists himself around a lyric, and the lift that his own band ("Wild & Blue" was cut with Nashville pros) gives the arrangements, most of the album would be forgettable.

There's a peppy version of the Gene Simmons oldie *Haunted House*; *Black Sheep* is a better than average boast/complaint about being a redneck outcast in a family of solvent professionals; and *Let Somebody Else Drive* recognizes that alcohol—however effective it may be for sorrow-drowning—can impair automotive skills and land you in the slammer. "All the People Are Talkin'" rocks amiably, but there isn't nearly the substance in its songs that there is in Anderson's voice. That's why it neither measures up to its predecessor nor gives a true indication of the breadth of Anderson's talent. MITCHELL COHEN

Michael Bloomfield: Bloomfield

Toby Byron, producer
Columbia C2 37578 (two discs)

It's fitting and more than a little ironic that guitarist Michael Bloomfield should be rescued from obscurity with this ambitious two-disc retrospective. The Chicago musician died two years ago at the age of thirty-seven, inadvertently living the mythical bluesman's lifespan even as many of his own heroes (Albert King, B.B. King, Albert Collins) have outlived it and continue to produce strong music. Unlike other white boys who tested the blues, Bloomfield never severed his work from its sources to reap rock adulation and arena-size audiences. That devotion is reflected in this anthology's approach, which is far more scholarly than one might expect.

The album excerpts interviews in

which Bloomfield comments on specific histories of the bands he worked with and on his general musical philosophy. It's a program that would be a worthwhile radio special and an effective history lesson for younger fans whose knowledge of blues stops with Eric Clapton. Unfortunately, however, many buyers will be well-informed fans for whom these asides will be tedious. Side 1's final segment, for example, superimposes Bloomfield's recollections over the opening brass fanfare of *Groovin' Is Easy*, the first recording by Electric Flag.

That band, as well as Bloomfield's other prominent affiliation, the Paul Butterfield Blues Band, is well-served here, but the set also offers a rich cross-section of lesser-known and unreleased material. From live Newport Folk Festival tracks and an early demo produced by John Hammond Sr., the album moves to various unissued '70s tracks. While there are glimpses of Bloomfield's pop instincts (such as a deft vocal impersonation of Randy Newman in *Woodyard Street*), his authenticity as a custodian of blues tradition is borne out.

Columbia's willingness to memorialize Bloomfield is heartening, particularly at a time when the number and quality of contemporary electric blues recordings offer encouraging proof that the idiom is far from dead. Sound quality on several of the Butterfield Band and Electric Flag tracks is decidedly degraded from the original releases, but on balance this is a solid and intelligent summation. SAM SUTHERLAND

The Bluebells

Various producers
Sire 23960-1

In the countries surrounding England, there's a musical swing away from electronics and toward an approach less dependent on synthesized frills than on direct, emotional songs. Scotland's Bluebells, on their five-song U.S. debut, are on the comparatively frivolous side of the United Kingdom's new pop-folk, back-to-basics rockers. Brendan Behan's *Patriots Game* reveals a political conscience, but its somberness is more the exception than the rule. Most of the tracks—all but one by rhythm guitarist Robert Hodgens—are built on jangly guitars and ringing pop choruses.

The EP leads off with the catchy British single *Cath*, remixed for American release. Presumably to give the song more wallop, at one point there's the type of artificially pumped-up break in the action one finds on records geared for rock clubs. However inappropriate this moment is for *Cath*, the song survives, its lyrical bitterness matched by its Merseybeat bounce. *Sugar Bridge*, produced by Alan Tarney, has a fuller sound, and a folk-anthem bent that links the Bluebells, momentarily at least, with fellow countrymen Big Country,



Dylan as Dylan, at last

without BC's rat-a-tat impact.

It's difficult to get a clear sense of what the Bluebells are up to from this brief sampler. With different producers on each of the cuts, and diverse styles—from the cheerful pop of *Everybody's Somebody's Fool* to the Behan commentary to *Aim in Life*, a sentimental little character sketch produced sparingly by Elvis Costello—being essayed, the record only piques curiosity. There are enough of their songs around for a complete album: "The Bluebells" could have included the exuberant *Forevermore*, with its intriguing violins; *All I Ever Said* (a Costello coproduction), which skillfully pays homage to Lennon & McCartney c. *A Hard Day's Night*; and some other U.K. singles and B-sides. Their American entrance just makes the Bluebells sound slight and quirky and doesn't leave a solid impression. MITCHELL COHEN

Bob Dylan: Infidels

Bob Dylan & Mark Knopfler, producers. Columbia 38819

Despite its arch title and a few lyric barbs that beg interpretation as renunciations of his Born-Again episode, Bob Dylan's new album is far from a formal rock policy paper. In fact, "Infidels" represents a bracing return to the hard-edged, socially acerbic folk-rock that brought the former Mr. Zimmerman his broadest platform. The loss of his sectarian focus has freed him to resume the freewheeling energy and poetic idiosyncracies long missed in his work.

Most of these songs fall within the musical and thematic guidelines set forth in the songwriter's epochal mid-Sixties work as apotheosized by "Blonde on Blonde" in 1967. After the doctrinaire if impassioned diatribes of his recent albums, and the alter-

nately bucolic and brooding recollections of his '70s work, the reappearance of rock-inflected meditations and broadsides can't help but invite memories of his glory days.

Union Sundown, with Mick Taylor's snarling slide guitar and Sly Dunbar's sledgehammer drumming, offers a sneering assessment of America's lost dream of industrial might and self-sufficiency; *Neighborhood Bully* is an equally turbulent sermon on Zionism; *Man of Peace* indicts hypocrites, a favorite target and one that inevitably will be scrutinized here in light of Dylan's hindsight assessment of Christianity.

The album's sense of *déjà vu* rests as much with the music as it does with the lyrics, and it can be argued that the former will stand up more durably than the latter. Dylan has found an astute and sympathetic production ally in Dire Straits's Mark Knopfler, who contributed sinuous guitar to Dylan's first and best Christian recording, "Slow Train Coming." And Knopfler (at one time saddled with "new Dylan" cracks on the basis of his band's earliest records) has clearly developed enough confidence to underplay his role, sticking to clean rhythm work and relatively subdued solos, and letting Taylor's raunchier slide and electric figures dominate.

Production emphasizes the spareness of the basic ensemble (which also includes bassist Robbie Shakespeare and Dire Straits keyboard player Alan Clark) while maintaining a lucid spaciousness. There's even a rare (for Dylan) use of atmospheric echo on the front man's vocals on *Union Sundown*.

Whether these songs will hold up over time to fulfill their kinship with Dylan's earlier peaks remains to be seen. He does present a less mysterious persona here, firing off a few metaphorical non sequiturs that once might have seemed cosmic but now seem merely puckish. But "Infidels" is considerably stronger than many of his admirers might have expected and as such demands attention. SAM SUTHERLAND

Green on Red: Gravity Talks

Chris D., producer

Slash 23964

The Long Ryders: 10-5-60

Earle Mankey, producer

PVC 5906

True West

Russ Tolman & Steve Wynn, producers

Bring Out Your Dead BOYD 1001

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Cut off from the matrix of social and musical developments that spawned psychedelic rock in the late 1960s, most of the new California crop of bands emulating that style can do little more than make the appropriate gestures. Even when they get the details right—the disjointed, hallucinogenic imag-

ery, the guitars that sound like hives of bumblebees, the feedback and distortion—the effect is frequently unintentional parody, as grim and fatuous as the graveyard scene in the movie *Easy Rider*. Not all of the bands come at the era from the same angle: Dream Syndicate, Green on Red, and True West take a morose and ominous tack; the Long Ryders, the Three O'Clock, and the Bangles are more in the vein of paisley pop. And with varying success they wed their adopted stances to the concerns of the '80s.

Green on Red's lead singer and songwriter Dan Stuart makes the most explicit

stab at placing the music in a modern context, throwing a dollop of social commentary and literary and cinematic influences into the mix. He doesn't shy from grandiose statements: "Let me try to explain my generation in a way that Fitzgerald did," is how he starts off *Brave Generation*. "We're not beat, we're not hip," he claims, but it's harder to tell what his band is. There's an acerbic petulance in its music (like Dream Syndicate, with whom it shares producer Chris D., Green on Red has been profoundly affected by the Velvet Underground); but it's unfocused.

Chris Cacavas's organ rolls seductive-



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ly, and the band whips up a twangy, chaotic froth on *Narcolepsy*, *Snake Bit*, and *Blue Parade*, but much of "Gravity Talks" is either ridiculously overstated or pointlessly obscure. *5 Easy Pieces* is a tribute to firearms (just in case anyone should suspect this group of unfashionable hippie ideals), *Deliverance* dives into the valley of the Doors, and through most of the LP, Stuart snarls lyrics like "yellow pictures of my yesteryear have all faded so gray." Despite Green on Red's obvious ability to recreate the clanging clamor of psychedelic rock, its debut is finally scuttled by an undistinguished batch of songs.

Two other West Coast bands, sharing cowboy nomenclature and a '60s bias but little else, have recently released five-cut EPs: The Long Ryders' "10-5-60" takes some of its inspiration from the Byrds-Buffalo Springfield axis of spacey country-rock, and the self-titled record by True West takes off from the British school of acid-abstraction exemplified by the Beatles' *Tomorrow Never Knows*. The Long Ryders, especially on their snappier numbers—*Join My Gang*, *And She Rides*—are more fun, and by the evidence here, more diverse. *You Don't Know What's Right*, *You Don't Know What's Wrong* uses pedal steel and close harmony (well, as close as they can manage) to get a lilting Everly-ish spirit, while *10-5-60* is a drunken revel. But True West, despite its unwavering gloominess, shows more promise. Coproduced by Dream Syndicate's Steve Wynn (who adds his guitar to the reading of Pink Floyd's *Lucifer Sam*), the EP goes past in a furious blur, guitars buzzing, Gavin Blair's vocals grim and intense. Both bands, however, end their short discs with throwaway tracks: The Long Ryders' *Born to Believe in You* is an innocuous love song, and True West's *It's About Time* recycles filtered mock-megaphone effects that were pervasive from the fall of 1967 through winter 1968. Such blatant filler is evidence that, for these new bands, new ideas are in short supply.

MITCHELL COHEN

John Hiatt: *Riding with the King*
Ron Nagle, Scott Matthews & Nick Lowe, producers. Geffen GHS 4017

A parade of rock critics have tagged John Hiatt "the American Elvis Costello." If that's the case, then "Riding with the King" is not only the best of Hiatt's six albums, it's also the best Costello record to come along in some time. On *Book Lovers*, Hiatt spits out smart-alecky puns in venomous flurries, while longtime Costello cohort Nick Lowe and ex-Squeeze keyboardist Paul Carrack deliver an arch, contrapuntal chorus about "turning the page on my happiness" and other cornball metaphors. *Say It with Flowers* is another bitter epistle to an ex-lover, a boppy, cheesy-sounding tune that could be Costello backed by the Dave Clark Five, complete with thumping drums

and a saxophone that squawks like a strangled goose.

But let's be fair. Hiatt is not Elvis Costello. True, he's a dead ringer on more than a few songs here, and a whole side has been produced by Lowe, the Englishman's nutty pop mentor. But Hiatt's sly, cynical sensibility is all his own, and anyway, Costello couldn't make a record this good if he tried. He hasn't done anything remotely as soulful as "Riding with the King" since "Get Happy!!!"

The excellence of Hiatt's album is all



John Hiatt: two-sided excellence

the more remarkable given its literal two-sidedness. Half these tracks—including the devastating, back-to-back *Girl on a String*, *Lovers Will*, and *She Loves the Jerk*—were produced by Ron Nagle and Scott Matthews, Bay Area brainstormers responsible for, among numerous other projects, a totally screwy 1980 Beach Boys-ish record (and group) called "Durocs." Even with Matthews's kazoo-like sax breaks on *I Don't Even Try* and the cartoonish heavy-metal riffing of the thundering *Death by Misadventure*, the duo hasn't intruded on Hiatt's music; they've just added some subtly eccentric but nonetheless commercial touches.

So there are no jarring differences when you flip the record over to the Lowe-produced side. Lowe's bass and Carrack's swirling keyboards make the musicianship smarter and tougher, and the mix is a little cleaner, but that's about it. On the title track, a song about the real Elvis, Hiatt belts out a bluesy vocal that's right up there with Percy Sledge; on *You May Already Be a Winner* the guitars and keyboards sway with a Tex-Mex feel (Hiatt's guitar work here, and throughout, is supple, eloquent).

The Love That Harms is an upbeat, light-headed rocker with a hook big enough to hang a coat on; as acoustic guitars jangle away, Hiatt's singing takes on a rubbery pop tone, and he delivers some of his best lines: "She's seen the whites of crazy eyes/ Been in the camps of foreign spies."

"Riding with the King" is an accomplished, cohesive work. On it, Hiatt's precise, scathing lyrics, his feverish intelligence, and his love for gritty Sixties rhythm and blues finally all dovetail. Maybe it's time the critics started calling Elvis Costello "the English John Hiatt." STEVEN X. REA

**The Style Council:
Introducing the Style Council**

Peter Wilson & Paul Weller, producers
Polydor 815 277-1 Y-1

Paul Weller, late of the Jam, has refined and, to some extent, redefined his style and music with his new combo, the Style Council. As the Jam's lead singer, principal songwriter, and guitarist, Weller celebrated the whole Mod ethos with thundering energy and a sound that evolved from murky simplicity (bass, drums, one guitar) to murky chaos (ersatz Tamla/Motown horn charts, keyboards, background singers, etc.).

Throughout its six-year span, the group was a major musical force in its homeland. But Weller's zealously British stance and high degree of political specificity failed to make much of an impact Stateside. Among other reasons, nobody in the U.S. knew what the heck he was yammering about. And so, faced with commercial failure and creative frustrations within the group, the Jam dissolved.

On "Introducing the Style Council," a seven-track mini LP, Weller has made an effort to broaden his approach. The overly long (nearly seven minutes) *Long Hot Summer* is a fiery Marvin Gaye-ish number rife with handclaps, "ditty-bop" backing vocals, and a great wonky bass line that reverberates at the end of each refrain. The inclusion of a "club mix" version of the song is redundant, its vocals and instruments phasing in and out seemingly at random.

Headstart for Happiness, on the other hand, is a balmy little tune with Weller on acoustic guitar, Mick Talbot (the only other official Style Council member) hunkering down on his Hammond organ, and someone slapping sticks to make a beat. The song is almost as innocuous as its title suggests, but Weller infuses it with an innocent charm. Likewise, *The Paris Match*, penned for French chanteuse Suzanne Toblat, is bright and airy, with Talbot offering up some suitably Parisian accordion chords.

The booming *Speak like a Child* recalls the busy latter-day Jam: brass section, backup singers, the works—smoothed over with Weller's creamy vocal. *Money-Go-Round* is a long-winded rap with a message (there's "too much power

in not enough hands"). Talbot delivers a Ramsey Lewis clone cut in *Mick's Up*, a keyboard instrumental replete with party patter and jazzy piano runs.

The Style Council is Weller unencumbered by bandmates with their own ideas. It's his show, spiffed-up with some new grooves, but still pretty similar to the Jam. Whether it will win where the Jam did not—in America—remains to be seen. My bet is no: Paul Weller is still Paul Weller no matter what band he's fronting.

STEVEN X. REA

Ian Tyson: Old Corrals & Sagebrush

Ian Tyson, producer
Columbia FC 38949

Deep snow blankets the plains. Winds howl through the high, bare hills. Horses stand in their stalls, snorting their steamy breath into the cold night air. Old cowpunchers huddle around fires in small clapboard cattle stations, singing songs, chewing tobacco, playing cards.

This is the stuff of Ian Tyson's "Old Corrals & Sagebrush." Tyson—late (very late) of the Canadian folk duo Ian and Sylvia—has come up with a collection of original and traditional tunes that evoke both the rich romance of Western lore and the modern life of cowhands in pickups, drinking their paychecks away on Saturday

nights as they listen to Waylon and Willie, George and Emmylou.

Recorded live in a studio on Tyson's Alberta (Canada) ranch, the record is down-home, totally lacking in pretense, and alive with a forthright, good-humored sensibility. Flanked by an accomplished band—guitarists Nathan Tinkham, Danny McBride, and Melvin Wilson, mandolinist David Wilkie, bassist George Koller, and drummer Thom Moon—Tyson croons and whoops, his voice soft and rumbling or bold and gruff as he sings about cockfighting champions (*Gallo de Cielo*) and tyrannical cattlemen (*Diamond Joe*). This is country and western music that is truly country—Montana pine country, big, barren north-of-the-border country, Texas and California desert country—and truly western—night riders on the range, chuck wagons and little dogies, wild, ropin' heroes like *Diamond Joe*. On *Alberta's Child*, Tyson draws comparisons between Texan and Calgary cowpokes as drums clippety-clop and a steel guitar wails plaintively. On Gary McMahon's *The Old Double Diamond*, he chronicles the closing of a Wyoming ranch, the sound of "an auctioneer's gavel, how it rapped and it rattled," bringing a place and an era to an end. He alludes to the great Western painter Charles M. Russell on *Montana Waltz*, a loping, lovely tune made all the more so by Wilkie's quavery man-

dolin.

There are western rave-ups like *Whoopie Ti Yi Yo*, spry little waltzes such as the title track, and a handful of dusty old tunes wrought new in Tyson's earnest, generous readings. At times, his voice recalls Johnny Cash (booming) and Merle Haggard (sly, bittersweet), but this veteran is imitating no one. Ian Tyson sings from his heart about something close to his heart: the life of the cowpoke, past and present.

STEVEN X. REA

Tom Waits: Swordfishtrombones

Tom Waits, producer
Island ILPS90095-1

Between his fall from grace at his old record company (due as much to executive shifts as poor sales) and his time-consuming involvement in the score for Francis Coppola's wonderful, sadly neglected film *One from the Heart*, Tom Waits has remained out of the limelight in recent years but hardly out of action.

That level of activity is mirrored in the singer, songwriter, and raconteur's first solo recording in three years, which also marks his move to a new label. It's a daring, consistently inventive album that both consolidates Waits's past strengths and reveals fresh new strains in his already eclectic style. His love of '40s and '50s jazz tex-

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LINDA MATLOW/PX

Waits: a musical crazy quilt whose instrumentation crushes conventional boundaries

tures, his kinship with the beat poets, and his grounding in folk and pop styles are fused here more directly than ever. At the same time his palette as an arranger has grown well beyond any of those idioms to create such surreal aural images as that which the title describes. Vocally, he rasps from recitation to heartfelt melody, much in the way his lyrics veer from realistic, romantic vignettes to impressionist, giddy mosaics.

Underground sets the stage for his intimate but theatrical collection with the lurching cacophony of bass marimba, baritone horn, clattering drums, and Waits's own howl of a vocal. "There's a world going on underground," he bellows, and then sets about creating it by recalling the enchanted junk heap that was a central metaphor in the Coppola film.

Waits's work has long been cinematic in its off-center instrumentation and use of sound effects. Here, he strengthens the impact of that approach by bringing a wide variety of ethnic percussion instruments, synthesizers, reeds, brass, guitar, and even bagpipes into play at various points, often making them clash intentionally. In the process, music and message slip through a dizzying sequence of emotional possibilities from pathos to surreal slapstick. A cast of stellar musicians—including Victor Feldman, Larry Taylor, Ronnie Barron, and Fred Tackett—seizes Waits's musical crazy quilt with aplomb, clearly relishing their role in crushing conventional stylistic boundaries.

"Swordfishtrombones" is an often jarring work, comparable in approach to Captain Beefheart's antic romps through rock, blues, and jazz. No one will want to play it as background music, which points up its originality and perhaps its commercial risk. But for those willing to immerse themselves in Waits's ear-filling world, the dividends of his integrity will pay off sizably.

SAM SUTHERLAND

Jazz

Don Ewell Quintet

Dave Bennett, producer
Jazzology J 69 (3008 Wadsworth
Mill Place, Atlanta, Ga. 30032)

In Don Ewell's characteristic solo performance context, with or without bass and drums, he emerges primarily as a stride pianist. In an ensemble, however, he contributes something rarely heard these days. Instead of adding chords to the rhythm support, he provides melodic colors that lay between the horns and the rhythm section, much the same way that Earl Hines and Jess Stacey did in the '20s and '30s.

Recorded in London with English musicians, this album reflects strong New Orleans and Chicago influences. And though Ewell is playing with only a quintet or quartet, he uses his ensemble style effectively, adding bright accents that fill out the work of Pat Halcox on trumpet and "Creole" John Defferray on clarinet. Halcox, a longtime member of Chris Barber's English trad band in the '50s and '60s, plays with a punching approach that suggests Wild Bill Davison and Muggsy Spanier with a bit of British reserve. Defferray, an Albert Nicholas protégé, has his mentor's warm, woody tone and the sense of restraint that distinguished Nicholas from the more florid New Orleans clarinetists.

Even behind Defferray's mellow clarinet on *Black and Blue*, for instance, Ewell slashes away, giving the piece an excitement it does not usually have. The overall sound is reminiscent of Eddie Condon's late-1940s or early-1950s groups: rugged and swinging and ready to burst into flame at any moment. And Ewell is usually holding the match.

JOHN S. WILSON

Woody Herman: A Great American Evening

Carl E. Jefferson, producer
Concord Jazz CJ 220

Among the highlights of this third volume in the "Woody Herman Presents" series are the playing of young tenor saxophonist Scott Hamilton and the inclusion of two updated Herman classics, *I've Got the World on a String* and *Caldonia*. The latter is a casual jam session in which Woody sings off-mike. (The album was recorded at the Great American Music Hall in San Francisco.) But the former shows him singing with characteristically urgent projection and playing clarinet more adventurously than the bubble-and-trill style he tends to use with his big band.

The most interesting aspect of this disc is its revelation of Hamilton's development. Now in his late twenties, he was first noticed six or seven years ago, playing in a Ben Webster-Don Byas style that typified the Swing Era. In the intervening years, he seemed to have settled into that groove, without really adding anything to it. But on these pieces, Hamilton offers something new. His grounding is still in Webster, but he also reaches into the upper register as never before. His phrasing and shading have improved greatly and, particularly on *Caldonia*, his playing is freer and has more drive than in the past.

Cal Collins continues to be a bright and thoughtfully swinging guitarist, as evidenced in his solo on *A Beautiful Friendship*, and Ron McCroby's virtuoso whistling on *Wave* is dazzling. But Eiji Kitamura, the Japanese clarinetist who has become part of the Concord troupe, remains only a pale reflection of Benny Goodman, even though on *Avalon* he manages some individuality after the first chorus.

JOHN S. WILSON

Dick Hyman: Kitten on the Keys

Leroy Parkins & Dick Hyman, producers
RCA XRL 1-4746

ZeZ Confrey, a pianist and composer, was the key figure in novelty piano, a 1920s style that followed Ragtime and paralleled Harlem stride. Thanks to recordings by James P. Johnson and Fats Waller, stride is still with us, but, aside from his tune *Kitten on the Keys*, Confrey and novelty piano have been largely forgotten.

One of the few pianists who pays attention to this style is Dick Hyman, whose wide-ranging American repertoire has led to extensive recordings of works by Scott Joplin and Waller. To the Confrey compositions here, Hyman brings the virtuosity and sense of humor essential to carrying off some of the composer's razzle-dazzle. He also brings a feeling for the rags that preceded Confrey and an experience in classical piano that gracefully colors Confrey's attempts in that direction.

Kitten on the Keys is a rollicking tune full of rumbles and swipes. Hyman is equally in command of Confrey's 1938 non-novelty *Della Robbia*, a lovely, romantically bluesy piece, and the flowing *Valse Mirage*, which could be the soundtrack for a silent movie. His readings are apparently quite faithful to the originals, except for *Stumbling* (Confrey's most successful pop song), to which Hyman adds key changes, cross-hand passages, and a suggestion of Latino, among a potpourri of period effects.

When Confrey tried to go beyond his novelty pieces, he became very derivative. (His *African Suite* is largely warmed-over Gershwin.) But he did write charming melodies, and though tricky novelties often obscured them, Hyman draws them out with sensitivity. JOHN S. WILSON

The Jazz Trumpet Vol. 1: Classic Jazz to Swing; Vol. 2: Modern Times
Orrin Keepnews, producer
Prestige P 24111 and P 24112
(two discs each)

The first two volumes in this jazz trumpet series examine the subject in greater depth than such surveys usually do, bringing in more performers and exploring the trumpet's development beyond the usual bebop cutoff point. This is because Prestige and its sister label, Riverside (and their off-shoots, Jazzland and Milestone), covered jazz in depth from 1950 on, while the Fantasy-Prestige-Riverside conglomerate has acquired rights to recordings that date back to the '20s on Gennett, Paramount, Autograph, Champion, and Edison.

As a result, the Twenties and Thirties are represented here by some unusual recordings. In addition to Louis Armstrong and King Oliver, the New Orleans segment features Freddie Keppard, Tommy Ladnier, and Wingy Manone with his *Tar Paper Stomp*, which later became *In the Mood* when Glenn Miller played it. Roy Eldridge, who usually stands alone in representing the flamboyant and crackling trumpeters between Armstrong and Dizzy Gillespie, is joined here by two other masters, Jonah Jones (before he put a mute in his horn) and the brilliant Charlie Shavers.

Given the somewhat limited material available to it, Prestige does a representative and often provocative job with this pre-World War II period. For the post-war years, there is a wealth of records from which to draw, and Vol. 2 starts off splendidly with the classic Gillespie-Parker-Powell-Mingus-Roach performance of *Salt Peanuts* at Massey Hall. Also here is *Anthropology*, with Fats Navarro laying claim to the greater recognition he deserves, and Miles Davis's 1956 recording of *'Round Midnight* with John Coltrane, Red Garland, Paul Chambers, and Philly Joe Jones.

During these post-war years the potential development of the trumpet was constantly being thwarted by the deaths of its most promising young proponents—Clifford Brown, Booker Little, Lee Morgan, and Navarro. All of them are here, along with Thad Jones, Art Farmer, Freddie Hubbard, and Don Cherry. JOHN S. WILSON

George Russell's New York Band: Live in an American Time Spiral
George Russell, producer
Soulnote SN 1049

Even with the celebration of his sixtieth birthday this year, composer George Russell remains one of the jazz world's best-kept secrets. His recording career dates back to 1948 and includes works performed by Miles Davis, Art Farmer, Don Ellis, Eric Dolphy, Barry Galbraith, John Coltrane, and many others. Yet various circumstances—serious physical problems in the Fifties, a self-imposed European exile in the Sixties—have helped keep his talents relatively unknown to us.

Equally important, Russell has never had—as, say, Duke Ellington did—the continuous availability of a stable group of musicians. And he has been determined to stick with the very specific tonal and rhythmic methods that shape his music. So determined that he has organized his compositional principles into a large theoretical work called the *Lydian Chromatic Concept of Tonal Organization*.

In recent years, Russell has found a small but receptive audience in student-ensemble concerts at the New England Conservatory and in large-band performances at New York's Village Vanguard. This recording showcases that band in 1983, with three of his lengthy works. The major one, *Time Spiral*, was commissioned

by the Swedish Radio Broadcasting System in 1979. Like Russell's earlier *Living Time*, it makes extensive use of the tonal and rhythmic polarities between electric piano (played by Mark Soskin) and acoustic piano (Jack Reilly). It unfolds, in typical Russellian fashion, with long, stretched-out dissonances that contrast with stark, implied rhythms and little bursts of melody—usually from muted trumpets.

Then, in a fashion not at all typical, the line degenerates into a funk-rhythm accompaniment of Doug Miller's unremarkable tenor saxophone. Further soloing from Marty Ehrlich's alto sax and Ray Anderson's stratospheric trombone does little to lighten matters.

A much more dramatic middle section is triggered by Ehrlich's solo flute, which leads to an Ornette Coleman-like unison line that is thrown back and forth quite effectively. Then, the mood quickly changes into a light, bouncy pop-jazz, with oddly anachronistic wah-wah guitar accents. Fortunately, Russell brings in conflicting rhythmic overlays and builds to a recap of the opening's suspended harmonies.

The remaining two pieces, *Ezz-thetic* and *D.C. Divertimento* are reworkings of earlier small-group pieces. The former, named after heavyweight boxer Ezzard Charles, was originally written for a 1948 recording session featuring Lee Konitz and Miles Davis and is here adapted for large-band by Jerry Coker. It's difficult to imagine why Russell would record one of his seminal pieces as arranged by someone else, and good as Coker is, the orchestration is more surface than substance. With its disjunct lines, leaping intervals and displaced rhythmic accents, *Ezz-thetic* has always been a virtual testing piece for adventurous young players. But it also reflected the specialness of Russell's tonal



George Russell: one of the genuinely gifted jazz composers of the last few decades

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BACKBEAT Reviews



Surman and Krog: toward accessibility

imagination. Coker has kept the difficulty (listen to the horn voicings on the bridge) but lost the specialness.

D.C. Divertimento, written for the John F. Kennedy Jazz Festival in Washington, D.C. in 1962, is presented here in an expanded version by pianist Goetz Tangerding. Russell was at a considerable peak in 1962, and the piece throbs with the off-beat, melody/rhythm counterpoint that is so essential to his style. Despite the competency of the new translation and its performance, however, one is left wondering how the composer himself would have updated *D.C.* some 20 years after conceiving it.

Regrettably, "Live in an American Time Spiral" probably won't expand Russell's audience. As one of the genuinely gifted pure jazz composers of the last few decades, he deserves to be heard in better circumstances.

DON HECKMAN

John Surman:
Such Winters of Memory
 Manfred Eicher, producer
 ECM Records 23795

English saxophonist John Surman has established a solid reputation over the past decade as a primary member of the European contemporary jazz movement. During that time, much of his work has concentrated on the use of synthesizer sounds as textural settings for improvisation.

"Such Winters of Memory," his third recording for ECM, adds the voice of Scandinavian singer Karen Krog and the percussion of Pierre Favre to Surman's collection of woodwind instruments and electronic devices. It also demonstrates the composer's ability to find structures and procedures that make his sometimes thorny music quite accessible.

Saturday Night places Surman's driving baritone sax over long, deeply echoed whole notes from Krog that recall the sound of Palestrina choirs. It is the very juxtaposition of these disparate elements that makes the piece work. A matching composition, *Sunday Morning*, similarly places

Surman's baritone over sequenced synthesizer phrases that build to the gradual entrance of choral phrases (apparently overdubbed by Krog and Surman). This is music that would not be out of place in a Sunday church service. My only carp is that the language of the chorus is buried too far in the background to decipher—presumably just what Surman intended, but a bit disconcerting.

Krog comes forward on *My Friend*, first with held dissonances against Surman's bass clarinet, then with lyrics about "repentance," "hate," and "regret." The song comes to life, as it moves into a crisply rhythmic section, with singer and instrumentalist building a surging momentum solely on the intensity of their accented phrasing and without benefit of percussion. *Seaside Postcard 1951* is far more abstract, filled with the disjunct pointillism favored by jazz players who have spent time with the recordings of Webern, Stockhausen, et al. Once again, however, it is the strength of the rhythm—even though it is only implied in most places—that sustains interest.

On the Wing Again, the album's longest work, has more traditional roots. Synthesizer patterns outline a fairly simple harmonic scheme, Surman's baritone makes contrapuntal asides, and Krog sings a few chilly phrases about solitude and "time in motion." The entrance of Surman on soprano sax, soaring above the thickening textures below, generates a considerable amount of intensity, but the lack of any harmonic or rhythmic alterations in the synthesizer patterns makes this track at least three minutes too long.

Appropriately, it is followed immediately by Surman's short, concise, quite impressionistic piano version of John Coltrane's *Expressions*. Then, in a peculiar shift of gears, the album concludes with *Mother of Light*, in which Krog makes a well-intended but ultimately unsuccessful attempt to sing in Indian classical style. Give her credit for understanding the music and trying to implement its difficult microtonal ornamentation.

DON HECKMAN

An Evening with Windham Hill Live
 William Ackerman, Alex deGrassi
 & Steve Miller, producers
 Windham Hill WH 1026

Those not yet familiar with Windham Hill's artists will find this digitally recorded concert sampler, chronicling an October 1982 performance in Boston, an excellent introduction. Though there are obvious stylistic differences among the four composers represented—guitarists Michael Hedges, Alex deGrassi, and Will Ackerman (the company chief executive officer), and pianist George Winston—each owes a strong debt either to folk or classical music. The result, while deeply improvisational, steers clear

(Continued on page 103)

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BACKBEAT REVIEWS

(Continued from page 100)

of both the gospel-blues melodic inflections and the uneven eighth-note rhythmic stresses of contemporary jazz.

This has benefits as well as hazards. Hedges's *Rickover's Dream* is beautifully played, with a full, rich string sound. But his apparent folk orientation leads him to a series of hanging suspensions and unresolved dominant chords that never seem to go anywhere. Not until he gets into some low-string slapping accents, just before the conclusion, does the performance come to life. And at that point, it's too late.

On *Spare Change*, Hedges comes up with a better melody, but the primary values in the performance stem from Michael Manning's powerful electric bass and Liz Story's predominant piano. (Story is also signed to the label as a solo artist.) Engineer Steve Miller has done a superb job of capturing the piano's enormous dynamic range.

DeGrassi is a harder-edged guitarist, with enviable technical prowess. His *Turning: Turning Back* is based on a simple descending phrase that evolves into a long, highly articulate solo. Sadly, at nine minutes it's too long; despite his fast fingers and sensitive phrasing, the great ponderousness with which the harmonic changes take place puts one on the edge of sleep.

STING

(Continued from page 92)

They learned those Led Zeppelin tracks note for note, then they learned the solos, then the singer would sing like Robert Plant. Myself, I started playing trad jazz at the age of sixteen; then I played in a big band, then I played mainstream jazz, then modern jazz, then rock last of all. Andy [Summers] has an equally checkered career. He has backed people like David Essex, Kevin Coyne, Kevin Ayers, and his background is incredibly varied. Stewart's [Copeland] too.

Backbeat: Do you think your technical facility and formal training help you effect a more "catholic," as you put it, style?

Sting: Yeah, you have a greater variety of choices than you have if you've only been brought up in one religion.

Backbeat: And is it possible that the more you know, the more you know what to leave out?

Sting: Well, my hero is Miles Davis, who I think is still the world's greatest trumpet player. His art has been refined down to virtually nothing. Now, with heroes like that, you don't say, "The more notes you play per bar, the better musician you are." It's the opposite. Silence is music, too; the silence between the notes is half the equation. I've learned from Miles and Trane. These people are the masters. It's not the lightning-note brigade that I like. Andy is the same. He has a kind of Zen approach to

DeGrassi's *Clockwork* is marginally more interesting, primarily because of the presence of four more musicians. Hypnotically repetitive eighth-notes that pulsate, like a teletype, throughout the track are structurally useful but so mechanical in execution that any emotional impact is lost.

Ackerman's *Visiting* has a soaring melody, but it's hard to understand why, in this very acoustic music, he has chosen to assign the line to a Lyricon. Its warmth and lyricism are lost in the piercing, other-worldly tone of this synthesized wind instrument. And, strangely, this track is muddy in texture, causing Manning's bass to intermittently lose its identity.

Hawk Circle, the second Ackerman piece, is a two-chord turnaround structure that owes a tremendous debt to the bright energetic piano lines of Winston. *Reflections/Lotus Feet* combines a Winston original with John McLaughlin's *Lotus Feet*. Winston relies on the sustain pedal a bit more than he should, but his intelligently varied touch and singingly melodic phrasing more than make up for an occasional muddiness. It's surprising that in this guitar-focused record company, pianists Winston and Story provide the most provocative music. It will be interesting to see if the laidback styles of the other Windham Hill artists will evolve into more creative expressions. DON HECKMAN

playing guitar.

Backbeat: Stewart and Andy have spent a certain amount of time on projects with other musicians. You haven't. Do you have any plans to work with other players?

Sting: I can't think of two musicians who complement my work better. It would take years to find better musicians—they're of a very high caliber, and they're very sensitive to what I do. I don't know . . . I don't really feel the need to look elsewhere. I get a lot of freedom within the group.

Backbeat: Well, I guess since 90 percent of the songs on Police albums are yours, the other guys need additional outlets more than you do.

Sting: Yes. I don't really want to say much more than that.

Backbeat: How is your burgeoning acting career coming along? Have you finished filming *Dune*? [*Dune* is scheduled by Universal Pictures for release in December of '84; Sting has a major role.]

Sting: Yes, about six weeks ago, after two months in Mexico City. One thing you mustn't miss when you go to Mexico City is the plane home [laughs]. It's a dismal place.

The film is going to be extraordinary. It has a budget of \$45 million. The director is David Lynch, who did *The Elephant Man* and *Eraserhead*. He's wonderful to work with. I think it's going to be an event—good or bad, it's going to be out there. It won't be in between. HF

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Advertising Index

Page No.

29	ADS
65	Aiwa America, Inc.
67	Allsop Electronics
24, 25	Alpine/Luxman
88	Angel Records
7	Audio-Technica U.S. Inc.
15	BSR
83	Carver Corp.
Cover II, 1	Commodore Business Machines, Inc.
III	Denon America, Inc.
35	Denon America, Inc.
Cover IV	Discwasher, Inc.
77	Dual/Adcom
21	Harman Kardon
32	Hitachi Sales Corp.
97	Illinois Audio
85	J&R Music World
49	JVC Co. of America
37	KEF
31	Koss
81	LaBelle Camera & Stereo
100	LAM Development
8	Magnepan Incorporated
19	Maxell Corp.
74	McIntosh Laboratories
16, 17	MBI, Inc.
22	MEMTEK
56, 57	MEMTEK
50	Mitsubishi Electronic Sales
87	Nagaoka
63	Nakamichi U.S.A. Inc.
2	NEC Home Electronics, Inc.
4	NRI Schools
27	Onkyo
79	Panasonic/Technics
6	Sansui Electronics Corp.
66	Sansui Electronics Corp.
87	Sennheiser Electronics Corp.
76	Signet
9	Sony Corp. of America
10, 11	Sony Corp. of America
73	Sony Corp. of America
95	Sony Corp. of America
12	Stereo Corp. of America
71	TDK Electronics Corp.
5	Teac Corp. of America
88	Technics
	Wisconsin Discount

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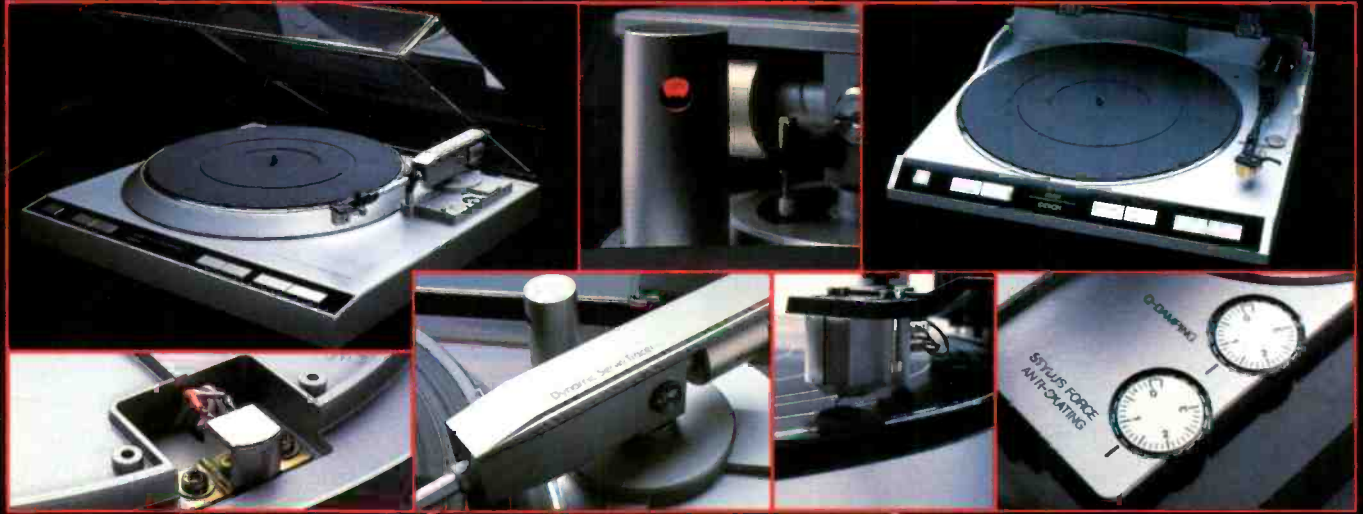
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