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On the Cover: From top: Kodak MVS-5460 8mm camcorder, Akai GX-R99 cassette deck, Sony PCM-601ESD digital-audio adapter

HIGH FIDELITY

Volume 36 Number 8 August 1986

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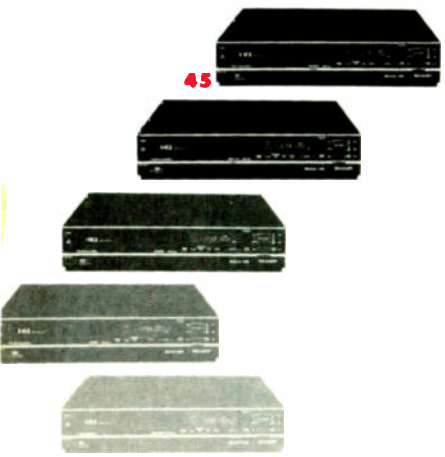

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BY

WILLIAM

TYNAN

TAPE: HOLDING ITS OWN

EVERYWHERE YOU TURN TODAY, YOU READ ABOUT THE Compact Disc. Certainly it has captured the attention of the media and the public over the last year—so much so that one might overlook the prominent role that tape continues to play in home entertainment. This month we take a look at many aspects of this role.

First, there is the battle over videocassette formats. The newest entry—8mm—has been on the market for about a year now, but within the past two months it has become embroiled in a "name names" media battle with VHS over the relative merits of each format. Although the focus has been on the camcorder market, the implications of a "winner" are more far-reaching. VHS has dominated the VCR industry for years, holding Beta to less than 20 percent of sales; whether it will have the same success against 8mm remains to be seen. To help sort out the claims and counterclaims, we've prepared a comprehensive guide, "A Perfect Fit," in which Gordon Brockhouse examines the contenders, pointing out the assets of each.

In his "Scan Lines" column, Technical Editor David Ranada explores the technology of recording digital audio on videotape, and in "Tape Tracks," Consulting Technical Editor Robert Long relates two helpful tips on conventional audio cassettes—one a dubbing "don't," the other a quick test for cassette quality. Meanwhile, R. D. Darrell and Terry Teachout contribute reviews of 19 new classical music cassettes. And completing our special tape coverage, we offer test reports on Kodak's new 8mm digital-audio VCR, two audio cassette decks, and a new PCM processor.

Also in this issue, you'll find thorough explanations of two fundamental topics, frequency response and power specs; a reply to Tikhon Khrennikov, First Secretary of the Union of Soviet Composers, in which Paul Moor asserts that Moscow's music czar is less beneficent than implied in our recent interview with him; and a talk with Third Stream jazz pianist Ran Blake.

Next month, look for a special report on the recent Summer Consumer Electronics Show and our annual preview of forthcoming classical recordings. ■

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Now the genius of Matthew Polk brings you the awesome sonic performance of the SDA-SRS in a smaller, more moderately priced, but no less extraordinary loudspeaker, the SDA-SRS 2.

"Spectacular...it is quite an experience" *Stereo Review*

Matthew Polk's ultimate dream loudspeaker, the SDA-SRS, won the prestigious Audio Video Grand Prix Speaker of the Year award last year. Stereo Review said "Spectacular...it is quite an experience" and also stated that the SRS was probably the most impressive new speaker at the 1985 Consumer Electronics Show. Thousands of man hours and hundreds of thousands of dollars were spent to produce this ultimate loudspeaker for discerning listeners who seek the absolute state-of-the-art in musical and sonic reproduction.

Matthew Polk has, during the last year, continued to push his creative genius to the limit in order to develop a smaller, more moderately priced Signature Edition SDA incorporating virtually all of the innovations and design features of the SRS without significantly compromising its awesome sonic performance. The extraordinary new SRS 2 is the successful result. Music lovers who are privileged to own a pair of either model will share Matthew Polk's pride every time they sit down and enjoy the unparalleled experience of listening to their favorite music through these extraordinary loudspeakers, or when they demonstrate them to their admiring friends.

"Exceptional performance no matter how you look at it" *Stereo Review*

Listening to any Polk True Stereo SDA* is a remarkable experience. Listening to either of the Signature Edition SDAs is an awesome revelation. Their extraordinarily lifelike three-dimensional imaging surrounds the listener in 360° panorama of sonic splendor. The awe inspiring bass performance and dynamic range will astound you. Their high definition clarity allows you to hear every detail of the original musical performance; while their exceptionally smooth, natural, low distortion reproduction encourages you to totally indulge and immerse yourself in your favorite recordings for hours on end.

Julian Hirsch of Stereo Review summed it up well in his rave review of the SDA-SRS: "The composite frequency response was exceptional ...The SDA system works...The effect can be quite spectacular...We heard the sound to our sides, a full 90° away from the speakers...As good as the SDA feature is, we were even more impressed by the overall quality of the Polk SDA-SRS....The sound is superbly balanced and totally effortless...Exceptional low bass. We have never measured a low bass distortion level as low as that of the SDA-SRS...It is quite an experience! Furthermore, it is not necessary to play the music loud to enjoy the tactile qualities of deep bass...Exceptional performance no matter how you look at it."

The awe-inspiring sonic performance of the SDA-SRS 2 is remarkably similar to that of the SRS. Words alone can not express the experience of listening to these ultimate loudspeaker systems. You simply must hear them for yourself!

"Literally a new dimension in sound" *Stereo Review*

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Where to buy Polk Speakers? For your nearest dealer, see page 15.

L E T T E R S

A MISSING MODERN MASTER?

I REFER TO K. ROBERT SCHWARZ'S ARTICLE "A Celebration of Three Modern Masters" [April], not to dispute the truth of any specific statement he makes but to protest the confusion he engenders for the sake of having a combined review of three recordings fit neatly into a unifying thesis. It is true that Steve Reich and Philip Glass are two (of three) founding fathers of minimalism. Unfortunately, Nonesuch has *not* just released an album by the founding father Mr. Schwarz conveniently overlooks, Terry Riley (born in 1935), whose 1964 *In C* antedates the first recordings of the other composers by several years.

John Adams is certainly worthy of review, but is the "younger disciple" then elevated to the position of one of the three masters simply by virtue of having a record released by the same company as that of Reich and Glass? It is commendable to trace the evolution of modern masters, including influence on younger composers, but it is disconcerting to the reader to encounter these ideas wantonly jammed together at the expense of clarity and good judgment.

Nolan Hatcher
Atlanta, Ga.

Classical Music Editor Theodore W. Libbey, Jr., replies: Don't you think you're overstating the case a bit? No one disputes Riley's importance as one of the seminal figures in minimalism. But does his name spring to mind when minimalism is mentioned these days? I don't think so.

The "unifying thesis" you allude to is nothing of the sort: I asked Mr. Schwarz to review three new records of works by Glass, Reich, and Adams and to discuss the musical styles of the three composers because those were the records Nonesuch happened to issue. A discussion of Riley would have been inappropriate, as would a discussion of Robert Ashley, John Cage, or Carl Orff. And it would have been far more disconcerting to the reader than the thoughtful treatment Mr. Schwarz provided, which to my mind is both clear and a model of good judgment.

DOES ANYBODY REALLY KNOW WHAT TIME IT IS?

IN YOUR MAY "CD SPREAD," YOU INDICATE THE playing time of the 1951 Bayreuth Festival recording of Beethoven's Ninth Symphony as being 64:50. And that is under the baton of Wilhelm Furtwängler. Well, this ain't Toscanini! I believe 74:50 would be more correct. I'm sure it was a misprint.

Anthony Hudavordi
Santa Monica, Calif.

Right you are. A check of the playing times for the symphony's four movements gives these numbers: 17:48, 11:57, 19:35, and 25:10. Their sum is 74:30, and if we add 0:20 for between-movement breaks, we get a total playing time of 74:50.—Ed.

VCR HEAD COUNT

THE ITEM TITLED "FOUR HEADS ARE BETTER" ["Crosstalk," June] could be very misleading. Since most manufacturers count the two audio heads used for VHS Hi-Fi along with the video heads, a "four-head" VHS Hi-Fi deck has the same video complement as a two-head non-Hi-Fi recorder.

Robert L. Gable, Jr.
Glendale, Ariz.

Good catch. Actually, more and more VHS manufacturers are counting the audio and video heads separately, so the situation is improving. And since Beta Hi-Fi uses the video heads, the issue does not arise with that format.—Ed.

I APPLAUD YOU FOR RECOGNIZING THE CLOSE relationship between audio and video these days and covering both for us. But I think that your response to Joseph Campbell in your June "Crosstalk" is incorrect.

(C O N T I N U E D O N P A G E 1 1)

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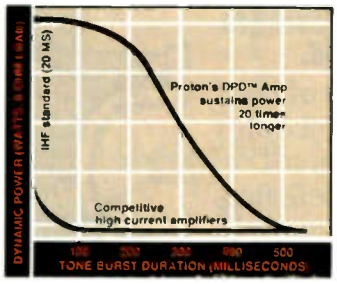

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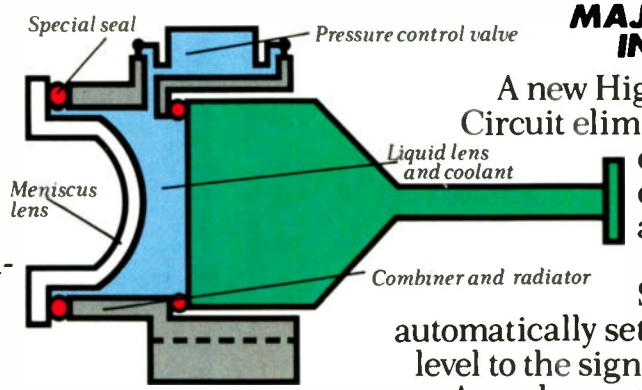

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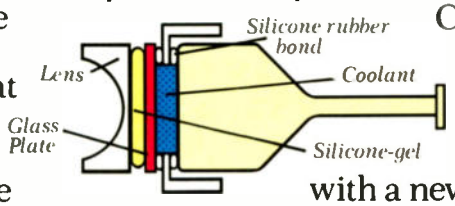

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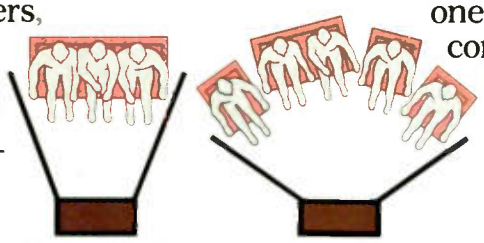

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STEREOPHILE (U.S.) Winter 1986

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HI-FI HERETIC (U.S.) Winter 1986

Mirage 550
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STEREO GUIDE November/December 1984

Mirage 650
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SOUND AND VISION January/February 1986

Mirage 750
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(CONTINUED FROM PAGE 6)

The extra heads on VCRs benefit the faster speeds, permitting special effects and better video quality. The two-head machines are optimized for the *slowest* speed (because that's what most folks use for recording). So your advice is backwards: When making an EP copy of a prerecorded SP tape, the high-speed original should be played on the four-head deck, for best possible reproduction, and the slow-speed copy made on the two-head VCR, whose heads are optimized for that speed.

By the way, there *are* some two-head Hi-Fi machines for those EP-only recordists smart enough to avoid the extra cost of a four-head deck. Emerson's VCS-966 even includes an MTS tuner and can be had for about $400.

Jay H. Wald
Whippany, N.J.

Our advice was predicated on the notion that the two-head deck wouldn't provide Hi-Fi audio recording (which Mr. Campbell's letter seemed to imply), but you are right that this is not always the case. Mitsubishi and Harman Kardon are examples of other manufacturers that have sold two-head Hi-Fi VCRs. On the other hand, not all four-head models provide superior high-speed performance: The extra heads often are used solely to obtain enhanced special effects (clean still-frame, for instance).—Ed.

EDITOR FLIM-FLAMMED?

IF SARCASM IS THE LOWEST FORM OF WIT, parody must be the most difficult to pull off. Ron Howell's letter in the June "Crosstalk," bemoaning the disappearance of AM-FM stereo simulcasts and detailing his problems with a cardboard spindle adapter for CDs, was perfectly judged. Firmly tongue-in-cheek, it doesn't neglect to include a few clues to make plain to all that it is a parody.

Plain, that is, to all but the editor, who goes to some lengths (at least two column-inches) to respond in all seriousness to Mr. Howell's queries. Either that, or the reply is so cunningly and deviously constructed that if it, too, is meant as parody, the point is totally submerged.

So please, Mr. Howell and Mr. Editor, get together and let us have a clear statement as to just who is taking the mickey out of whom—for the record.

Cyril Fleisher
Prospect Park, Pa.

We did debate the letter's authenticity before printing it, but ultimately decided that it was on the level. It is not the first such query we've received about CDs (regarding how to play them on conventional turntables), and Mr. Howell seems utterly ingenuous in the original, unedited version of his epistle. However, the editor (a low fellow given to sarcasm and credulity) may indeed have missed something here; certainly he detected no clues that he was being duped. Are you out there, Mr. Howell?—Ed.

PAGING JOHN CHARLES THOMAS

WHERE, OH WHERE, IS ALL THAT MAGNIFICENT music of American baritone John Charles Thomas? Ever since his death in 1960, there has been a total absence of his work on the air, on LP, and on tape. Or have I been listening to the wrong stations and searching through the wrong music outlets?

Anyone who can remember his many renditions from the Gilbert and Sullivan parade, his delightful "Green-eyed dragon with the thirteen tails," or his incomparable Johnny Appleseed must be wondering the same thing. The above is only a fragment of his vast repertoire, and all his performances were equally delightful.

Again, where can I obtain recordings by John Charles Thomas?

Arthur V. Rowe
Crescent City, Calif.

Contributing Editor Paul Hume replies: John Charles Thomas made four recordings that appeared on the Camden label, and I have them all.

Camden 199 contains opera arias, popular songs, and several operetta selections; Camden 208 is a mixture of things, including some Beethoven; Camden 244 contains popular and sentimental ballads; and Camden 367 is a collection entitled I Hear America Singing. *Other than for a single band on one or two historical anthologies and a handful of 78s, I'm afraid those are the only recordings you are going to find—and you will have to go to a pretty good secondhand record store to get them.*

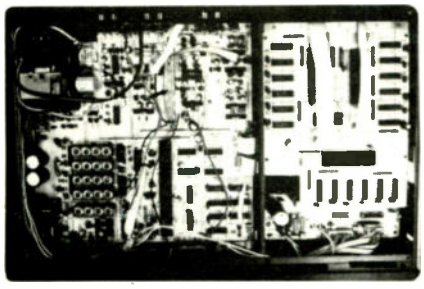
I think Thomas was the most gorgeous singer of his day, greater than Lawrence Tibbett. But he sang as much, or more, in Chicago as at the Met, so he was not as well known. He was Escamillo in the first Carmen *I ever heard, with Conchita Supervia (1895–1936), which tells you how long ago that was.*

I said those four Camdens are all you are likely to find. But there is one private recording I have in which Thomas and Rosa Ponselle sing "Carry Me Back to Old Virginny." It was made at an Eisenhower for President rally in the Baltimore armory, when Eisenhower was first a candidate. Rosa gave me that one.

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.

This month's featured product, the Yamaha DSP-1 Digital Sound Field Processor, enters the competition for HF's Product of the Year Awards.

Yamaha Surround Processor Simulates Concert Halls



THE THREE MAIN DIGITAL SIGNAL-PROCESSING CHIPS IN YAMAHA'S DSP-1 ARE IN THE RIGHT SIDE OF THE CHASSIS, SURROUNDED BY DIGITAL MEMORY CHIPS. THE LEFT SIDE CONTAINS THE ANALOG INTERFACE CIRCUITRY, INCLUDING ONE ANALOG-TO-DIGITAL (A/D) CONVERTER AND TWO DIGITAL-TO-ANALOG (D/A) CONVERTERS (LOWER HALF OF CIRCUIT BOARD). THE 20 SMALL CIRCLES AT LEFT ARE TRIMMING ADJUSTMENTS FOR THE INPUT ANTIALIASING AND OUTPUT-SMOOTHING FILTERS.

HARD ON THE HEELS OF THE FIRST DIGITAL signal-processing product for consumer use (Sony's SDP-505ES surround-sound processor, discussed in June's "Currents") comes Yamaha's DSP-1 Digital Sound Field Processor. To say that it represents a substantial technological advance over previous consumer products designed to enhance stereo listening would be a high-order understatement.

The company says that it "has scientifically examined the acoustic 'personality,' or sound field, of many different and highly regarded concert halls and other environments and then digitally stored the information [in the] new unit. The DSP-1 permits re-creation of those acoustic characteristics in the home." That re-creation is performed by special-purpose digital signal-processing VLSIs (very-large-scale integrated circuits) developed by Yamaha. The three in the DSP-1 enable it to do such things as synthesize the first 80 or so early reflections of actual music-performance spaces by using data stored in the unit's memory chips, synthesize reverberation simulating a variety of very different acoustic spaces, perform an assortment of sound effects used by musicians, and decode Dolby Surround soundtracks.

Stored in the DSP-1 are data for the early-reflection patterns (time, amplitude, and direction) of four European concert halls: the Berlin Philharmonie, the Frankfurt Old Opera House, the Mozarthalle at the Konzerthaus Stuttgarter Liederhalle, and the Herkulessaal in Munich. When one of these hall-simulation modes is selected via the DSP-1's infrared remote control, the unit delays the incoming sound the required amount for *each* reflection and applies the directional characteristics necessary by adjusting the reflection's level in each of four output channels. The synthesized reflections are all added up and then fed out. For these four halls, the DSP-1 supplies only the early reflections in their proper order, level, and direction; no reverberation is synthesized.

In addition, the unit includes models to synthesize the acoustic space of a cathedral, a smaller church, a jazz club, a rock concert hall, a disco, a large pavilion, a warehouse loft, and an outdoor stadium. All of these models have user-changeable characteristics. For example, you can vary the apparent room size, liveness, initial time delay, and applied high-pass and low-pass filtering for most of the spaces, thus creating new sonic environments that can be stored in the unit's 16-position programmable memory.

Of particular interest to self-recording musicians will be the various sound effects performed by the unit. Included are straight delays, stereo echoes, two flanging modes, two chorus effects, phasing, tremolo, an echo room, two pitch-change modes, circular around-the-room panning, and separate front-back or left-right panning. All of these modes also have user-adjustable characteristics. In the flanging modes, for instance, you can vary the modulation frequency, depth, and delay, as well as the feedback gain.

Much of the Dolby Surround process also is performed digitally (specifically, the required 30-millisecond delay and a 7-kHz low-pass filter). The Dolby B decoding is done by an analog Dolby chip, however. Two "Yamaha Surround" modes simulate the sound of a Dolby Surround movie in two different movie theaters.

Inasmuch as the DSP-1 is a *digital* signal

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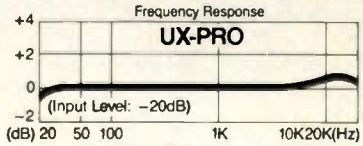
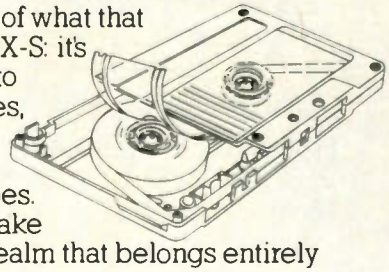


For an example of what that means to you, take UX-S: it's priced equivalently to comparable cassettes, yet delivers sound comparable to *their* high-end Type II tapes.



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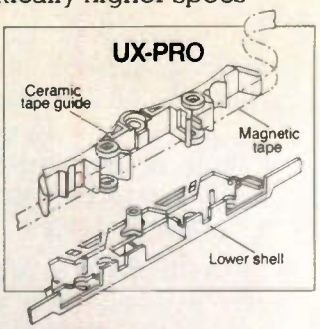

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processor, the unit's analog inputs are converted into a PCM signal by a 16-bit analog-to-digital converter operating at a 44.1-kHz sampling rate. There is only one converter because the unit operates on either the sum or the difference information in the stereo signal. The device's analog outputs originate in 16-bit digital-to-analog converters (DACs). Two DAC chips are used, each one multiplexed to provide two output channels (in the manner of most Compact Disc players). The DSP-1 normally is hooked up in a tape-monitor or external-processor loop. It has no direct digital inputs or outputs, but it does have a mono center-channel output.

The DSP-1 generates a set of four line-level processed-sound signals. Ideally, they are led to four extra speakers (attached to appropriate amplifiers): two placed in front of the listener (but not too close to the main loudspeakers) and two behind. This setup therefore calls for a total of six speakers in the listening room. For a four-speaker installation, the unit can be switched to blend the front auxiliary outputs with the main channels, which otherwise remain untouched by the DSP-1 processing.

Preliminary specs of the processed output call for a dynamic range of 94 dB, distortion of 0.006 percent at 1 kHz, and a frequency response of 20 Hz to 20 kHz, +½, –3 dB. The DSP-1 is priced at $850. For additional details, write Yamaha Electronics Corp., 6660 Orangethorpe Ave., Buena Park, Calif. 90620.

ORTOFON CARTRIDGES

ORTOFON X1-MC (LEFT) AND X3-MC PHONO CARTRIDGES

AS THE FIRST PRODUCTS TO EMPLOY Ortofon's high-output moving-coil technology, the X1-MC and X3-MC phono cartridges are said to retain the traditional benefits of moving-coil designs while offering 2-millivolt outputs matching the sensitivities of standard phono-input stages. The cartridges use specially shaped samarium-cobalt magnets and a miniature cross-shaped armature on which the coils are wound. Eighteen-micrometer copper thread (claimed to be one-third thinner than that used in typical moving-coil designs) allows for more coil windings (230) than in conventional low-output cartridges without a concomitant increase in moving mass. The X1-MC has an elliptical diamond stylus and costs $75. The X3-MC, with a price of $140, has a nude fine-line stylus. Write Ortofon, Inc., 122 Dupont St., Plainview, N.Y. 11803.

VECTOR RESEARCH MONITOR/RECEIVER

VECTOR RESEARCH'S FIRST TV MONITOR/receiver, the VTM-25, is a 25-inch set with a cable-ready 134-channel frequency-synthesis tuning system and a stereo TV decoder. It has built-in stereo speakers and a stereo amplifier with separate bass and treble controls; mono sound can be enhanced with the unit's stereo-synthesis circuitry. The black-matrix picture tube has a tinted glass filter to reduce reflections and absorb ambient light. A high-definition comb filter aids in obtaining the unit's rated horizontal resolution of 400 lines. The supplied infrared remote control handles 21 functions. Price is $900. More details are available from Vector Research, 20600 Nordhoff St., Chatsworth, Calif. 91311.

ALPHASONIK CAR AMPS

WITH A SUPPLY VOLTAGE BETWEEN 11.5 AND 14 volts and a load of 2 or 4 ohms, Alphasonik's MA-2300 and MA-2150 Class A autosound power amplifiers are rated to deliver continuous outputs of 300 watts (24¾ dBW) and 150 watts (21¾ dBW), respectively. Bridged for mono operation into 4- or 8-ohm loads, these figures double to 600 watts (27¾ dBW) and 300 watts (24¾ dBW). Total harmonic distortion at rated power is given as 0.01 percent. Both amplifiers use a current-mode pulse-width-modulation regulated power supply built around MOS FETs (metal-oxide-semiconductor field-effect transistors). MOS FETs are more rugged and temperature-stable than conventional transistors, switch faster, and have lower quiescent power dissipation (which increases overall efficiency). The amplifiers' Permatect circuitry protects against damage from shorted speaker outputs or overheating. The system also mutes the amplifiers briefly at turn-on to suppress any start-up pops or thumps. The MA-2300 costs $700; the MA-2150, $500. For additional information and specifications, contact Alphasonik, Inc., 701 Heinz Ave., Berkeley, Calif. 94710.

LASER PLAYER FOR LPs!

AN ANALOG TURNTABLE USING A LASER BEAM to play LPs has been announced by Finial Technology. To obtain the no-contact tracking attributed to the device, various servo and micro-positioning mirror systems are used, all under the control of a microproces-

sor. These optically sense and direct the laser-diode-derived beams into the proper groove. The company claims that precise tracking is maintained "regardless of record warp, vinyl disc anomalies, and major groove shifts from loud bass notes." The motor for the belt-driven platter is a computer-disk-drive stepper device said to allow control of the positioning and velocity of the platter to within four thousandths of a degree. The user can select turntable speeds ranging from 30 to 50 rpm. Projected price for the turntable is $2,500. More information on specifications and availability can be obtained from Finial Technology, 701A E. Evelyn Ave., Sunnyvale, Calif. 94086.

DBS IS BACK?

FOR LESS THAN $1,000, YOU CAN BE THE FIRST on your block—or, if you've got southern exposure, the first in your high-rise—to enjoy direct broadcasting from satellite (DBS). That, at least, is the claim of B.E.L.-Tronics, a Canadian company planning to have its small (1.4-meter) dish and 12-GHz electronics in satellite shops by the end of next month.

Originally, DBS was to make use of a small rooftop- or chimney-mounted dish trained on a single satellite and electronics capable of delivering half a dozen scrambled channels of entertainment for a monthly fee—a system quite different in concept, if not in execution, from the present one of "unauthorized" reception on a large dish in the backyard. The small DBS dish was supposed to be made possible by the short wavelength of the 12-GHz signal (one-third the wavelength of conventional 4-GHz large-dish transmissions) and also by the fact that each satellite relay would be from five to eight times as powerful as those now in use.

B.E.L.-Tronic's idea, however, is to tap the existing programming on the four extant 12-GHz satellites, at least until the programmers on those "birds" decide to scramble the signals. The basic system offered by the company is true to the original DBS concept, since it uses a fixed dish. But for $150 more you can have a drive system enabling contact with all four 12-GHz satellites.

Depending on where you live in North America, there's just about enough programming at the moment to make the plan feasible. GStar, a satellite whose signal covers virtually all of the continental United States and southern Ontario and Quebec, offers six DBS-type channels that should please any videophile, two university-level instructional channels, and the thrill of watching occasional video uplinks by local TV stations around the country. The Anik C3 satellite provides separate packages of cable-oriented entertainment for viewers east and west of the Mississippi, and although the beams are aimed at Canadian population centers, they also take in much of the northern half of the United States. Satcom K2 features NBC network relays and East and West Coast feeds plus occasional video uplinks. It is receivable throughout much of the Lower 48. Anik B carries a single channel of pari-mutuel racing.

If you choose GStar, you get superstation WTBS, CNN Headline News, Showtime's East and West Coast feeds, a movie channel, and ESPN. But you may not get them for long. These channels, intended for Holiday Inn guests, are likely to be scrambled beginning sometime next year, and the encoding system will not be compatible with those employed by Home Box Office or other 4-GHz scramblers. Aiming your dish at Anik C3 gets you a premium movie channel (First Choice), an educational channel (TV Ontario in the east, the Knowledge Network in the west), a regional commercial network (Atlantic Satellite Net in the east), the Life Channel, and three French-language channels, including a premium movie service. And coming soon, Quebec's answer to MTV. Anik has no plans to scramble, but if it does, the system is likely to be Oak-Orion, which is different from the ones to be used by GStar and HBO.

Most of the satellites originally planned for launch in 1986 and 1987 were to be of the 12-GHz variety, which would have meant plenty to look at even if GStar and Anik were to scramble and which might have assured the growth of the still nascent DBS industry. But rocket failures seem to have wiped out a U.S. launch of any commercial communications satellites for quite some time, and the European Arianespace consortium has been having problems of its own. The two satellites the Chinese hope to launch, Westar VI and Palapa, are refurbished 4-GHz birds. Still, DBS seems to be here at last—sort of.

Robert Angus

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339200. Stevie Wonder—In Square Circle. #1 album. (Tamla)

339044. Mozart: Symphonies 40 & 41 (Jupiter). Kubelik, Bavarian Symphony (Digital-CBS Masterworks)

337402. The Manhattan Transfer—Vocalese. Top 10 album. (Atlantic)

341677. Schubert: Symphonies Nos. 2 & 8. Barenboim, Berlin Phil. (Digital-CBS Masterworks)

342592. Motown R&B Grammy Performances Of The 60's and 70's (Motown)

324822. Ravel: Bolero; Rhapsodie Espagnole; etc. Maazel, Orch. de France (Digital—CBS Masterworks)

344408. Neil Diamond—Heeded For The Future. Title cut; more. (Columbia)

337519. Heart. Top 10 Album. What About Love, Never; etc. (Capitol)

336669. Sting—The Dream Of The Blue Turtles. #1 Compact Disc, Top 10 Album. (A&M)

342121. The Outfield—Play Deep. Say it Isn't So; Your Love; more. (Columbia)

319541. Elton John—Greatest Hits. Daniel; Crocodile Rock; more. (MCA)

343335. Julian Lennon—The Secret Value Of Daydreaming (Atlantic)

340323. Sade—Promise. #1 Smash. (Portrait)

263293. Bolling: Suite For Flute & Jazz Piano—Rompol, Bolling (Columbia)

339226. Gershwin: Rhapsody In Blue; Second Rhapsody; etc—M. Tilson Thomas, Los Angeles Phil. (Digital—CBS Masterworks)

338616. Miami Vice—Music From The Television Series. G. Frey: #1 You Belong To The City; many more. (MCA)

341297. Prokofiev: Symphony No. 1 (Classical); Love For Three Oranges Suite—Lorin Maazel cond. (Digital—CBS Masterworks)

323261. Lionel Richie—Can't Slow Down. All Night Long; Stuck On You; Hello; etc. (Motown)

335547. Berlioz: Symphonie Fantastique. Borenboim, Berlin Phil. (Digital-CBS Masterworks)

331264. Bryan Adams—Reckless. #1 hit: Heaven; Run To You; etc. (A&M)

339903. The Cars—Greatest Hits. Tonight She Comes; more. (Elektra)

341263. Enoch Light & The Light Brigade—Big Bands Of The Thirties. Begin The Beguine; more. (Project 3)

322008. Linda Ronstadt & The Nelson Riddle Orch.— What's New. (Asylum)

341073. Steely Dan—A Decade of Steely Dan. Reeling In The Years; Hey Nineteen; more. (MCA)

320499. The Police—Synchronicity. Winner of 3 Grammy Awards! (A&M)

343160. Beethoven: Symphony No. 9 (Choral). Bruno Walter, Columbia Sym. (CBS Masterworks)

337279. Plocido Domingo—Save Your Nights For Me. Love songs. (CBS)

318089. Michael Jackson—Thriller. Billy Jean; The Girl Is Mine; etc. (Epic)

342105. Bangles—Different Light. Manic Monday, more. (Columbia)

322024. Huey Lewis & The News—Sports. Bad Is Bad; etc. (Chrysalis)

314443. Neil Diamond's 12 Greatest Hits, Vol. 2. You Don't Bring Me Flowers (with Barbra Streisand); etc. (Columbia)

343624. Wynton Marsalis Plays Trumpet Concertos. Haydn, Hummel, L. Mozart. (Digital—CBS Masterworks)

308049-398040. Creedence Clearwater Revival Featuring John Fogerty/Chronicle. Greatest hits. (Counts as 2—Fantasy)

219477. Simon & Garfunkel's Greatest Hits. El Condor Pasa; Bridge Over Troubled Waters; etc. (Columbia)

333112. Andreas Vollenwelder—White Winds. The inventive harpist's latest (Digital CBS)

331645. Madonna—Like A Virgin. #1 album & hits Material Girl; Angel. (Sire)

328435. Prince And The Revolution—Purple Rain. #1 hit: When Doves Cry. (Warner Bros.)

316604. Tchaikovsky: 1812 Overture; Marche Slove; Beethoven: Wellington's Victory. Lorin Maazel, Vienna Phil. (Digital-CBS Masterworks)

342097. Barbra Streisand—The Broadway Album. Somewhere; Something's Coming; more. (Columbia)

343715. Vivoldi—Four Seasons. Maazel, members Orch. National de France (Digital-CBS Masterworks)

343251. Bach: Goldberg Variations—Glenn Gould (Digital-CBS Masterworks)

343947

343293

326629

333286

343327

336396-396390 (2 CDs)

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C R O S S T A L K

DIGITAL VS. ANALOG FILTERS

SINCE I BOUGHT MY COMPACT DISC PLAYER, I've been hearing a lot about how much better it is to have one with digital filters and two digital-to-analog converters than one like mine, which has analog filters and a single D/A converter. I've been hearing about 90-degree phase shifts, 11-microsecond delays, and oversampling, and though I've been very happy with the sound of my player, now I'm wondering if I should rush out and trade it in for a new one with digital filters and dual converters. Will this really give me better sound?

C. R. Andrews
Rutherford, N.J.

No, it won't. Oversampling players with digital filters do produce less phase shift, but only at very high frequencies (above 8 kHz or so), where the difference is inaudible. And though a player with dual D/A converters (one for each channel) probably will not exhibit the 11.3-microsecond interchannel delay common to most single-converter models, this is not guaranteed. It doesn't matter anyway, because the delay is completely inaudible in stereo (equivalent to moving one speaker less than a quarter of an inch forward or backward relative to the other). It will cause a slight high-frequency rolloff if you switch to mono, but that is the only drawback. For more information on this issue, see "Two Chips—Better Than One?" and "Phase Shift," the October and November 1984 installments of "Basically Speaking."

SUPER SAMPLING RATES?

YOUR TESTS OF COMPACT DISC PLAYERS SPEAK of 14-bit converters, 16-bit resolution, and so on. What about sampling rate? That was the only thing that sales people would talk about when I bought my CD player last December. Apart from frequency response, distortion, and channel separation, what are the key specs to look for?

Name withheld by request
San Angelo, Texas

The sampling rate (which is standardized in CDs and therefore isn't something in which one player can outpoint another) is the frequency with which the analog signal is quantized to digital form or, as in CD players, the digital information is reconverted to an analog voltage. The quantization itself can compare the instantaneous sampled voltage against any scale, but those provided by 14-bit (2^{14}, or a scale of 1 to 16,384) or 16-bit (2^{16}, or a scale of 1 to 65,536) are the ones most commonly used for digital audio. CDs are recorded with 16-bit quantization, but some players actually use 14-bit digitol-to-analog converters (DACs) operated in ways that yield the same resolution os 16-bit converters. These techniques include "oversampling," in which the player generates two or four samples for every one thot is on the disc. This speeding-up also is necessary to the mathematics of the digital filtering employed by some players. The increase is not an advantage per se; one approach isn't necessarily superior to the other.

The most important aspect of a player's performance is its immunity to outright misbehavior, which is very difficult to quantify. The Philips test disc used by Diversified Science Laboratories for our reports includes a series of tests for error detection and correction capabilities and measures the player's ability to track fingerprints, scratches, and pressing flaws. But the most recent players now pass the toughest stages of each of these tests unfazed. And there is no unequivocal way of specifying a player's susceptibility to external shock and acoustic feedback.

SUPPRESSING SIBILANCE

I HAVE SOME TECHNICS COMPONENTS WITH A Shure cartridge, which have given me satisfactory results with all my records—except those made in France. Vocals are the problem: The s sounds are amplified and distorted. Is this caused by my cartridge or my receiver?

André M. Lebugle
Kentwood, Mich.

Although it might be your cartridge (we could tell more easily if we knew the exact model), the fact that the problem occurs only on some records suggests that the discs themselves are the culprits. They may have been recorded with exaggerated sibilance, which your system is now reproducing, or the emphasis may be great enough to cause tracking problems that other records do not. You could try using a premium cartridge (Shure's own V-15 Type V or ML-140HE should do nicely, though other fine models are available), but if the problem really is in the discs, you probably will get little or no improvement. Before rushing out to buy a replacement, make sure that your present cartridge is correctly installed—properly aligned and with the correct tracking force—and that its stylus is clean and not excessively worn. And remember that it usually is best to set the tracking force to the high side of the manufacturer's recommended range.

CASSETTE DECKS: HOW HIGH THE RESPONSE?

A LOT OF CASSETTE DECK MANUFACTURERS boast response to 20 kHz or beyond. Is this worthwhile for me, when I record only FM broadcasts, whose response reaches just to 15 kHz? Do prerecorded tapes have response to 20 kHz?

Dan Welton
Shelton, Conn.

A few carefully manufactured prerecorded cassettes, dubbed one-to-one on top-notch decks, might have response to 20 kHz, but ordinary commercial releases don't even come close. In any event, it's virtually impossible to measure the response of a commercially produced disc or tape unless you have access to the master that it purports to duplicate. And since almost no musical program material contains any significant information above 15 kHz, the question is more academic than practical anyway. (Remember, too, that we're talking about less than half an octave, from 15 to 20 kHz, in a range that many people, especially those more than forty years old, can't even hear.) Perceived high-frequency performance—whether of prerecorded tapes or of recordings from FM—usually depends mainly on what is happening at 4 to 8 kHz or so, where the ear is very sensitive. On the other hand, a deck capable of response to 20 kHz may have somewhat better performance where it really matters than a unit that is struggling to make it just to 15 kHz.

WATT'S TOO MUCH IN A SPEAKER?

WHEN I PURCHASED MY JBL 4312 SPEAKERS, the dealer told me they should handle from 10 to 200 watts constant power, but he wasn't too sure. The specs simply say 10 to 200 watts but give no information on the approximate power-handling capability. The manual doesn't give details on what the RMS power or maximum power should be.

Manuel Santos
Des Moines, Iowa

Your confusion—which a great many other readers share, judging from our mail—is the paradoxical result of speaker manufacturers' attempts to clarify a very complex subject. Perhaps the most unequivocal way of rating a speaker would be to feed in a weighted noise signal and gradually raise its level until a voice coil burns out. That would be a reasonable approximation of the speaker's maximum continuous power-handling capability. But it would say nothing about the speaker's ability to reproduce music, which doesn't sustain any tone for long. Music's quiet moments give stressed voice coils a chance to cool off, so brief transients much greater than the continuous rating can be passed without burning up a driver. But how much greater? That depends on the duty cycle imposed by the music actually being played and can be very different for different sorts of music.

All that a responsible manufacturer can address is the probability of burnout, not any absolute limiting value. So a rating of "10 to 200" watts, ludicrous as that wide a spread may sound, can have a useful meaning: For average tastes, rooms, music, and so on, 10 watts should be enough to drive the speakers to reasonable loudness, but on the same basis they probably will take the output of amplifiers rated as high as 200 watts per channel without serious risk of damage. Whether this is what the phrase actually means depends, among other things, on how responsible a manufacturer you're dealing with. Most makers of component-grade speakers, including JBL, rate their products this way, more or less, as confirmed by our speaker tests.

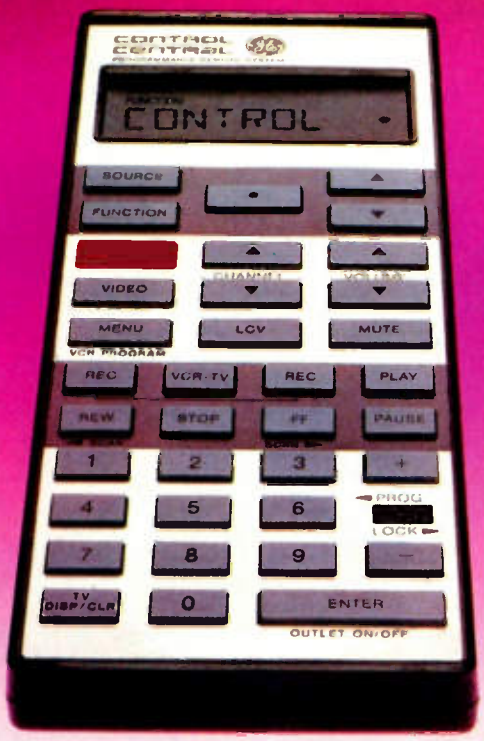
We regret that the volume of reader mail is too great for us to answer all questions individually.

MAXELL. THE TAPE THAT LASTS AS LONG AS THE LEGEND.

He was a homegrown, full-blown rocker from Lubbock, Texas. A teen idol for two years and a rock and roll legend for three generations. At Maxell, we help you preserve his music, with tapes manufactured 60% higher than industry standards call for. Tapes that will continue to deliver the same magnificent sound even after 500 plays. So in the years to come, you'll still be able to rock on, sighing your sighs, and dreaming your dreams, listening to the music of the late great rockabilly legend, Buddy Holly.

maxell

Introducing The One Remote That Does The Work Of Four.



The Control Central™ Remote.

Things are getting out of control. Separate remotes for your TV, VCR, stereo, CD or cable converter can be more control than you can handle.

But now you can replace up to four remotes with one. An infrared remote that works with most video equipment made today.

The Control Central™ infrared remote from General Electric.

To program Control Central, just flick the switch to "learn," place it head-to-head with the existing remote and press matching buttons on each.

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And it reprograms just as easily for new or added equipment.

You can get the convenience of this one remote for yourself, or give one as a gift.

Control Central. The one remote that keeps everything under control.

We Bring Good Things To Life.

Making Sense of Power Specs

BY MICHAEL RIGGS

HOW MANY WATTS? THAT, SURELY, IS THE MOST OFTEN asked question in audio. It almost always is the first item on the agenda for those in search of a new amplifier or receiver; in fact, it is a question frequently asked, rather inappropriately, about loudspeakers. The concern, as it regards amps and receivers, is a legitimate one, for it bears on a matter of fundamental importance: how loud you can make your records play. But if you are to profit by the answer, you must know how to interpret it properly and how to ask the necessary follow-up questions.

The problems begin with the way power usually is expressed. Let's consider for a moment three amplifiers, equivalent in all respects except for their maximum continuous power output. One is rated at 10 watts per channel, the second at 100 per channel, and the third at 1,000. Clearly, so long as the same loudspeakers are used, the third amp will play louder than the second and the second louder than the first. But how much louder? The obvious answer—that the big amp will play ten times louder than the middle-sized one and 100 times louder than the small one—is wrong, and by a very wide margin.

Subjectively, the 100-watt amp can play just twice as loud as the 10-watt model, and the 1,000-watt behemoth can play only twice as loud as the 100-watt unit. In other words, the 1,000-watt amp, with 100 times the power of the little 10-watt job, can deliver no more than a four-fold increase in perceived volume. The reason for this seeming paradox lies in the way we hear. Our sensation of loudness has a logarithmic, not linear, relationship to the actual acoustic power of a sound. And this, in turn, is the reason so many audio measurements are in dB (decibels, or, literally, tenths of a Bel, after Alexander Graham).

It works out that a doubling of the number of watts amounts to a change of 3 dB and that a ten-fold increase (a subjective doubling of loudness) comes to 10 dB. And because the decibel scale corresponds well to the ear's approximately logarithmic sensitivity, a 1-dB change in level always sounds like roughly 10 percent. Plus, it happens that a decibel is about the smallest change in level that you can reliably detect as such. (Bear in mind that we're talking about overall level; one can hear much smaller changes in frequency response.) None of these relationships between perceived loudness and objective sound intensity is perfect, but they are good enough to make the decibel an exceedingly useful unit of measure—far better, for audio purposes, than, for example, the watt.

And that means we really should be rating amplifier power in dB. Hence the dBW. You probably have noticed that HIGH FIDELITY expresses power primarily in dBW rather than in watts and you may have wondered why. Now you know. The dBW scale is set up so that 0 dBW equals 1 watt. Thus, 2 watts equal 3 dBW, 4 watts equal 6 dBW, 10 watts equal 10 dBW, 100 watts equal 20 dBW, and so on. It's all laid out in a table we publish every time we test an amplifier of any kind. Manufacturers almost never rate their products in dBW because these figures are so much less exciting than the equivalent in watts: The difference between 100 watts and 200 watts seems much more impressive than the difference between 20 dBW and 23 dBW. Yet the dBW ratings correlate much more directly to what you actually hear.

Another important consideration when comparing power ratings is how they are specified. For home equipment, there are legal guidelines that manufacturers must follow. Their primary ratings must be for continuous power with both channels driven into 8 ohms over a specified bandwidth for a specified amount of total harmonic distortion (THD). Thus, an amplifier might be said to deliver 40 watts per channel into 8 ohms from 20 Hz to 20 kHz with no more than 0.05 percent THD. On the other hand, that same amp might be said to put out 50 watts per channel from 40 Hz to 20 kHz with no more than 10 percent THD. You probably wouldn't see the latter on the spec sheet for a home audio product (at least, not a good one), but it's disturbingly common in car audio. So read the fine print.

Once a company has got the obligatory 8-ohm FTC (Federal Trade Commission) spec out of the way, it is free to provide subsidiary power ratings—for lower impedances, for example. It may also give a dynamic headroom specification. This derives from the EIA (Electronic Industries Association) amplifier testing standard. The idea behind dynamic headroom is that very little music requires high continuous power, but that musical peaks sometimes demand high power in short bursts. Consequently, how loud an amplifier can play music without audible distortion depends more on how much power it can put out for a fraction of a second than on how much it can deliver constantly. An amplifier's dynamic headroom is the amount of power, expressed in dB, that it can deliver above its rated continuous power on 20-millisecond, 1-kHz tone bursts. Adding the dynamic headroom to the continuous power in dBW gives you the dynamic power, which is perhaps the most useful figure overall. Remember that there is nothing wonderful about dynamic headroom in and of itself. Manufacturers sometimes lower an amp's continuous power rating to jack up its dynamic headroom spec, but a "20-watt" amplifier with 3 dB of dynamic headroom is no better than a 40-watter with no headroom.

In a future column, I hope to go into some recently proposed extensions to the way power customarily is measured: the "power envelope" rating championed by NAD and Proton and Harman Kardon's "power cube." For now, a final warning about car stereo specs. I've noticed that some manufacturers are resurrecting a version of what used to be called peak music power, arrived at by summing the *dynamic* power output for the two channels. One company calls these "car stereo watts." Thus, one manufacturer's "100-watt" amp might be the equivalent of another's more honestly rated 50-watt or even 25-watt model. Again, read the fine print. ■

BY DAVID RANADA

Digital Audio As Video

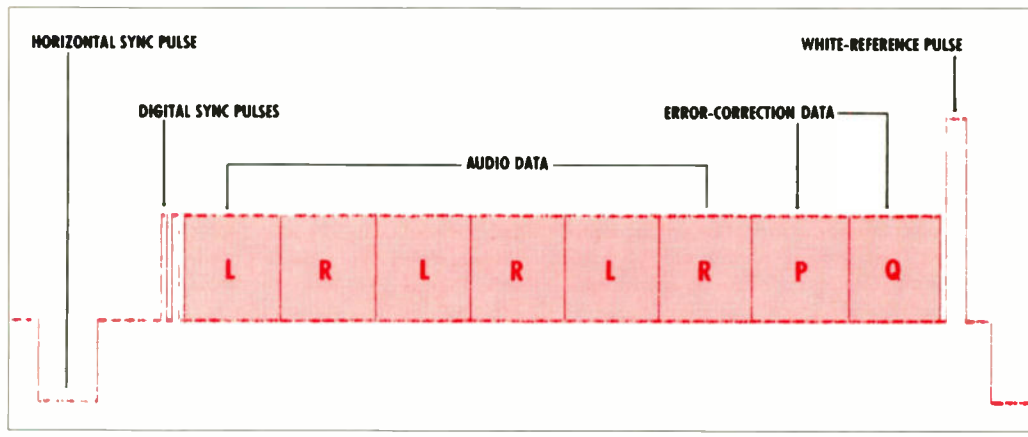
DIGITIZING TWO CHANNELS OF HIGH FIDELITY AUDIO generates a tremendous amount of data: Audio information streams off a Compact Disc at 1,411,200 bits per second. When, in the late 1970s, digital audio's founding fathers were casting about for a recording medium capable of holding such large quantities of data, they were drawn to videocassette recorders. These machines, because they can record wide-bandwidth video signals, are also capable of holding digital audio. Accordingly, one of the first significant digital-audio standards (STC-007, issued by the Electronic Industries Association of Japan) concerned a new type of product, the digital-audio adapter. During recording, this device transforms ordinary stereo audio signals into digital-audio ones and those in turn become a pseudovideo signal for the VCR. On playback the process is reversed.

Perhaps the most important characteristic of the VCR-derived signal with which such an adapter must operate is its propensity for dropouts. A dropout is a short reduction in signal level, usually caused by tape defects or by dust getting between the VCR's heads and the tape. In video, dropouts result in annoying white streaks on the screen, but in digital audio, a dropout could be interpreted as data, and thus ultimately would sound like a loud click or ripping noise, depending on how long it lasted. To combat dropouts, EIAJ adapters record extra information in addition to the digital audio. This error-correction data is used by the adapter during playback to detect and replace information missing or damaged during a dropout. A 14-bit EIAJ adapter is capable of completely correcting for a dropout lasting up to 32 horizontal scan lines (16 lines for 16-bit adapters). Error concealment, in which the adapter mathematically interpolates missing or damaged data, can compensate for widely separated dropouts lasting from 32 to 64 scan lines (16 to 32 lines for 16-bit units).

Two other important traits of a video signal are its horizontal and vertical synchronization pulses. Although these pulses are essential in video—they're used by monitors to align the tracing of the picture by the electron beam—they are superfluous in digital audio. In fact, they get in the way, because vertical sync pulses eat up about 35 of the available 525 scan lines on which the audio data is to be placed, and the horizontal sync pulse in each scan line also takes up a small space. Coping with these requires "time compression." Since a video waveform must carry essentially continuous digital information in short bursts, the adapter must store data generated during recording in a digital buffer memory and then read it out to the tape faster than it came in. In playback the memory is loaded quickly and in bursts, but it is read out steadily and more slowly.

Typical home VCR circuits have also helped determine the waveform used by EIAJ adapters. For instance, a maximum-white video signal has a standardized value of 0.7 volt. Normally in digital data recording, the maximum recording level would be used to encode digital "ones," to make the difference between a one and a zero all the more obvious to the digital decoding circuitry. But the EIAJ system uses 0.4 volt as its "one" level. Apparently, home VCRs use video pre-emphasis systems that would unacceptably distort the digital signal were it recorded at full level.

In addition, all home decks contain video AGC (automatic gain control) circuits to accommodate varying video signal levels. Some of them use the horizontal sync pulses to set their gain; others use the peak video level. Because the digital signal does not exceed 0.4 volt, AGC circuits using peak-level detection would mistake the waveform for a full-level video signal and increase their gain, thus distorting the signal. To prevent this, each scan line in a digital adapter's signal contains a pulse at peak video level. Also, at the beginning of each scan line, two pulses are recorded as a data synchronization signal so that an adapter can automatically adjust its "data slicing" threshold (the point at which it decides whether the waveform represents a zero or one) and timing. ■



ONE HORIZONTAL SCAN LINE IN THE EIAJ 14-BIT MODE HOLDS SIX DIGITAL AUDIO SAMPLES, TWO ERROR-CORRECTION WORDS, DIGITAL SYNC PULSES, AND A WHITE-LEVEL REFERENCE PULSE. IN THE 16-BIT MODE, THE Q ERROR-CORRECTION WORD HOLDS THE EXTRA AUDIO BITS.

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BY ROBERT LONG

Risk Reduction

DUB, BUT DON'T DESTROY

IT'S THE LOGICAL THING TO DO. YOU'VE LABORED LONG to get the perfect dub of whatever original for whatever purpose. When you're satisfied with your handiwork, you begin to wonder why the original should continue to take up space.

There *are* some exceptions. An obvious example: when your dub is intended to keep an LP in near-mint condition for archival storage while you do your listening from the tape. But more often—for me, at any rate—it's a question of reorganizing the material into a format that makes listening more pleasant or access easier or of correcting a mechanical or electrical problem inherent in the original.

I get letters from people who have oddball formats they want to junk: everything from wire recordings to 8-track cartridges and 16-inch broadcast transcriptions. They want to be able to hear the recordings without all the hassles of playing them in their original form. The equipment for playing these formats (even 8-track, these days) is hard to come by, and if it has to be borrowed or carried down from the attic for each playing, you have ample reason to prefer a dub.

Sometimes it's a question of equalization. Before the RIAA set a pre-emphasis standard for LPs, practice varied widely, and some early examples sound horrendous without careful EQ. Rather than go through that tedious procedure on every playing, however infrequent, you probably would prefer to do it once and end up with a tape that neither shrieks nor mumbles. The residue is a stack of mono Oiseau-Lyres or Uranias or whatever that you don't expect to play again. They've been unavailable for years and are unlikely to be reissued; maybe you can pick up a few bucks for them at your next garage sale.

Even more problematic are 78s. In addition to the difficulty of getting just the right EQ and playback speed with modern high fidelity equipment, there's the question of noise vs. bandwidth, which requires thought and taste for best results even with elaborate denoising equipment. And what do you do with the originals? They're heavy, bulky, easily cracked or broken, and subject to warping and mildew if poorly stored. Now that you've made that superb transfer, how about giving the lot to the Salvation Army and getting a receipt so you can take something off your income tax as a donation?

Still worse can be open-reel tapes. When I was first starting out in the recording business, I couldn't afford many reels of virgin tape, so I bought used acetate-base tape, splices and all. Many of the splices were poorly made and eventually began to come unstuck or trap debris, causing dropouts; some joined tapes whose oxides were different enough to cause an audible change in output level or tonal balance when the head passed from one to the other. And my $100 Pentron didn't wind the tape pack very evenly or with optimum tension, which stretched the tape edges in many cases, compromising playback.

Disparities in track layout between open-reel formats also pose problems that are easily overlooked. My Pentron tapes, for example, were half-track mono, with a wide guard band between the two tracks. The left-channel gap of a quarter-track stereo head will play the outer edge of the track, but the right-channel gap sees only the inner edge of the mono track recorded in the opposite direction. Since it's the outer edge of a tape damaged by humidity or improper tensioning that produces bad skew problems, I was delighted when quarter-track quadriphonic decks came along: Now, I thought, I would be able to play the inner edges of my mono recordings in the right direction and without serious skew.

Forget it! The guard bands of the quarter-track format are so much narrower that the inner (right channel) gap sees only a little of the inner edge of the mono half-track recording and hangs over into its wide guard band. The audible results (compared with reading the outer edge with the quarter-track left channel) tend to be lower output, higher distortion, weak highs, and bumbling, fuzzy bass.

When I do manage to get a good dub from one of these open reels, despite all its problems, I, too, start thinking of chucking the splice-ridden original (or of recording over it, if it's splice-free). But I've learned—the hard way—that no matter how triumphant you feel on successfully completing a difficult dub, there's always the possibility of doing a better job at some time in the future. For a recordist who takes pride in the craft, there is no worse moment than when he realizes he has burned an irreplaceable bridge.

I once struggled to get a decent quarter-track stereo dub from some half-track stereo originals but couldn't get the two channels to sound alike (again, because of the relative track and guard-band positions). After I'd settled for "best possible" and given away the tapes, along came a quadriphonic deck that could extract superb stereo from half-track tapes. And sometimes, a now-irreplaceable dub gets damaged or turns out to have a flaw that went unnoticed when it was made. If only I'd kept the originals!

A QUICK TEST FOR NEW CASSETTES

WHEN YOU'RE CONSIDERING A NEW CASSETTE BRAND, particularly if the price is very attractive and you may want to lay in a big supply, try buying one sample and unwrapping it. First, wiggle the tape next to your ear. The louder it rattles, the looser the mechanical tolerances probably are and, on average, the lower the overall quality. If the cassette is quiet, try turning the take-up hub to feel the tension. It should turn very easily in a cassette that doesn't impose excessive friction. Though this is by no means an infallible or objective approach, I've found that it yields results that correlate fairly well with product quality as revealed in our full-scale tests. Actually, rattle is more revealing than friction, which occasionally will be high in an individual sample of an otherwise excellent brand. ■

At this level, even the slightest refinement is an achievement.

We'd like to introduce you to our new line of separates. They build on the renowned reputation of the previous line by incorporating refinements which, though small, are by no means insignificant.

The new M-85 power amplifier, for instance, offers greater dynamic power for increased headroom as well as more continuous power output.* And newly designed circuitry allows it to safely drive loads as low as 2 ohms.

But it also offers something which can't be measured in specs. And that is a more natural, open, transparent sound, using musical signals, not electrical ones, as the means of measurement. Modifications in the voltage amplifier circuitry, as well as Yamaha's unique Extended Rolloff Equalizer, help contribute to this refined musicality.

The M-85 continues to employ Yamaha's Auto Class A Power and Zero Distortion Rule circuitry for the most musical, distortion-free reproduction possible.

As does the new C-85 control preamplifier. But we've added an Extended Rolloff Equalizer, DC servo circuitry and current noise suppression to the C-85. This improves the signal-to-noise ratio and allows for a purer sound with a wider variety of phono cartridges. And the new easy-to-see LEDs clearly indicate which of the C-85's inputs you've selected.

Our new T-85 tuner uses two separate reception modes and four IF modes, all automatically selected for optimum signal quality. And with its five-digit tuning, the T-85 adds that extra measure of fine-tuning capability lacking in all other synthesized tuners.

These are just a few examples of the refinements we've made to our top-line separates. The rest of the new separates component series also offers refinements over their predecessors. Which, when you consider how good they are, is quite an achievement.

Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park., CA 90622

*260 watts RMS per channel, both channels driven into 8 ohms, 20 to 20,000 Hz at no more than 0.003% Total Harmonic Distortion.

YAMAHA®

TEST REPORTS

Report preparation supervised by Michael Riggs, David Ranada, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise indicated) is supplied by Diversified Science Laboratories.

Proton's 619A monitor/receiver plus (top to bottom) the Kodak MVS-5380 8mm digital-audio VCR, NAD 6155 cassette deck, Sony PCM-601ESD digital-audio adapter, and Akai GX-R99 autoreverse cassette deck. Reports follow ▶

PHOTOGRAPHS BY NICK BASILION

REDEFINITION.

THE CARVER RECEIVER

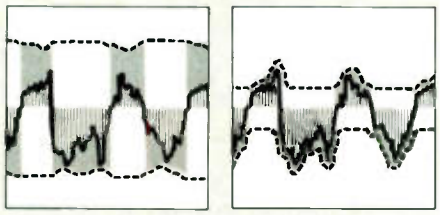
Redefines your expectations of receiver performance with the power you need for Digital Audio Discs plus virtually noise-free *stereo* FM reception. A receiver with astonishing performance incorporating two highly significant technological breakthroughs: Bob Carver's Magnetic Field Power Amplifier and his Asymmetrical Charge Coupled FM Detector.

ESSENTIAL POWER: Your system needs an abundance of power to reproduce, without distortion, the dynamic range of music on Digital Audio Discs and fine analog recordings.

The Magnetic Field Amplifier in the CARVER Receiver gives you 130 watts per channel* of *pure*, clean power with superbly defined, high fidelity reproduction.

The Magnetic Field Amplifier produces large amounts of power (absolutely necessary for the accurate reproduction of music at realistic listening levels) without the need for heavy heat sinks, massive transformers, and enormous power capacitors required by conventional amplifier design.

Unlike conventional amplifiers which produce a constant, high voltage level at all times, irrespective of the demands of the ever-changing audio signal (Even when there is no audio signal in the circuit at all!), the Magnetic Field Amplifier's power supply is signal responsive. Highly efficient, it produces *exactly and only* the power needed to carry the signal with complete accuracy and fidelity.



Solid line: audio output signal. Broken line: power supply voltage. Shaded area: wasted power. Vertical lines: power to speakers.

The 130 watts-per-channel* CARVER Receiver is about the same size and weight of conventional receivers having merely 30 watts per channel!

NOISE-FREE RECEPTION: The AM-FM CARVER Receiver gives you FM *stereo* performance unmatched by that of any other receiver.

As it is transmitted from the station, the stereo FM signal is extremely vulnerable to distortion, noise, hiss and multipath interference.

However, when you engage CARVER's Asymmetrical Charge Coupled FM Detector circuit, the stereo signal arrives at your ears virtually noise-free. You hear fully separated stereo with space, depth and ambience!

Reflected multi-path signals cause audible distortion.

Asymmetrical Charge Coupled FM Detector gives your ears a true sonic image.

The Asymmetrical Charge Coupled FM Detector was first introduced in CARVER's TX-11 Stereo Tuner, receiving unparalleled critical acclaim:

"A major advance... its noise reduction for stereo reception ranged from appreciable to tremendous. It makes the majority of stereo signals sound virtually as quiet as mono signals, yet it does not dilute the stereo effect."
Julian D. Hirsch, STEREO REVIEW

"Separation was still there; only the background noise had been diminished, and with it, much of the sibilance and hissy edginess so characteristic of multipath interference."
Leonard Feldman, AUDIO

"What distinguishes the TX-11 is its ability to pull clean, noise-free sound out of weak or multipath ridden signals that would have you lunging for the mono switch on any other tuner we know of."
HIGH FIDELITY

"The Carver Receiver is, without question, one of the finest products of its kind I have ever tested and used."
Leonard Feldman, AUDIO

The CARVER Receiver has been designed for fidelity, accuracy and musicality. You will want to visit your CARVER dealer for a personal audition of this remarkable instrument.

*130 watts per channel RMS into 8 ohms, 20 Hz to 20 kHz with no more than 0.05% total harmonic distortion.

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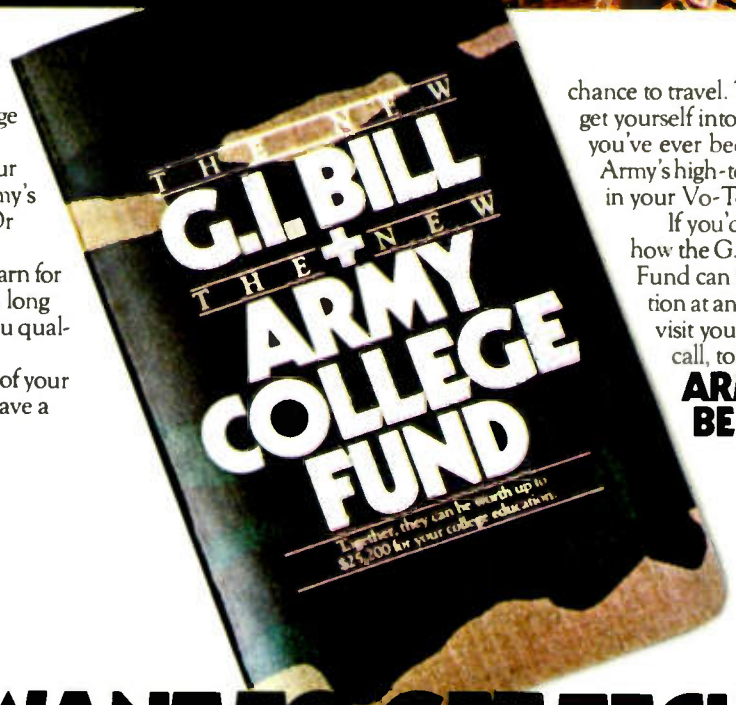
ARMY.
BE ALL YOU CAN BE.



IF YOU WANT TO GET TECHNICAL IT ISN'T ONLY FOR COLLEGE.

three LEDs—one red, the others green—give some indication of how many data errors the adapter is detecting. The goal is to set the control so that at least the green central light is on; better still is to have the one to the right illuminated. If the red left LED is on, the error rate is too high for sonically perfect decoding. Indeed, as the knob is turned, the number of audible "glitches" (clicking noises indicating digital-decoding errors) increases greatly as the red LED turns on.

The vacuum-fluorescent level display is calibrated −50 to 0 dB, plus an overload segment at the very top. It responds almost instantaneously, with no overshoot and a slow-decay peak-hold function. The display also shows the effects of the machine's fixed pre-emphasis (a shelving high-frequency boost). In recording, you set levels in the digital style: as high as possible short of lighting the overload LED even momentarily (digital clipping being a nasty business sonically).

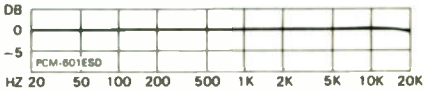
Since the PCM-601ESD's measured and audible performance is state-of-the-art for home digital recording—especially in its 16-bit mode—our use tests concentrated on its ability to work effectively in a tougher than normal setup: feeding an 8mm VCR. With the 8mm unit operating at its fastest speed (SP, which gives a maximum recording time of two hours), the 601 performed flawlessly in both 14- and 16-bit modes. We had no trouble setting the OVC knob for correct, glitch-free decoding. However, in our acid test, the 8mm deck's slow LP speed, the PCM-601ESD could not provide click-free playback in either mode. The 14-bit setting's extra error-correction data were apparently not enough to save the day in this worst-case test.

In contrast, a 14-bit-only adapter we had on hand, which uses a special three-stage digital decoding circuit, had no trouble reproducing any of the 601's slow-speed recordings (although resolution was limited to 14 bits even on the 16-bit tapes). In defense of the 601, however, we should note that Sony recommends it for use only with VCRs operating at their fastest speeds and that the EIAJ encoding standard was developed specifically for typical ½-inch VCRs (Beta and VHS) and was promulgated before the 8mm system was beyond the prototype stage. In any case, it's nice to see hard evidence of compatibility between processors, which the standard was supposed to, and apparently does, ensure. And using the 601 with an 8mm machine gave a tantalizing glimpse of the performance and convenience we can expect from the rapidly approaching digital cassette system.

Of the processor's most unusual feature—its digital I/O (input and output) circuitry—we can say little, since we were not able to obtain any equipment to connect to it. A look inside the unit revealed a comparatively large circuit board devoted exclusively to the digital I/O chips. Since this board constitutes the principal electronic difference between the 601 and the 501, and must therefore account for the $550 price difference between them ($1,400 vs. $850), deciding which unit to buy should depend on whether you will ever use the more expensive PCM-601ESD's digital I/O capabilities. If you can foresee any digital tapes you might make migrating to CD, or if you see yourself ever requiring the capacity for digital editing, the 601 is the better choice. Its sonic performance, when used as directed, is unsurpassed among similar consumer (and even professional) products, and its level metering, which is of critical importance in digital recording, is the best we have seen. ■

Reference recording level (the assumed 0 dB) is the level at which the metering also reads 0 dB. Except as noted, all data measured in the 16-bit mode.

RECORD/PLAY RESPONSE (at −15 dB)



+ 3/4, − 3/4 dB, 20 Hz to 20 kHz

ANTIALIASING FILTER RESPONSE	
at 15 kHz	flat
at 20 kHz	− 3/4 dB
at 22 kHz	−46 3/4 dB
at 24 kHz	−29 dB
S/N RATIO (re 0 dB; R/P; A-weighted)	
16-bit mode	90 1/4 dB
14-bit mode	87 3/4 dB
DISTORTION (THD + N at −15 dB; 40 Hz to 20 kHz)	
	≤ 0 036%
LINEARITY (at 315 Hz)	
+1 to −40 dB	no measurable error
at −50 dB	− 1/4 dB
at −60 dB	− 1/2 dB
at −70 dB	no measureable error
at −80 dB	+ 1 1/4 dB
at −90 dB	+ 7 dB
RECORDING LEVEL FOR 3% DISTORTION (at 315 Hz)	
	≈ + 2 dB
CHANNEL SEPARATION (at 1 kHz)	91 3/4 dB
INDICATOR "BALLISTICS"	
Response time	< 0 2 msec
Decay time	≈ 200 msec*
Overshoot	0 dB
SENSITIVITY (re 0 dB)	360 mV
INPUT OVERLOAD	> 10 volts
INPUT IMPEDANCE	47 6k ohms
OUTPUT IMPEDANCE	
line	370 ohms
headphone	230 ohms
MAXIMUM OUTPUT LEVEL (from 0-dB input)	
line	1 25 volts
headphone	7 28 volts**

*Decay time for the peak-hold cursor is approximately 1,000 milliseconds

**Into an open circuit. Clipping occurs at 1 04 volts into a 50 ohm load

Akai GX-R99 Cassette Deck

DIMENSIONS: 17⅛ BY 3⅜ INCHES (FRONT), 14⅛ INCHES DEEP PLUS CLEARANCE FOR CONTROL DRAWER AND CONNECTIONS. PRICE: $850; OPTIONAL RC-32 WIRED REMOTE CONTROL, $35; OPTIONAL RC-92 WIRELESS REMOTE CONTROL, $165. WARRANTY: "LIMITED," ONE YEAR PARTS AND LABOR. MANUFACTURER: AKAI ELECTRIC CO., LTD., JAPAN; U.S. DISTRIBUTOR: AKAI AMERICA, LTD., P.O. BOX 6010, COMPTON, CALIF. 90224.

THE GX-R99 HAS, IN A SENSE, BEEN DECADES in the building: It is the evolutionary summation of a dozen trends that have preoccupied Akai for a generation or more. Among the most significant are concern that nonprofessional users should be able to make good recordings without the sort of technical background a professional would bring to the task—an area that encompasses at least two knotty questions, tape matching (bias, EQ, and sensitivity) and metering—and the subject of continuity in recordings that must use both sides of the tape. In addressing the latter, Akai has pioneered autoreverse systems, particularly for cassette decks, though it was among the vanguard in open-reel models as well.

The GX-R99 unfolds its daunting array of features only gradually. When you take it from the carton, you find the usual transport controls on the extreme right (sorry, lefties)—including even the EJECT, though the motorized cassette-compartment door is on the opposite end. Between these and the readout panel in the center is a grouping of pushbuttons for selecting the reversing mode, the counter mode, the noise reduction system (Dolby B or C, with or without

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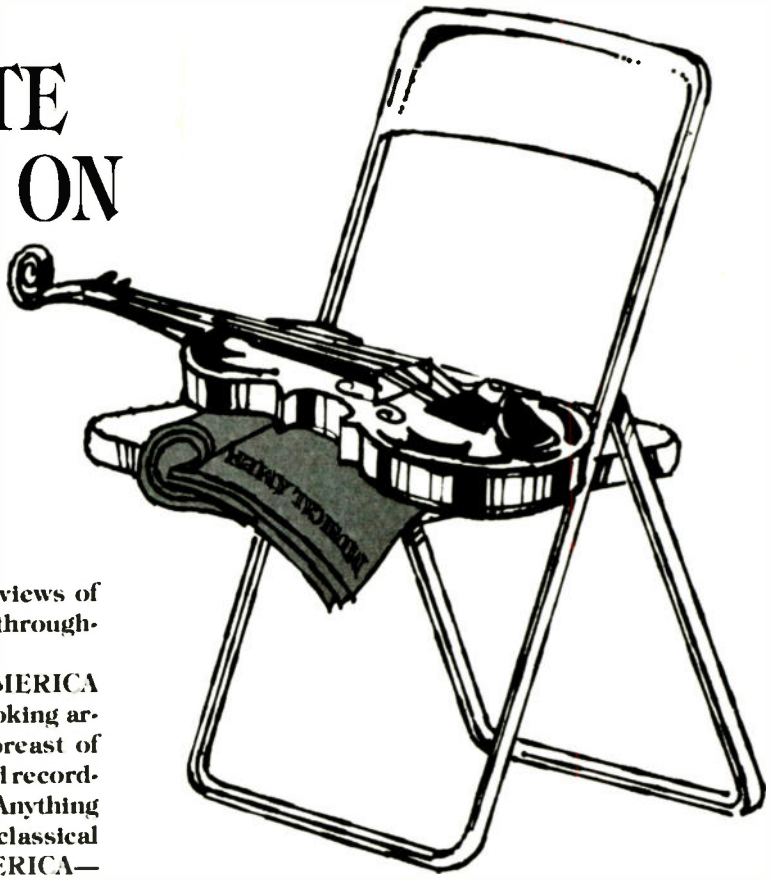

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19-kHz multiplex filtering), and two automatic search features: IPLS (Instant Program Locating System), which provides music seek and scan functions, and QMSS (Quick Memory Search System), which is simply a memory rewind.

Aside from the power switch (which is accessible through an opening in the cassette-compartment door) and the usual timer-function controls, that seems to be it—until you flip down the little panel below the transport controls, which reveals a headphone jack and a level slider that controls output to both the headphones and the back-panel line-out jacks. But where are the recording controls? You press the tiny button below the readout panel, and *voilà!*—a motorized drawer slides out to reveal them.

The functions accomplished by these controls are wondrous in their complexity and comprehensiveness. They can be used to set bias, EQ, sensitivity, and even recording level automatically (with the CRLP, or Computer Recording Level Processing system). Level and balance can also be set manually. And two memories will retain preset levels. There are three signal-level display modes. You can search automatically for a blank (three seconds or longer, according to Akai) to record in or insert a four-second interselection gap automatically. "Record cancel" will interrupt a recording in progress, rewind to the point where recording began, insert a four-second blank, and switch to recording-pause.

Then there's the automatic fader, which determines whether to fade in or out and whether to start or stop the transport in the process. It also adds a blank at the end of the fade-out to help the automatic functions locate selections. Because this is a monitoring deck, there's also a source/tape switch, and the play controls (one for each direction) are repeated in this group to start recording from recording-pause.

The display helps you sort everything out. In addition to all the annunciators for the obvious functions—transport direction, repeat mode, recording mode, tape type (which is set automatically, based on the keyways in the cassette shell), and so on—are the very unusual level display and the counter. The latter reads "C-90" when the cassette compartment first closes (which happens automatically when you touch any transport-function button). If you're using a different length, you can use a button in the counter group at the right to step the display to C-60, C-46, or LC-46 (for large-hub C-46). You then have the options of arbitrary numbers (the mode required for the memory rewind), elapsed time, or time remaining, all of which keep pace with the fast-wind modes as well as recording and playback.

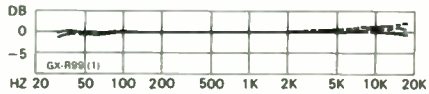
The level display proper has two calibration sets (confusingly, both can be read simultaneously in strong ambient light, though only one illuminates at a time): one for standard peak mode, one for averaged "VU" readings. The former does a better job of displaying actual instantaneous signal values and therefore of telling you how to record optimally within the cassette's limited dynamic range; the latter is better at indicating the subjective "loudness" of a signal, uninfluenced by transients—a far less important function for consumer purposes, in our judgment. A third mode, called "spectrum," converts the left-channel readout into a midrange indicator (centered on about 400 Hz) and the right channel into a high-treble meter (at about 8 kHz) to show the demands that are being made on the tape by the signal's spectral content in these two frequency ranges.

As an aid to this evaluation, there is an MOL (maximum output level) scale immediately below the signal display. Two elements of this display illuminate: the right-hand one to show maximum allowable midrange level, the left-hand one for maximum treble level. Where they light depends on the tape type and bias option you've chosen, since both considerations influence both absolute and relative headroom in the two frequency bands and are determined when the automatic tape-matching system is run.

The owner's manual confuses matters by using the term MOL to mean maximum allowable modulation level, irrespective of frequency. At high frequencies, this often is equated with MOL, though maximum *output* doesn't occur until compression already is discernable. In the midrange, the usual term is MRL (maximum recording level), representing 3-percent third harmonic distortion—the limit also accepted by Akai in this range, it appears, though the term isn't used in the manual. Instead, it refers to MML (spelled out as "maximum modulation *frequency*," rather than level, for some reason) in the midrange. Compounding the confusion, the manual confounds frequency *response* with the input's spectral content in de-

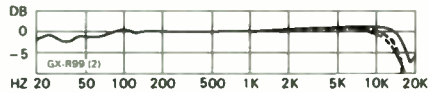
Except as noted, all data measured in forward direction of tape travel

PLAYBACK RESPONSE (BASF test tape; –20 dB DIN)



L ch, forward	+ 1/4, – 3/4 dB, 315 Hz to 18 kHz
R ch, forward	+ 1/4, – 1/2 dB, 315 Hz to 18 kHz
L ch, reverse	+ 1 1/4, –0 dB, 315 Hz to 18 kHz
R ch, reverse	+2 1/4, –0 dB, 315 Hz to 18 kHz

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



Left channel (no NR)	+ 1, –3 dB, 20 Hz to 16 kHz
Right channel:	
no NR	+ 1 1/4, –3 dB, 20 Hz to 16 kHz
Dolby B	+ 1/2, –3 dB, 20 Hz to 14 kHz
Dolby C	+ 0, –3 dB, 20 Hz to 12 5 kHz

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

Left channel (no NR)	+ 1 1/2, –2 dB, 20 Hz to 20 kHz
Right channel:	
no NR	+ 1 1/4, –2 1/4 dB, 20 Hz to 20 kHz
Dolby B	+ 1, –3 dB, 20 Hz to 17 kHz
Dolby C	+ 1/2, –3 dB, 20 Hz to 14 5 kHz

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

Left channel (no NR)	+ 1 1/2, –3 dB, 20 Hz to 12 5 kHz
Right channel:	
no NR	+ 1 1/2, –3 dB, 20 Hz to 12 5 kHz
Dolby B	+ 3/4, –3 dB, 20 Hz to 15 kHz
Dolby C	+ 1/2, –3 dB, 20 Hz to 16 kHz

MULTIPLEX FILTER (defeatable)

–1 dB at 15 kHz, –35 3/4 dB at 19kHz

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

	Type 2 tape	Type 4 tape	Type 1 tape
no NR	57 3/4 dB	55 3/4 dB	53 1/4 dB
Dolby B	66 1/2 dB	65 dB	63 1/4 dB
Dolby C	71 3/4 dB	70 1/2 dB	69 dB

INDICATOR READINGS FOR DIN 0 DB (315 Hz)

Type 2 tape	+ 5 dB (with 1 40% THD)
Type 4 tape	+ 4 dB (with 0 87% THD)
Type 1 tape	+ 5 dB (with 0 55% THD)

INDICATOR READINGS FOR 3% DISTORTION (315 Hz)

Type 2 tape	+ 8 dB (for + 2 1/2 dB DIN)
Type 4 tape	+ 9 dB (for + 5 dB DIN)
Type 1 tape	+ 9 dB (for + 4 1/2 dB DIN)

DISTORTION (THD at –10 dB DIN; 50 Hz to 5 kHz)

Type 2 tape	≤ 0 75%
Type 4 tape	≤ 0 86%
Type 1 tape	≤ 0 36%

ERASURE (at 100 Hz)

Type 2 tape	71 3/4 dB
Type 4 tape	58 1/4 dB

THE GX-R99'S RECORDING CONTROLS (INCLUDING CRLP) ARE IN A MOTORIZED DRAWER.

CHANNEL SEPARATION (at 315 Hz)		43 1/4 dB
INDICATOR "BALLISTICS"	**peak mode**	**"VU" mode**
Response time	1.2 msec	205 msec
Decay time	750 msec	≃460 msec
Overshoot	0 dB	0 dB
SPEED ACCURACY (105 to 127 VAC)		0.2% fast
FLUTTER (ANSI weighted peak; R/P)		± ≤ 0.088%
SENSITIVITY (re DIN 0 dB; 315 Hz)		130 mV
INPUT OVERLOAD (at 1 kHz)		> 10 volts
INPUT IMPEDANCE		160k ohms
OUTPUT IMPEDANCE		135 ohms
OUTPUT LEVEL (from DIN 0 dB)		0.66 volt

scribing these factors.

Considering the complexity of the deck, the mostly precise and idiomatic English used in describing it, and the relatively few flaws the manual contains, this complaint is minor. Some of the flaws are serious, however. Worst, in our view, is the lack of a comprehensive listing of functions and their operation. To figure out what some of the controls are for and how to use them, you must search through the process-oriented manual to find descriptions that aren't always logically placed. For example, notes on basic operating functions that apply even to playback are buried halfway through the section that details manual (that is, non-CRLP) recording.

To set recording levels manually, you use a rocker arm that steps one or both of the channels (depending on whether you're in the balance- or level-adjustment mode, chosen at a separate button) up or down when you press one end or the other of the arm. To tell you where you are in the adjustment range, an 11-element array just above the level display itself documents the selected mode, with calibrations of zero to ten for the recording level ("volume") and left, center, and right calibrations for balance. This display is rather crude: You can tap the adjustment bar several times, netting a clearly audible level change for each, before the display changes, for example.

If you want to be able to return to a manually set level, the two memories are more help than the display. They are set by selecting one memory, adjusting the level manually, and then either ejecting the tape or turning off the deck. If you want to fade in to this preset level, you choose the memory in which the level is stored, set the deck in recording-pause, and press FADER. The tape starts, and the level automatically fades up from fully attenuated to the predetermined value.

But the deck is really geared for use with CRLP as the normal mode (though if it was in manual when you turned it off, it will return to that mode when power is restored). When it has finished setting bias, recording EQ, and sensitivity, the CRLP circuit raises the recording level until peak values are close to the maximum it thinks proper for the selected tape and bias. If even higher peaks come along once this stage is finished, it will reduce signal level. The process isn't very rapid (Akai rates it at ten seconds, but that evidently presupposes that the starting point isn't very far afield and that the peaks reach typical maxima during that period), so it's a good idea to let the level stabilize for a minute or two with the input you will be recording before you actually start the transport.

Among CRLP's options is one for a 10-percent increase or decrease in bias with respect to what would otherwise be considered the standard setting for the chosen tape. The purpose is to tailor the tape's behavior to the sort of signal you will be recording. Decreasing the bias will improve high-frequency headroom at the expense of that in the midrange, enabling you to record brass transients, percussion, and other sounds that make heavy demands there at a higher level—and thus with a better S/N (signal-to-noise) ratio—than at the standard setting. Increasing bias favors the midrange headroom for signals that make relatively little demand at high frequencies and may decrease overall distortion somewhat as well.

Because you choose the bias option before running the tape-matching, the choice influences the deck's setting of recording EQ and, possibly, sensitivity as well. Diversified Science Laboratories took response curves with each of the three tapes at the "over" and "under" bias settings, though the results aren't nearly as clear-cut as with bias-only controls. Still, they do seem to bear out the presumed intent: to deliver essentially the same degree of flatness with all bias options but with some differences in high-frequency capability relative to performance elsewhere.

The record/play tests were made with TDK SA as the Type 2 chrome-compatible ferricobalt, TDK MA as the Type 4 metal, and Maxell UDS-I as the Type 1 ferric (though, like many premium "ferrics" these days, UDS-I actually uses a ferricobalt magnetic particle). The CRLP was run (at the standard bias setting for all but the test mentioned above) in the forward direction. The lab then made the test recordings in both directions without removing and reinserting the tape (which would trigger the CRLP once again), by using the transport controls just as you normally would in recording on the GX-R99.

We hardly need mention that the reversing process, which we've praised before in Akai's realization, is as efficient as you can find and far better than average. In recording, it can be turned off (so each direction operates independently), made to reverse automatically and almost instantaneously at the end of the A side (assuming relatively clear leader in the cassette so that the photosensor can cue the reverse), and even allowed to play back the two sides automatically when recording has finished on the B side. Playback offers continuous repeat of the entire tape in addition to unidirectional and out-and-back play.

There was no significant difference in the overall quality of the record/play curves made in the reverse direction relative to those made in the forward direction and reproduced in our data column, though there were some minor differences in detail. The results with metal (Type 4) tape are, surprisingly, the least flat, with some prominence in the upper treble. The Type 2 and Type 1 curves tend to rise slightly with frequency and fall off more sharply at the top end but without emphasizing any frequency band. Dolby tracking also is more nearly perfect with the latter two tape types. But within the context of cassette decks, response is nowhere worse than good, and that for the Type 2 tape, in particular, is very good. In the high-level tests (at 0 dB, not shown), the traces are unusually free of compression up to 5 kHz or so; though they fall off quite steeply at higher frequencies, HX Pro or similar measures presumably would be necessary to do significantly better here.

There is some difference between the forward and reverse direction in the playback curves. The lab characterized azimuth match in the reverse direction (on the basis of output stability) as "good" and slightly better than that in the forward direction. Akai is unusual (possibly unique) in providing separate azimuth adjustments for each direction, so a technician could tweak the forward direction to match the reverse. (Usually there is only one adjustment, which therefore can be made spot-on for only one direction, the other being forced to take

A QUICK GUIDE TO TAPE TYPES

Our tape classifications, Types 1 through 4, are based on the International Electrotechnical Commission measurement standards.

TYPE 1 (IEC Type I) tapes are ferrics requiring "normal" bias and 120-microsecond playback equalization.

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

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, when they are accommodated at all. Formulations of this type are no longer being made.

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

what it gets.) Even with the azimuth disparity, playback response is very good, however.

The only other significant difference the lab noted between the two directions is that peak flutter, while an excellent ±0.057 percent in reverse, is almost half again as high in forward play—still confirming the value of the closed-loop dual-capstan drive, but not as impressive. Speed accuracy was totally unaffected by both transport direction and line voltage. Erasure of metal tapes is a hair less than the 60 dB we consider par in this test. In all other respects, the data represent very much the sort of performance we'd expect from a top-line model.

There's so much to this deck that it's hard to know where to begin in summarizing its achievements. The logic that governs the way the many controls interact has been well thought out for the purposes of a recordist who likes a multitude of automatic features but wants to be able to do things for himself on occasion as well. And this is true in more ways than we have space to document. The approach is evident in the various playback features, but it dominates those that control the recording process. Above all, the metering and CRLP both help the user to understand the recording process and to prevent misadventure when understanding fails.

And the design is sure to delight those who dote on gadgets. What saves the GX-R99 from the accusation of *mere* gadgetry is that its functions and their associated readouts invariably are put to real purposes—not simply tacked on for their own sake. We can honestly say that, despite the welter of buttons, there's not one that could be dropped without compromising the basic integrity of the design to some degree. They add up to a unified and unique vision of what a high-end consumer cassette deck should be. ■

NAD 6155 Cassette Deck

DIMENSIONS: 16½ BY 4⅛ INCHES (FRONT), 10 INCHES DEEP PLUS CLEARANCE FOR CONTROLS AND CONNECTIONS. PRICE: $348. WARRANTY: "LIMITED," ONE YEAR PARTS AND LABOR. MANUFACTURER: MADE IN JAPAN FOR NAD (USA), INC., 675 CANTON ST., NORWOOD, MASS. 02062.

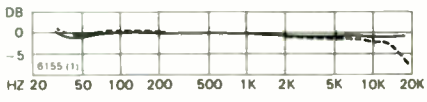
THOUGH THE NAD 6155 SPORTS A RARE AND sophisticated feature in its "play trim" control and a number of other pluses that aren't exactly everyday, it is essentially a quite basic, simple, and inexpensive cassette deck that is appropriate for recordists who are in search of good performance and value rather than gadgetry. Paradoxically, the touch of sophistication supplied by the play-trim control makes supremely good sense in this context—better, perhaps, than it would in a deck that were itself much more sophisticated.

Developed jointly by NAD and Dolby Laboratories, the play-trim circuit is a variable equalization network that affects response in a relatively narrow band near the top of the audible range, where a disparity between the azimuth (perpendicularity to the tape path) of the head used to record a tape and that of the one used to play it back can rob its sound of sparkle and zing. Until recently, the only remedy was a playback head with user-adjustable azimuth (adjustable recording heads can optimize results only for tapes to be played back on the same deck). That is still the most effective approach, but it also is costly. Play trim gets the job done at minimum expense.

It might seem that you could simply use the TREBLE on your preamp to achieve the same result, but this is not the case. One key to the play-trim circuit's effectiveness is that it is located between the deck's playback and noise reduction electronics, so that the response correction can be applied before Dolby decoding. Otherwise, the decoding would be inaccurate because of the out-of-

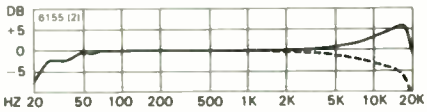
Except as noted, all data measured with bias and "play trim" adjustments at the detented center ("0") settings

PLAYBACK RESPONSE (BASF test tape; −20 dB DIN)



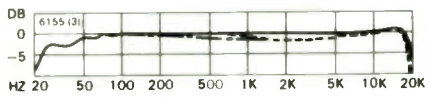
Left channel +0, −1 1/4 dB, 315 Hz to 18 kHz
Right channel +0, −3 dB, 315 Hz to 13.5 kHz

"PLAY TRIM" ADJUSTMENT RANGE (−20 dB; Type 2 tape)



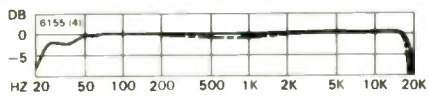
maximum setting
minimum setting

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



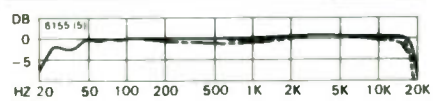
Left channel (no NR)	+ 1/4, –3 dB, 24 Hz to 19 kHz
Right channel:	
——— no NR	+ 1/2, –3 dB, 26 Hz to 19 kHz
- - - - - Dolby B	+ 1/4, –3 dB, 26 Hz to 18 kHz
— — — Dolby C	+ 1/2, –3 dB, 26 Hz to 18.5 kHz

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



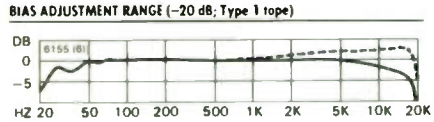
Left channel (no NR)	+0, –3 dB, 25 Hz to 20 kHz
Right channel:	
——— no NR	+1, –3 dB, 26 Hz to 18.5 kHz
- - - - - Dolby B	+1, –3 dB, 26 Hz to 18.5 kHz
— — — Dolby C	+1, –3 dB, 26 Hz to 17.5 kHz

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



Left channel (no NR)	+1 1/2, –3 dB, 25 Hz to 20 kHz
Right channel:	
——— no NR	+1, –3 dB, 26 Hz to 18.5 kHz
- - - - - Dolby B	+1, –3 dB, 26 Hz to 17 kHz
— — — Dolby C	+ 3/4, –3 dB, 26 Hz to 16.5 kHz

BIAS ADJUSTMENT RANGE (–20 dB; Type 1 tape)



——— maximum setting
- - - - - minimum setting

MULTIPLEX FILTER (defeatable)	– 1/2 dB at 15 kHz, –29 1/4 dB at 19 kHz

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

	Type 2 tape	Type 4 tape	Type 1 tape
no NR	58 dB	56 1/2 dB	55 1/2 dB
Dolby B	66 1/4 dB	65 3/4 dB	64 3/4 dB
Dolby C	74 1/4 dB	73 1/4 dB	72 dB

INDICATOR READINGS FOR DIN 0 DB (315 Hz)	
Type 2 tape	+1 dB (with 2.58% THD)
Type 4 tape	+3 dB (with 3.36% THD)
Type 1 tape	+1 dB (with 0.88% THD)
INDICATOR READINGS FOR 3% DISTORTION (315 Hz)	
Type 2 tape	+3 dB (for + 1/2 dB DIN)
Type 4 tape	+1 dB (for – 1/2 dB DIN)
Type 1 tape	+5 dB (for +3 1/2 dB DIN)
DISTORTION (THD at –10 dB DIN; 50 Hz to 5 kHz)	
Type 2 tape	≤ 0.54%
Type 4 tape	≤ 1.02%
Type 1 tape	≤ 0.50%
ERASURE (at 100 Hz)	≥ 60 1/2 dB
CHANNEL SEPARATION (at 315 Hz)	50 dB
INDICATOR "BALLISTICS"	
Response time	3.8 msec
Decay time	≈550 msec
Overshoot	0 dB
SPEED ACCURACY (105 to 127 VAC)	2.0% fast
FLUTTER (ANSI weighted peak; R/P)	±0.097%
SENSITIVITY (re DIN 0 dB; 315 Hz)	138 mV
INPUT OVERLOAD (at 1 kHz)	> 10 volts
INPUT IMPEDANCE	63.9k ohms
OUTPUT IMPEDANCE	980 ohms
OUTPUT LEVEL (from DIN 0 dB)	0.71 volt

killer highs in the signal coming off the tape, introducing high-frequency fluctuations that fixed EQ can't correct.

Although azimuth errors can never cause response peaks (only rolloffs), the play-trim control offers both boost and cut settings. This enables you to address problems arising from other sources, such as the treble peaking that seems to be applied to some prerecorded cassettes, perhaps in anticipation of a possible azimuth mismatch between the duplicating equipment and your tape deck. The minus side of the control can help you tame this sort of tipped-up high end.

Perhaps more to the point for most cassette collections is the treble rise that can be caused in homemade recordings by the use of new, "hot" tapes in an old deck that provides insufficient bias for them. Conversely, using a garden-variety formulation on a deck that's geared up for a premium tape, or rerecording an old tape on a deck that is overbiased for it, will result in a high-frequency rolloff similar to that caused by azimuth mismatch. These errors, too, are best corrected before noise reduction decoding, and the boost/cut curves supplied by the play trim are appropriate for the purpose.

The 6155 has a bias control to help you avoid such mismatch problems in the recordings that you make. But because this is a two-head deck (that is, it has no separate playback head to permit monitoring off the tape while you're recording), judging the effect of the bias adjustment is a cut-and-try proposition. Audibility of either adjustment (bias or play-trim) depends on the presence of highs in the signal; though the manual suggests recording music at –15 (on the meter) to check the bias setting, we prefer FM interstation noise at –20 (because of the much greater high-frequency content, which can drive the tape into saturation at higher levels).

On decks with bias controls that are accompanied by some means of accurately determining their correct settings, Diversified Science Laboratories adjusts for the tape in use before making record/play measurements, just as you would do before making a critical recording. But since the optimum settings of the bias and play-trim controls are strictly judgment calls on the 6155, the lab left both at their detented center positions. The tapes used all were Maxell: XL-II as the Type 2 chrome-equivalent (actually, ferricobalt), MX as the Type 4 metal, and XL-I as the Type 1 ferric.

Although the preset bias for the Type 2 tape yields very flat response, the modest midrange headroom suggests that it is adjusted slightly to the low side of what customarily would be taken as optimum, perhaps to preserve maximum high-frequency headroom. Whether for this reason or because of NAD's inclusion of Dolby HX Pro circuitry, response does hold up very well at the high end, though some compression can be seen throughout the treble in the lab's 0-dB response trace (not shown). Dolby tracking is good, but not exceptional, for this tape. All told, a slight increase in bias might be in order, though the results even at the detent are significantly better than we often encounter in this price class.

The Type 4 tape might profit still further from a little more bias: Response at the detent is a hair less flat than it is for the Type 2, and midrange headroom is noticeably more limited. High-frequency headroom is superb (to be expected with underbiasing), and the rising 0-dB trace in the lab data might be flattened by a bias increase. When the lab tested response at the extremes of the bias control's range, there also was a slight shift in overall sensitivity, and the maximum-bias trace showed only slight indication of overbias. The Type 1 tape, for which bias-range traces are shown in our data, does well across the board. Again, some tweaking might help it do even better, but the results are above average for a moderate-price deck.

DSL judged azimuth match between the 6155 and the BASF playback test tape fair to poor, based on output-level stability. (As azimuth mismatch grows, high-frequency output is increasingly influenced by any tape skew, which normally has only slight effect when azimuth match is excellent.) The left channel was judged better than the right in this respect, and the right-channel rolloff probably is a consequence of the mismatch. The graph in our data depicting the range of the play-trim control is for the right channel, but in the record/play mode. Still, by comparing the play-trim response with the playback response, you can see how the former can, indeed, correct the latter—though not, unfortunately, independently in each channel.

The metering is frequency-weighted. That is, it responds more vigorously to signal components toward the frequency extremes, where headroom is lower and the chance of overload consequently greater. This gives you a more accurate picture of available headroom than do conventional, unequalized meters. (Probably the meter simply reads the signal after recording EQ, which yields a good working approximation of the overload curve—or, rather, its inverse—although the actual saturation points will vary somewhat according to the tape you choose and the bias setting.)

The minimum level indication is at –20 dB, with 5-dB steps in the range just above it. The minimum step width narrows to 2 dB between –7 and +8 and to 1 dB between –1 and +1, and the maximum indication is +8—all with respect to a 0-dB point that is 1 dB above DIN 0 dB for all but the Type 4 tape, which registers +3 dB for DIN 0. Recordists who seldom permit excursions beyond meter zero therefore should do well with this deck; most other models put the overload point well into the red, which probably saves users who are aggressive about level setting from excessive distortion on signal peaks, but at the expense of wasted

headroom for those who are more conservative. Given its calibration, the metering is perhaps more generous in extent than it needs to be at the top of its range and less so than it could be at the bottom and in subdividing the critical range around the onset of overload.

Tape type is chosen manually at a front-panel rotary switch, which keeps cost down and assures that you can rerecord old cassettes lacking the standard keyways and still get the correct bias range. (Early metal tapes came in chrome shells and early chrome in ferric shells.) This, as well as the play-trim control, may prove a major advantage to budget-minded recordists who have large collections of old tapes, many made on so-so equipment.

Which brings us back to the paradox of the 6155: the way in which its most sophisticated features benefit relatively unsophisticated users. The weighted metering, for instance, minimizes the understanding needed to make good tapes. (The Dolby HX-Pro also helps when signals are loaded with highs.) And the transport controls, evidently using essentially mechanical means, provide functions normally associated with electronic-logic control schemes. Pressing RECORD automatically engages PLAY and starts the tape, unless you previously pressed PAUSE, which latches it in place. In playback, pressing either of the fast-wind controls gives you high-speed output (cue and review) so you can hear where you are on the tape; pressing STOP first gives faster wind speeds with no audible output (that is, standard fast-forward or rewind).

All in all, the 6155 strikes us as a lot of recorder for its distinctly modest price. To have both Dolby B and C plus HX Pro, a bias adjustment, equalized metering, and a switchable multiplex filter is not unique at the price, but it isn't commonplace either, and basic performance often isn't up to the 6155's standard. And then there's the play-trim feature, which so far *is* unique in a home deck. ■

Kodak MVS-5380
8mm Digital-Audio Videocassette Recorder

DIMENSIONS: 15 BY 3¼ INCHES (FRONT), 9⅛ INCHES DEEP PLUS CLEARANCE FOR CONNECTIONS. PRICE: $1,600. WARRANTY: "LIMITED," SIX MONTHS PARTS AND LABOR; CAN BE EXTENDED TO 18 MONTHS FOR AN ADDITIONAL $90. MANUFACTURER: MADE IN JAPAN FOR EASTMAN KODAK CO., 343 STATE ST., ROCHESTER, N.Y. 14650.

KODAK'S "MODULAR VIDEO SYSTEM" couldn't be named more aptly. It encompasses two 8mm videocassette recorders (the top-of-the-line MVS-5000 we review here and the less expensive, mono-only MVS-3000), two tuner/timer modules (the stereo-ready MVS-380 and the mono MVS-360), two TV cameras (the autofocusing MVS-460 and the manual MVS-440), and a wide assortment of other accoutrements: AC adapters, car-battery adapters, rechargeable batteries, chargers, cables, and so forth.

The MVS-5000 is small and light in weight, even with its rechargeable battery clipped to the side. Nonetheless, you'll appreciate the MVS-10 carrying case, which enables you to sling the recorder over your shoulder. (At present, Kodak will send you one gratis if you return the recorder's warranty card.) The MVS-50 AC adapter or MVS-55 car-battery cable clips to the side of the VCR just as the battery does, so you can use these alternative power sources if you desire. Although you can play back recordings on your home TV through the MVS-550 converter/charger (which also permits dubbing to and from another VCR and recharging of a pair of batteries simultaneously), most users will opt for one of the tuner/timers to serve that function as well as enabling off-the-air recording. We chose to test the MVS-380 tuner together with the MVS-5000 VCR—a combination dubbed the MVS-5380.

The VCR proper docks to the tuner/timer by way of mating multipin connectors on the side. With the two linked in this way and a decorative end-cap replacing the unneeded battery, the system looks and acts very much like a conventional home VCR (albeit with two power switches, one on the recorder and another on the tuner.)

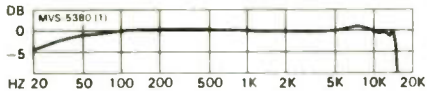
The tuner/timer's back panel has F-connector VHF inputs and outputs, 300-ohm twinlead input and output terminals for UHF connections, and pin-jack video and stereo-audio inputs and outputs. You'll also find a battery-charging jack and a multipin aux jack that permits use of an optional PV-CT2 CATV adapter available from Panasonic. The latter enables you to tie in a descrambler while maintaining remote control of channel selection and unattended recording capability. It operates in conjunction with a back-panel selector switch.

The MVS-380 comes with a multifunction wireless remote control that permits direct tuning to any of 169 VHF, UHF, and ca-

VCR SECTION

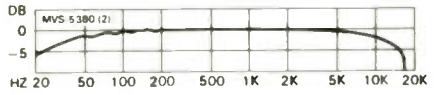
Except as noted, the recording data shown here apply to both speeds SP and LP. All measurements were taken at the direct audio and video outputs, with test signals injected through the direct audio and video inputs. The 0-dB reference input level is the voltage at which the automatic level control (ALC) produces 3 dB of compression at 315 Hz. The 0-dB reference output level is the output voltage from a 0-dB input.

DIGITAL RECORD/PLAY RESPONSE (–20 dB; stereo)



+ 3/4, –3 dB, 28 Hz to 14.2 kHz

AFM RECORD/PLAY RESPONSE (–20 dB; mono)



+0, –3 dB, 32 Hz to 11.5 kHz

AUDIO S/N RATIO (re 0-dB output; R/P; A-weighted)

	digital	AFM
SP	81 3/4 dB	69 1/2 dB
LP	81 3/4 dB	65 dB

DISTORTION (THD + N at –10 dB; 50 Hz to 10 kHz; SP)	
digital	≤ 3.1%
AFM	≤ 0.96%
CHANNEL SEPARATION (315 Hz; digital)	76 1/2 dB
FLUTTER (ANSI weighted peak; R/P)	< 0.01%
SENSITIVITY (for 0-dB output; 315 Hz)	
line	1.125 mV
mike	1.35 mV
AUDIO OUTPUT LEVEL (from 0-dB input; 315 Hz)	
digital	0.39 volt
AFM	0.41 volt
AUDIO INPUT IMPEDANCE	
line input	50k ohms
mike input	6.3k ohms

VIDEO RECORD/PLAY RESPONSE

	SP	LP
at 500 kHz	+ 1/4 dB	+ 1/4 dB
at 1.5 MHz	–6 1/2 dB	–9 3/4 dB
at 2.0 MHz	–8 1/2 dB	–13 1/4 dB
at 3.0 MHz	*	*
at 3.58 MHz	–23 1/2 dB	–14 dB
at 4.2 MHz	*	*

LUMINANCE LEVEL	6% high
GRAY-SCALE NONLINEARITY (worst case)	≈ 16%
CHROMA LEVEL	
SP	1/2 dB low
LP	3/4 dB low
CHROMA DIFFERENTIAL GAIN	**
CHROMA DIFFERENTIAL PHASE	**
MEDIAN CHROMA PHASE ERROR	+5°

*Too low to measure

**Chroma differential gain and phase were swamped by chroma noise, making measurement impossible

ble channels from a ten-key pad, channel scanning via up/down buttons, operation of the various transport modes (including still frame, frame advance, and search), and access to the main programming controls. You also can use it to toggle the on-screen display on and off, operate the VCR/TV switch, and turn the system on and off.

With the exception of the channel-selection keypad, these controls are duplicated on the machine, where you also can choose the audio playback mode (mono AFM, which is standard on all 8mm VCRs, or stereo PCM). A three-position slide switch determines the recording mode: off the air, from the direct audio and video inputs, or video from the tuner and audio from the line inputs (particularly useful for simulcasts).

A timer switch just above the input selector sets the system up for unattended recording controlled by the three-week, eight-event programmer. Another way of making timed recordings is via the OTR (one-touch recording) button. A companion OTR-delay button enables you to push back the start of an OTR recording in 30-minute increments to a limit of 11:30 p.m. the following day. Recording duration is similarly selectable in 30-minute increments to a maximum of four hours.

The MVS-5380's status readout is unusually comprehensive. Clock time is displayed continuously, with separate program-time displays for starting time and length. The former doubles as the OTR delay-time indicator and the latter as the OTR remaining-time indicator when in the OTR mode. The present day of the week is indicated in one area of the display and the day of the week at which an unattended recording will be made is shown in another. The program and channel numbers also are displayed separately. A clock symbol and an OTR legend indicate when these modes are active. LEDs indicate whether a stereo or an SAP broadcast is being received and whether a battery is being charged.

Beneath a hinged top cover are a number of secondary controls. One determines whether the SAP (if present) is recorded on the FM audio track or whether this track carries a mono mix of the main program. A rotary control enables you to blend the stereo PCM tracks with the mono AFM track in playback in whatever proportion you'd like, or you can turn the control off to get pure PCM sound. Also in this area are the channel-memory and programming controls and a switch for disabling the remote.

The MVS-5000 VCR attaches to the left side of the tuner/timer. Like most portable VCRs, it is top-loading, which means you can't stack other equipment directly on it (or close to the top of it). Most of the unit's operating features are fairly standard and self-explanatory. Among the extras is a memory-rewind button that causes the tape to fast-wind in the appropriate direction to counter zero. And there is an audio-dub switch that enables you to rerecord the PCM audio tracks without changing the video. When the deck is disconnected from the tuner and the audio mode switch is set to mono, the deck records only on the AFM track to conserve battery power; the switch has no effect during recording when the VCR and tuner are docked.

On the left side of the MVS-5000's front panel are miniature phone-jack microphone inputs, a stereo headphone output, and a miniature phone-jack video output. (When the VCR is docked to the tuner/timer, the microphone inputs take precedence over the audio line inputs.) A backlit LCD display includes a four-digit tape counter and indicators for such things as tape speed, transport function, and battery condition.

In addition to recording PCM soundtracks for video programs, the MVS-5000 will do PCM-Multi recording, in which the entire tape is devoted to six tracks of stereo digital audio. This can provide as much as 12 hours of sound in SP mode or, in theory, 24 hours of music in LP. (Kodak does not recommend the lower speed for PCM recording, however.) The track being recorded (or reproduced) is selected via a pushbutton and is indicated in the display. The display also indicates the PCM-Multi mode by the displaying the letter *A*, for "audio."

If you'd like uninterrupted background music, the MVS-5000's PCM-Multi recording feature probably will suit your purposes. (Presumably, it will also do fine in playing a PCM-Multi tape made on another 8mm VCR.) But this is not the deck for serious music recording. There is no way to set recording level manually. The internal automatic level control (ALC) may make the deck easy for amateur videographers to use, and it may simplify recording TV broadcasts, but it's not appropriate for high fidelity music recording.

Because of the nondefeatable limiter, Diversified Science Laboratories made its audio measurements (on both the AFM and the PCM tracks) using a reference level 10 dB above the 3-dB compression point. At a recording level 20 dB below the reference (to allow for recording pre-emphasis), response is reasonably flat in both modes and is essentially independent of tape speed.

Flutter is below our reporting limits for both speeds and recording modes, and noise is very low. Dynamic range on the mono track approaches 70 dB at the standard speed and is only slightly worse in long-play; on the PCM tracks, it is more than 10 dB better. Harmonic distortion, measured 10 dB below the reference, is lower on the mono FM track (no more than 0.45 percent from 100 Hz to 10 kHz and less than 1 percent from 50 Hz to 10 kHz) than on the PCM track. In the latter mode, the lab measures THD+N (total harmonic distortion plus noise) to include the "birdies" generated in the PCM process, and on this basis the figure just tops 3 percent at 10 kHz, rising to more than 8 percent at 15 kHz (the extreme upper limit of the recorder's response). The relatively high distortion in digital recording is a result of the companded 8-bit PCM system used and, at very high frequencies, the low 31.5-kHz sampling rate, which puts a premium on the steepness of the antialiasing input filters.

Thanks to the limiter, the recording sensitivities and output voltages of the two recording modes are matched closely to each other (and to the output from the TV tuner), and the input and output impedances are quite reasonable. Midband (315 Hz) stereo separation between the PCM channels is no-

tably good.

Video-recording performance is about par for an 8mm VCR—which is to say, okay but not as good as you can get from the best of the half-inch decks. At the standard speed, response is down about 6 dB at 1.5 MHz, implying a horizontal resolution of approximately 120 lines; in LP, response droops further still, reducing the resolution to perhaps 100 lines.

Luminance (brightness) and chrominance (color) levels are very close to the target, and gray-scale linearity is quite good. Chroma differential gain and phase (the degree to which color saturation and hue vary with changes in brightness) are masked by the recorder's residual chroma noise (worse at LP than at SP) and so are not reported. Average chroma phase error is respectably low at both speeds.

The tuner's video response holds up well to the color-burst frequency, which means that it is capable of extracting almost as much picture detail as the NTSC system is capable of delivering. Brightness is slightly high and color saturation slightly low, but the latter is closer to target than we've seen from most other TV tuners we've tested and the former is no worse than average.

Gray-scale linearity is good, but there's a bit more chroma differential phase than average and it is spread rather uniformly over the luminance range. The differential gain, on the other hand, is concentrated at the brightest scene level, where it is normally unnoticeable. Hue accuracy also is somewhat worse than average, especially in what we term the uncorrectable error, which is the spread in phase that cannot be corrected at a monitor's tint control.

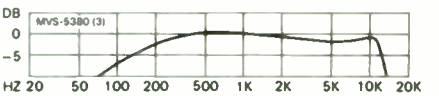
The tuner's audio response is not as good as we would hope for either. Response rolls off gradually below a few hundred hertz (it is 3 dB down at 185 Hz) and plummets abruptly above 12 kHz as the horizontal-scan filter comes into play. On the other hand, the filter suppresses the horizontal-sync whistle exceptionally well (to below our measurement limit and certainly below audibility), which is important, because it's very annoying when you can hear it. Noise is acceptably low with normal video, but the system does "buzz" when fed a highly repetitive video pattern.

The strongest points of Kodak's 8mm VCR system are conveyed by its name: It is a *Modular* Video System. The VCR itself is light and easily carried in its companion case. In the field, it can be used with a separate camera (which means that you can work with a very sophisticated camera or with two very light pieces instead of one slightly heavier one) or docked with a matching optical "front end," converting it into a full-function 8mm camcorder. It's an ingenious scheme that enables you to get all the video functionality you want at minimum cost in a compact, capable package. ■

TV TUNER SECTION

All measurements were taken at the direct audio and video outputs

AUDIO FREQUENCY RESPONSE (mono)



+ 1/2, −3 dB, 185 Hz to 12 kHz

AUDIO S/N RATIO (mono; A-weighted)	
best case (no chrominance or luminance)	48 dB
worst case (multiburst)	17 dB
RESIDUAL HORIZONTAL-SCAN COMPONENT (15.7 kHz)	
	< −90 dB
AUDIO OUTPUT LEVEL (100% modulation)	0.36 volt
AUDIO OUTPUT IMPEDANCE	1,000 ohms
VIDEO FREQUENCY RESPONSE	
at 500 kHz	−1 1/4 dB
at 1.5 MHz	+ 3/4 dB
at 2.0 MHz	+ 1 dB
at 3.0 MHz	+ 1 1/2 dB
at 3.58 MHz	−4 dB
at 4.2 MHz	−19 3/4 dB
LUMINANCE LEVEL	12% high
GRAY-SCALE NONLINEARITY (worst case)	≈ 5%
CHROMA DIFFERENTIAL GAIN	≈ 25%
CHROMA DIFFERENTIAL PHASE	≈ ±8°

CHROMA ERROR

	level	phase
red	−1 1/2 dB	+ 5°
magenta	1 1/2 dB	+ 7°
blue	−1 1/2 dB	+ 2°
cyan	−1 3/4 dB	+ 12°
green	−1 3/4 dB	+ 10°
yellow	−2 dB	+ 14°
median error	1 3/4 dB	+ 8°
uncorrectable error	+ 1/4 dB	+ 6°

T E S T R E P O R T S

Proton 619A Monitor/Receiver

DIMENSIONS: 20½ BY 19¼ INCHES (FRONT), 18¾ INCHES DEEP; SCREEN, 19 INCHES (DIAGONAL). PRICE: $799. WARRANTY: "LIMITED," TWO YEARS ON PICTURE TUBE, ONE YEAR ON ALL OTHER PARTS, ONE YEAR LABOR. MANUFACTURER: MADE IN TAIWAN FOR PROTON CORP., 737 W. ARTESIA BLVD., COMPTON, CALIF. 90220.

PROTON HAS GARNERED AN ENVIABLE reputation in video circles, and judging by the 619A monitor/receiver, we'd say it's well deserved. The company's latest 19-inch model performs as well as or better than any other comparable unit we've tested in almost every category, and though it does not provide every imaginable feature, it's hardly a laggard in that respect either.

The built-in TV tuner can receive 139 channels: all 82 VHF and UHF broadcast channels plus midband, superband, and hyperband cable channels. In addition to an F-connector VHF-antenna input (and 300-ohm terminals for a UHF antenna), there's a second pair of switchable F connectors that you can use to hook in a pay-TV decoder.

The 619A also accommodates three direct audio-video inputs and provides three audio-video outputs. The first of the outputs (TV) carries the audio and video from the channel to which the receiver is tuned independent of the source you've chosen to watch. You could use this to record that channel on a VCR while watching a videodisc or another VCR connected to one of the direct inputs (though with most VCRs, you could achieve the same end without using the Proton's tuner at all). A second potential use for the TV-out jacks is simulcast reception. Although the 619A is equipped to receive stereo TV broadcasts (including the SAP channel), you may find some channels in your area still simulcasting certain performances. If you patch the TV video output into one of the direct video inputs and the output from your FM tuner into the corresponding audio inputs, you'll be able to view and hear the simulcast by tuning in the desired channel (and FM station) and selecting the appropriate direct audio-video input.

In addition to the TV-out jacks are two other sets of audio-video outputs—one with fixed audio levels, the other with audio levels controlled by the 619A's VOLUME and BALANCE. The former is the obvious choice for recording onto a VCR (dubbing from a videodisc, for example); the latter's audio connections would be ideal for driving an external power amplifier and speakers (or powered loudspeakers). The second video output could feed an auxiliary monitor in another room. (The 619A has internal stereo speakers and a 3-watt stereo amplifier to

VIDEO MONITOR SECTION

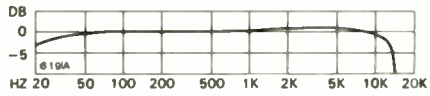
All measurements were made through the composite (direct) video inputs with the 3.58-MHz trap off

HORIZONTAL RESOLUTION	> 330 lines
INTERLACE	perfect
OVERSCAN	
horizontal	≈5%
vertical	≈6%
CENTERING	perfect
BLOOMING	see text

TV TUNER SECTION

All measurements were taken at the direct audio and video outputs

AUDIO FREQUENCY RESPONSE (mono)



+1, −3 dB, 23 Hz to 13 kHz

AUDIO S/N RATIO (mono; A-weighted)	
best case (no chrominance or luminance)	53 dB
worst case (crosshatch pattern)	42 1/2 dB
RESIDUAL HORIZONTAL-SCAN COMPONENT (15.7 kHz)	−49 3/4 dB
MAXIMUM AUDIO OUTPUT (100% modulation)	0.40 volt
AUDIO OUTPUT IMPEDANCE	100 ohms
VIDEO FREQUENCY RESPONSE	
at 500 kHz	− 1/4 dB
at 1.5 MHz	+ 1/4 dB
at 2.0 MHz	− 1/2 dB
at 3.0 MHz	−1 1/4 dB
at 3.58 MHz	−4 1/2 dB
at 4.2 MHz	−18 3/4 dB
LUMINANCE LEVEL	18% high
GRAY-SCALE NONLINEARITY (worst case)	≈8%
CHROMA DIFFERENTIAL GAIN	≈22%
CHROMA DIFFERENTIAL PHASE	≈ ±6°

CHROMA ERROR

	level	phase
red	−3 dB	+ 3°
magenta	−3 dB	+ 4°
blue	−2 3/4 dB	+ 2°
cyan	−3 1/4 dB	+ 7°
green	−3 dB	+ 5°
yellow	−3 1/4 dB	+ 8°
median error	−3 dB	+ 5°
uncorrectable error	± 1/4 dB	± 3°

drive them, but even Proton suggests you use an external amplifier or powered loudspeakers for best results. If you do, you can switch off the internal speakers.)

A row of black buttons—practically invisible against the set's black cabinet—just below the lower right corner of the screen enables you to scan through the channels, raise and lower the volume, step through the inputs, switch from the main antenna feed to the auxiliary RF input, and turn the set on and off. Each function is duplicated on the wireless remote control, which in addition to being easier to use for those functions (even when you're close to the monitor) gives you direct access to any channel via a ten-key pad. It also enables you to bounce back and forth between the last two channels tuned, to mute the sound for the current program, and to activate a sleep timer.

The first press of SLEEP sets a 90-minute countdown to turn-off. Each subsequent press reduces the time by 10 minutes until there are just 10 minutes remaining; the next touch reduces the time to 5 minutes and the final one to zero. When the sleep timer is on, the channel display indicates the time remaining until turn-off. This display is very hard to see, by the way, especially if the room is well lit.

Centered below the screen is a cleverly concealed door that drops down when you press and release it quickly. Behind it are most of the infrequently used controls (and a few that you might like access to more often). Here is the master power switch (which is usually left on so that you can turn on the system from the remote); detented black-level, color, hue, and audio balance controls; and undetented contrast, sharpness, and vertical-hold adjustments.

Also behind the panel are a series of slide switches. The one farthest to the right activates a video noise reduction circuit that is quite effective in removing low-level snow from the picture without destroying high-level detail. The adjacent switch chooses mono or stereo reproduction, and the next one selects the main or SAP (second audio program) audio in a stereo broadcast. The next two switches set the tuner for broadcast or cable reception and manual or automatic fine-tuning. In the manual mode (which should be needed only when you're using the monitor with a computer or video game putting out an RF signal that is slightly off-channel), up/down buttons to the left of the selector switch enable you to retune the front end by ±2.2 MHz around the center frequency of any channel.

Just below the screen area are a series of lights that indicate reception of a stereo broadcast (when the tuner is set for stereo and switched to the main audio channels), whether the tuner is switched to SAP reception, which RF input you've selected, and the video source you're viewing. The labels for the lights are quite difficult to see (impossible from any distance), but after a time, you'll be able to interpret them by color and location.

Diversified Science Laboratories found Proton's factory settings of black level, color, and hue to be right on the money. Most of the monitor measurements were made with the SHARPNESS fully advanced and with the back-panel 3.58-MHz color-trap switch turned off. (Proton recommends that the trap be switched in if you're watching computer-generated graphics.) Under these conditions, horizontal resolution is at least 330 lines—the limit set by the bandwidth of the NTSC system. Turning down the detail control affects response mainly at 3 MHz and above, softening only the very sharpest edges in the picture.

DSL's tests indicate that horizontal and vertical overscan are negligible, that the picture is perfectly centered along both axes, and that geometric linearity is excellent. Lines are straight, circles are round—what you see is what's really being transmitted.

The convergence is nearly perfect over the entire screen—a rarity, indeed—and red, green, and blue rasters are pure over the full viewing area. The lab did find that a pure red raster tends to appear somewhat orange and that green tends toward aqua and is low in saturation. However, we could not detect these slight anomalies on ordinary program material and actually were quite impressed with the color rendition.

The remaining monitor test results read like a list of superlatives. Gray scale is excellent, and there is no noticeable shift in hue or color intensity as scene brightness changes (chroma differential phase or gain). The vertical interlace is essentially perfect, assuring maximum vertical resolution. Black retention is excellent with the BLACK LEVEL at its factory setting, and there's very little blooming over the full range of the picture (contrast) control. Transient response is sharp, but there is a slight "ghost" following transitions from full-black to full-white that can't be seen in normal pictures.

Tuner performance, though not the very best we've encountered, is more than respectable and, in practice, eminently satisfactory. Video response holds up well to the color-burst frequency, implying a horizontal resolution approaching 300 lines. Luminance level is a bit high, chroma level a bit low, but the monitor section has no difficulty handling these small discrepancies.

Gray scale is more linear than with many other tuners, and the chroma differential gain is confined almost entirely to the brightest scene level. Chroma differential phase is fairly low, and though the uncorrectable chroma phase error is a trifle too great to bring all the color vectors right on target, as we stated above, we like the way the color looks on the screen.

Audio frequency response is adequate, if not stellar. The high end is limited to about 13 kHz by the whistle filter used to remove the horizontal-scan component. Noise is lower than average even with highly repetitive test patterns. Distortion also is lower than average, and output level and impedance are appropriate.

To say that the 619A is impressive is an understatement. Its picture quality is outstanding. And for a monitor/receiver of this quality, it's something of a bargain besides. With products like this one, Proton's reputation is secure. ■

BY KENNETH L. KANTOR

FREQUENCY RESPONSE FUNDAMENTALS

WHAT IT IS, WHY IT'S IMPORTANT, AND HOW TO INTERPRET THE GRAPHS AND NUMBERS THAT DEPICT IT

WHAT IT IS, WHY IT'S IMPORTANT, AND HOW TO INTERPRET THE GRAPHS AND NUMBERS THAT DEPICT IT

A REVOLUTION SWEPT THE AUDIO BUSINESS IN THE MID-1950s. AS SOPHISTICATED TEST equipment became available, manufacturers discovered that they could measure the performance of their products in new ways, enabling them to predict listeners' reactions better than ever before. The idea caught on, and soon more and more hi-fi enthusiasts were basing their buying decisions on "specs." It wasn't long before hertz and decibels were part of every audiophile's vocabulary.

Now we take equipment specifications for granted; it seems as though every component comes with at least one page packed full of them. And of all the ways engineers have found to assess performance, none has achieved quite the universal importance of the frequency-response test. Although no single measurement can fully describe the sound of an audio component, frequency response is probably the most useful and revealing one available. Considered carefully, it can

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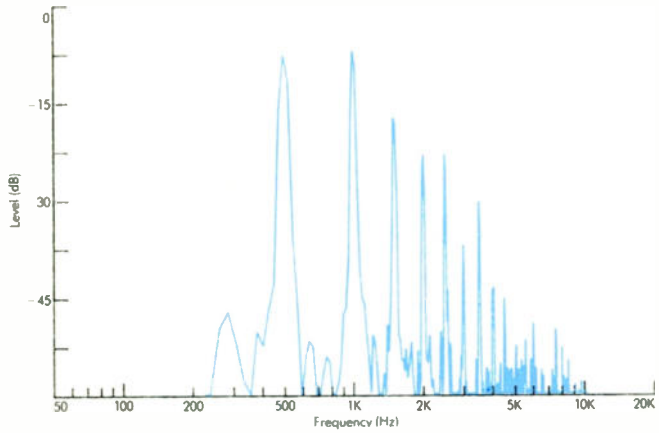


FIG. 1. FREQUENCY SPECTRUM OF AN OBOE, OBTAINED WITH A HEWLETT-PACKARD 3652A DYNAMIC SIGNAL PROCESSOR. BECAUSE THE SIGNAL IS COMPLEX (COMPRISING MULTIPLE TONES PLUS THEIR HARMONICS), THE SPECTRUM IS QUITE WIDE.

help you steer clear of poor-sounding products and zero in on the possibly exceptional ones.

SIGNALS

JUST AS ANY PICTURE WE CAN IMAGINE IS MADE up of some combination of primary colors, every sound we hear can be described as a changing blend of basic elements. These sonic "primaries" are pure tones, each one corresponding to a certain rate of vibration of the air. This rate is the tone's frequency, which is expressed in Hz (for hertz, the modern name of what used to be called, more descriptively, cycles per second, or cps). Low-pitched sounds are composed mainly of slow vibrations, whereas high-pitched sounds come from rapid vibration. Some sounds consist of a single frequency component, while others contain an infinite number, each with its own amplitude. A given range of frequency components of known amplitude is sometimes referred to as a frequency spectrum.

Figures 1 and 2 show frequency spectra typical of recorded music. Since the spectrum of even a single instrument is constantly changing, these graphs represent "snapshots" of evolving sounds. Figure 3 shows long-term accumulations of all the frequencies present in typical symphonic and rock music, respectively.

Frequency spectra provide a convenient means of assessing component performance. If you feed a known frequency spectrum into a device, you can examine the resulting output spectrum to determine in what ways and to what degree it differs from the input. In other words, you can compare the output to the input to see how accurately the component replicates the signal fed to it. Naturally, you must allow for any transformations that are inherent in a device's function. For example, the input to a loudspeaker is electrical, whereas the output is acoustical.

The frequency response of a device is defined in exactly this way. A frequency-response curve shows the output-to-input amplitude ratio for every frequency component of interest. This ratio between input and output is expressed in decibels (dB). A 1:1 ratio (no change) corresponds to 0 dB; output level equals input level. Positive dB figures signify amplification: The output level is greater than that of the input. Similarly, negative dB numbers indicate attenuation of the signal.

It is common in making audio measurements to ignore the absolute ratio between input and output and to concentrate instead on the relative levels of the various output frequencies. Some reference frequency (usually 1 kHz) is chosen and defined as the 0-dB point. Frequencies at which the output is greater than that at the reference point then assume positive dB values, while those at which it is lower take negative values. This is a sensible method, since the way a component affects tonal balance usually is of more concern than the amount of overall amplification it provides.

TEST METHODS

AN ENGINEER HAS A CHOICE OF SEVERAL possible test signals and analysis methods when making a frequency-response measurement. Each has its own advantages and disadvantages, and some techniques are particularly well suited to a certain type of component or test condition.

In the past, it was necessary to choose an input signal with a constant and known frequency spectrum, and this remains common practice. Such signals include random noise, sine-wave sweeps, and impulses (very brief spikes of energy). Since the input spectrum is known, only the output requires analysis. Figures 4 through 6 show the waveforms of these three types of signals, which, despite their apparent differences, have essentially similar frequency spectra.

In sine-wave testing, each individual frequency component is sent separately to the unit being evaluated. This method permits simple and accurate level measurements at the output and works very well with amplifiers and other electronic equipment. Unfortunately, sine-wave testing is highly susceptible to error when applied to acoustical devices, because it cannot eliminate the effects of room reflections. Noise signals are an improvement in this regard, but they still cannot resolve the extremely rapid changes

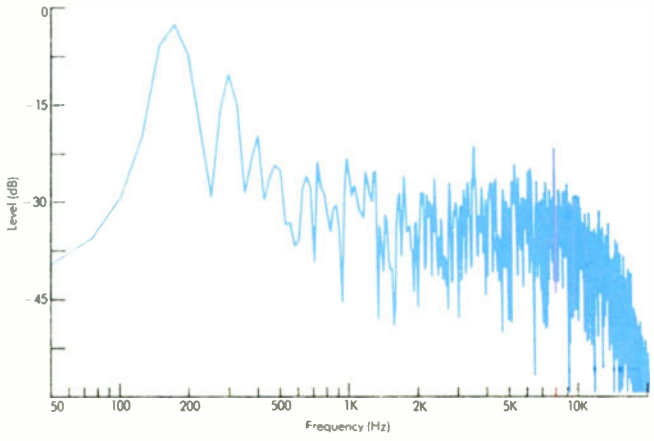


FIG. 2. FREQUENCY SPECTRUM OF A SNARE DRUM, OBTAINED IN THE SAME WAY AS FIG. 1. THIS IS AN ESSENTIALLY INSTANTANEOUS SNAPSHOT OF THE INSTRUMENT'S OUTPUT, WHICH CHANGES FROM MOMENT TO MOMENT.

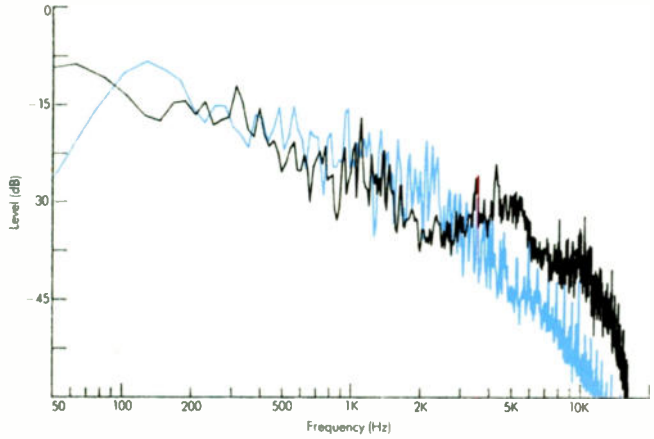


FIG. 3. LONG-TERM ACCUMULATIONS OF ALL THE FREQUENCIES PRESENT IN TYPICAL SYMPHONIC AND ROCK MUSIC (BLUE AND BLACK, RESPECTIVELY). NOTICE THAT THE ROCK MUSIC TENDS TO BE RICHER IN HIGH FREQUENCIES.

in response that often occur in transducers. For these reasons, impulse testing has become very popular among loudspeaker and microphone designers. It can reveal the time-related details of a component's response, while also providing other useful information, but it lacks the amplitude and frequency accuracy of other techniques.

The advent of powerful, computer-based signal analyzers has recently given engineers the option of using a much wider range of test signals than the ones I've mentioned so far—even recorded music. A computer can compare the input and output signals directly, eliminating the need for special test signals with known frequency spectra. The ability to analyze performance using music and similar signals enables designers to optimize components for their intended use and can reveal flaws that conventional testing obscures.

An example of this new generation of test gear is the Hewlett-Packard 3652A Dynamic Signal Processor, used to create the figures in this article. This is a very powerful instrument that combines the features and advantages of sine-wave, noise, impulse, and arbitrary-signal testing. In addition to generating standard frequency-response curves, its built-in computer permits data analysis to focus in on details of interest.

INTERPRETING RESPONSE CURVES

IF ONE IS TO MAKE BEST USE OF SUCH powerful test equipment, it is necessary to examine the significance of frequency-response variations. How accurate do high fidelity components have to be? What sonic effects do various kinds of peaks and dips cause? How does frequency response relate to other factors?

For better or worse, most audiophiles do not test their own equipment. Technical evaluations must be based on data published by manufacturers and product reviewers. Five questions should be addressed when interpreting the frequency-response curves for an audio component:

- Is enough information given to permit a meaningful judgment?
- Were the data obtained in a relevant and realistic way?
- How audible are the response errors, all other factors being equal?
- What do the response variations suggest about other performance characteristics?
- How audible will the errors be when combined with those of other equipment?

The first question is a fundamental one. Clearly, a spec that reads "Frequency response: 20 Hz to 20 kHz" is not very useful, because no amplitude information is supplied. Even if more amplitude information is available, as in "Frequency response: 20 Hz to 20 kHz, ±2 dB," important data about the type and location of the errors are missing. A 2-dB dip at 20 Hz would be virtually inaudible, but a 2-dB rise from 1 kHz to 10 kHz might well be unbearable. In almost all cases, a complete response curve is necessary to make a proper judgment about equipment performance, unless an extremely detailed written spec is given. With all the above conditions met, it still is important to look for what may yet be missing. For example, a complete cassette-deck response graph isn't helpful if the type of recording tape used isn't listed, since that can easily have as much effect as the design of the machine itself.

The second question requires some common-sense thinking about the measurement conditions. For instance, a loudspeaker that has a wonderful response in an anechoic chamber but a poor one in a living room is probably not worth buying. Likewise, an amplifier that can provide ruler-flat response into a resistor, but not a loudspeaker, isn't too desirable. Even with so much data accompanying most components, finding the exact measurement conditions can be difficult. Although the absence of such information does not imply a poor design, a manufacturer that makes the extra effort to provide truly complete specs probably has confidence and pride in the performance of its products.

Audibility thresholds for frequency-response deviations are very hard to establish precisely. Program material, listening level, background noise, and many other factors can affect perception. But here are some general guidelines that can be helpful in evaluating the effects of response errors *on*

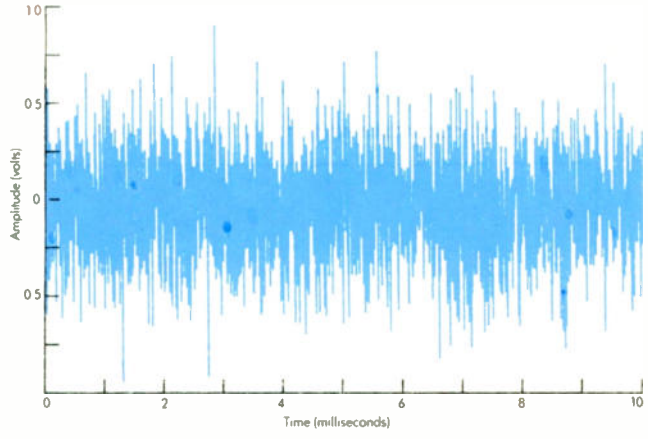


FIG. 4. A PLOT OF AMPLITUDE VS. TIME FOR 10 MILLISECONDS OF PINK NOISE. ITS RANDOM AMPLITUDE FLUCTUATIONS AND UNIFORM AVERAGE FREQUENCY SPECTRUM (CONTAINING EQUAL ENERGY IN EACH OCTAVE) MAKE IT A USEFUL TOOL FOR LOUDSPEAKER TESTING.

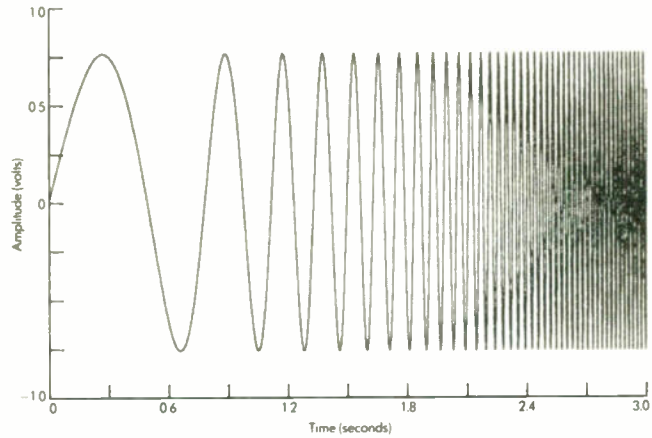


FIG. 5. A THREE-SECOND SINE-WAVE SWEEP OF CONSTANTLY INCREASING FREQUENCY. SUCH SWEEPS ARE COMMONLY USED FOR FREQUENCY-RESPONSE MEASUREMENTS OF AUDIO ELECTRONICS.

music (not test tones).

- The ear is most sensitive to variations in the range between approximately 500 Hz and 8 kHz. Outside this band, small errors become less and less audible.
- In the ear's most sensitive region, around 2.5 kHz, a bump of 1 dB that extends over as little as a few hundred Hz will be audible.
- For a given amplitude variation, the wider an error's frequency span, the more audible it will be.
- A response change of only 0.5 dB may be audible if it extends over several octaves.
- A very narrow peak or dip will be inaudible under most conditions, even if it is several dB in magnitude.
- A rapid series of peaks and dips, if not too severe, will tend to average one another out.
- Continuous, gradual slopes can be more audible than their almost flat appearance might imply.
- Variations of less than 0.25 dB (±0.12 dB) can be ignored in almost all cases.

Even if a certain response error is, in itself, inaudible, it may indicate a design problem. Mild rolloff at the frequency extremes is a normal part of amplifier behavior, but even tiny jogs in the midrange should cause suspicion. It is reasonable to accept more response variations from a speaker than from an amplifier, because of the effects of room acoustics: The ear usually does a better job than a microphone of sorting out a speaker's true response. However, a series of sharp, regular peaks and dips in the upper range of a speaker's output can indicate a reflection or interference problem that could affect imaging quality.

Finally, don't forget that frequency-response errors add up. A Compact Disc player, preamp, and power amp whose individual responses are within a dB or so of flat at 20 kHz might sound flawless in isolation from one another. But combine the errors and throw in something for speaker-cable losses, and you could have a problem. ■

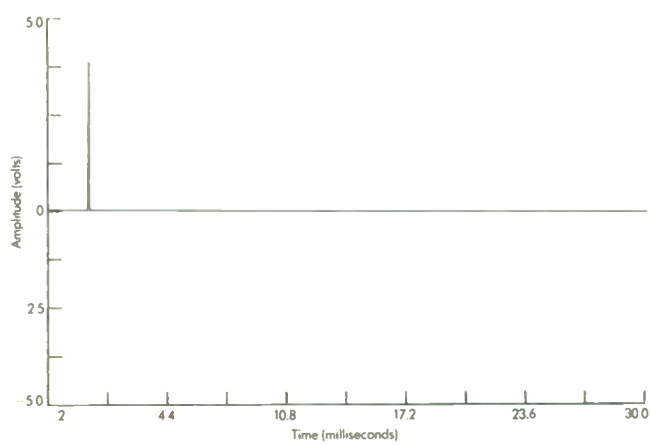


FIG. 6. AN IMPULSE. SUCH SIGNALS CONTAIN ALL FREQUENCIES FROM DC (0 HZ) OUT TO A LIMIT DETERMINED BY THE LENGTH OF THE PULSE. THE SHORTER THE PULSE, THE GREATER ITS BANDWIDTH. IMPULSES ARE USED WITH SPECIAL INSTRUMENTS, CALLED FFT (FAST FOURIER TRANSFORM) ANALYZERS, TO TEST THE FREQUENCY RESPONSES OF LOUDSPEAKERS AND MICROPHONES.

HIGH FIDELITY

THE MEANING OF "HIGH FIDELITY" IS GREAT faithfulness. It therefore is a term that can apply only to the reproduction of some "original." No matter whether that original is a live concert or an electronically created waveform, high fidelity sound strives for the best copy possible.

It falls to design engineers, product reviewers, and, ultimately, you, the listener, to determine how accurately an audio system reproduces an original event as captured on disc or tape. This is a very difficult task, complicated by the number of unknowns present in the chain. Few people actually attend recording sessions, and fewer still are knowledgeable about the effects of room acoustics, microphones, and signal processing.

Because it is so hard to get a handle on the total recording/reproduction process, the audio industry long ago accepted the notion that one should strive for accuracy at every step in the hope that the end product, the final listening experience, will truly reflect the intentions of those making the recordings. Carefully applied, this is a justifiable approach to the problem of achieving sonic accuracy. It can prevent situations in which, for example, a loudspeaker is blamed for poor imaging when the real culprit was bad microphone technique. It also allows the consumer the greatest freedom in selecting components, with the knowledge that all models and brands are designed to perform certain basic functions in essentially similar ways.

There are, nonetheless, pitfalls to be avoided. An acoustical transducer, such as a microphone or loudspeaker, is sensitive to its operating environment, producing a response that changes rapidly over time because of sound reflections and so forth. It can be very difficult to decide which kinds of measurements best characterize the performance of such a device. Even electronic components, such as power amplifiers, can behave differently depending on load and signal conditions.

It is therefore hardly surprising that conflicts sometimes arise between what the meters say and what the ear hears. Resolution of these conflicts can require considerable investigation and a great deal of insight. Engineers occasionally discover that a long-trusted test procedure has a fatal flaw. Listeners, on the other hand, may condemn perfectly good components based on the sound of "reference" recordings about which they have no real knowledge.

Kenneth L. Kantor

ILLUSTRATION BY MICHAEL KLEIN

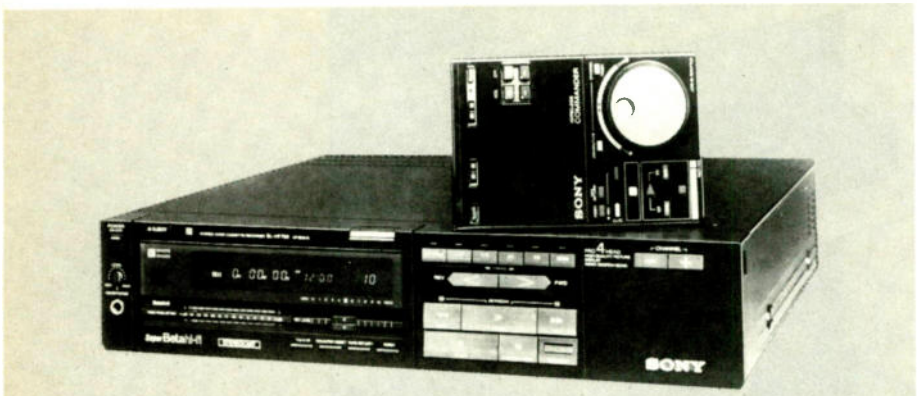
A PERFECT FIT

FINDING A VCR THAT'S JUST RIGHT FOR YOU

BY GORDON BROCKHOUSE

WITH 8mm DECKS NOW CHALLENGING THE established Beta and (especially) VHS formats, the process of choosing a videocassette recorder (VCR) has become more complex than ever before. As daunting as the task might seem, however, it is in fact relatively simple when carried out methodically. First, figure out what you want to do with the machine. Your requirements will be different if you're buying a VCR to tape Metropolitan Opera simulcasts from what they'll be if you're buying one primarily to play rented movies. Then, determine what features you need to meet those requirements. By matching your needs with the features that are outlined in this article, you'll emerge from the

Gordon Brockhouse, formerly an editor of Canadian audio- and computer-industry trade publications, makes his U.S. debut with this article.



SONY SL-HF750 SUPER BETA HI-FI VCR

SONY EV-A80 8mm VCR

video jungle with, at most, a small group of machines that will serve your purposes exactly.

BETA OR VHS?

VIDEOCASSETTE RECORDERS NOW COME IN three formats: Beta, VHS, and 8mm. None is directly compatible with either of the others, and each has its own advantages and limitations. Deciding which format to adopt is arguably the most important part of your buying decision, because it will affect the variety of prerecorded software you can obtain, as well as how much you can record at one time. If you want to exchange tapes with friends, what they use will clearly be a factor. If you are buying a second VCR for your household, your choice will be informed by what you already own. You may even want to look at a different format, depending on whether your goal is compatibility with what you already own or flexibility, giving you access to software you cannot already play back. For dubbing and editing, it nearly always is possible to copy from one format to another using the VCRs' direct video and audio connections.

The two half-inch formats have been around quite a while now, with Beta being launched in 1976 and VHS arriving a year later. Beta has consistently been in front from a technical standpoint. Developments like Beta Hi-Fi, Super Beta, and the Beta Movie portable camcorder came along a year or more ahead of their VHS counterparts. Also, the consensus is that Beta can be the better performer of the two, particularly since the development of Super Beta.

In addition, Beta has some advantages in tape handling. When a Beta cassette is inserted into a VCR, its enclosed tape is wound around the deck's rotating head drum and remains loaded until the cassette is ejected. A VHS tape is loaded around the head drum only when the play or scan function is selected; during fast forward and rewind, the tape is retracted into the cassette. This approach reduces head and tape wear, VHS supporters say, but switching from play to fast-wind is noticeably quicker with Beta. If you're making copies for editing or other purposes, second- and subsequent-generation copies made on Super Beta machines show far less degradation than those made on other recorders. If your most important application is high-quality recording and editing, Beta may therefore be a better choice.

While Beta may have won the technical battles, it has lost the marketing war, at least at the consumer level. Estimates of VHS's market share range from 70 to 85 percent. How did the second format out of the video gate take such a commanding lead? One reason has been VHS's consistent advantage in one easily marketable, but not always significant, characteristic: maximum recording time. The first Beta recorders were limited to one hour on an L-500 cassette, and the time increased to 1½ hours when L-750 tapes were introduced. By contrast, the initial VHS machines had a capacity of two hours on a T-120 tape. And VHS retains that lead, with a maximum capacity of eight hours using a T-160 at the slowest speed, compared with Beta's five-hour maximum using L-830s. If you plan to build a video library via dubbing, or if you are among the few who plan to preprogram your VCR for off-air taping a week at a time, the maximum capacity may well be important.

The lead held by VHS has important implications. The major movie studios will certainly continue supplying prerecorded videocassettes in both formats: A worldwide installed base of more than ten million Beta machines is too big a market to abandon. But while studios will support Beta, individual dealers may not. If movie rental is an important reason for your buying a VCR, check the software situation in your area before choosing: Beta is much stronger in certain parts of the country than in others.

OR 8mm?

THIS FORMAT, INTRODUCED BY KODAK IN 1984, was initially designed primarily for videography. Using a tape about ¼-inch wide and running very slowly, 8mm cassettes are far smaller than half-inch tapes—about the size of an audio cassette. This size advantage spills over to the rest of the hardware, which is considerably more compact and lighter than its Beta and VHS counterparts and comparable in bulk to JVC's new VHS-C format Video Movie camcorder. (VHS-C tapes are small versions of VHS cassettes; they can be played in standard VHS machines using a special adapter.) But these advantages come at a price. The maximum recording time on an 8mm tape is four hours in the half-speed LP mode. And even though it is the newest format, 8mm picture quality is at best equivalent to that of the half-inch formats running at their fastest speeds without Super Beta or HQ.

The most significant disadvantage of 8mm at this time is not video performance, however, but the low machine population. Until recently, that has meant an almost complete lack of prerecorded software, the available titles being confined mostly to music-video and children's tapes. Yet in mid-April, Paramount and Embassy announced plans to market movies on 8mm. Embassy intends to introduce 46 titles over the next 18 months, and Paramount will have 100 titles by the end of this year. RCA/Columbia also has also indicated that it may enter the 8mm software market.

Regardless of these plans, 8mm will have nowhere near the hundreds of titles available on VHS and Beta for some time to come, and dealers carrying 8mm software may be confined to 8mm-hardware sellers. Don't expect your corner video-rental store to have 8mm for quite a while: Already burdened with carrying dual inventories, if that many, a dealer will not add a third format un-

til there is a clear market for it.

Lack of software notwithstanding, uses for 8mm have grown far beyond home camerawork. Kodak, Sony, Pioneer, and others have home 8mm VCRs, complete with flexible tuner-timers and a new wrinkle—stereo digitally encoded sound recording. With these recent product introductions, time-shift joins videography as an important 8mm application, and the digital audio sound capabilities, detailed below, open up further uses.

Incidentally, portable Beta and VHS recorders, designed to be used with external cameras, are becoming less of a factor in the market. Camcorders of all formats are taking over for videography, with two-piece camera/VCR systems being used only when special top-of-the-line camera functions (such as highly powerful zoom lenses or built-in title generators) are needed.

AKAI VS-626U VHS HI-FI VCR AND REMOTE

PANASONIC PV-1360 VHS VCR AND REMOTE

AUDIO QUALITY

UNTIL SONY INTRODUCED BETA HI-FI IN EARLY 1983, VCR audio quality was poor. True, the VHS camp had offered Dolby-assisted stereo audio recording for a year or so before that, but with signal-to-noise (S/N) ratios of about 45 dB and frequency response that often did not extend beyond 10 kHz, it could hardly have been called "high fidelity."

Beta Hi-Fi changed that. This frequency-modulation recording system offers a fairly flat frequency response extending to 20 kHz, a dynamic range of 80 dB or so, and wow and flutter specs an order of magnitude better than those of conventional units. On the whole, Beta Hi-Fi performance is superior in some respects to that of home audio cassette decks. In 1984, the VHS contingent responded with its own Hi-Fi system, which uses similar techniques to provide virtually identical performance. (For detailed explanations of these systems, see "How Beta Hi-Fi Works," August 1983, and "How VHS Hi-Fi Works," June 1984.)

High fidelity stereo sound is obtained somewhat differently in 8mm decks. Monaural units, including camcorders, use frequency-modulation techniques just like Beta Hi-Fi and VHS Hi-Fi, and with comparable results. But for stereo, 8mm departs radically from its half-inch competitors by employing digital encoding. However, the 8-bit PCM system used does not perform quite as well as the FM employed in half-inch equipment. A sampling frequency of 31.5 kHz limits frequency response to 15 kHz. And although specified dynamic range is wide (90 dB, by virtue of analog companding), distortion is higher than in either Beta Hi-Fi or VHS Hi-Fi. Perhaps the greatest advantage of 8mm's digital-audio tracks is that they can be completely free of video-related noise, hum, and buzz, which sometimes plague the FM systems.

The audio performance of all three audio recording systems gives VCRs that include them the potential to be fine audio-only recorders, provided that they have the necessary inputs and outputs. Here, it is 8mm that has a significant edge in playing time. On PCM-equipped 8mm systems, the video portions of the tape can be used to store audio information instead. On a maximum-length tape, this alternative provides six two- or four-hour stereo tracks, for a total of 12 or 24 (noncontinuous) hours of recording time on a single cassette.

STEREO TV

TWO SOURCES OF VIDEO PROGRAMS WITH HIGH fidelity sound are simulcasts and the growing number of prerecorded cassettes with Hi-Fi soundtracks. A third is stereo TV. To receive stereo TV, you need a stereo-TV signal (which is stripped off by some cable systems) and a Multichannel Television Sound (MTS) decoder. That device is now built into many upmarket "stereo capable" VCRs and television sets. A lot of midline units, the "stereo ready" models, have multiplex jacks that enable you to add an outboard decoder.

Stereo capability on a VCR isn't just for taping in stereo. If your VCR and TV set are near your audio system, you can use the VCR as the audio source while watching TV. This approach will not work when you are watching one show while taping another, but otherwise, it may be an economical way to get stereo TV, especially if you have a stereo VCR and a nonstereo television.

If audio performance is a priority, you will certainly want a deck with Hi-Fi or PCM sound together with MTS capability. Whether audio is important depends on personal taste, the type of program material, and the location of the VCR. If you are using the deck to play back vintage movies with low-fi soundtracks or to time-shift news programs, you will need Hi-Fi and MTS capability less than if you are making recordings of operas and concerts or playing the latest blockbuster movies. Similarly, sound will be less important for a second VCR, located in the bedroom, than for a unit that will be set up in the living room, where it may be used with a stereo TV containing a good audio section or integrated into a complete audio-video system.

VIDEO PERFORMANCE

EVEN THOUGH IT MAY SEEM LIKE IT, MAKERS OF VCRs have not neglected the eyes in their rush to satisfy the ears. In early 1984, the Beta camp introduced Super Beta, an enhancement that extends video bandwidth for increased resolution (picture detail). Other Super Beta techniques dramatically reduce the amount of degradation that occurs when tapes are copied (see "Super Beta: How Does it Work," November 1985). At first confined to high-end VCRs, Super Beta has now found its way to midline and even some entry-level models.

The VHS camp introduced its response

SANYO VCR 4027 SUPER BETA VCR

SHARP VC-T64U VHS HQ VCR

in late 1985: HQ (High Quality), a system consisting of four components (see "Super VHS?," November 1985, page 37). An extension of the "white clip" level (the maximum brightness a VCR can record) improves edge definition, so that objects in the picture stand out from one another more distinctly. Separate noise reduction circuits for luminance and chrominance reduce video noise by several decibels. Finally, there is a fourth circuit to enhance detail.

The problem is that to use the HQ logo on their products manufacturers are required to include only white-clip-level extension plus one other feature. Some suppliers of HQ VCRs provide all four components; others, only two. Each component offers genuine, though sometimes subtle, improvements in picture quality, but you have to read product literature carefully to determine which features are included on any given model (and even then you may not find out).

Unlike audio equipment, video products come with literature containing few specifications. Video performance can be quantified, just as audio performance can, but you might have to go to test reports to get this information. Video S/N ratios are an indicator of how much snow and grain a machine adds to recordings it makes. Other tests show a unit's ability to accurately display subtle gradations of color. And as already mentioned, a deck's ability to render detail is indicated by video frequency response, which determines its horizontal resolution.

But test reports should only supplement careful shopping. When examining specific models, compare the amount of detail they can display and the degree to which they introduce noise. Make a recording, preferably from a live broadcast, then play it back, comparing it with the broadcast source. Look at detail and picture noise (snow and colored interference). Compare color on the tape and source to determine color accuracy. Pay attention to picture contrast, which can often be reduced on a tape copy. A sharpness control, found on some midline and high-end models, may filter out some noise, but in the process it will soften detail. Be sure it is adjusted properly when you perform any tests. Make recordings at different speeds, concentrating on the one you plan to use most. Surprisingly, some units perform better in some respects at lower rather than at higher speeds, especially when it comes to special effects.

FLEXIBILITY AND CONVENIENCE

VIDEOCASSETTE RECORDERS VARY NOT ONLY IN their audio and video performance, but in their operating flexibility. Except for camcorders and inexpensive playback-only machines, all VCRs have tuner-timers. With table models, these are built in; with portables, they are (sometimes optional) attachments. Tuners vary in the number of channels they can receive and the number of channels the user has access to. On the most basic VCRs, only the standard VHF and UHF channels can be received. An external converter is required to tune in "midband" (located, as are FM stations, between Channels 6 and 7), "superband" (between Channels 13 and 14), and "hyperband" channels that cable companies use to transmit their programs. But many low-end recorders are now "cable ready," able to receive 107 or more channels, including midband and superband cable channels. High-end units can receive as many as 181 channels.

Bear in mind that your cable operator may not use all or any of these channels, so you may not need a VCR capable of receiving them. Also, you may not be interested in the services (weather and business data, for example) carried on the high cable channels. Pay-TV services, too, are carried on super- and hyperband channels. If you want to record pay-TV, you'll probably have to use an external decoder. This can be tricky, since the signal has to be tuned in before it is descrambled. Usually, that means that an external converter has to be used, making a VCR's internal cable-ready tuner irrelevant. Some recent VCRs have two cable inputs. One feeds the VCR's own tuner for basic services, and the other receives descrambler output. That means that a converter is needed only for pay services. Other high-end recorders have cable loops, much like a signal processor loop on a audio preamplifier. Channels tuned by the VCR's tuner are sent out to a descrambler then back in decoded form to the tuner. If you want to receive cable channels other than basic VHF and UHF broadcast services, check with your dealer or cable operator to ensure that your recorder and descrambler/cable-box combination will receive the desired channels.

Even though a specific VCR may be capable of receiving every station you want, it may not be able to get to all of them at once. Your cable system may offer 30 services, any of which your VCR's tuner can receive, but you might have to restrict your choice to the number of channel-preset positions your VCR provides. This can be as few as 12 or 16. If you change your mind or want to record a special event on a channel you have not pretuned, you have to reprogram the VCR, which takes at least a minute or two per channel. High-end units have random-access tuners that enable you to call up any available channel by entering its number on a numeric keypad on the remote control. Such units have no restriction on the number of directly tunable channels.

In addition to cable input and output to the television, upmarket VCRs have audio outputs to route sound to a preamplifier and a video output for feeding a monitor with direct video inputs. The latter avoids the extra distortion added when the picture is modulated onto Channel 3 or 4 by the recorder then demodulated again by the TV. Even if your present TV can't accommodate direct audio and video inputs, your next one probably will. Direct audio and video inputs also facilitate dubbing from another VCR or recording from other video sources (such as a videodisc player).

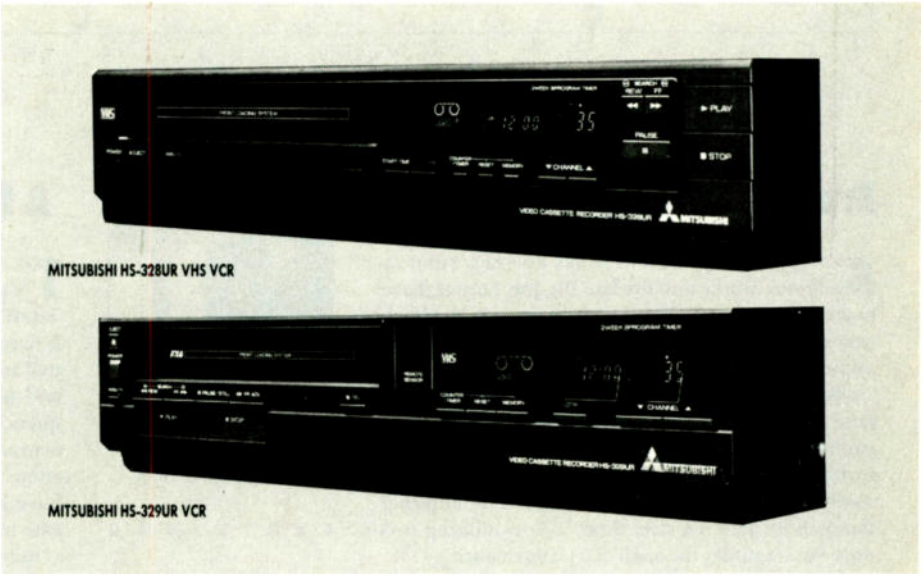
Videocassette recorders can be programmed to make recordings when no one is

around. The number of events that can be programmed varies from one event over seven days (on basic machines) to eight over a full year—or more, if you use the repeat feature present on many units. The norm is four to eight programs over seven to 14 days. Some users find the programming procedure complex. A few high-end models give prompts and instructions right on the television screen to assist the process. The tuner-timer functions you need will depend on your applications. Only the most basic functions are called for if you're mostly just playing movies, while more sophistication is in order if you're going to do a lot of time-shifted off-air taping.

Basic recorders provide only the essential transport functions: stop, pause, play, fast-forward, and rewind. As you move up in price, manufacturers add features such as picture search, which enables you to view the tape several times faster than normal, so that you can quickly locate a desired segment without winding back and forth. Some have a scan feature that enables you to change a fast-wind mode instantly to search, again to help locate desired programs. The function of freeze-frame is obvious. Some sets add a single-frame advance control, so that you can move forward one frame at a time. This is useful not just for analyzing a play in a football game, but for getting clean edits between scenes, such as when commercials are being deleted from a tape. That process is facilitated by a feature called "assemble edit," which automatically gives clean transitions from scene to scene.

Scan and freeze-frame are not always available at all speeds. Some machines limit them to the slowest speed. If you plan to use higher speeds to get better pictures and want to use these special effects, make sure the recorder offers them. Speaking of speeds, VHS machines come in two "flavors": those that can record at the middle speed (LP) and those that cannot. Some people have found LP to be a conveniently slow speed for recording digital audio via a PCM adapter. If this application interests you, at least notice whether the machine you're considering has LP *recording* capability—all recent VHS machines can *play* tapes made at all three VHS speeds.

Videocassette recorders vary greatly in the quality of their special effects. All decks have at least two video heads; some upmarket units use three, four, or even five. Two-head units perform as well as most more liberally endowed models in the regular play and record modes. But in the scan, freeze-frame, or slow-motion modes, the two heads are not able to read all the information at the right times. This results in picture tearing or noise bars (clumps of white lines extending across the screen). Multiple heads can maintain more continuous synchrony with the information on the tape and thereby minimize such problems. Multihead machines are therefore particularly suitable for users who want clean special effects, though in some cases they also provide better performance at high recording speeds (SP or Beta II) than simpler machines with just two heads optimized for the lowest speeds (EP, or SLP, and Beta III). Also bear in mind that in VHS Hi-Fi units, two heads on the drum are used for audio. These audio heads *may* be included in a spec sheet's head count. Many suppliers of VHS Hi-Fi products now separately specify the number of video and audio heads a deck has, making the numbers more meaningful.



MITSUBISHI HS-328UR VHS VCR

MITSUBISHI HS-329UR VCR

Once found only on upmarket recorders, remote control is now standard on virtually all VCRs. Basic sets have wired remotes, usually with only a pause control, though a few have all the basic transport functions. But wireless remotes are now found on step-up models costing little more than entry-level units. Again, their functionality is limited to transport features. As you move up in price, more features are operable from the remote.

Recently, several manufacturers have introduced unified remote controls. These work not only VCR functions but also the functions of the television set and other components. Although this is a good way to reduce handset proliferation, taking advantage of a unified remote control usually locks you into buying the same brand for all components. If you plan to own remote-controlled equipment by several manufacturers, an alternative is to buy a programmable remote, such as the one offered by GE. Standardized product-control codes may eventually make such devices obsolete, however.

Again, your reason for buying the VCR will dictate what remote functions you need. If you're primarily playing movies, basic transport functions will likely suffice. If you're using the recorder's tuner for standard viewing (say, to take advantage of a stereo TV tuner), you'll probably want channel-changing capabilities. And if you're recording shows off the air and want clean breaks when you pause for a commercial, freeze-frame and single-frame advance accessible from the remote are useful. Unified remotes will appeal to buyers wanting the ultimate in audio-video integration.

BOTTOM LINES

VIDEOCASSETTE RECORDER MANUFACTURERS tend to add features to their offerings in bunches, going from entry-level to step-up to midline to high-end models. Some go through that process twice, offering basic Hi-Fi models. Overall quality and versatility improves at higher prices. Competition is especially fierce at the low end of the price scale, so picture quality or long-term reliability may end up being traded off for a cost advantage.

You should also be aware that identical or nearly identical machines are sold under different brands. Matsushita, manufacturer of Panasonic and Technics products, also sells recorders under the Quasar brand and makes VCRs for GE and Magnavox. Pioneer's Beta-format VCRs are made by Sony, its VHS model by Hitachi. NEC manufactures for Marantz and Hitachi for RCA. Mitsubishi supplies VCRs to Emerson and others. These combinations may change, but there remain fewer electronically distinct machines than there are companies selling them. The video jungle isn't so crowded as it first appears. With the great variety of models and features available and the market's intense price competition, a methodical shopper can emerge with an ideal VCR for his needs, without spending a nickel more than necessary. A carefully conducted foray into the forest will bring you a feast for your eyes and ears. ■

Etta James: Back to the Future

EDITED BY GEORGIA CHRISTGAU AND TED LIBBEY

A NUMBER OF RHYTHM AND BLUES SINGERS, SUCH AS Solomon Burke and the late Big Joe Turner, have made being fat sexy, but the few women in the business can't afford to scare away potential fans; extra pounds are more noticeable on women like Koko Taylor and Etta James—despite their cultural advantage as Big Mamas—than they are on their male counterparts. And "Big Mama" refers as much to maternal strength (and men's respect for or fear of same) as it does to sexual prowess. The amazing thing about James's size, then, is how alluring it is once you're under the spell of a performance.

"They tell me this place is authentic," James told her audience at New York's S.O.B.'s (Sounds of Brazil), looking around skeptically at the attractively hung gourds and potted plants. "They tell me I'm authentic, too," she continued, tearing through "I Don't Want to Be Your Slave" before anyone had a chance to disagree. Then she teased, scatted, and sweat out an elaborately suggestive version of her own "I'd Rather Go Blind," conjuring up an imaginary lover without words until I wouldn't have been surprised if he'd walked up on the stage. James used her gruffness to advantage in "Mean Mother," and like Taylor has, feminized Muddy Waters's "Son of a Gun" with a power that raised the consciousness. Her vocal range and subtlety, though, distinguished this performance from those I've seen by other dramatic blues shouters. After a half-hour I felt her exhaustion as she eased into a more varied, danceable set that included "Respect Yourself," "Bon Temps Rouler," and "Love and Happiness."

Because she had her first hit in the '50s with "Roll with Me, Henry," people forget that she's as current as her latest burst of energy, which was probably inspired by the use of that single in last year's film *Back to the Future*. And until I experienced the confidence with which she pulled off her first New York appearance in more than a year, I hadn't noticed how capably she masters different soul styles. On 1980's *Changes*, her last LP of new material, she sounds cooler (and hotter) than Carly Simon on "Don't Stop" and more suave than Lou Rawls on "Who's Getting Your Love." I'm looking forward to hearing her cover of Alice Cooper's "Only Women Bleed" when I dig up a copy of 1978's *Deep in the Night*.

James's former heroin habit doesn't adequately explain her sporadic recording career or the lack of even a decent greatest hits package. It musn't be easy to duplicate on vinyl the fight in this survivor, the kind of gutsy grace and good humor that she gave away in concert with ad libs like "After 20 years of drugs, water tastes great." I can recommend MCA's Chess rerelease of *Etta James Rocks the House* (reviewed in May 1985), with its definitive versions of "Something's Got a Hold on Me" and "Baby, What You Want Me to Do?" But James is too vital to be relegated to the reissues bin or to the neglect she has defied for 30 years. When you see for yourself, you'll agree: She's timeless. *Georgia Christgau*

A Eulogy for Edmund Rubbra

THE HEADLINE TO A 1983 *NEW YORK TIMES* REVIEW—"Contemporary Music: Beauty or Pain of Truth"—reveals a pathology peculiar to our time. It is hard to imagine another age in which the intellectual and cultural elite has convinced itself that beauty and truth are incompatible, and that, as a consequence, art must be ugly. Yes, I know about the concentration camps and the Gulag. The irony is that some of the most heartrendingly beautiful things have been created and written by the very people who have gone through the worst of the 20th century ("Bless you, prison," said Aleksandr Solzhenitsyn).

In fact, the ugliness of much of our art is a reflection of the spiritual malaise of our time, not of a horror surpassing, say, that of the Black Death. It may well come as a revelation to archaeologists of the 20th century that many more hardy souls than imagined refused to succumb to this regnant malaise, but continued in obscurity to create works of wholeness. It will take some digging to find out who they were, because they were ignored by their tastemaking contemporaries: They were considered "reactionary."

We have just lost one of those reactionaries. His name was Edmund Rubbra (born in 1901 in Great Britain), and he wrote beautiful music. He died several months short of his 85th birthday, leaving an unrecognized legacy of 11 symphonies, four masses, and many choral and chamber works.

G. K. Chesterton once said, "Nothing sublimely artistic has ever arisen out of mere art. . . . There must always be a rich moral soil for any great esthetic growth." Those who have studied Rubbra's music almost unanimously remark upon its religious impulse, sometimes comparing him to Bruckner. What is clear is that Rubbra reaches not simply for something musical, but through music to the sublime.

Like most great art, Rubbra's bears the unmistakable stamp of its creator: It is quite unlike that of his teacher Holst or of the English pastoralists, though it is in the same conservative, lyrical vein. The composer Herbert Howells's reaction to Rubbra's music could be fairly replicated by anyone today who is willing to listen: "Now and again there comes a work with the power to make one fall in love with music all over again. In such a mood I found myself when listening to your Third Symphony." The problem is that we cannot listen to Rubbra's Third Symphony because there is no recording of it and its chances of being programmed by an orchestra are next to nil.

What music of his we can listen to is thanks largely to Lyrita (distributed by Allegro Imports, 2317 N.E. 15, Portland, Ore. 97212), which has available Symphonies Nos. 2 (SRCS 96), 6 and 8 (SRCS 127), and 7 (SRCS 119). Chandos has issued his Symphonies Nos. 10 (CBR 1023) and 5 (1018), and it is with the latter, a sweeping work, that the newcomer to Rubbra may wish to begin. Melodically strong and memorable, tonally structured, this confident music might as well be asking "What crisis?" in the face of the doomsayers of Western art. *Robert R. Reilly*

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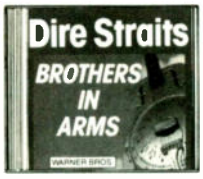

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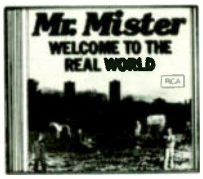

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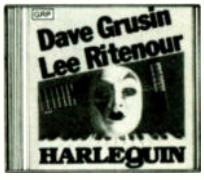

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Chick Corea: Elektric Band Rumble, Side Walk, Cool Weasel Boogie, Got A Match?, etc. GRP *DIGITAL* 140093

Brahms, 21 Hungarian Dances Claudio Abbado conducts the Vienna Philharmonic Orchestra. DG *DIGITAL* 115408

Alabama: Greatest Hits • She And I, Why Lady Why, Feels So Right, Tennessee River, others. RCA 120247

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A REPLY TO TIKHON KHRENNIKOV

BY PAUL MOOR

EVEN BEFORE I BEGAN READING "THE CZAR OF SOVIET MUsic"—Joel W. Spiegelman's March interview with Tikhon Nikolayevich Khrennikov, First Secretary of the Union of Soviet Composers since the zenith of Stalinism in 1948—I felt both my hackles and my gorge rising when my glance fell upon that big-print quotation: "I have never acted against my comrades; perhaps that is the very reason I have been running the Union of Composers for so long."

I have paid particular attention to the resilience and durability of Khrennikov's career ever since 1949, when I bought in London a slim Turnstile Press volume entitled *Musical Uproar in Moscow*, by Alexander Werth, *The New Statesman*'s brilliant Moscow correspondent. HIGH FIDELITY's interview presents a flattering self-portrait of Khrennikov; I appreciate the opportunity to restore a few of the warts he re-

IN 1954, THE SOVIET MUSICAL ESTABLISHMENT MARKED DMITRI SHOSTAKOVICH'S FIFTIETH BIRTHDAY WITH A GALA CELEBRATION IN THE GREAT HALL OF THE MOSCOW CONSERVATORY. AT LEFT IS THE COMPOSER, LISTENING TO A TESTIMONIAL FROM DEPUTY MINISTER OF CULTURE VASILI PAVLOVICH. SEATED AT THE TABLE IN THE CENTER IS THE MASTER OF CEREMONIES, FIRST SECRETARY OF THE UNION OF SOVIET COMPOSERS TIKHON KHRENNIKOV.

touched out of it. I can hardly believe they simply slipped his mind.

Between 1958 and 1965, during five extensive visits to the U.S.S.R. (all the way to eastern Siberia and down to Armenia and Georgia), I had the luck to become friends with a number of outstanding Soviet musicians. Some of them—Sviatoslav Richter, Mstislav Rostropovich, and Kirill Kondrashin, to name only three—belonged to the privileged Establishment, at least at that time. Others—well, about them I wrote in the March 1965 MUSICAL AMERICA edition of this magazine, "One hears more and more of younger Soviet composers who write . . . 'for their desk drawers,' but the prevalent atmosphere [in Moscow] remains such that the Western visitor does them only a disservice by calling attention to them. . . . The result of this situation is that anyone relatively well informed about the field of Soviet composers finds himself in a position of not being able to report very much publicly without harming the individuals he would most like to help and encourage." Since 1967, the Soviet authorities have turned down two further applications from me for ordinary Intourist visits, but Soviet intellectuals do travel, and on the basis of the contact I have had with some, I have no reason to believe that the predicament of adventurous, independently minded Soviet composers has changed in any significant way since I wrote about it in these pages 21 years ago.

Surveying Khrennikov's bureaucratic career, I keep thinking of a German adjective, *aalglatt*—slippery as an eel. In some ways he has changed his tune since those evil days of 1948, but let us not forget—ever—his words and deeds at a time when his disfavor could mean almost total professional and social ruin for any composer in the Soviet Union. Even today Khrennikov wields almost as much power as he did then.

TO PUT THE MAN INTO MUSICAL AND ideological perspective, one must go back almost four decades to set the stage. Politically speaking, Andrey Zhdanov begat Khrennikov. And it was Stalin himself who begat Zhdanov, to be his totally reliable, lickspittle cultural hatchetman. Werth says Zhdanov had "an immense sense of purpose and a touch of the ruthlessness of Ivan the Terrible, Peter the Great, Lenin, and Stalin. . . . Stalin trusted him completely." As for Zhdanov's musical qualifications, Werth described—from on-the-spot, firsthand experience—the atmosphere in Moscow just before Zhdanov read the riot act to the composers and gave Khrennikov his apostolic blessing: ". . . the Party also used at that time its technique of rumor-launching. . . . All kinds of people started saying, nobody knew on what basis, that Zhdanov was a most accomplished musician, and a graduate of the Leningrad Conservatory. This 'fact' had never been recorded in any official biography of Zhdanov, and the suddenness with which this now became common knowledge was peculiar. Later enquiries showed that there was not a word of truth in that story, but the public nevertheless acquired the idea that Zhdanov was a great musical expert. That he was no expert was admitted at the Composers Congress in 1948 even by the sycophantic [Vladimir] Zakharov. 'Comrade Zhdanov,' he declared, 'is no professional musician. But oh, how well he knows folk song! When he recently visited our [Pyatnitsky Russian State National Choir], we asked him, "Is it true, Comrade Zhdanov, that you know six hundred folk songs?" "No," he said, "not six hundred, but I suppose I do know about three hundred." How much better our composers would write if they knew folk songs as Andrey Alexandrovich does!' " So much for Stalin's chosen lieutenant—who handpicked Khrennikov and got him installed as chief of the Union of Composers.

Let me try to put all this into roughly equivalent American terms. Khrennikov, over the years, has proven his own undeniable—but modest—gifts as a composer; as Spiegelman notes, Leopold Stokowski, Eugene Ormandy, and Charles Munch all conducted his First Symphony in this country. For purposes of analogy, try to imagine an American composer made up of an amalgamation of Gian Carlo Menotti, Leroy Anderson, and John Denver—a single composer who, with the federal government's unqualified backing, had the decisive word to say about music publishing, public performance, recording, and broadcasting throughout the entire country. Try to imagine that composer arrogantly presuming to dictate to Aaron Copland, Roger Sessions, Roy Harris, Samuel Barber, Elliott Carter, George Crumb—and every other American composer—the kind of music they *had* to write if they wanted their music even to be heard. And finally, try to imagine the inner, psychic reaction of those better composers, not to mention the immeasurable loss to the entire world of the works they would no longer write.

With the backing of Stalin and Zhdanov, Khrennikov, the mediocrity, had no inhibitions whatsoever about attacking his betters, including all the so-called Big Four: Prokofiev, Shostakovich, Khachaturian, and Miaskovsky. According to Werth, "Khrennikov's treatment of Prokofiev was just as vindictive as his treatment of any of the other 'formalists.' In his 'historical' addresses, he went out of his way to make Prokofiev out to be an alien influence in Russian music. Having enumerated at length the foreign modernist, decadent, pathological, erotic, cacophonous, religious, or sexually perverted monsters—including Messiaen, Jolivet, Hindemith, Berg, Menotti, and Britten—Khrennikov proceeded to tell Prokofiev how wicked and Western *he* was." For just a moment, in passing, consider the musical qualifications and the character of a mediocre Party hack who presumes to sit in judgment over a fellow composer on the grounds of his sexual orientation while at the same time pursuing an official government line that denies, even today, the thoroughly documented homosexuality of Tchaikovsky, the greatest of all Russian composers.

Khrennikov, Werth goes on, "went out of his way to identify Prokofiev with Stravinsky and Diaghilev—alleging that all three represented 'closer-to-the-West-at-any-price' ideas and that, in presenting an exotic, *Petrouchka*-like vision of Russia to the West, all three lampooned their own country in front of foreign audiences. And 'it all ended in Monte Carlo, where the Diaghilev Ballet found its mission at last—to cater to an audience of gamblers, profiteers, and prostitutes,' Khrennikov concluded.

"Khrennikov, with characteristic meanness, then made capital out of the fact that Prokofiev was really an émigré (though, unlike Stravinsky, he had had the sense to return to Russia in 1934) . . . [charging] that vile foreign influences had, in fact, marred his work through and through. Without saying a single word about Prokofiev's best work either before or after his return to Russia, Khrennikov dismissed *all* [emphasis added] his later compositions as 'formalist and unsuccessful.' " Werth, incidentally, took all the numerous, lengthy quotations in his little 103-page book directly from the official, published, ostensibly verbatim transcript of that three-day congress.

In his admirable book *Music and Musical Life in Soviet Russia, 1917–1981*, Boris Schwarz writes, "Five years after the premiere of the Eighth Symphony, Shostakovich was in deep trouble with the Soviet cultural bureaucracy led by Zhdanov. The Eighth became a prime target of his opponents: Its dissonant language, defeatist mood, lack of affirmation, [and] brooding subjectivism [were] unacceptable to the ideologists of 1948." Confronted by Khrennikov's *pro domo* disapproval, Shostakovich—one of the supreme artists in Russian history—had no apparent choice but to eat crow. In Werth's opinion, his two humble statements printed in that transcript "cannot be taken at their face value. . . . His promise . . . to be good and his thanks to the Party for all its fatherly care are part of a pathetic human document. They are the words of a man—still just over forty—who feels himself crushed and beaten, but who sees no future for himself in a world where he will henceforth be bossed by Zhdanovs and Zakharovs, and who still hopes against hope that somehow he, Shostakovich, will find a place in it."

Schwarz goes on: "Less than a decade later, in 1957 [four years after Stalin's death], the Eighth was 'rehabilitated' in the course of the cultural 'thaw,' and the Union of Composers—through its First Secretary Khrennikov—retracted its former 'dogmatic position.' " Not only this incident has demonstrated Khrennikov's ability, ideologically speaking, to suck as hard as he can blow. In the first flush of power, he had laid down the

(CONTINUED ON PAGE 79)

PLUSES AND MINUSES IN PERAHIA'S MOZART

ON RECORD, PERAHIA CARRIES UNDERSTATEMENT FURTHER THAN HE DOES IN CONCERT.

STEVE J. SHERMAN

CLASSICAL REVIEWS

MOZART:
Concertos for Piano and Orchestra (25); Concertos after Sonatas by J. C. Bach (3); Rondos (2).
SCHROETER (cadenzas by Mozart):
Concerto in C, Op. 3, No. 3.

⊙ Perahia; English Chamber Orchestra, Perahia. Various prods. CBS Masterworks M13 40255 (A, D, 13). ◑(13).

Piano Concertos: No. 1, in F, K. 37; No. 2, in B flat, K. 39; No. 3, in D, K. 40; No. 4, in G, K. 41; No. 5, in D, K. 175; No. 6, in B flat, K. 238; No. 8, in C, K. 246; No. 9, in E flat, K. 271; No. 11, in F, K. 413; No. 12, in A, K. 414; No. 13, in C, K. 415; No. 14, in E flat, K. 449; No. 15, in B flat, K. 450; No. 16, in D, K. 451; No. 17, in G, K. 453; No. 18, in B flat; K. 456; No. 19, in F, K. 459; No. 20, in D minor, K. 466; No. 21, in C, K. 467; No. 22, in E flat, K. 482; No. 23, in A, K. 488; No. 24, in C minor, K. 491; No. 25, in C, K. 503; No. 26, in D, K. 537 ("Coronation"); No. 27, in B flat, K. 595.

Concertos after Sonatas by J. C. Bach, K. 107: No. 1, in D; No. 2, in G; No. 3, in E flat.

Rondos: in D, K. 382; in A, K. 386.

AMONG THE INDIGNITIES ARTISTS SHOULD NOT have to endure is condescension, but they receive it anyway. I recently cut the following out of a newspaper: "Pianist [X], who is twenty-eight, is capable of a very high level of performance. His technique is very solid, and for the most part his already broad tonal palette is thoroughly under control. Nevertheless, there is still room for improvement, particularly in matters of interpretation." At first glance, what seems most objectionable is the suggestion that the reviewer is more seasoned than the artist, which cannot possibly be true. Someone who is not a performer cannot measure himself against someone who is as though they were peers. But what is more offensive is the implication that the reviewer knows the music better. Even when such an assertion does come from one's peers—as happened not long ago when one pianist took his success with a slender book of "thoughts" as authority and license to comment disparagingly on his colleagues in the jacket notes for his own recordings—the effect is fatuous. As James Levine said once in *The New York Times*, "You can tell me a performance of mine is too loud, too soft, too fast, too slow; you can tell me you don't like it. But *don't* tell me I don't know the piece."

(CONTINUED ON PAGE 56)

(CONTINUED FROM PAGE 55)

Murray Perahia is someone whose performances over the years—of Mozart, Beethoven, Schubert, Schumann, and Chopin—have shown him to operate on a level of musicianship, insight, integrity, and giftedness that should place him beyond condescension and instruction from anyone. If it is reported, then, that in this integral set his accounts of some of the greatest of Mozart's piano concertos are disappointing, the observation must be made in that context. But as it happens, one can also observe that Perahia does not play in public as he does occasionally on these records.

In concert performances of Mozart's Concerto in D minor, K. 466, which I heard him conduct from the piano, as he does here, Perahia played out at the keyboard in a manner suitable to music that impresses me as being large-scaled and impassioned. The music does not impress only me that way: It seemed so also to Beethoven, to judge from the large-scaled, dramatic cadenza he wrote for it, and to Perahia himself at certain times, to judge from his playing in concert. On the record, however, Perahia's feathery touch in some unaccompanied passages, particularly in quiet ones, produces for the microphone an unnatural sound that is fainter and paler than what he would have had to produce to be clearly audible over the orchestra to an audience in an auditorium. And while his sustained phrasing makes the small-scaled approach effective on its own terms, the recording does not have the impact of his live performances.

In the account of the C major Concerto, K. 503, there is a similar discontinuity in the first movement between the powerful expression Perahia's conducting gives Mozart's richly scored and elaborated writing for the orchestra—marked maestoso—and his muted, dreamy manner of playing the first solo entrance. Moreover, he has a mannerism at times on these recordings of beginning a phrase assertively and causing it to trail away by the end. In the E flat Concerto, K. 482, this repeated drawing-back weakens the effect of the piano's eloquently discursive runs and passages in the first movement, particularly at the start of the development (Perahia's cadenzas "after Hummell" sound tawdry). This overly intimate style undermines the first movement of the C major Concerto, K. 467; the first movement of the even more powerful Concerto in C minor, K. 491; and parts of the first movement of the Concerto in B flat, K. 595.

However, there is nothing reticent about Perahia's playing on these records in the other movements of the concertos mentioned here or in any of the movements of the concertos K. 107 (based on sonatas by J. C. Bach), 451 (which B. H. Haggin rightly has described as being constructed out of uninteresting ideas), 453, 456, 459, 488, or 537 (the *Coronation* Concerto, a comparatively dull work). But the worst playing, regrettably, damages some of the finest music.

Format Key

- ⊙ LP
- Cassette
- Compact Disc
- Videocassette
- Videodisc
- Open reel

RECORDING INFORMATION

(A) analog original

(D) digital original

Large symbol beneath title indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any).

Catalog numbers of all formats of a particular recording usually are identical except for differing prefixes or suffixes. Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format.

Arabic numeral in parentheses indicates number of items in multi-item set. Unless otherwise indicated, all multi-LP sets are in manual sequence.

Where Perahia's playing is at its best, the performances are superb. The seeming rightness of his tempos results as much from his judgment in anticipating or intensifying harmonic transitions by subtle changes in tempo as it does from the tempos themselves. The discreet emphasis with which he imparts suppleness, freshness, and life to a phrase—without ever doing more than is needed to make it intelligible, characterful, and, where required, bold or humorous—is best described as elegant. Pianists who follow Mozart's practice of interpolating figures, runs, and ornaments here and there between the single, widely spaced notes he wrote on the page, as Perahia does on occasion, must produce something as effective as Mozart's bare notes. Perahia's subtle additions in the first movement of K. 503 may go undetected unless one listens with the score.

In his playing of the piano, Perahia exhibits an almost uncanny connection between hand and ear, which enables him to adjust automatically to the unevenness of an instrument and make it sound ravishing. His conducting here of the responsive English Chamber Orchestra is admirable. Though the closeness of the microphones to the participants is unnatural to anyone used to hearing concerts even in small halls, the balance between piano and orchestra is not distorted, and the sound is clear and agreeable.

The contents of this collection (except the Schroeter/Mozart) also are offered by CBS Masterworks in four multi-LP or multi-cassette albums. Volume 1 (CBS M3 39044), which will be released in the fall, comprises K. 37, 39–41, 175, 238, and 246 plus the Three Concertos after Sonatas by J. C. Bach. Volume 2 (CBS M3 42115) contains K. 271, 413–415, 449, and 450. On Vol. 3 (CBS M3 39246) are K. 451, 453, 456, 459, 466, and 467. Volume 4 (CBS M4 39689) is made up of the late concertos—K. 482, 488, 491, 503, 537, and 595—and the Rondos. Alternatively, the concertos are available on the same label in combinations of two or more on single records and cassettes.

Thomas Hathaway

BACH:
Die Kunst der Fuge, S. 1080.

Kocsis, Rodos. Philips 412 729-4 (D, 2). ⊙ (2). ◑ (2).

NOW THAT MODERN SCHOLARSHIP HAS SWEPT away most of the nonsense that has grown like barnacles on Bach's mighty textbook, *The Art of Fugue*, it's generally recognized that it was never intended as mere *Augenmusik*, to be studied but not sounded. Rather, it appears that the music was meant for actual performance on a solo keyboard instrument—preferably a harpsichord, possibly an organ, or by reasonable extension a modern piano. Purists will insist on the harpsichord, and most of them cling to Gustav Leonhardt's 1979 Harmonia Mundi version, now digitally remastered by Pro Arte (PAD 227), even though it omits the great unfinished fugue on three subjects that Leonhardt had included in his 1953 mono version for Vanguard.

In years past, chamber ensemble transcriptions were popular, and the best of them—like those included, with harpsichord and organ performances, in the Neville Marriner/Academy of St. Martin-in-the-Fields set (Philips 6747 172 [LP], 7699 007 [cassette])—are indeed valuable in helping a scoreless listener to follow the intricately woven contrapuntal lines. But the ideal way is to listen to a solo instrumental performance with the score in hand, and only to a very few *contrapuncti* at a time; The work never was intended to be heard in its entirety at one session.

Young Zoltán Kocsis, for all his outstanding pianistic talent, is no specialist in Baroque, let alone Bachian, performance practice. What he does here is to *read* the score with a maximum of clean-cut pianistic articulation and a minimum of pedal blurring. His forcefulness, magnificently solid recorded tone, and overall lucidity combine to make this an inviting way for youngsters, weaned on the piano, to approach this only-seemingly-forbidding music for the first time. But there is infinitely more in it than Kocsis even can suggest.

He follows the sequence of movements suggested by Gregory Butler in the *Musical Quarterly* (1983), which first presents the fugues, including the unfinished one on three subjects; followed by the canons, including an earlier version of *Contrapunctus* 18 omitted from Schmieder's catalog; and concludes with the two fugues for two keyboards, in which Ferenc Rados plays the second piano part. Quite properly, the phony tradition of appending the chorale prelude of deathbed-dictation fame is ignored. And there are first-rate background notes and a bibliography by András Wilhelm.

R. D. Darrell

BEETHOVEN:

Symphonies: No. 1, in C, Op. 21; No. 2, in D, Op. 36.

Academy of Ancient Music, Hogwood. Peter Wadland, prod. Oiseau-Lyre 414 338-4 (D). ⊙◑

MANY A CONSERVATIVE CLASSICIST WHO HAS indulgently observed the rise of period-instrument performances and witnessed their spread from the medieval/Renaissance repertory to the Baroque and thence to Mozart may feel that things have gone too far when it continues not only to Beethoven's fortepiano works but to his symphonies. Nevertheless, that's exactly what's happening—in a few isolated examples in recent years, now in a seeming rush led by Christopher Hogwood's Academicians (of complete Mozart symphonies fame), whose first Beethoven Nine installment has just appeared on Oiseau-Lyre.

Whatever your own preconceptions, even if more con than pro, I beg you to suspend judgment (and disbelief) until you hear how indescribably distinctive—and fresh—the First and Second Symphonies sound here. They emerge with crisper, tangier wind and leaner string timbres, free for once from the usual lush-strings imbalance of modern orchestras. With the smaller forces Hogwood employs (39 and 40 musicians), the inner parts are heard far more clearly, and the works stand up very well indeed under his brisk yet unrushed, nimble readings, cleansed of Romanticized rubatos and other anachronistic inflations.

It's as if a gale of fresh air had blown away all the accumulated cobwebs to restore these works' original effect as youthfully brash, daringly imaginative, zestfully invigorating musical *adventures*. Yet even more surprising, this approach reveals far more vividly the then-new music's firm roots in its immediate rococo past.

You may or may not approve, may or may not go back in relief to familiar modern-instrument, large-orchestra versions, but I guarantee that you'll never again be able to accept those versions as the *only* way Beethoven symphonies can or should be interpreted today. *R. D. Darrell*

BERNSTEIN:

Songs.

Alexander, Crone. Etcetera XTC 1037 (D). ⊙ (Distributed by Qualiton Imports, 39-28 Crescent St., Long Island City, N.Y. 11101.)

I Hate Music!; La Bonne Cuisine; Two Love Songs; So Pretty; Piccola Serenata; Silhouette; A Simple Song (from "Mass"); Take Care of This House (1600 Pennsylvania Avenue); It Must Be So (from "Candide"); Candide's Lament (from "Candide"); Four Songs from Peter Pan.

LEONARD BERNSTEIN'S ART-SONG OUTPUT doesn't amount to much: two tiny cycles originally composed for Jennie Tourel, two Rilke settings, and an Arabic folk pastiche called "Silhouette." In order to come up with an entire album's worth of music, Bernstein rummaged around in his trunk and produced two unpublished songs and a number from his disastrous 1976 musical *1600 Pennsylvania Avenue*, to which soprano Roberta Alexander has added selections from *Mass*, *Candide*, and the composer's incidental music for the Barrie play *Peter Pan*. She also sings *La Bonne Cuisine*, whose texts are recipes culled from a French cookbook, in both the original French and Bernstein's own English translation. The bottom of the barrel beckons.

I Hate Music! and *La Bonne Cuisine*, the two cycles, are clever recital-closing affairs clearly designed for an exceptionally charming singer—Joan Morris, perhaps, though Miss Alexander is no slouch in the charm department herself. The other songs are either of minimal interest or—as in the case of "So Pretty," which Bernstein wrote for Barbra Streisand to sing at a 1968 antiwar concert—so excruciatingly bad as to smack of self-parody. The inclusion of show music makes no sense at all: Why would anyone want to listen to this kind of material sung in operatic style with piano accompaniment? Roberta Alexander and Tan Crone do their best by this very miscellaneous program, which is quite good indeed, but in the end one inevitably wonders why they went to all the trouble. *Terry Teachout*

BRITTEN:

Symphony for Cello and Orchestra, Op. 68; Suite from "Death in Venice," Op. 88 (arr. Bedford).

Wallfisch; English Chamber Orchestra, Bedford. Brian Couzens, prod. Chandos ABTD 1126 (D). ⊙◑

BENJAMIN BRITTEN'S CELLO SYMPHONY, composed for Mstislav Rostropovich in 1963, is a tough-minded, somewhat rebarbative specimen of the later Britten at his dourest. The orchestral Suite from *Death in Venice* arranged by Steuart Bedford is an ingeniously assembled "operatic symphony" (Bedford's words) that captures the haunting, troubled atmosphere of Britten's last opera with remarkable fidelity. Although the Cello Symphony is a tough nut for the listener to crack, the *Death in Venice* Suite is immediately approachable, perhaps more so than the complete opera, whose long stretches of dry arioso make for intermittently heavy going.

The Rostropovich/Britten recording of the Cello Symphony is currently unavailable in the United States, but Raphael Wallfisch's new version for Chandos is a more than worthy substitute. As for *Death in Venice*, Bedford conducted the complete recording of it, which also is out of print here, and his account of the suite is exactly right. (London has deleted the bulk of its Britten catalog—a senseless but hardly surprising state of affairs.) The English Chamber Orchestra is in top form for both performances, and Brian Couzens's digital sound is lucid and airy. The excellent liner notes are by Bedford and Britten authority John Evans.

Terry Teachout

FAURÉ:

La Chanson d'Eve, Op. 95.

MESSIAEN:

Poèmes pour Mi.

Shelton, Orkis. Marc Aubort and Joanna Nickrenz, prods. Nonesuch 79106-4 (D). ⊙

SOPRANO LUCY SHELTON'S SECOND RECITAL disc for Nonesuch couples two modern French song cycles set to religious poetry. Gabriel Fauré's *La Chanson d'Eve*, a solemn, autumnal work dating from 1906–10, is fully the equal of his more familiar cycles, such as *La bonne chanson* or *L'Horizon chimérique*. Olivier Messiaen's *Poèmes pour Mi*, written in 1936, is an intriguing sequence of mystical love songs that ultimately falls victim to the harmonic and textural sameness that permeates his early work. Both cycles receive brilliant, completely realized performances from Shelton, one of the most gifted recitalists around today. Her French is pungently nasal, her interpretations vivid and committed, and her smallish voice perfectly suited to this sort of literature. Lambert Orkis's accompaniments are very tasteful but a trifle pale. Cassette buyers get Gregory Sandow's liner notes but have to send away for the texts. The cover sports an extremely striking photograph of Shelton by Joel Meyerowitz.

Terry Teachout

HANDEL:

Orchestral Works.

Standage*, Reichenbergt; English Concert, Pinnock. Andreas Holschneider, prod. Archiv 415 291-4 (D). ⊙◑

Concerto Grosso in C, H.W.V. 318 ("Alexander's Feast"). Sonata a 5, in B flat, H.W.V. 288*. Concertos for Oboe and String Orchestra: No. 1, in B flat, H.W.V. 301; No. 2, in B flat, H.W.V. 302a; No. 3, in G minor, H.W.V. 287†.

HANDEL:

Esther.

Kwella, Kirkby, Rolfe-Johnson, Partridge, Thomas, Elliott, King, Minter; Westminster Cathedral Boys Choir, Academy of Ancient Music Chorus and Orchestra, Hogwood. Peter Wadland, prod. Oiseau-Lyre 414 423-4 (D, 2). ⊙(2). ◑(2).

WHAT THESE OTHERWISE DISPARATE WORKS have in common is the fact that each represents Handel's earliest venture into its particular type of composition. The *Alexander's Feast* Concerto Grosso (so titled because it was first played between the acts of the ode by that name in 1736) is a kind of high-spirited trial run of the Op. 6 Grand Concertos of 1739. The Oboe Concertos are in part student compositions of 1703, although the second of the three (H.W.V. 302a) may have been synthesized by the publisher, John Walsh, from later works, including the present *Sonata a 5*, which is not only one of Handel's earliest concertos (c. 1707) but the only one to feature a solo violin throughout.

All these instrumental works have been recorded before—and often very well indeed, as in the case of the Oboe Concertos. (Philips has given us fine accounts from Heinz Holliger and Raymond Leppard and from Celia Nicklin and Neville Marriner,

Critics' Choice

The most noteworthy releases reviewed recently

BACH:
Sonatas and Partitas for Solo Violin, B.W.V. 1001–6.
Mintz. ◑ Deutsche Grammophon 413 810-2, May.

BERIO:
Sinfonia; Eindrücke.
The New Swingle Singers, Orchestre National de France, Boulez. ◑ RCA Erato ECD 88151, June.

COPLAND:
Billy the Kid; Rodeo.
St. Louis Symphony Orchestra, Slatkin. ⊡ Angel EMI 4DS 37357, July.

HANDEL:
Solomon.
Watkinson, Argenta, Hendricks, Rodgers, Jones, Rolfe Johnson, Varcoe; Monteverdi Choir, English Baroque Soloists, Gardiner. ⊡ Philips 412 612-4, June.

HAYDN:
Symphonies Nos. 94 and 96.
Academy of Ancient Music, Hogwood. ⊡ Oiseau-Lyre 414 330-4, June.

MAHLER:
Symphony No. 5.
Philharmonia Orchestra, Sinopoli. ◑ Deutsche Grammophon 415 476-2, June.

RAVEL:
Songs (complete).
Bacquier, Berganza, Van Dam, Lott, Mesplé, Norman, Baldwin; Orchestre du capitole de Toulouse, Ensemble de chambre de l'Orchestre de Paris, Plasson. ⊙ Angel EMI DSCX 3965, July.

SCHUMANN:
Symphonies Nos. 1 and 4.
Vienna Philharmonic Orchestra, Bernstein. ◑ Deutsche Grammophon 415 274-2, July.

SCHUMANN:
Symphony No. 3; Concerto for Piano and Orchestra, in A minor, Op. 54*.
Frantz*; Vienna Philharmonic Orchestra, Bernstein. ◑ Deutsche Grammophon 415 358-2, July.

TIPPETT:
Sonatas for Piano, Nos. 1–4.
Crossley. ⊙ CRD 1130/31, June.

RECITALS AND MISCELLANY

THE RECORD OF SINGING, VOL. 3.
Various vocalists, orchestras, and accompanists. ⊙ Seraphim IM 6143, May.

dating from 1971 and 1983, respectively.) But the Trevor Pinnock performances under consideration here (with David Reichenberg as the oboe soloist in the three concertos) are the first I've heard to feature the pungent timbres of period instruments—particularly effective with Simon Standage's solo violin in the so-called "Sonata" *a 5*.

Esther, although now considered the first of the many Handel oratorios, was originally designed (c. 1720) as a masque, *Mordecai and Haman*, to a poor libretto based on a drama by Racine. Handel himself didn't take it very seriously, since he made free use of earlier music, especially from his setting of B. H. Brockes's *St. John Passion*. It was the director of the Chapel Royal, Bernard Gates, who renamed it *Esther, An Oratorio*, for a 1732 staging that was so successful that plans to pirate the work in repeat performances provoked Handel into revising the score in preparation for a royal command performance. For the King's Theatre production, Handel used an augmented score and a much enlarged orchestra that foreshadowed the gigantic forces involved in many later oratorios.

Despite its historical significance, *Esther* apparently never before has been recorded in its entirety—a fact that makes this issue especially welcome. It also has to its credit the performers' skillful use of period instruments for the often highly imaginative scoring (including the earliest use in England of horns to accompany vocal music). Christopher Hogwood's forces are fully up to conveying *Esther*'s attractions: the great final choral scene, in particular; the First Israelite's aria "Tune Your Harps to Cheerful Strains," sung by Paul Elliott; and the First Israelite Woman's aria "Praise the Lord," sung by Emma Kirkby (with oboe as well as harp obbligatos). The bass soloist, David Thomas, stars as the dramatically impressive, evil Haman, and Patricia Kwella is the brilliant, if sometimes vocally over-penetrating, Esther. *R. D. Darrell*

HAYDN:
Symphonies (6).
⊡ L'Estro Armonico, Solomons. Martin Compton, prod. CBS Masterworks 13T 39685 (D, 3). ⊙(3).

Symphonies: No. 42, in D; No. 45, in F sharp minor ("Farewell"); No. 46, in B; No. 47, in G; No. 51, in B flat; No. 65, in A.

DESPITE ITS BEING NUMBERED VOL. 9, THIS IS only the third installment of the Derek Solomons/L'Estro Armonico period-instrument series of the Haydn symphonies to appear in this country, following Vol. 7 of 1983 (with Nos. 26, 35, 38, 39, 49, 48, and 59) and Vol. 8 of 1984–85 (with Nos. 26, 41, 44, 48, and 52 and the *Pescatrici* Overture). Unless you've already heard some of these recordings, it's impossible to convince you how *different* they are from any of the modern-instrument Haydn symphony performances you've heard on records or off.

In these dark, gruff, sometimes unrefined and even hoarse sonorities, Haydn seems more strikingly original than one would ever suspect from the modern, large, polished accounts his works usually receive. The timbre balances are radically shifted to favor woodwind and brass over strings, revealing entirely unfamiliar facets of the music itself, especially details in the scoring.

HIGH FIDELITY ARCHIVES

SOLOMONS: HIS DIRECTION IS DIFFERENT.

Granted, Solomons's players are by no means as skilled as Christopher Hogwood's Academy of Ancient Music, Trevor Pinnock's English Concert, or Nikolaus Harnoncourt's Concentus Musicus of Vienna, but their very roughness gives added force to these ear-opening versions of six middle-period symphonies, of which only the *Farewell* is likely to be familiar. *R. D. Darrell*

HINDEMITH:
Violin Concerto*; Symphonic Metamorphosis on Themes of Carl Maria von Weber†.
⊡ D. Oistrakh*; London Symphony Orchestra, Hindemith*, Abbado†. London 414 437-4 (A). ⊙

THIS MIDPRICE REISSUE COUPLES CLAUDIO Abbado's 1969 recording of Paul Hindemith's *Symphonic Metamorphosis on Themes of Carl Maria von Weber* with a 1963 performance of the Violin Concerto conducted by the composer and featuring David Oistrakh as soloist. Abbado's *Symphonic Metamorphosis* is first-rate: cool, clear, at once exciting and meticulous. The concerto, a fine middle-period work in the vein of *Mathis der Maler* that has never really caught on with violinists, receives a strong, slightly beefy reading from Oistrakh and Hindemith. A good coupling—especially on cassette—for those wanting to make the acquaintance of Hindemith at his best. *Terry Teachout*

MOZART:
March in D, K. 189; Serenade in D, K. 185.
⊡ Schröder, Academy of Ancient Music, Hogwood. Morton Winding, prod. Oiseau-Lyre 411 936-4 (D). ⊙◑

THE RELATIVELY SELDOM PLAYED SERENADE IN D, K. 185, is of special significance to Mozarteans as the first of four serenades to em-

body miniature violin concertos, here consisting of the Andante second movement, the rondo Allegro third, and the first Trio of the Menuetto sixth movement. Indeed, these pages may represent Mozart's earliest attempt at violin concerto writing, since they precede by nearly two years the formal Concerto No. 1, K. 207.

The present seven-movement work is sometimes called the *Andretter* Serenade because it may have been intended for performance at the wedding of a son of the Salzburg court councillor, Johann Ernst von Andretter. At any rate, the score—as it was composed in July and August 1773 in Vienna—was sent back piecemeal to the Andretter family in Salzburg. According to custom, Mozart also provided, as introduction, a sturdy little march in the same key.

The best-known earlier recording of this serenade, minus the march, was Willy Boskovsky's for London c. 1970, but that has been out of print in this country since 1981. The most novel existing version for modern instruments is that by violinist Thomas Zehetmair and the Salzburg Mozarteum Orchestra, Leopold Hager conducting (coupled with the First Violin Concerto). When this 1980 Teldec recording was made, Zehetmair was seventeen, about the same age as Mozart when he wrote the work.

Conductor Christopher Hogwood's is the first account to be digitally recorded and is also the first full-length one for period instruments, superseding soloist Jaap Schröder's earlier (1974) Seon recording of two of the miniature concerto movements for an ABC (later Pro Arte) release with Frans Brüggen's Amsterdam Mozart Ensemble. That fine set (Pro Arte 2-PAC 2007), which included other serenade concerto movements as well as the First and Second Violin Concertos, is no longer listed in the SCHWANN record and tape guide. But Schröder plays even more elegantly here, while both he and the Academy of Ancient Music are near ideally recorded. What Mozart connoisseur can afford to miss this wealth of combined historical, musical, and strictly tonal attractions? *R. D. Darrell*

MOZART:
Sonatas for Piano and Violin: K. 454, 481, 526, 547.

Bilson, Luca. Anne Epperson, prod. Nonesuch 79112-4 (2, D). ⊙◑

THIS DOUBLE ALBUM, THE LAST IN A COMPLETE set of the Mozart violin sonatas recorded on original instruments by Sergiu Luca and Malcolm Bilson, makes a depressingly dry case for the cause of period authenticity. Bilson's fortepiano sounds clattery and mandolinlike, Luca's violin harsh and edgy. Part of the problem stems from producer Anne Epperson's shallow, poorly balanced digital recording, part from the generally charmless playing of Bilson and Luca. Mozart's late violin sonatas have rarely sounded so dour and uningratiating. Stanley Sadie's liner notes are outstanding. *Terry Teachout*

ROUSSEL:
Bacchus et Ariane, Op. 43; Le Festin de l'araignée, Op. 17: Fragments symphoniques.

Orchestre National de France, Prêtre. David Groves, prod. Angel EMI 4DS 38263 (D). ⊙◑ CDC 47376.

ALBERT ROUSSEL (1869–1937), LIKE RIMSKY-Korsakov a sailor in his youth, was one of those highly individual, austere, innately original composers (another was his teacher, Vincent d'Indy) whose relatively few but distinctive works command great respect among a connoisseur audience yet fail to achieve widespread popularity. Roussel first won worldwide attention in 1913 with his extraordinarily imaginative, if macabre, one-act "insect" ballet, *The Spider's Feast*. A later, larger-scaled ballet, *Bacchus et Ariane* of 1930 (choreographed by Serge Lifar), enjoyed some favor, largely via its showpiece Suite No. 2, much performed in concert and also recorded a number of times—most successfully by Jean Martinon for RCA (1965) and Igor Markevitch for Deutsche Grammophon (1959; a Privilege reissue, catalog number 2543 807, is currently available).

The present release is important as the first digitally recorded Roussel (apart from the opera *Padmâvatî*, reviewed here in the December 1984 installment of "The Tape Deck"), but most of all for bringing us, at long last, the complete *Bacchus* ballet score; it's shocking to realize that we've been denied it until now. Often compared with Ravel's *Daphnis et Chloé*, which also was long known on records only by its Second Suite, the Roussel score is scarcely less dazzling—more episodic and less poetic, perhaps, but even more muscularly propulsive.

Georges Prêtre and the Orchestre National de France also do well with the more delicately magical *Spider* music, and this coupling of it with the turbulent *Bacchus* should win many new converts. The digital recording proves invaluable for clarifying Roussel's often intricate textures. *R. D. Darrell*

SCHUBERT:
Schwanengesang, D. 957.

Hagegård, Ax. Jay David Saks, prod. RCA ARE 1-5476 (D). ⊙◑

PIANIST EMANUEL AX IS OFTEN MORE imaginative as a collaborator than as a soloist, and in this fine recording of Schubert's *Schwanengesang* he is at his best. His playing is lucid and detailed, an outstanding piece of chamber-music-making with no hint of accompanist's deference. Håkan Hagegård sings beautifully (though his sound becomes soft-centered in quiet passages), and there is certainly no obvious lack of eloquence or specificity in his interpretation. A direct comparison with, say, any of Dietrich Fischer-Dieskau's various *Schwanengesang* recordings immediately suggests what is missing from Hagegård's simpler, more direct approach, but this is still much more than a good first try.

(CONTINUED ON PAGE 60)

COURTESY RCA

AT THE SESSIONS, EMANUEL AX (LEFT) AND PRODUCER JAY DAVID SAKS GO OVER THE SCORE WITH HÅKAN HAGEGÅRD.

(CONTINUED FROM PAGE 59)

Jay David Saks's glossy digital recording surrounds Hagegård's voice with a chilly cloud of artificial-sounding resonance. Brian Large's rather simplistic liner notes are clearly intended for *Schwanengesang* novices—perhaps a fair assumption in this case.

Terry Teachout

SCRIABIN:

Symphony No. 1, in E, Op. 26.

Toczyska, Myers; Westminster Choir, Philadelphia Orchestra, Muti. John Willan, prod. Angel EMI 4DS 38260 (D). ⊙◑ CDC 47349.

NOT ALL SCRIABIN AFICIONADOS, AND VERY few less specialized listeners, are familiar with the First Symphony of 1899–1900. The most likely reason for this is not that the symphony lacks musical appeal, but that it calls for two vocal soloists and a chorus for its 13-minute-long final movement, making it a fairly difficult work to program. American concert performances are rare indeed, and until the complete five-symphony set led by Eliahu Inbal c. 1980 (with the Frankfurt Radio Symphony Orchestra and featuring mezzo-soprano Doris Soffel and tenor Fausto Tenzi as soloists in the First Symphony; Philips 6769 041, released in the U.S. by Polygram Special Imports), the only recordings of the First seem to have been made in Russia.

Yet this music is of genuine interest, both as evidence of Scriabin's precocity in writing so skillfully for large orchestra, and for the picture it gives of his distinctive personality emerging from behind the obvious influences of Franck, Wagner, and others. Fascinating, too, are the hints the score offers of the pervasive mysticism of the later works. Those things aside, the First Symphony is immediately enjoyable for its melodic richness, rhythmic animation, and imaginative scoring.

These elements are all exploited to near perfection by the Philadelphia Orchestra under the direction of Riccardo Muti in a performance that would have been ideal except for the failure of the vocalists to match the sonic allure of the orchestra. Mezzo Stefania Toczyska wobbles distressingly, tenor Michael Myers has only somewhat better control of a marked vibrato, and the excellent Westminster choristers are either too few or too distantly miked to do justice to the stirring apotheosis of the final "Hymn to Art." Nevertheless, there are musical rewards here that no connoisseur can afford to miss.

The admirably processed (XDR, Dolby HX PRO) cassette edition is only skimpily annotated. It does, however, include the finale's Russian text, written by Scriabin himself, and an English transliteration.

R. D. Darrell

STRAVINSKY:

Danses concertantes; Concerto in E flat ("Dumbarton Oaks"); Concerto in D.

English Chamber Orchestra, Davis. London 414 168-4 (A). ⊙

STRAVINSKY:

Orchestral and Chamber Works.

Bell*, Pay*†, Price*, Sheen*, Watson*††, Archibald*††, Purser*, Perkins*; London Sinfonietta, Chailly. Chris Hazell, prod. London 417 114-4 (D). ⊙◑

Divertimento from "Le Baiser de la fée; Fanfare for a New Theater††; Three Pieces for Clarinet Solo†; Suites Nos. 1 and 2; Octet*.

THESE TWO CASSETTES OFFER A CHOICE AND well-played selection from Igor Stravinsky's "lighter" output. The album by Sir Colin Davis and the English Chamber Orchestra, a reissue from 1962, contains tastefully straightforward performances of *Danses concertantes* and the two chamber concertos composed by Stravinsky as neoclassical homages to the Bach *Brandenburg Concertos*. The Riccardo Chailly album, recorded in 1980 but issued for the first time this year, is a mixed bag ranging in size and scope from the Octet and *Fairy's Kiss* Divertimento to *Fanfare for a New Theater*, a tartly gnomic serial exercise for two trumpets written for the opening of the New York State Theater. Though one doubts that Chailly had anything much to do with the crisply authoritative performances of *Fanfare* by James Watson and Paul Archibald or *Three Pieces for Clarinet Solo* by Antony Pay, the whole adds up to a pleasing Stravinsky anthology all the same. The sound on both recordings is fine, the liner notes absurdly short.

Terry Teachout

TIPPETT:

Concerto for Double String Orchestra; Ritual Dances from "The Midsummer Marriage."

Bournemouth Symphony Orchestra, Barshai. Brian Culverhouse, prod. EMI TCEL 27 0273-4 (D). ⊙ (Distributed by International Book and Record Distributors, 40-11 24th St., Long Island City, N.Y. 11101.)

THIS BRITISH IMPORT IS THE PERFECT coupling for listeners unfamiliar with the music of Sir Michael Tippett. The Concerto for Double String Orchestra, a handsomely sinewy exercise in rhythmic counterpoint with a pensive slow movement based on the Scottish folksong *"Ca' the yowes,"* deserves to be fully as popular as Vaughan Williams's *Fantasia on a Theme by Thomas Tallis* or Elgar's *Introduction and Allegro*. Tippett's first (and best) conventional opera, *The Midsummer Marriage*, is equally well served by a coherent suite of instrumental excerpts that captures the passionately lyric freshness of the score with admirable succinctness. The performances by the Bournemouth Symphony Orchestra, playing under the baton of music director Rudolf Barshai, are a bit heavy in places but generally quite satisfactory, as is Brian Culverhouse's digital sound.

Terry Teachout

WALTON:

Symphony No. 1, in B flat minor.

London Symphony Orchestra, Harty. Bryan Crimp, prod. London 414 659-4 (A). ⊙

WALTON:

Façade*; A Song for the Lord Mayor's Table†.

Ashcroft*, Scofield*, Harper†, Hamburger†; London Sinfonietta, Walton*. London 414 664-4 (A). ⊙

SIR HAMILTON HARTY'S 1935 RECORDING OF William Walton's First Symphony, made just one month after the first performance of the complete four-movement version, has turned up on London's new Enterprise reissue line in a surprisingly good transfer that serves as an arresting memento of a long-forgotten conductor. Harty, a key figure in the modern Berlioz revival, leads the London Symphony Orchestra in a fiery, committed performance that conveys the almost palpable excitement the score produced when it was new. It is a splendid account, marred only by intermittent patches of poor intonation and fuzzy recorded sound. The work itself, despite its obvious derivations from Sibelius and Elgar, has held up remarkably well, and Bryan Crimp's transfer, made from surviving commercial pressings, extracts as much as possible out of the notoriously problematic 78 originals. Since London usually does next to nothing in the way of historical reissues, this one comes as an exceptionally winning surprise.

The same, unfortunately, cannot be said of the new Enterprise reissue of Walton's 1972 recording of *Façade*. Peggy Ashcroft and Paul Scofield render the precise rhythmic notation with consistently damaging inaccuracy, and although the London Sinfonietta plays deftly, Walton's tempos tend to be slowish. The recorded balance is so unnatural as to suggest that Ashcroft and Scofield were dubbed on after the fact. Heather Harper and Paul Hamburger fill out the album with an attractive performance of Walton's charmingly crowd-pleasing 1962 cycle *A Song for the Lord Mayor's Table*. Would that it had been coupled instead with the flawless 1954 Peter Pears/Edith Sitwell *Façade* that has languished in the limbo of London's vaults for decades.

Terry Teachout

THE CD SPREAD

MINI-REVIEWS OF THE LATEST COMPACT DISCS

BY ROBERT E. BENSON, THOMAS L. DIXON, PAUL MOOR, BERT WECHSLER, JAMES WIERZBICKI, AND BILL ZAKARIASEN

ULSTER FORCES EXCEL IN SECOND VOLUME OF BAX

THIS IS A TREASURABLE CD, OFFERING THE first recordings of three symphonic poems of Arnold Bax—*Into the Twilight*, *Rosc-Catha*, and *In the Faery Hills*—as well as the better-known *Tale the Pine-trees Knew*. The first three were developed from sketches for a projected opera on the subject of the tragic Irish heroine Déirdre. *Into the Twilight* is assumed to have been intended as the overture, and *Rosc-Catha*, meaning "battle hymn," was to have come in the opera's second scene; it is a processional of impressive nobility. *In the Faery Hills* is one of Bax's most exquisite scores and takes as its subject the revelries of the "Hidden People" in the inmost deeps and hollow hills of Ireland. *The Tale the Pine-trees Knew* supposedly suggests two landscapes dominated by pine trees. All of these are wonderfully evocative scores, well presented by Bryden Thomson and the Ulster Orchestra, and Chandos's engineering gets top marks for clarity and richness. Let us hope that future volumes will appear in this set, so that we may enjoy more of the unjustly neglected music of Sir Arnold. Playing time: 56:40. (Chandos CHAN 8367. Distributed by Harmonia Mundi, U.S.A.) *R.E.B.*

HOLST SCORE PERFORMED BY PARISIANS UNDER MAAZEL

WHEN LORIN MAAZEL'S ACCOUNT OF GUSTAV Holst's *The Planets* with the Orchestre National de France was first issued by CBS a couple of years ago, most Holstians drubbed it as willfully exaggerated and poorly recorded. I was apparently one of the few holdouts, mainly because I was surprised to hear a performance of such striking individuality from a conductor who previously had showed precious little of it. Sure, there were some hard-pressed exaggerations (notably in *Venus*, which came out much more as a description of the goddess of love rather than of the bringer of peace), but still, was it ever *exciting*! No presentation of *Mars* on record has exuded more sheer violence (and this section can easily take it), *Mercury* was a paradigm of mischievous wit, and *Jupiter* had all the unbuttoned exuberance needed, while the foreboding tread of *Saturn*, the explosions of *Uranus*, and the otherworldly glitter of *Neptune* were likewise wonderfully captured. True, this *Planets* wasn't for everyone, but it proved a viable and fascinating alternative to the numerous relatively sedate versions by Sir Adrian Boult.

Now, thanks to vastly improved sonics on CD, it's time for a thorough reassessment of Maazel's effort. Details and dynamics are much clearer, as is the organ, which thunders with special potency. Moreover, the French orchestra, while quite different in sound from all others that have recorded this work, need take second place to none in virtuosity. Unless one is a unbending purist, he'd do well to investigate this CD. At least it shows Maazel really has a personality. Playing time: 50:09. (CBS MK 37249.) *B.Z.*

BAUMANN IN MOZART CONCERTOS WITH ST. PAUL

JUST A FEW MONTHS AGO, WEST GERMAN HORN virtuoso Hermann Baumann came out with a splendid CD recording (Philips 412 226-2) of Telemann concertos accompanied by the Academy of St. Martin-in-the-Fields under the direction of Iona Brown. Here he is again on the same label, this time with Pinchas Zukerman's St. Paul Chamber Orchestra in performances of the four horn concertos of Mozart (K. 412, 417, 447, and 495). As presented here, the so-called Concerto No. 1, in D, K. 412, is actually a hybrid of the isolated K. 412 Allegro and a fleshed-out reconstruction—by Baumann and Karl Marguerre—of the fragmentary K. 514 Rondo. Compared with the Telemann disc, this more recent collaboration yields results just as polished and arguably more spectacular, but only because three of the Mozart pieces include remarkably *un*stylish cadenzas in which Baumann takes his instrument to its sonic and articulatory limits—the garishly-colored soliloquy inserted near the end of the K. 514 Rondo even features two sustained passages in perfectly tuned multiphonics! Playing time: 61:03. (Philips 412 737-2.) *J.W.*

JESSYE NORMAN SUPREME IN SCHUBERT SAMPLER

JESSYE NORMAN SEEMS SO GOOD SO OFTEN that one almost doubts her commitment. From Stravinsky to Berlioz, Berg, Chausson, and probably, if she tried them, Sondheim and even Merikanto, she seems supreme. The secret is, she *is* supreme.

In these songs of Schubert, as in everything else she essays, Norman's singing is absolutely gorgeous. Her gifts show through especially in the narrative songs in this collection: *Erlkönig*, *Der Tod und das Mädchen*, and *Suleika I*. She also does a wonderful job with *Die Allmacht*. We complain that there are no more great vocal artists. But there are, and Norman is one of them. Phillip Moll mirrors Norman's artistry at the piano.

Still, 12 songs in a row is a lot of songs, even from Schubert. That may be this CD's only drawback. (Additional selections: *Der Musensohn*, *Ganymed*, *Gretchen am Spinrad*, *An die Natur*, *Der Zwerg*, *Rastlose Liebe*, *Auf dem See*, and *Und Auflösung*.) Playing time: 41:55. (Philips 412 623-2.) *B.W.*

COMPREHENSIVE BACH COLLECTION FROM LEIPZIG

WHEN YOU TRY TO WRITE ABOUT A SET OF THIS magnitude—22 CDs containing some (but far from all) of the most outstanding masterpieces by one of the greatest and most prolific composers in history—you either write thousands of words, if you have the space, or you fall back on generalities. So get set for some generalities.

Capriccio, a West German label, operates on franchise from Eterna, the state-owned recording concern of the German Democratic Republic. Don't let that put you off, for Leipzig and *all* the other cities with continuous Bach traditions lie within what in 1945 became the Soviet Zone of Occupation and, later, the G.D.R. I would speculate that this awesome collection represents true international collaboration, because the recording technique meets the highest Western European standards and the discs themselves come from Sanyo's plant in Japan.

I regret the omission of certain favorites of mine (for example, the Concerto for Violin, Oboe, and Orchestra and the organ Passacaglia and Fugue), and you'll have to turn elsewhere for the Mass in B minor, the Passions, and the vast majority of the cantatas. But you do get, without exception, splendid accounts of the motets, *Die Kunst der Fuge*, and the orchestral suites, not to mention trio sonatas and works for lute, for harpsichord, and for organ, plus one particularly thrilling

disc featuring 13 cantata movements that show off the baroque trumpet. The artists, representing the G.D.R.'s finest, provide performances above reproach, superbly recorded. (Capriccio 10085. Also available on 20 separate CDs [10011, 10012, 10025, 10027–43] plus a two-CD set [10026]. Distributed by Delos.) *P.M.*

HEIFETZ GEMS REISSUED WITH NEW LUSTER

ONE OF THE MOST HEARTENING ASPECTS OF the current CD boom lies in the concern of the major companies for the restoration of historic and classic performances. This disc is a prime example. It contains the Sibelius Violin Concerto, the Glazunov Violin Concerto, and Prokofiev's Second Violin Concerto, played by Jascha Heifetz with the Chicago Symphony Orchestra and RCA Symphony Orchestra under Walter Hendl (in the Sibelius and Glazunov, respectively) and the Boston Symphony Orchestra under Charles Munch (in the Prokofiev).

Although none of these performances is old enough to qualify as historic (at least when compared with Heifetz's earlier efforts, from the 1930s), classic they certainly are. Neither the current SCHWANN COMPACT DISC CATALOG nor the SCHWANN LP catalog contains another account superior to what is offered here, and three concertos on one disc is an excellent bargain. Anyone wishing to celebrate Heifetz's 85th birthday year could not possibly do better than to invest. Except for the Glazunov (a 1963 studio production), these performances hardly show their age, thanks to the expert RCA restoration. So, place this disc alongside the Heifetz Beethoven and Brahms reissue. Greater playing and a finer value are simply not to be had. And get ready for the Tchaikovsky and Mendelssohn! Playing time: 68:52. (RCA RCD 1-7019.) *T.L.D.*

RAVEL MAINSTAYS FROM MUNCH AND PARISIANS

THESE 1968 PERFORMANCES OF *BOLÉRO*, *Rapsodie espagnole*, *Pavane pour une infante défunte*, and the second suite from *Daphnis et Chloé*, from the twilight of Charles Munch's career but the dawn of the Orchestre de Paris, serve to remind anyone devoted to French music of what we have been missing since the deaths of such galvanic podium masters as Munch and Jean Martinon. If Ernest Ansermet and Pierre Monteux represented the delicate sides of French conducting in the recent past, as Charles Dutoit does in our time, who carries on the explosive, exuberant, and overtly emotional traditions of Munch?

In the meantime, there is no need to apologize for the sound of these masterful re-creations. They have made their transitions to CD quite intact. Doubtless in the near future RCA will provide us with alternatives in the same repertory, from Charles Munch's glory days with the Boston Symphony. Whenever that happens, comparisons will be nothing less than the purest pleasure.

Perhaps the letter of these scores by Ravel has been more accurately conveyed by others, but the inner sensual spirit . . . never. Playing time: 58:18. (Angel EMI CDC 47356.) *T.L.D.*

PAÏTA LEADS SCENES FROM "GÖTTERDÄMMERUNG"

THIS CD FEATURES THE PHILHARMONIC Symphony Orchestra under Carlos Païta in performances of the three best-known excerpts from *Götterdämmerung*: Siegfried's Rhine Journey, Siegfried's Death and Funeral March, and Brünnhilde's Immolation. Païta has to his credit a fine account of the Prelude and Liebestod from *Tristan und Isolde* (included on the Lodia two-CD set of Bruckner's Eighth Symphony, LOCD 783/4), but here he shows little understanding of the score, missing the majesty of the Rhine Journey and Funeral March and delivering a prosaic Immolation Scene. Tenor James King's contribution, in the brief farewell to Brünnhilde (amounting to only about five minutes of singing), is hardly a plus; Ute Vinzing's singing in the finale is unfocused and rather insecure, though still preferable to Montserrat Caballé's on an inferior CBS CD. Limited program notes are provided, and there are no texts. Playing time: 48:42. (Lodia LOCD 785. Distributed by Intersound.) *R.E.B.*

TRIBUTE TO SWING LATEST FROM BOSTON POPS

HERE WE HAVE A COLLECTION OF FAMOUS HITS from the Big Band era performed by the Boston Pops under John Williams. Glenn Miller, Benny Goodman, Duke Ellington, and Tommy Dorsey tunes are included, with arrangements typical of Boston Pops fare. *Opus One*, *Sunrise Serenade*, *Tuxedo Junction*, *Satin Doll*, *In the Mood*, *Moonlight Serenade*, *A String of Pearls*, and *Sing, Sing, Sing* are among the 14 pieces offered. Unfortunately, this is a rather placid sentimental journey, reproduced with a glossy smoothness that is alien to most of the original recordings. Surely Williams's own *Swing, Swing, Swing*, a period piece from his score for the Steven Spielberg movie *1941*, is far better on the soundtrack album than it is here. Additional selections are *Begin the Beguine*, *Stompin' at the Savoy*, *Sleepy Lagoon*, *Song of India*, and *Snowfall*, though another half dozen easily could have been accommodated on this CD. Playing time: 45:57. (Philips 412 626-2.) *R.E.B.*

HOROWITZ GOES TO THE MOVIES

THIS IS THE WORST RECORDING THE GREAT Vladimir Horowitz has ever made. For anyone who loves the piano, revels in its sound, reveres its masters, this CD (offering works by Mozart, Chopin, Schubert, Liszt, Schumann, Rachmaninoff, Scriabin, Moszkowski, and Bach [arr. Busoni]) proves that even the greatest must eventually recognize that the time has come to stop. Naturally, in the pieces with simple technical demands (the Liszt *Consolation No. 3*, in D flat), the old manner still can be made to work, but in the truly exacting selections (the Chopin First Scherzo or the A flat Polonaise, Op. 53), the manner has been replaced by feeble mannerisms, world without end. (Additional selections: Busoni's arrangement of Bach's *Nun komm, der Heiden Heiland*; Chopin's Mazurka in A minor, Op. 17, No. 4; Moszkowski's Étude in F, Op. 72, No. 6; Mozart's Sonata in C, K. 330; Rachmaninoff's Prelude in G sharp minor, Op. 32, No. 12; Schubert's Impromptu in A flat, Op. 90, No. 4; Schumann's *Novellette* in F, Op. 21, No. 1; and Scriabin's Étude in C sharp minor, Op. 2, No. 1.) I have not yet seen the film from which these performances were taken, but reliable reports suggest that its tone and substance are even more mawkish than the disc is, if possible.

RCA would do well to issue a CD of many of these same works taken from past performances in its archive, to restore at least some of the dignity that Horowitz himself has chosen to forfeit by permitting this recital to be issued. Playing time: 64:10. (Deutsche Grammophon 419 045-2.) *T.L.D.*

COMPLETE POULENC MUSIC FOR PIANO AND ORCHESTRA

THESE PERFORMANCES BY SOLOISTS FRANÇOIS-René Duchâble and Jean-Philippe Collard and the Rotterdam Philharmonic Orchestra directed by James Conlon are marked by considerable exactitude, yet they never lack the charm that is the essence of Poulenc's genius. (Actually, the spit-and-polish precision in the Concerto for Two Pianos is *almost* too much.) However, the recording can easily be recommended, with only two minor exceptions. First, many will hear what seems a slightly overbalanced piano against the orchestra in both the Concerto for Piano and Orchestra and *Aubade (Concerto choréographique)* for piano and 18 instruments. Make of that what you will; for me, Duchâble's performance of both works renders such criticism largely beside the point. If the delectable Piano Concerto has ever been better played, I have not heard it.

The second exception is purely my own. Instead of yet another *Aubade*, I would much rather have seen Duchâble perform the wonderful *Concert champêtre*, but in the piano and not the usual harpsichord version. That would have been a genuine novelty. Until now, Emil Gilels has been the only pianist to record this work, via a 1962 broadcast transcription (with Kiril Kondrashin) issued by Melodiya and Eurodisc, but never widely available in this country. Grant Johannesen also plays the piece, but has yet to record it. That aside, let us welcome a set of performances that soloists (Collard joins Duchâble in the Double Concerto), conductor, orchestra, and Erato have every reason to be proud of. How well the music of Poulenc does wear! Playing time: 59:15. (RCA Erato ECD 88140.) *T.L.D.*

A roundup of recordings celebrating America's rich musical past

IN PRAISE OF AMERICANA

☆ ☆

BY NOAH ANDRÉ TRUDEAU

LOEFFLER:
La Mort de Tintagiles*; Five Irish Fantasies: The Hosting of the Sidhe, The Host of the Air, The Fiddler of Dooney, Ballad of the Foxhunter, The Song of Caitilin Ni Uallachain.**

⊙ Hansen*, Rosenshein**; Indianapolis Symphony Orchestra, Nelson. Elizabeth Ostrow, prod. New World NW 332 (D).

THIS DISC REWRITES HISTORY. IT RAISES THE reputation of French-born Charles Martin Loeffler from a parenthetical aside to a major entry in the story of American music. The winning work here is his 1897 *La Mort de Tintagiles*, a powerfully dark and brooding score with a prominent viola part (Loeffler was himself a violinist with the Boston Symphony for 20 years). It sweeps unerringly across a profoundly tragic canvas on a journey rich with *fin de siècle* orchestral color. One of the most vividly evocative American compositions of the 19th century, *La Mort de Tintagiles* is convincingly performed by the Indianapolis Symphony Orchestra, with Jennie Hansen handling the expressive solo part. The ISO and conductor John Nelson are less successful on the flip side, a disappointingly distant and off-focus rendering of Loeffler's otherwise worthy *Five Irish Fantasies*.

VARIOUS ARTISTS:
American Communal Music of the 18th and 19th Centuries, Vol. 2.

⊙ Henderson*, Boeringer**; Kunstfest Orchestra of Economy Village, Wetzel*, Getz***. Richard Wetzel, prod. (A). (Quakerhill Enterprises, P.O. Box 206, Chesterhill, Ohio 43728.).

Müller: Freundschaft March*. Eckensperger: Presto*. Peters: Symphony in D*. Gambold: Sonata No. 1*. 11 pieces of Moravian music (by Erbe, Herbst, Van Vleck, and anon.)**. Anonymous pieces from Ephrata Cloister***.

IN HIS ADMIRABLE BOOK, *AMERICA'S MUSIC*, Gilbert Chase reserves a catchall chapter for what he calls "singing dissenters." The 1800s saw a number of religious sects establish communities in various parts of the country. Consciously outside the cultural mainstream, these sects built towns with names that reflected their Utopian visions: Harmony, Economy, New Harmony. In many of the settlements, music was an important part of daily life; members preserved a great love for European classical music and carefully kept libraries filled with scores by Rossini, Pleyel, Mozart, Vanhal, Haydn, and others. A few even tried their hand at composing. The results, although decidedly in imitation of the masters, are not without honest charm. *American Communal Music of the 18th and 19th Centuries, Vol. 2*, features works from the repositories of the Ephrata Cloister, the Harmonists, and the Moravians. The fare includes keyboard and choral music and even a brief, two-movement instrumental symphony from 1831 by William Cummins Peters. Of special interest is the use of a restored 1787 Tannenberg organ for the 11 Moravian selections. Everything is played with warm-hearted dedication and is cleanly recorded.

MacDOWELL:
Woodland Sketches; Sea Pieces.

⊙ Müller. Dynamic DDS 6032 (D). (Distributed by Qualiton Imports, 39-28 Crescent St., Long Island City, N.Y. 11101.)

THE PIANO MUSIC OF EDWARD MacDOWELL IS appealing to a new generation of keyboard artists. Recently, both James Tocco and Charles Fierro have given us important recordings of MacDowell's works. Now comes the young (born in 1946) Swiss pianist Dario Cristiano Müller, whose album containing MacDowell's *Woodland Sketches* and *Sea Pieces* has arrived on these shores on the Dynamic label. Biographical notes on the disc indicate that Müller is something of a MacDowell specialist, though you would hardly imagine that from these limpid, diffident performances. Take Fierro on Nonesuch for the composer's miniature sets, Tocco on Gasparo for the sonatas, and pass on this one.

IVES:
Second Piano Sonata ("Concord, Mass. 1840–60").

⊙ Plaunt. McGill University 83018 (A). (McGill University Records, 555 Sherbrooke St. W., Montreal, P.Q., Canada H3A 1E3.)

CHARLES IVES'S SPRAWLING, KALEIDOSCOPIC Second Piano Sonata (*"Concord, Mass., 1840–60"*) has its 14th recording via our neighbor to the north. McGill University professor and recitalist Tom Plaunt presents a curiously Europeanized view of Ives's transcendental sonata. Structural and impressionistic elements are persuasively rendered, though much of the work's idiosyncratic Americanisms go indifferently realized. Recording and pressing are acceptable.

HERBERT:
Serenade for String Orchestra, Op. 12; Three Compositions for String Orchestra; Suite for Cello and Orchestra, Op. 3*.

⊙ Davis*; Los Angeles Chamber Orchestra, Schwarz. Marc Aubort and Joanna Nickrenz, prods. Nonesuch 79107 (D). ⊡

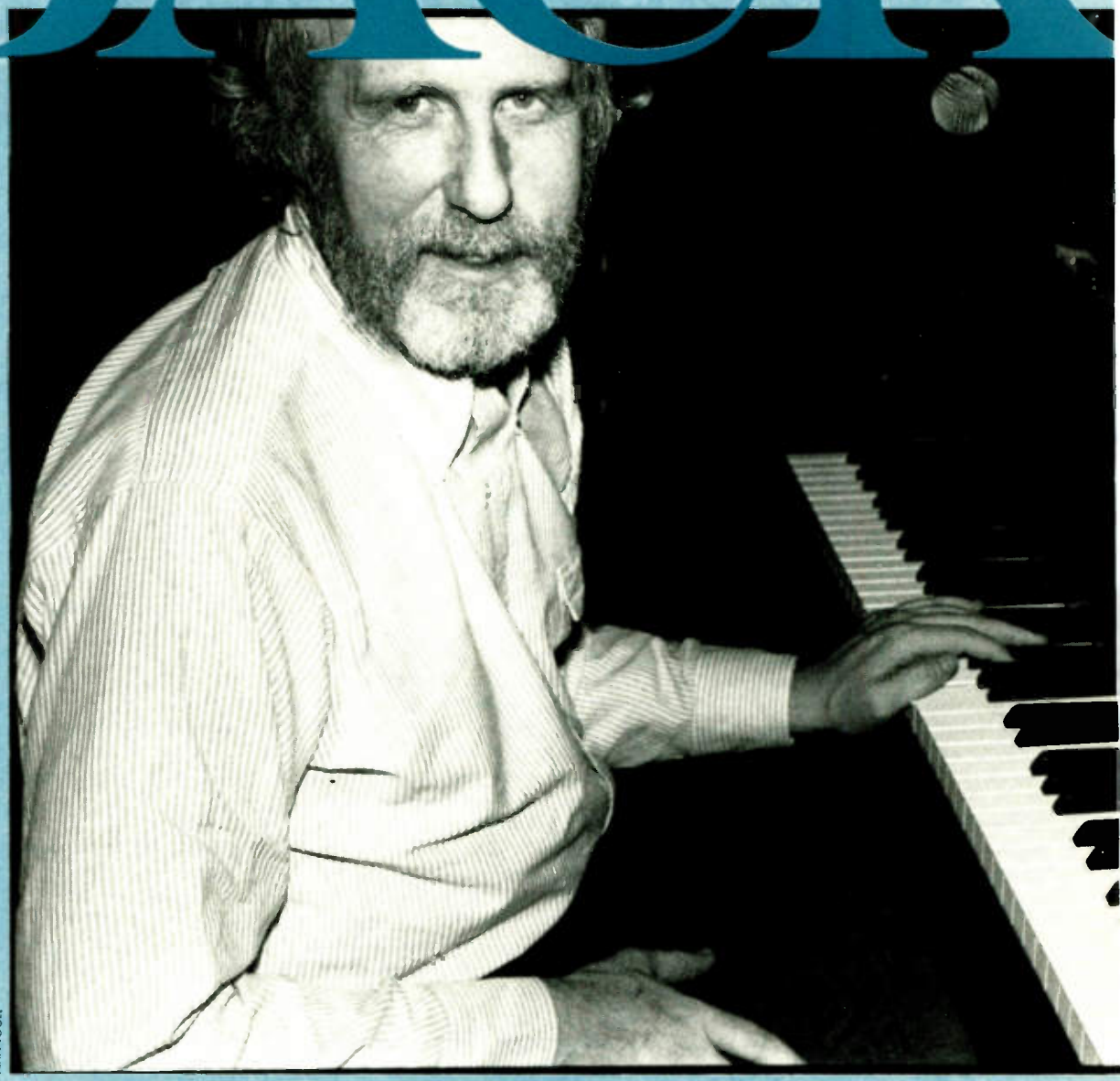
VICTOR HERBERT'S NOT INCONSIDERABLE concert works have languished in recording obscurity while his more popular stage pieces generally suffer the fate of overblown reorchestrations and oversentimentalized performances. Now, from Nonesuch, comes a disc that puts a decent dent in the concert side of this equation. Gerard Schwarz and the Los Angeles Chamber Orchestra serve up a delightful performance of Herbert's *Serenade for String Orchestra*, Op. 12—conductors and listeners anxious to move beyond the Dvořák and Tchaikovsky serenades will find something of worth here—as well as a lightweight grouping entitled *Three Compositions for String Orchestra*. Also, Schwarz and company are joined by cellist Douglas Davis for Herbert's *Suite for Cello and Orchestra*, Op. 3. Davis plays with a light, graceful tone and unbelievable fluidity, capturing all of the warmth and melody in these ingratiating pieces. Highly recommended.

ANTHEIL:
Quartets for Strings: Nos. 1 and 2.

⊙ Mondriaan Quartet. Dick Lucas, prod. Data 851 (A). (Distributed by Records International, P.O. Box 1140, Goleta, Calif. 93116.)

TIME AND THE DOGGED PERSISTENCE OF A FEW true believers continue to uncover new dimensions to the self-proclaimed "Bad Boy of Music," George Antheil (1900–59). From the highly percussive music of his rebellious Paris years (epitomized by the *Ballet mécanique*) to his exceptionally conservative later period (typified by the neo-Shostakovichian *McKonkey's Ferry* Overture), Antheil usually talked a better piece than he actually wrote. This disc, from Holland, contains his first two string quartets, played by the Mondriaan Quartet. The works are consciously banal ("But it is the banality of a Picasso," the composer has advised us) and are shocking more for what isn't there than for what is: Texture is lean, dramatic contrast virtually nonexistent, and the overall tonal color is gray. Performances are convincingly banal, but anyone with an interest in American music of the '20s will want this disc.

BACK



FRAN VOGEL

Ran Blake's piano playing is difficult to categorize. That makes his will to communicate all the more admirable.

SPORADICALLY THROUGHOUT HIS LIFE, the idiosyncratic fifty-one-year-old pianist Ran Blake has kept a bedside diary of his nightmares—"usually only for six months or so at a time," he says, "until I begin to feel ashamed of my self-indulgence. Besides, I'm so in touch with that dream state, so able to recall the imagery during waking hours, that keeping a journal is a bit superfluous. Sometimes, following a particularly disturbing dream, I rush to the piano to recapture the mood in composition; the notes are already there in my subconscious.

"I had a real lulu the other night: I was at my own funeral, but I wasn't in my grave. I was there as an observer, watching the mourners interact with a group of strangers enjoying themselves around a bowl of punch that someone had brought out to the cemetery. I became very caught up in this, almost the way I do in certain films."

Blake's dreams are in black and white, like the keyboard at which he labors; like the racially schematic jazz subculture he inhabits uneasily for lack of a more suitable niche; like most of the Hollywood films (of Alfred Hithcock and others) that rescued him from

BEAT®

BY FRANCIS DAVIS

STREAMS OF CONSCIOUSNESS

loneliness as a child in New England in the 1940s. "As a teenager, I spent a few hours a day practicing the obligatory scales, hating every second. But I would sneak off to the movies two or three times a week and then creep down to the living room piano in the dead of night—careful not to wake my parents—and attempt to convey my impressions of the films while the memory of them was still vivid.

"I started collecting soundtracks but soon realized that it wasn't film music that gripped my imagination—it was the films themselves, and their ambience more than their plots. Except for some scores by Bernard Herrmann, the music generally wasn't rich enough for me, unless there was the implication of violence or foul play, or unless the characters were experiencing sensations of fear, guilt, anxiety, or dread, which the music had to establish. Then there might be a few dissonant chords that appealed to me, but nothing that Bartók and Stravinsky hadn't already done better. If only I had known about them, I could have been studying 20th-century composers instead. But I spent every spare moment as an adolescent in movie houses and black churches.

"One Sunday morning when we were still living in Springfield [Massachusetts], my parents sent me off to services and I took a wrong turn and wound up at a black Pentecostal church, beckoned there by those pounding rhythms. I went back every Sunday after that. When my folks would ask me how church was, I'd say I loved it. This was my first exposure to black music, and it lasted for months—until my parents ran into our pastor.

"When we moved to Suffield [Connecticut], which was lily-white at the time, I would travel to the Holy Trinity Church of God in Christ, in Hartford, where I wound up making my professional debut, playing for the gospel choir. I remember they said they liked my rhythmic feel, though they had some qualms about my harmonic voicings.

"So there you have it: *film noir*, Mahalia Jackson's moan, and the midnight world of dreams. Those have been the chief influences on my music."

DESPITE WINNING THE APPROVAL OF THE congregation in Hartford—to say nothing of the demanding audience at Harlem's Apollo Theater, where in 1961 he and avant-garde singer Jeanne Lee won an amateur-night competition with their nubby, decelerated interpretations of such pop standards as "Laura" and "Summertime"—Blake felt out of place in black jazz circles. "White jazz was Stan Kenton and Gerry Mulligan; black jazz was Thelonious Monk, Charles Mingus, and Max Roach and Abbey Lincoln. You can guess which I gravitated to. The music I wanted to play had black roots, but I was approaching it from a tortured white intellectual's perspective, which put me at too great a distance from the source. All the same, I had no desire to become one of the hip young white boys sitting in at Birdland every Monday night. I wasn't interested in blowing twenty choruses on the chord changes of 'All the Things You Are,' even if I could have—and believe me, I couldn't, because I would grow bored, start to daydream, and miss the turnarounds. I didn't much like playing with bassists and drummers, and they absolutely dreaded playing with me. I didn't read well enough to become a classical pianist, and much as I loved singers, my chord choices were all wrong for vocal accompaniment. I was forever running to Bill Evans, Oscar Peterson, and Mal Waldron for lessons and career counseling, and at one point in the '60s I almost called it quits. Oddly enough, the few musicians who thought I had something new and provocative to offer jazz were black, but their approval never reached the point

of hiring me for their bands: They knew that what I was playing wasn't compatible with what they were doing."

Blake credits composer Gunther Schuller with "saving my life by suggesting that there was more than one way to approach improvisation. Maybe my music wasn't really jazz at all, he said. Maybe it was 'Third Stream' "—the phrase Schuller had coined to describe the confluence of jazz and classical music. Schuller, appointed dean of the New England Conservatory of Music in Boston in 1967, named Blake to the extension faculty a year later. Since 1973, Blake has chaired the NEC's Department of Third Stream Studies, gradually broadening Schuller's definition to signify temporary alliances of classical, popular, and ethnic musics, "sometimes bypassing jazz altogether," he notes. Indeed, one of the groups to emerge from Blake's classroom is the Klezmer Conservatory Band, which usually plays Jewish community centers and synagogues rather than concert halls or nightclubs. "We've come to think of 'Third Stream' as a verb," Blake says. "We speak of 'streaming' different musics."

"Students in the Third Stream Department learn to create a highly individual music," reads the NEC's course guide, "a music they feel in themselves but do not hear around them"—which is precisely what Blake has done. For him, Third Stream is a stream of consciousness enveloping not only a body of music but whatever impressions of politics, literature, film, philosophy, and nature happen to float through his mind. With this broad framework guarding against insularity, his music has undergone a profound transformation in recent years.

Always something of an interloper in jazz, Blake continues to essay music rooted in abstract supposition rather than tangible sensation, a music not merely introverted but downright *secretive*, and to regard improvisation as a vehicle for relentless self-examination rather than revelry or virtuosity. Yet beginning with the aptly titled 1976 release *Breakthru*, he somehow learned to express even his most tentative and circuitous musings in a lucid, forthright, vivacious manner, as though communicating to an audience hanging on to his every thought. He no longer feels compelled to play devil's advocate with a supernal melody, and his voicings are less doggedly chiaroscuro than they used to be. Of course, like the audiences for all visionary performers (but especially the audiences for those uncomfortable in their assigned genres), Blake's is largely hypothetical. But this renders his commitment to communication all the more exemplary, and the very act of making such a leap of faith seems to have elevated his music to a state of grace few performers as cerebral as he ever achieve. The records that count—though one should not dismiss categorically his entire output before age forty—are those since *Breakthru*, including *Duke Dreams* (dark reflections on the corpus of Ellington and Strayhorn), *Suffield Gothic* (a meditation on New England as repository of personal memory and national myth), and *Film Noir* and *Vertigo* (companion attempts to retrieve the frisson of cinematic melodrama from the flicker of memory). [See Richard C. Walls's review of *Vertigo* in the April issue.]

BLAKE IS A GRAND AMERICAN ECCENTRIC IN the dual tradition of Charles Ives and Thelonious Monk, content to travel his own path and let the world catch up when and if it chooses. But he seems beset by insecurities on a more practical level. When I spoke with him before a concert in Philadelphia in April, he told me that several thousand people had turned out to hear him in Greece a few months earlier. "But I doubt it was me who drew them," he said, scrunching his face into a grimace. "They were just curious to see an American musician." In Philadelphia, the crowd was in the dozens. Learning that Sun Ra and Cecil Taylor were scheduled for the same solo piano series, he was more alarmed than flattered: "I feel a bit like an imposter because their music is a lot closer to jazz than mine is." And although he is a tireless recruiter for the NEC, he voices doubts about the value of jazz education, pointing out that "Monk and Bix Beiderbecke did pretty well without it."

I asked Blake if he still considers himself a political artist (in 1969, he released *The Blue Potato and Other Outrages . . .*, an album of dedications to Eldridge Cleaver, Malcolm X, Che Guevera, and Régis Debray, combined with standards whose titles or lyrics commented ironically on the civil rights movement and the military coup in Greece). "No," he said. "I may be an impressionist, but my music is not programmatic: Audiences have no way of knowing whether a thundering cluster is supposed to represent police brutality against South African blacks or the dishes falling off my kitchen table as I attempted to prepare a curry the night before. Maybe if I were famous it would be different. Nobody much cares what I think, and it's too easy for a white man to exploit black issues for self-aggrandizement. I guess I feel more impotent against injustice than I used to. At a certain point, I realized that listening to Billie Holiday, enjoying a reasonably good dinner, and reading a stimulating book an hour before bedtime to facilitate entry into the dream world are the activities that have the most bearing on my music. I know that sounds selfish, but I don't want to pass myself off as better than I really am."

For his Philadelphia concert, Blake played Monk, Fletcher Henderson, Shorty Rogers, Pete Rugolo, John Philip Sousa, Bernard Herrmann's score for *Vertigo* enfolded with Blake's variations, adaptations of traditional Sephardic music inspired by the recent film *Shoah*, and impressions of such *noir* cynosures as *Rebecca*, *The Wild One*, and *The Wrong Man*—a typical program for a performer who has raised eclecticism to a discipline. The surprises were Rogers and Rugolo, palefaces associated with West Coast jazz and the top-heavy Stan Kenton Orchestra of the '40s and '50s (the most obvious precursors to the Third Stream movement, aside from Ellington and Mingus).

Blake will teach a course on Monk this fall, which should prove interesting since Monk is the jazz pianist he most resembles, at least in the emphasis he places on the nuances of *touch*—an aspect of pianistics criminally overlooked in assessments of technique. "It's funny: I wrote an article on Thelonious for one of the keyboard magazines and never even mentioned his mastery of touch, though I certainly should have," said Blake, once the jazz critic for *The Bay State Banner*, a black-owned newspaper in Maine. "It's also something I've never given much thought to in my own playing, though I do remember one of my first teachers telling me not to bang the keyboard, and me thinking there were instances when banging was called for. I play fewer notes than most pianists, and perhaps that's Thelonious's influence. But I think it has more to do with a subconscious desire to imitate a vocal line. I'm probably the only pianist of my generation more in debt to Billie Holiday, Mahalia Jackson, Abbey Lincoln, Chris Connor, Stevie Wonder, and Victoria de los Angeles than to Bud Powell." ■

Selected Discography

RAN BLAKE

The Blue Potato and Other Outrages . . .
Milestone M 9021; 1969.

Breakthru.
Improvising Artists IAI 373842; 1976. (Out of print.)

Take One.
Golden Crest CRS 4176; 1978.

Take Two.
Golden Crest CRS 4177; 1978.

Film Noir.
Arista Novus AN 3019; 1980. (Out of print.)

Duke Dreams.
Soul Note SN 1027; 1982. (Distributed by Polygram Special Imports.)

Suffield Gothic.
Soul Note SN 1077; 1984.

Portfolio of Doktor Mabuse.
Owl 029; 1984 (recorded in 1979). (Distributed by Polygram Special Imports.)

Vertigo: Live at the Brattle Theatre, Cambridge.
Owl 041; 1985. ⊡ K 741.

With JEANNE LEE

The Newest Sound Around.
French RCA PL 42863; 1962 (reissued in 1979).

A FEW GOOD MEN

JUANITA M. COLE

BACKBEAT REVIEWS

RUN-D.M.C.:
Raising Hell.

⊙ Russell Simmons and Rick Rubin, prods. Profile PRO 1217. ⊡◑ (740 Broadway, New York, N.Y. 10003.)

WHODINI:
Back in Black.

⊙ Larry Smith, prod. Jive JL 8-8407. ⊡ (Distributed by Arista.)

INTELLIGENT NEWCOMER AND HARDCORE stylist L.L. Cool J has become hip-hop's newest b-boy wonder. All M.C.s should listen up. Run-D.M.C. do, but they don't intend to be slighted either. On *Raising Hell*, Joseph Simmons and Daryll McDaniels come on like "a class when the lunch bell rings." Instead of again co-producing with r&b-directed Larry Smith, group manager (and Run's older brother) Russell Simmons calls upon L.L.'s "reducer," Rick Rubin, who grew up listening to AC/DC and Aerosmith. To do better than the sing-songy, somewhat wimpy *King of Rock*, Rubin contributes tougher, fresher beats and grungy guitars that don't just trill, they grind. Twin lead vocals are shaped and emphasized by deejay scratching, and hooks (no female backups, thank you) are stronger, set apart from verses by contrasting textures. In short, these tracks are as commercial as rap's connection to heavy metal, which is very explicit on *Raising Hell*.

Both genres rely on lust, aggression, and a desire to be the baddest, the coolest, the fiercest. Rappers, however, are much more accessible than their arena-scale heavy metal cartoon counterparts. Kids not only see their idols perform more regularly, they see them on the street; these artists feel closer to, and are more responsible in dealing with, their impressionable fans. Thus we have "Proud to Be Black" and "Dumb Girl," the latter an admonition to fast girls who drop out of school that directly contradicts the duo's cover of Aerosmith's "Walk This Way," an allusion to the come-on of one particularly insatiable fox. When Run-D.M.C. curse and talk about getting off on girls, it's part of an act, a role other guys in the neighborhood play all the time. They're proud of their peasy hair, but as they advise on the rock-rolling "It's Tricky," they're also proud of who they are: "We are like doves/We don't use drugs."

RAPPERS AND FOLK HEROES DARYLL McDANIELS, JAM MASTER JAY, AND JOSEPH SIMMONS OF RUN-D.M.C.: B-BOY BADNESS THAT DOESN'T SPILL OUT ONTO THE STREET

Run-D.M.C. rap about themselves on *Raising Hell*, and any teenager can relate. The boasts aren't the usual lame attacks on other talkologists, though as an assertion of selfhood, "I was conceived and I was born" from "Hit It Run" couldn't be more stupid. The groovy glide "Perfection" is a potent statement of striving and ambition, thanks to its abandonment of the ever present drum machine for a spare track of punched-up kit.

(CONTINUED ON PAGE 68)

(CONTINUED FROM PAGE 67)
"You Be Illin'," a bug-out on people who act whacked, is the funniest cut. Inside a tightly wound percussion weave there's a playful saxophone tag, a nice touch that hasn't been used before in rap. Run-D.M.C. crack up as they observe some can't-chill lunkhead order a Big Mac in Kentucky Fried and later yell "touchdown" at a basketball game. "My Adidas" takes a syncopated drum pattern and smartly tacks on a rap diary cataloging Run and D's rainbow assortment of laceless basketball shoes, a wardrobe staple. They talk about what motivates the selection of a particular pair: black-and-white to chill, yellow-and-green to act ill, white with black stripes to rock the mike. Inner-city kids identify strongly with product names; a Kangol cap, a JVC boom box, and a pair of Adidas are status symbols in their circle. Run-D.M.C. aren't above exploitation, although their sponsorship of Adidas came after the fact ("Hollywood knows we're good, if you know what I mean"). Watch for Athlete's Foot posters, coming to your neighborhood soon.

Whodini isn't ignorant of the fact that rap is going metallic. "Fugitive" harnesses a guitar solo onto the funky rhythm track, but let's face it, these guys aren't into hard rock. (I bet they didn't know, for example, that *Back in Black* duplicates the title of a classic AC/DC LP.) In the wake of 1985's "Big Mouth," a pared-down funker that rates with any of the "new school" raps by L.L. or Slick Rick, I thought Whodini would have come up with more than *Back in Black*, most of which sounds like the smoothie "Friends," the other hit from *Escape*. They sing, and there are twangy bass guitars and cheesy synthesizers aplenty—which is not surprising, since Whodini is really an r&b group in the Earth, Wind and Fire and Cameo molds. Their rhymes and big beats tread no new ground. Their raps are straightforward with little boasting; "One Love" is about monogamy, and "Growing Up" is about—you guessed it. But when they battle things out in "Funky Beat," which asserts that their deejay, Grandmaster Dee, also raps, braggadocio slips the tune into high gear. Which is what's so energizing about *Raising Hell*. Run-D.M.C. elevate "b-boy badness to a higher degree" on every track. The only difference between them and street kids is that their fantasy ends in the recording studio.

Havelock Nelson

MOFUNGO:
Messenger Dogs of the Gods.

⊙ Elliott Sharp, prod. Lost TTL 8675. (Distributed by Twin/Tone, 2541 Nicollet Ave. S., Minneapolis, Minn. 55404.)

THINK OF MOFUNGO AS A LOW-RENT HOTEL, where the tenants come and go in the night and disturbances occur at any moment, but where the mood never wavers. Members have checked in and out of this New York band (currently a quartet) since 1979. And whether they are offering instrumental three-card monte or, say, a cover of Woody Guthrie's "Deportee," it all comes out ratchety, awkward, jabbing like a cartoon devil on your shoulder. Their *Messenger Dogs of the Gods* is a dump, a mess, and a place where their ideas come together to make a provisional shelter. It is not gentrified.

Their name comes from a funky and pungent Puerto Rican staple of molded plantains, oil, and spices; the music, similarly, does not go down easily. There are lots of guitars chattering away (though maybe not enough, as the mix sounds heavier, rockier than the band I know), splaying scrap all around without forming a mass; production or no, the music doesn't rock so much as rattle. That's thanks mostly to Chris Nelson's drumming, spiky as a slide down the back of a stegosaurus and dangerous like that, too. Take "Strike from Within," where he flogs that bass drum until you think the thing's bolted to the ground. In a band that has a hundred ways to put *blat* between your ears, Nelson maybe goes the furthest.

So perhaps you think this record is way marginal, all about rickety tinderboxes of arhythmic sound, but that's not quite right. Part bitter pill, part Mexican jumping bean, Mofungo means all that talk about striking from within. The band members are radicals forced to the fringe, but if they sometimes embrace the avant-garde, they do it within the framework of folk music or the three-minute single. Perhaps that's because, deep down, they think their marginal status is only temporary, pending some upheaval, like an election (or a rebellion). Thus they are attracted to the *liberal* populism of the lyrics to "The Big Rock Candy Mountain," but their cover is as bumpy and out of the mainstream as anything else they do. A hobo's vision of utopia, this song was celebrated as folk music, but today its populist spirit is marginal, suppressed. When the band utters a slogan ("No Passaran"), it has weight, because they know the value of learning from history—a process urged in "George Washington Carver/Sojourner Truth." The fringe is Mofungo's raft, and if you hear them having fun far from shore on *Messenger Dogs of the Gods*, you also hear them searching all the same for stable ground.

RJ Smith

PATTI LaBELLE:
Winner in You.

⊙ Various prods. MCA 5737. 🎞◑

PATTI LABELLE IS A FLAMBOYANTLY DRAMATIC performer whose onstage excesses (costume, hairdo, patter, persona) and unbridled vocal attack have always endeared her to an avid (and sometimes equally flamboyant) cult following not unlike Bette Midler's. If I've counted myself among LaBelle's fans it's because, like Midler, she can cut the camp, channel the hysterics, and connect instinctively and emotionally with the emotional core of her material. LaBelle is never cool; most times, she seems barely in control. But singing like a woman possessed gives her best work a jolting, gut-level impact that few contemporary vocalists outside gospel can match. Unfortunately, when this stylized soul reaches vinyl, it often sounds more overwrought than expressive, more forced than forceful.

Following her recent soundtrack hits (particularly "New Attitude" from *Beverly Hills Cop*) and show-stopping televised concert appearances (including Live Aid, where she upstaged the entire "We Are the World" finale chorus), LaBelle was clearly poised for a major pop breakthrough. Now she's got it with *Winner in You*, which leaped into *Billboard*'s Pop Album Top 10 after only two weeks on the chart and has already spawned the most successful single of her solo career, the Michael McDonald duet "On My Own." Produced in the currently popular too-many-cooks mode by nine people in various combinations (among them Ashford and Simpson, Burt Bacharach and Carole Bayer Sager, and Richard Perry), *Winner in You* sticks LaBelle's eccentric vocals into a series of sleek, cushy, conventional arrangements. Sometimes she needs this discreet understatement as a foil for her elaborately twisted delivery. Her vocals still suffer from the freeze-dried restraint imposed by record-making, a process that tends to make even the most spontaneous pyrotechnics sound self-conscious and hokey. But plenty of LaBelle's emphatic style survives, notably her way of skewing her voice halfway through a phrase, setting it on edge, and warping it from sweet to sour and back again before it shoots off in an aching cry. She insinuates into a song, teasing every line, stretching it to fit.

But if *Winner in You* doesn't obscure LaBelle's idiosyncratic delivery, it hardly puts it to best use. The material here is, with few exceptions, soft and slight. Two inspirational songs, Bruce Roberts and Andy Goldmark's "Oh, People" and Ashford and Simpson's "There's a Winner in You," stand out for their conviction and compressed intensity; the straight-to-the-heart "Sleep with

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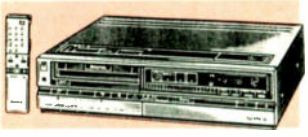

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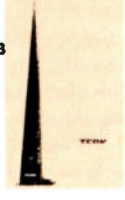

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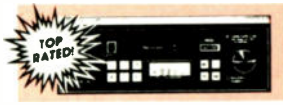

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COURTESY MCA

PATTI LaBELLE'S NEW ALBUM RARELY CONNECTS EMOTIONALLY.

Me Tonight," written by Bacharach, Sager, and Neil Diamond, brings Patti to a nakedly emotional peak. And "On My Own" is certainly lovely enough, McDonald's rich resonance the perfect complement to LaBelle's acid trill. For an album that took nearly a year to complete, though, *Winner* is strikingly unadventurous, curiously safe: comfortable pop love songs that wouldn't challenge Marilyn McCoo and rarely get a rise out of Patti LaBelle. Breakthrough was bound to mean compromise, but *Winner* really wimps out.

Vince Aletti

PERE UBU:
Terminal Tower—An Archival Collection.

⊙ Pere Ubu, prods. Twin/Tone TTR 8561. ◑ (2541 Nicollet Ave. S., Minneapolis, Minn. 55404.)

"IT'S A JOKE. . . . HAS IT GONE AWAY?" GOES A line in Pere Ubu's "Humor Me." Well, yes, it has. The pride of Cleveland's art rock scene has been history for four years now, but the group remains, depending on your disposition, either one of the most challenging rock bands ever or the most annoying aberration on vinyl since Frankie Avalon. Formed in 1975, Pere Ubu could be extreme even by punk standards; ordinary concerns like intelligible words, orderly melodies, and danceable rhythms didn't matter as much as lead singer David Thomas's perturbing lyrics and herky-jerky squeals rebounding against colliding guitars and tumbling beats.

It stands to reason, then, that *Terminal Tower* is a bit annoying, too: Instead of the comprehensive overview we need (incorporating tracks from 1978's *Dub Housing* and *The Modern Dance*), it randomly collects singles, B-sides, a live cut, different mixes, and the entirety of the band's deleted '78 EP, *Datapanik in the Year Zero*. Even so, the collection presents a stronger picture of late-Seventies rock than recent "new wave" compilations by Elvis Costello and the Cars and also proves that Pere Ubu were more than just the static avant-punks their detractors claimed. Nothing else matches their lurch into the raving chorus of "Final Solution" or the way they uncoil and let loose in "Heart of Darkness" or Thomas's twisting of the word "happy" into a sarcastic mock in "Not Happy". Granted, the band had its indulgent side, heard here on iffy *musique concrète* experiments like "The Book Is on the Table," wherein they vamp over a tape loop of a woman giving French lessons. But more often than not, their strangeness paid off: "Lonesome Cowboy Dave," featuring Thomas's demented, abandoned shriek of "whoopie-ty-yi-yay," offers more than "cowpunk" ever will.

What's ultimately distressing about *Terminal Tower*, though, has little to do with the music itself. In the decade since some of these tracks were cut, arguably no one has eclipsed them for innovative fury, which doesn't bode well for the state of fringe rock 'n' roll. At the end of the bleak, fuzzy "30 Seconds over Tokyo," for instance, you'll hear a horrifyingly familiar screech that sounds as if the stylus has skidded across the record. But nothing is wrong: The song just happens to end that way. Those were the days.

David Browne

HÜSKER DÜ:
Candy Apple Grey.

⊙ Bob Mould and Grant Hart, prods. Warner Bros. 25385-1. ⊂⊃

THIS BRASH MINNEAPOLIS TRIO'S FIRST MAJOR-label outing following a prolific relationship with the independent SST further blasts boundaries between pop, hardcore, and psychedelia. The contemporary angsts that Hüsker Dü's music and lyrics confront, like toxic waste and shattered relationships, are clarified by a polished production that doesn't flatten the band's vital edge. Instead of distortion and crackling feedback, lush multitracking mounts into jagged walls of sound. Echoes add somber resonance. Keyboards, played by guitarist/singer/songwriter Bob Mould, add new textures.

Mould's songs track adolescent anger as it fades into adult lethargy. "Crystal," a throwback to the band's early fascination with thrash, holds up such future-shock symptoms as unnatural food and the diffusion of our attention span, contrasting the fragility of the human psyche with the harsh demands of capitalism. But on the acoustic "Too Far Down," reasons slip away and depression overwhelms in a confused, self-obsessive reaction to powerlessness: Has the world gone out of whack, or is it my personality? "Hardly Getting Over It," resonating with quiet regret, looks out to find friends and strangers growing older and increasingly alienated as their dreams fail and economic hardship persists. This ground has been covered many times before, by Bruce Springsteen, John Cougar Mellencamp, Billy Joel. Mould avoids those artists' patriotic rallying and so cuts much deeper. His despairing lyrics are masked by the simple beauty of his music, suggesting that we accept rather than fear the darker sides of human nature.

Mould may keep Hüsker Dü honest, but Grant Hart will get them on the charts. His flair for hooks that dig deep fast complements Mould's dour immediacy; their alternating songs give this LP a Strummer/Jones push-me/pull-you. In Hart's "Don't Want to Know If You Are Lonely," lingering compassion collides with the need to escape a dying relationship. A jumpy thrash rhythm and Mould's jabbing guitar inject this twist on the perennial love-gone-wrong theme with hardcore-ish urgency. "Sorry Somehow," blurring keyboards, drums, and guitars, flashes on the guilt that goes with hurting the one you used to love. Hart's ragged, full-bodied voice is locked within an accessible range that invites singing along. Once you do, *Candy Apple Grey* is instant catharsis.

Rosemary Passantino

EMMYLOU HARRIS:
Thirteen.

⊙ Emmylou Harris and Paul Kennerly, prods. Warner Bros. 25352-1. ⊂⊃

COUNTRY MUSIC SURVIVES, INSOFAR AS IT does, because it tells stories people want or need to hear. The recently successful neotraditionalist vogue and the backlash it has engendered have little real bearing on the essential principle. The best writers simply renew the stories and the best singers invest them with the transcendent power and texture of the real.

Certainly the most impressive minute of country music I've witnessed all year was in *Chase the Devil*, an independent documentary on Appalachian religious life. As the camera slips into a nondescript roadhouse, an anonymous grizzled veteran is singing Hank Thompson's chestnut, "The Wild Side of Life." No doubt every one of the dancers and drinkers knows the song by heart, and the vocalist honors that fact with an intense, roughhewn performance, unselfconsciously lacking even a scintilla of the mannered gloss and relentless boosterism that passes for commercial potential these days. My kind of folk music.

Which brings me to Emmylou Harris, who for 11 years now has striven for meaning and perfection simultaneously. This has made for difficulties. I have little patience for the pristine, particularly in popular culture, where it's usually nothing more than a tired fantasy and never one of mine. On album after album of Harris's, wonderful songs both old and new were played by a series of dream bands, the best musicians money could buy, leaving me largely unmoved, searching through my collection for the originals. Former producer Brian Ahern's extremely successful but ultimately unsatisfying preference for the pristine—obviously with Harris's active participation—was clearly at the root of my naysaying. Often I couldn't hear a song for the chops—an effective, albeit expensive, hedge against the singer's vulnerability.

But vulnerability and loss are what *Thir-*

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teen is all about, and honky-tonk angels everywhere are rejoicing. After last year's ambitious though unconvincing concept album *The Ballad of Sally Rose*, Harris and new partner Paul Kennerly have made an LP on which the picking packs as much emotion as it does finesse and there's almost no formal detachment in the vocals. Rather, tunes like Carl Smith's 1955 hit "You're Free to Go" and Rodney Crowell's new "I Had My Heart Set on You" are full of the rasps and catches that make world-class honky-tonk crooning so stirring. At last Harris is singing from the body instead of the head, with a raw throat in midrange and an aching vibrato, as if she'd been up crying most of last night.

A borderline-precious neofolk song like "Sweetheart of the Pines" is made interesting by sandpapery touches and a half-trad/half-mod string band plus synth drone. Even braver is her stark acoustic-guitar-and-synth reading of "My Father's House," Bruce Springsteen's meditation on the terrors of separation and dislocation. The current single, Merle Haggard's exquisitely sad "Today I Started Loving You Again," is getting substantial airplay. And Harris's duet with John Anderson on Porter and Dolly's "Just Someone I Used to Know" could make it a heartbroke jukebox classic once again. In fact, only Irv Lejeune's Cajun standard "Lacassine Special" is unahashedly happy-sounding, and it's sung in French, so you really can't be sure. But I'm thoroughly happy with *Thirteen*, Emmylou's best album by far. These sad songs say so much. *Jeff Nesin*

LOU REED:
Mistrial.

⊙ RCA AFLI-7190. Lou Reed and Fernando Saunders, prods. ⊡

LOU REED'S FAITHFUL CRITICS WILL BE relieved that they turned in their dissertations on him in 1982, when *Blue Mask* reaffirmed his visionary passion. Even those who covered him courtesy of 1984's *New Sensations* will sleep easy, because Reed's stature as a granddaddy revolutionary evangelist demands an epic responsum. The unlucky ones like me will find it hard to analyze him now, for I have to report that *Mistrial* is a slight record. There's little here to animate speculation on Reed's sex life, pet hates, or raves and nothing to renew enthusiasm for—or even suggest the artist is still interested in—a reappraisal of morality. *Mistrial*'s only significance is its triviality: It can't stand up to legendary Lou.

In the Velvet Underground '60s and in 1972's solo debut *Transformer*, Reed made his stand as a reversalist. In love with the notion of hypocrisy as the greatest evil, he declared that lawlessness is the only true morality and urged on the mob. He exposed the arbitrariness of taboos, legitimizing the pursuit of illicit and dangerous experiences. He spoke for me and for the rest of the disenchanted educated middle class who hunted for enlightenment and oblivion and, with increasing frustration, an angry fix. But then,

like most people who grow up in public, Reed went private and dug into the narrow but absorbing subject of himself. Except for *Sally Can't Dance*, the '70s solo albums were uneven, yet his fans continued to champion him against all comers even when it seemed he was inflating his emotions to reach their expectations. They still found traces of their old anger and Reed's blessed vindication, despite his decline into ordinariness.

He was already outgrowing the fringe when his marriage and his idyllic musical testaments to it further widened the gap. Earlier adventurous amours were reduced to narrow definitions of male behavior—a psychic chest-baring, a swaggering and protective macho ill-suited to the man whose anger and tenderness had once been so universal. *Mistrial* further reveals Reed's awkward transition from rebellious outsider to a man with an almost embarrassing need to remain relevant. The title cut is an unconvincing plea for parole, if not for pardon, that flits between contrition and arrogance. He defiantly alludes to peccadilloes of his youth, nevertheless agreeing that he might have behaved unacceptably in the past. Now, he says, he deserves a second chance in the straight world.

There are a few good tunes here and a rasher of self-conscious politics that cuffs yuppies ("The Original Wrapper") and name-drops Madonna ("Video Violence"). But Reed intones his blossoming heterosexism in the patronizing "Don't Hurt a Woman," and I sense, but can't prove, his continuing diminution of women in other tracks. Hardly a vintage year. But as I try to sort out why I keep playing this album, I've got to admit that the familiar strain in his voice and the self-referential, seemingly inadvertent musical quotes make me want to turn up the volume and glide right over the protest-too-much pieties of the new Lou and back to the old. *Leslie Berman*

THE CLASH:
This Is Video Clash.

Various dirs. and prods. CBS/Fox Video Music 7098 (Beta Hi-Fi and VHS Hi-Fi); $19.98.

EVEN IN THIS EIGHT-SONG SAMPLING, THE Clash's prescience comes through. Not only did they pungently articulate the troubles of their times, they understood that if things stayed the same, they'd get worse. So "Tommy Gun," the band's decrial of terrorism, sounds even more brutal today than it did in 1978. And though "London Calling," with its chorus about "a nuclear error," was written after Three Mile Island, it comes back to haunt us in the wake of Chernobyl.

The Clash saw the future of video as an image maker, posing like heroes in their self-designed gangster/cowboy outfits and like the pop stars they believed they had no chance of becoming. They also realized video's potential as a disseminator of their politically charged communiqués. The ragged early clips (lip-syncs are *way* off) capture the essence of the band's electrifying brashness. "Tommy Gun" is unmatched here for performing intensity, Joe Strummer churning at his guitar and spitting lyrics through broken teeth while sulky Mick Jones and spike-haired Paul Simonon carom behind him, their guitars slung down to their knees. "London Calling," another riveting clip, was shot by Don Letts in black and white on a rainy night on a London pier, its graininess underscoring the song's portentous vision.

Letts and the Clash reach their conceptual peak in the antiwar protest "The Call Up" (also shot in black and white), interweaving scenes of the band playing in a basement bunker with eerie images of a draft notice floating through a mail slot and a hand slowly cranking a civil defense siren. After that, videos mirror the group's commercialization (the slick, colorful "Rock the Casbah") and document the inevitable bust-up: The dispirited finale, "Should I Stay or Should I Go," finds the Clash looking like zombies (or pop stars) onstage at Shea Stadium. Too bad it had to end. *This Is Video Clash* is both an essential remembrance of one of rock's greatest bands and a stirring recap of punk's short, glorious life. *Joyce Millman*

THE SWIMMING POOL Q'S:
Blue Tomorrow.

Mike Howlett, prod. A&M SP 5107.

THERE'S A LOT OF BONY MUSIC OUT THERE. IN

the wake of punk, excess flesh was stripped off smart pop, leaving skeletons of structure. This sensibility informed the Swimming Pool Q's' eponymous A&M debut a couple of years ago. It was their near folky lyrical sense, coupled with a two-guitar attack and liberal use of vocal harmony, that kept the record this side of musical anorexia.

From the git-go of *Blue Tomorrow*, it's evident that the Q's' sound has put on some weight. While punchy guitar work is still central to the mix, Anne Boston's keyboards, which were inaudible on the previous LP, are integral to both the title track and "Now I'm Talking About Now." Boston's wondrous voice is more out front, too, affording her the chance to stretch out on "Pretty on the Inside" and "Wreck Around." Both songs use buildings as a metaphor for her personal equilibrium. On the former, a sweet melody surrounds an abandoned house with busted shutters; on the latter, Boston takes us through her decaying town to a five-and-dime that's the center of her life—until the lead guitar chews up the foundation. With the help of a little overdubbing, her harmonies sound like a train whistle complementing the chugging rhythm section of "She's Lookin' Real Good (When She's Lookin')." A choir of Bostons fills out "Big Fat Tractor," making the earlier EP version seem like a riding lawn mower by comparison.

Jeff Calder's gruff, sardonic lead vocals offer a sharp contrast to Boston's more understated ironies. He growls through "Corruption," a dark slice of Creedence-esque bayou slop that's downright nastier than anything John Fogerty has ever come up with (and ol' J.C. can get pretty nasty). When Calder trades leads with Boston on "Big Fat Tractor," the whole band rocks harder.

The Q's carry their extra pounds with finesse. "Wreck Around," for example, veers from ethereal guitar on the verse to rock-solid licks on the chorus. "A Dream in Gray" slides from clipped, martial chords to a dreamy bridge anchored only by J. E. Garnett's bass. This change from the group's former lean, mean power pop was not wrought by Charles Atlas, but by producer Mike Howlett, who has previously demonstrated the ability to give musical weaklings muscle and a certain amount of aural integrity (cf. A Flock of Seagulls). It didn't take much to improve the Swimming Pool Q's. The brains were already there; all Howlett added was some extra beef.

Hank Bordowitz

JAZZ

EDDIE HARRIS AND ELLIS MARSALIS:
Homecoming.

⊙ Dave Torkanowsky, prod. Spindletop STP 105. ⊡ (Distributed by Rounder.)

I COULD NEVER STOMACH THE FUNKED-UP social relevance of "Compared to What," tenorist Eddie Harris's 1969 jazz hit with Les McCann. Ditto Harris's habit of playing electric trumpet through a sax mouthpiece (wonder why that never caught on?) and giving his albums titles like *Instant Death* and *That Is Why You're Overweight*. Guilt by association made me shy away from pianist Ellis Marsalis, father of Wynton and Branford; the first and last time I heard him was on *Fathers and Sons* (1982), a cross-generational snooze attack. Ellis came off sounding cold-blooded and secondhand, just like his kids.

So I was not prepared for *Homecoming*, Harris's and Marsalis's high-spirited duet. Now that soul-jazz and fusion no longer are full-fledged movements, Harris's talents as a straight-ahead, no-nonsense improviser can come out of the closet. His sparkling melodic solos are marked by a bounding, roughhouse energy filtered through his burly Chicago-style tone. Modal/bop is what Harris feels most comfortable with, but he also makes room for expressive outside excursions. His ideas leap out like race horses at the starting gate. On "Out of This World" and "Have You Met Miss Jones," he lights into his improvisations first, holding off theme statements until his inspiration is spent. Harris has a lot to say; his edge is knowing when to shut up.

Marsalis is a brick throughout, bolstering the tenor's filigrees with tight, well-voiced chords. His sure touch brings out a warmth and directness in his inventions that I hadn't recognized. Most surprising, and welcome, is his responsive attitude toward Harris's occasional free blowing statements. Unlike Branford and Wynton, who seem to bristle at the thought of unreserved effusiveness, Ellis just digs in, rolling along with Harris's exclamations, staying hip by keeping his ears open. By flushing the fashion, Harris has made amends, and then some.

Steve Futterman

ARTHUR BLYTHE:
Da-Da.

⊙ Bruce Purse and Arthur Blythe, prods. Columbia FC 40237. ⊡

DAVID MURRAY:
Children.

⊙ David Murray, prod. Black Saint BSR 0089. ⊡ ◑ (Distributed by Polygram Special Imports.)

BOTH ALTO SAXOPHONIST ARTHUR BLYTHE AND tenor saxophonist David Murray have a lot to live up to, so it shouldn't be too much of a surprise if, occasionally, one of them releases an album that is something less than a milestone. Still, Blythe blew quite a few minds last year with his pop/funk Muzak LP *Put Sunshine in It*. Ostensibly aimed at commercial jazz radio, it wouldn't have disturbed the air in a dentist's office. *Da-Da* offers a few blatant commercial cuts, and then, having snagged the unsuspecting listeners, hits 'em with some genuine, albeit cautious, jazz. It's a far cry from a masterwork like *Illusions* (Columbia PC 36583), but it isn't numbing like *Sunshine*.

The commercial cuts have the altoist doing little more than displaying his rich, just-short-of-syrupy tone; two of the jazzier tracks are rather perfunctory remakes of old Blythe tunes (the third is a respectful rendering of John Coltrane's "Crescent"). Pianist John Hicks and cornetist Olu Dara cram a lot of expertise into their minisolos, but rising young piano star Geri Allen is relegated to producing faceless electric keyboard fills. It's all harmless fun, if somewhat depressing—though one can understand Blythe's frustration at making wonderfully original albums and remaining relatively obscure. With just a little watering down, the music could possibly put more groceries on the table. In this light, Blythe's posing with his young son on the back album cover can be seen as copping a plea: He did it for the kid.

Children is basically a blowing session, and despite the jacket's suggestion that this is a quintet date with pianist Don Pullen and guitarist James "Blood" Ulmer, the only constant on the record's four cuts is the trio of Murray, bassist Lonnie Plaxico, and drummer Marvin "Smitty" Smith. The pianist's single appearance, on "All the Things You Are," is emblematic; he begins his solo in lovely ballad fashion, but then the pummeling Pullenesque passages arrive on schedule. Ulmer's sole spot is on Murray's "David-Mingus," and given the piece's hard-driving, chunky *Jack Johnson*-type rhythm, he's unexpectedly subdued, spending too much time staking out a groove rather than taking off from one. In contrast, Murray bounces off the rhythm and across the bar lines with frenzied logic. Throughout, in fact, Murray's exuberance as a soloist overrides his intentions as a composer. His "Death" has a predictably dirgelike melody, but the nattering squawks of his bass-clarinet solo speak of protestation rather than resignation. "Tension" may have a hopping, even hyper, rhythm, but Murray's tenor tour de force is more celebratory than tense.

Unlike the Blythe album, *Children* is aimed squarely at devotees of the leader's improvisational style. And though *Da-Da* will no doubt disappoint old fans because it tethers Blythe's talent with humdrum arrangements and stopwatch solos, Murray's album may disappoint his newer fans—those who have been drawn to him by his big-band and octet performances—because it presents his talent so unadorned. Or maybe not.

Richard C. Walls

WAYNE SHORTER:
Atlantis.

⊙ Wayne Shorter and Joseph Vitarelli, prods. Columbia FC 40055. ⊡

JOE ZAWINUL:
Dialects.

⊙ Joe Zawinul, prod. Columbia FC 40081. ⊡

SINCE THE BREAKUP, MOST LIKELY temporary, of Weather Report last year, coleaders Wayne Shorter and Joe Zawinul have gone out on their own. They needed a change, they said, from their rather relentlessly popular group, and perhaps each needed a chance to express himself as an in-

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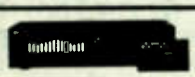

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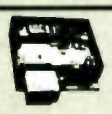

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FORMER WEATHER REPORT FANS HAVE MORE PATIENCE WITH WAYNE SHORTER (ABOVE) THAN WITH COLEADER JOE ZAWINUL.

dividual leader. The results in the cases of *Atlantis* and *Dialects* have been mixed, but more curious has been the response to the artists themselves.

The myth about Weather Report holds that over the years Shorter became increasingly dominated by the overbearing Zawinul. The hope when the group disbanded was that Shorter, left to himself, would create exquisite albums full of the fiery playing of his youth. He hasn't. When *Atlantis* came out a few months ago, Shorter's fans claimed that this sometimes tepid, though perfectly pleasant, music seemed relatively empty at first, but that it grew on you. Zawinul's record, *Dialects*, in many ways the more interesting of the two, hasn't been treated with the same forbearance.

Those who know Shorter's early compositions will remember their typical sense of space, their almost quiescent peacefulness, epitomized by the "Nefertiti" he recorded with Miles Davis. The long lines of his melodies, sometimes endlessly repeated, unfold with the gradualness and patient inevitability of a tropical plant every time you play them. Problems develop when Shorter's seemingly natural emotional reserve distances him from the music, which then becomes disengaged, slick. *Atlantis*, though never dull or unprofessional, has little of the energy of the Shorter who used to play hard bop. Some compositions, such as "The Last Silk Hat," stick with you, but in this bright, glassy sound, there is little passion spent or implied. The carefully wrought "Endangered Species" features a strident Shorter on soprano sax carrying the melody over an insistent rhythm. On this and other numbers, the textures are varied, but the leader's own well-controlled voice is never far from the surface. "Who Goes There" has an appealing melody stated by flutist Jim Walker and doubled by bassist Larry Klein, while Shorter and pianists Michiko Hill and Yaron Gershovsky provide counter-riffs. Other pieces seem strictly limited, charming but a little cozy. And occasionally Shorter allows them to go on too long.

Despite the fact that the music on *Dialects* consists only of synthesizers and occasional voices, this album has richer sounds. It's supposed to evoke the many places and people Zawinul has visited, which explains the oriental-sounding gongs of "The Great Empire," the somehow attractive monotone chanting of "Carnavalito," and the sound effects—barking dogs, twittering birds—of "6 A.M.," which end with an awkward splice leading directly into "Walking on the Nile." (Perhaps what they say about Zawinul's ego is true: Most people would have written "Walking *in* the Nile.") "The Harvest" is stirring; "Waiting for the Rain," rather ominously slow (unfortunately, it seems to stall halfway through). The bashing rhythms of "Carnavalito" are a delight at first, but the track develops too sluggishly. Zawinul makes inventive use of his singers; their chants, melodies, and occasional rhythmic figures add significantly to the textures here. At its best, *Dialects* is engaging. Elsewhere—and this is even more true of Shorter's *Atlantis*—it has an airless quality. These albums remind me of carefully manicured lawns in wealthy neighborhoods: One can admire them from afar but cannot imagine walking on them. Somewhere in the back of my brain, I can't help but think that Zawinul could use a little of Shorter's abstemiousness and that Shorter's arrangements could be enriched by the sounds Zawinul makes. Perhaps they could form a group?

Michael Ullman

MILES DAVIS:
Bag's Groove.

◑ Bob Weinstock, prod. Prestige JCD 659-7109. (Distributed by Fantasy, Inc.)

ILLOGICALLY ASSEMBLED THOUGH IT WAS—coupling two takes of Milt Jackson's "Bag's Groove" recorded in December 1954 by Miles Davis, Jackson, and Thelonious Monk with five numbers made earlier in the year by Davis, Sonny Rollins, and Horace Silver—*Bag's Groove* was a seminal recording. For Davis, 1954 was a watershed year: He completed his recovery from drug addiction and made a series of Prestige sides that established him as one of the prime forces in modern jazz. His tone, just as pure and probing as ever, seemed to smolder, and his coolly logical solos managed to sound intimate, even romantic. Now all he needed was a group of his own.

Perhaps the session with Rollins and Silver, backed by Percy Heath and Kenny Clarke, both members of the newly formed Modern Jazz Quartet, was meant to spawn that group. But Davis was unable to lure Heath and Clarke away permanently, and Silver went elsewhere. Rollins seems to dominate the proceedings: His "Oleo," a version of "I Got Rhythm," is spare, understated, and the best number of the session. Silver lays out here except during the bridges of each chorus, so that the track features Davis, then Rollins, soloing over bass and drums. The group also plays Rollins's "Airegin" and "Doxy" and two versions of George Gershwin's "But Not for Me," most notable for Davis's brilliant exposition of the melody.

But the two performances of "Bag's Groove" make this recording a classic. Davis sounds warm but somehow pithy, Jackson intelligently exuberant, and Monk, in his acerbic solos, like a man who in a few trenchantly bitter words implies that everyone else has been dreadfully chatty. The striking contrasts and yet the overall balance of these cuts, both taken at a slow walk, still seem stunning 30 years later. The sound quality of the Compact Disc is up to the high standards of the previous Prestige reissues: You'll hear some tape hiss, but you won't care.

Michael Ullman

KENNY BURRELL AND JOHN COLTRANE:
Kenny Burrell/John Coltrane.

◑ Bob Weinstock, prod. Prestige JCD 661-8276. (Distributed by Fantasy, Inc.)

WES MONTGOMERY:
The Incredible Jazz Guitar of Wes Montgomery.

◑ Orrin Keepnews, prod. Riverside JCD 666-1169. ⊙ OJC 036. ⊡ OJC 5-036. (Distributed by Fantasy, Inc.)

MADE TWO YEARS APART—THE KENNY BURRELL in 1958 and the Wes Montgomery in 1960—these two recordings, now on Compact Disc, feature two of the greatest jazz guitarists. Montgomery would go on, before his death in 1968, to become a Grammy-winning star. Burrell has never achieved Montgomery's fame. (But then we'll never see him, as we saw Montgomery, looking sheepish while picking out the melody of "California Dreamin' " on television.) This Burrell–John Coltrane recording frankly was a pick-up date, but with like-minded musicians. It presents a newly confident Coltrane blowing his own kind of blues on "Freight Trane" and "Big Paul" and duetting with Burrell on "Why Was I Born?" In their hands, this melody becomes anything but the exercise in self-pity implied by its title. Burrell's guitar is spare, cleanly phrased, boppish, and thoroughly professional. It's not his fault he sounds a little cool behind Coltrane, who steals the show not only from him but from pianist Tommy Flanagan as well.

Flanagan also appears on *The Incredible Jazz Guitar of Wes Montgomery*, contributing exquisite, idiomatic blues on "D Natural Blues," and lyrical lines on several ballads, especially "While We're Young." This album lives up to its title. Montgomery didn't only play melodies in octaves, run chords, or twang eccentrically in odd spots. He was a virtuoso, but no show-off. His debt as a melodist to Charlie Christian is evident in much of the playing here, and he shows he can put his technical abilities to work when the music needs a push. No wonder "D Natural Blues," as basic a tune as they come, never sags and "Polka Dots and Moonbeams" sways gracefully. This disc is the best introduction to a brilliant musician.

Michael Ullman

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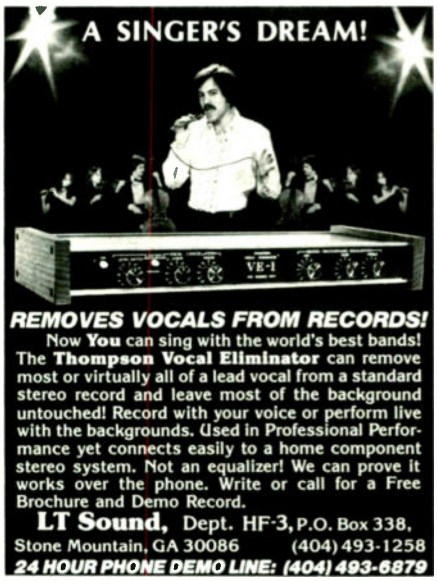

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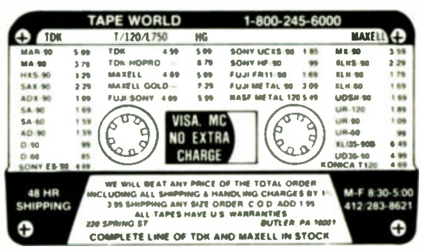

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(CONTINUED FROM PAGE 54)
law on the most pernicious of all Russian musical émigrés: "The apostle of reactionary forces in bourgeois music, Igor Stravinsky, with equal impartiality writes a Catholic Mass in a stylized, decadent style or jazz pieces for the circus. . . . Among characteristic examples of decadent art in music are Stravinsky's [*Le Sacre du printemps*], Prokofiev's [*Chout*], and a number of other works by these composers." Khrennikov gave the back of his hand not only to *Le Sacre* ("this reversion to antediluvian, barbarous images, the depiction of savagery and bestial instincts of a prehistoric man . . . boisterous, chaotic, intentionally coarse, screaming sonorities") but also to *Les Noces* and even *Petrouchka* (Stravinsky, he said, "uses . . . some elements of Russian life to mock at Russian customs and to please the European spectator by the express emphasis on Russian 'Asianism,' crudity, animal instincts, sexual motives"). Well, as 1962 approached, and with it Stravinsky's eightieth birthday, the same Tikhon Khrennikov pressed a call on the apostle of reactionary forces in bourgeois music at his Los Angeles home and personally extended an official invitation to revisit his homeland. When Stravinsky subsequently did arrive in Moscow, Khrennikov, still firm in the saddle as First Secretary of the Union of Composers, received him as his official host.

ABOUT POST-KHACHATURIAN SOVIET composers, I could write a great deal, from personal knowledge and experience, but the power that Khrennikov still wields makes it ethically impossible for me to quote them with attribution for fear of doing them a disservice at home. True, the pressures on young composers have lightened somewhat in recent years—but not out of any spontaneous kindness of Khrennikov's heart.

The January 1968 issue of *Sovyetskaya Muzyka* quoted Karen Khachaturian (nephew of Aram) as saying, "We professional musicians often don't know the music of our colleagues. We travel abroad . . . and are confronted by questions based on such detailed information that we are embarrassed. For example, I have never seen the young Kiev composer [Valentin] Silvestrov. His music is not heard"—not at home anyway. The jury for the 1964 festival of the International Society for Contemporary Music, in New York, found Silvestrov's *Suite for Piano* worth programming—but anonymously, to protect him from retribution by Khrennikov and his ilk. In September 1967, the Soviet magazine *Yunost* (*Youth*) took the considerable risk of publishing an interview with the maverick Silvestrov. The following year, Khrennikov devoted an entire paragraph of his address to the Fourth All-Union Congress of Soviet Composers to berating that magazine, which obviously had not first sought his okay. Boris Schwarz writes of Natalia Gorbanyevskaya, who had interviewed Silvestrov, "Early in 1969, Miss Gorbanyevskaya, a gifted poet and writer, was committed to a mental hospital after having been accused of anti-Soviet slander . . . a shocking political chicanery." You can read her entire story in the July 10, 1970, edition of *The New York Times* ("Dissident Poet Tells of Days of Terror in a Soviet Mental Hospital").

For years, those of us Westerners in contact with truly contemporary Soviet composition kept an eye on three outstanding post-Khachaturian composers: André Volkonsky, Alfred Schnittke, and Edison Denisov. Volkonsky (whose almost incredible story deserves an entire book) finally managed to emigrate and now lives in Paris. Schnittke last year suffered a massive, disabling stroke. In January 1968, *Sovyetskaya Muzyka* quoted the young composer Roman Ledenyov as saying, "Take the case of Edison Denisov. In my opinion, the [Moscow] Philharmonic has declared a 'cold war' against him since it denies the use of the stage to any group wishing to perform his works (even the early ones). Yet . . . *Sun of the Incas* [by Denisov] is often played abroad. . . . Is this normal?" Conductors who have performed either this or other Denisov works include Leonard Bernstein, Bruno Maderna, and Pierre Boulez. Spiegelman quotes Khrennikov in HIGH FIDELITY as saying, "Denisov and Schnittke have many fans, and, thank God, their music is played here [in the U.S.S.R.] *all the time*"—my emphasis added. Denisov completed his first opera, *The Spindrift of Days*, to his own libretto adapted from Boris Vian's book, in 1981; it had to wait until March of this year for its unveiling—not in his own country, but at Paris's discriminating Opéra Comique. In Paris for the opening, Denisov—an unusually prolific composer—said he had had no new works performed in the Soviet Union for the past two years.

Summing up that 1948 Composers Congress where Zhdanov got Khrennikov installed in the job he shows signs of hanging on to for life, Werth wrote, "what a price to pay—in terms of warped individualities, wasted talent, and frustrated genius!" Speaking personally, I can think of no one in history who, to my certain knowledge, has caused so many gifted composers—throughout all of Eastern Europe—so much frustration, unhappiness, and heartache as has Tikhon Khrennikov.

Not since Prokofiev (d. 1953) and Shostakovich (d. 1975) has the Soviet Union had a composer universally regarded as great, not since Miaskovsky (d. 1950) and Khachaturian (d. 1978) one even near great—except, just possibly, for one or two of those *compositeurs maudits* who compose largely for their desk drawers and who have led, and continue to lead, such difficult existences largely because of the power exercised for the past 38 years by Tikhon Khrennikov. Russian music, up until Shostakovich died, had had a long, glorious, unbroken tradition. What happened? Draw your own conclusions. ■

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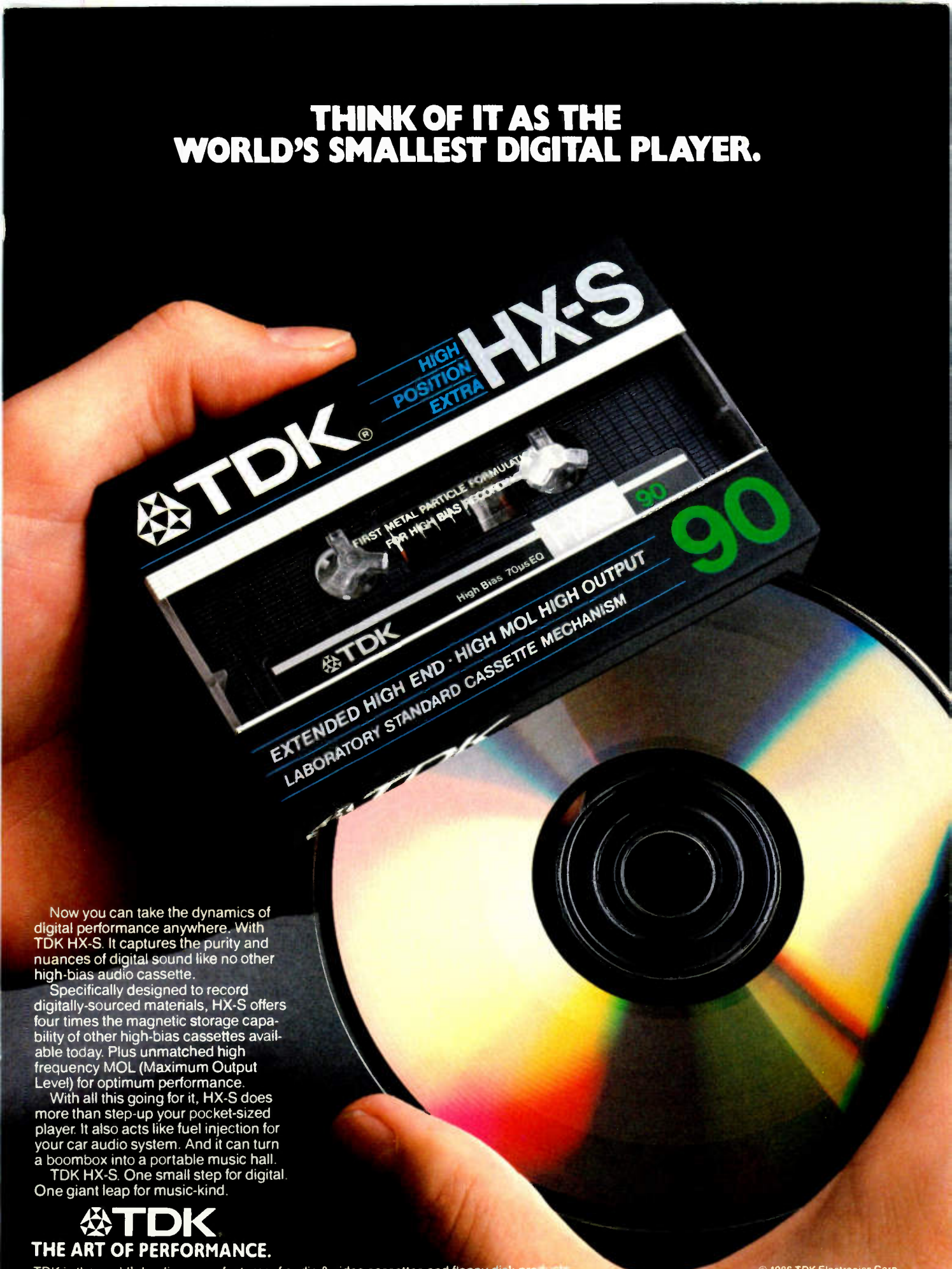

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