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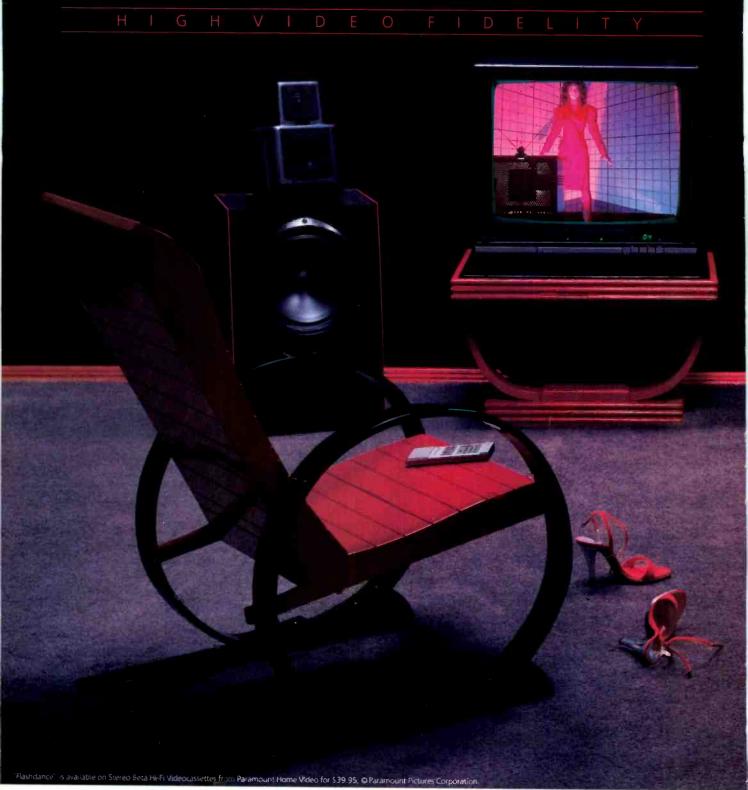


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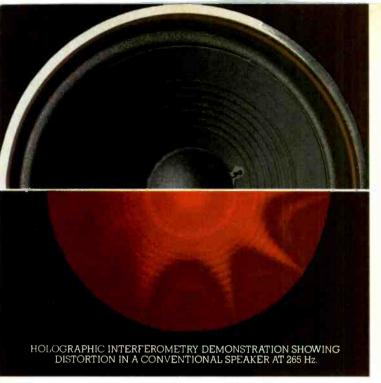
THE ONE TO WATCH,
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# They don't just reduce tape noise. They eliminate it. Technics cassette decks with Dolby\*B, C and dbx.\*

This remarkable series of Technics cassette decks represents an important technological advance in the fight against tape noise. Because unlike other decks that give you only one or the other, Technics now gives you: Dolby Binoise reduction for compatibility with your present tape collection. Dolby C for compatibility with the new "C" encoded tapes. And dbx to eliminate virtually every decibel of audible tape noise. All in one deck.



dbx is effective because it compresses a musical signal so its dynamic range is cut in half. When the tape is played back, the original dynamic range is restored, but the noise level is pushed below the level of audibility.

This allows loud passages to be recorded without distortion and soft ones without hiss.

These Technics cassette decks go on to give you computerized performance: microprocessor feather-touch controls. Music Select to automatically find any song on the tape. Music Repeat to replay a song up to 16 times. And a remaining time display to tell you how much recording is left on a tape.

In addition, there is automatic tape bias and EQ setting, expanded range [-40db to +18do] three-color FL meters to handle all the dynamic range dbx gives you, the accuracy and precision of two-motor drive and more.

Explore all of the Technics cassette decks with Dolby B, C and dbx. After all, why own a deck that just reduces tape noise, when you can own one that also eliminates it. Technics.

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AFX-150

Typically, automobile interiors

create an undesirable harmonic response in the low frequency ranges. The 180 Hz. Acoustic Compensation Control returns the bass to

its original deep, clean sound, while it allows the amplifier to run cooler.

The Auto Reverse Deck with Dual-Direction Automatic Azimuth Adjustment is more than just a convenience feature. It precisely adjusts the tapehead to achieve zeroazimuth in both directions so you won't sacrifice high end frequency response.

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The entire Audia line represents total flexibility. It will easily interface with other components, allowing you to upgrade at any time and to create the most esoteric sound system.

Audia. A state of the art accomplishment that results from a philosophy of absolute performance.



The Art of Sound in Motion.

#### **About This Issue**

Inside the Pages of April's High Fidelity

IT'S SPRING CLEANING time, so before getting to the contents of this month's issue, let me empty my files of a number of items that have accumulated over the past several weeks.

First, in late December HIGH FIDELITY/MUSICAL AMERICA selected James Levine, music director of the Metropolitan Opera, as Musician of the Year. This annual award recognizes a person for his or her cumulative contribution to classical music.

Next, several months ago I noted in this column that our MUSICAL AMERICA edition would begin carrying eight pages of classical music re-



This year's MUSICAL AMERICA Musician of the Year is James Levine (center), music director of the Metropolitan Opera. Joining in presentation of award are William Tynan (left), HF editor-inchief and associate publisher, and Steven Rosenbaum, publisher.

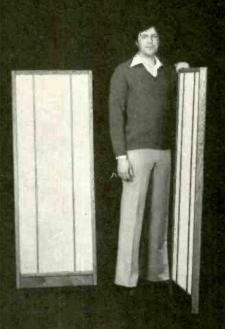
views, starting with this issue. First, the bad news: Preparation took longer than anticipated, and this additional coverage won't commence until June. And now the good news: Joining us next month as classical music editor is Theodore W. (Ted) Libbey, Jr. Many of you may be familiar with Ted's work from The Washington Star, where he was senior music critic, and from his other reviews, which have appeared in The New York Times and The Washington Post as well as in our own MUSICAL AMERICA. Ted also composed the film score for Home of Hope, has conducted several major orchestras, and served as principal percussionist of the Stanford Symphony. He will be coordinating classical music coverage in HIGH FIDELITY and our MUSICAL AMERICA edition.

Pop and jazz readers may have noticed the recent addition of Georgia Christgau to our masthead as the new BACKBEAT editor. Formerly an editor of *The Village Voice*, Georgia also served as managing editor of *Creem* and has written for *The Rolling Stone Record Guide*, among other publications.

One more loose end: In January I mentioned that several Special Editors' Reports on the Compact Disc are available. Here are some further details. Report #3: A Basic Guide to the Compact Disc contains "Key Facts About Compact Discs," "How the Compact Disc System Works," and "What CDs Will Be Like in the Future," plus reviews of 20 jazz and pop releases on CD. Report #4 includes "How HIGH FIDELITY Tests Compact Disc Players," lab tests of four players, and reviews of pop and classical CDs. These 16-page reports are available for \$2.50 each from HIGH FIDELITY, Dept. JW, 825 Seventh Ave., New York, N.Y. 10019.

And now, about this issue: In the first part of January, while much of the country was locked in snow and ice, the consumer electronics industry held its winter trade show in Las Vegas. At this exposition—the largest of its kind in the U.S.—manufacturers unveiled for their dealers all the goodies you'll soon be seeing on store shelves. Our coverage of the Winter Consumer Electronics Show begins this month with a roundup of home audio and video products and concludes next month with a survey of new car stereo gear.—W.T.

COVER DESIGN: Skip Johnston ON THE COVER: Aiwa V-5 Beta HI-Fi VCR system (left), Sanyo CP-200 Compact Disc player; photo by Steven Kupinskii Why have 50,000 music lovers purchased Magneplanar® speakers?



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#### **Letters**

#### It's the Sound that Counts

I was very surprised to find that your review of the Amber 50B [January] makes no mention of the amplifier's sound quality. Although some feel that all amplifiers with similar specifications sound the same, I am not among them. And I have read reviews of other amps and preamps in your magazine that discussed their sonic performance in detail. Most audiophiles buy equipment based on sound quality, not specifications. Please don't fail to include listening evaluations in future test reports.

Oliver Nelson Indianapolis, Ind.

We provide listening evaluations wherever we think they will be useful (in loudspeaker and phono cartridge reports, mainly). If you reread the auditioning comments in past reviews of purely electronic components (amplifiers, tuners, and the like), you'll find that they serve almost without exception to confirm the implication of the laboratory measurements: that the products have no audible flaw or distinctive sound quality so long as they are not operated beyond their limits. One function of specifications is to define those

Amplifiers may sound different from one another when they are clipped (i.e., driven into overload) or if they have significantly different frequency responses within the audible band. A variation of as little as 1/4 dB over an octave or more might be audible in careful listening, though the effect would be subtle and probably would sound like a difference in detail rather than tonal balance. Such discrepancies pale beside those between loudspeakers and phono cartridges—or even those created by changes in cartridge loading. Excessive noise or distortion also could be audible, but this is exceedingly rare in modern equipment.

For a more complete discussion of this matter, see "The Great Ego Crunchers: Equalized, Double-Blind Tests' in our March 1980 issue. Reprints are available for \$2 each, accompanied by a business-size self-addressed stamped envelope.—Ed.

#### Weill Key Changes

I found myself in general agreement with Kenneth Furie about the performance on the new Angel recording of Kurt Weill's Die siehen Todsünden der Kleinbürger [September '83]-and total agreement concerning the inadequate annotation accompanying the disc-and was surprised that he failed to mention the most important fact about this issue, namely, that it is the first recording of the work as Weill wrote it, in the original soprano keys.

As initially published (and performed on this recording), the role of Anna I rises to a healthy G and requires, at the very least, a good operetta or musical-comedy soprano. When the

piano-vocal score was later reissued (with a copyright date of 1956), it had acquired, in an appendix, a "Version for Low Voice" that transposed all of Anna I's music (40 pages out of the score's total of 82) down a fourth. This is the version recorded by Lotte Lenya and Gisela May. While books on Weill are coy or confusing on the point, surely this version must have been made for Lenya's New York City Ballet performances in the early '50s after Weill's death.

The transposition not only gives the orchestra a misleadingly dark and heavy sound but also wreaks havoc with Weill's key relationships, as the numbers in which Anna I doesn't sing (and even parts of those in which she does) remain untransposed. Since Die sieben Todsünden is, musically, one of Weill's most tightly organized pieces, to hear it with nearly half its music in other keys is misleading, to say the least.

None of this excuses Elise Ross's nebulous (and rhythmically lax) performance as Anna I on the new recording. But it is worth pointing out that the difference between the challenge facing her and that facing Lenya or May is more than a matter of being "a 'legit' singer [who] has to accomplish through security and freedom below, on, and just above the break what a singer of the Lenya-May school manages by hoisting a hefty chest register well up into the midrange." Ross isn't singing the same notes as her predecessors. (A few years ago, May performed Anna I with the San Francisco Symphony, using mostly the original keys, but singing an octave down.)

I don't blame Furie for tripping up on this one, since, on the matter of what version is recorded, the Angel packaging is silent.

Nicholas Deutsch New York, N.Y.

Kenneth Furie replies: I'm grateful to Mr. Deutsch for his valuable information and sensible speculations. The higher keys could well be a factor in the insubstantiality of the Angel performance's orchestral playing, and transpositions of a fourth would certainly change the lines of the vocal part. Even in the higher keys, though, the music is anchored at the bottom of the singer's range, where I doubt that many sopranos would feel comfortable or make much of an effect.

#### Finding "Lifeline"

In your December issue you reviewed a record by Holly Near and Ronnie Gilbert ["Lifeline"]. It is on the Redwood label, and my record dealer says he cannot order it. Do you have the address? Andrew M. Underhill Jr. Bellport, N.Y.

"Lifeline" is available from Redwood Records, Box 996, Ukiah, Calif. 95482.-Ed.

#### **Bad News, Good News**

I have had the same reliability and service problems as Ted Blishak [Letters, January]. I got three out of four cassette decks that were outof-the-box failures and had to wait anywhere from three to six months for them to be fixed.

Recently I bought my first Teac deck, which also needed repairs. Because of my past bad experience with service centers, I phoned Teac's New Jersey office for authorization to send my deck directly to them. They returned it to me in just nine days, well packed and properly repaired. Good service is hard to find these days,

and I think Teac should be lauded for its efforts.

Mrs. W. J. Placo Winsted, Conn.

Based on your February 1983 review and my overall success with JVC products in the past, I recently bought a DD-99 cassette deck, and I am exceedingly pleased with its performance and ease of operation. I have but two points of contention with your review. First, the report mentions some of the controls being a little stiff. This must be an idiosyncracy of the particular unit you tested: All of the controls on mine work very smoothly. Second, the review states that the heads are difficult to get at for cleaning. As far as I'm concerned, they are easily reached with a cotton swab, especially with the front plate of the cassette-well door removed. But as you say in the report, these are relatively minor matters.

In short, I am very happy with the deck and expect many years of faithful service from it. Bravo to JVC for a good piece of equipment and to High FideLity for an accurate test report. Walter R. Plaessmann

Edison, N.J.

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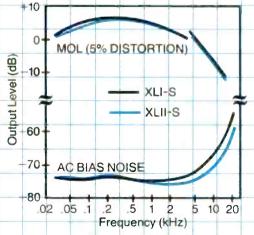
## • COMPACT DISC COMPATIBLE

Maxell introduces the new XL-S audio cassettes; a series of ferric oxide tapes which deliver a level of performance that can capture the sound nuances found on Compact Discs more faithfully than other ferric oxide cassettes on the market.

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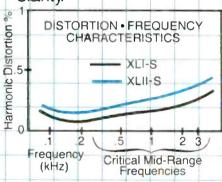


As a result, the dynamic range of each tape has been significantly expanded. So you get a

better signal to noise ratio and a fuller impact of the dynamic transients exclusively inherent to digital CD recordings.

#### LOWER DISTORTION.

The newly formulated particles also contribute considerably to XL-S's low output fluctuation, as well as its virtual distortion-free reproduction, especially in the critical mid-range frequencies. This, in turn, accounts for our XL-S tape's enhanced sound clarity.



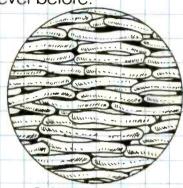
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#### **CrossTalk**

Practical answers to your audio and video questions

by Robert Long

#### Super Stereo AM

The Carver and NAD FM tuners have been hailed for their innovative methods and superior specs. Is a similar unit available with stereo AM as well as FM?—Brian Graifman, New York, N.Y.

The only component tuner we know of with stereo AM capability is the Sansui TU-S77AMX, which automatically switches itself to decode the particular variety of stereo AM transmission being received (of the four now broadcast). Its PLL (phase locked loop) synchronous detector is said to eliminate much of the noise and interference commonly associated with AM radio. Carver's new tuner, the TX-2, includes what the company says is a very high quality mono AM section.

#### **Dying Highs**

The high-frequency output fluctuates in recordings made on a Technics RS-M45 cassette deck I've had for about two years. A friend for whom I made some tapes complained that they didn't have enough highs. I once read that solenoid controls like those on my deck may cause early head misalignment. Does my deck need repair?—José A. Enríquez, Cd. Delicias, Mexico

It's true that some alternatives are gentler than solenoids in their handling of head assemblies. But if designed with this factor in mind, a head assembly should hold its alignment for a lot more than two years in normal use. I suspect that your trouble is in the relationship between the deck and the cassettes you're using. Although it's invitingly easy to blame either the deck or the cassettes for poor (or, as in your case, unstable) tape-to-head contact, it's really a problem of symbiosis. Try other major brands. You may find a combination that will solve the problem.

#### **Dynakit Classics?**

I have a collection of Dyna tubed kits—a Dynaco Stereo 70 power amp, a PAS-3 preamp, and an FM-3 FM tuner. One salesman told me they're junk and showed me a bluebook listing them at \$35. But as I left, he offered me \$75 for them. Another store said they were better than the Technics outfit I just bought and

told me not to part with them for less than \$200. I just want to know the truth. Do I keep the Dynakits as collector's items or sell them as junk?—Wes Brown, Hamilton, Ohio

Welcome to the wonderful world of technostalgia! The Dyna designs were generally excellent for their period. But that period was a long time ago (for FM tuners, especially). Also, workmanship is an unknown quantity in a kit unless the buyer has 'looked under the hood,'' and some of the parts Dynaco used were not as rugged as they might have been (preamp volume controls had a habit of turning noisy, for instance). The overriding consideration for some of today's buyers, I suspect, is that tubed equipment is now so rare that it seems glamorous even if it's not very good. The erratic valuations you've encountered spring from these conflicting viewpoints.

You don't say whether the equipment is working well, poorly, or not at all. That will make a difference in its worth and—much more important—in your assessment of how much it's worth to you. Decide on that figure; if you're offered more, take it. There's no point in saving something you don't enjoy—or throwing away something you do.

#### Stereorama

I've been reading about the Fosgate Model 101A and its use of the Tate II chip to decode the spatial effects in Dolby Stereo tracks. [See "A New Dimension for Video Sound," November 1983.] I have the ADS Model 10 digital time-delay system, and I really like its sound on records and tapes. Now I'm thinking of buying a VHS Hi-Fi stereo video recorder. Will it have any noise reduction system? And can I use the ADS with it for surround stereo, or will I need another gadget to get the effect off the tape?—Carlton Orr, Cleveland, Ohio

A noise reduction system is built into VHS Hi-Fi, but it has nothing to do with the surround stereo effect, despite the presence of the Dolby name on the surround encoding system. If you want exact decoding of that system, you'll need the Fosgate or a similar decoder. The overall effect of the ADS may be quite similar, however, and if you're already partial to it there's no reason not to use it with a Hi-Fi VCR. Meanwhile, you can seek out opportunities to hear a true

surround-sound decoder and decide whether you want it as well.

#### **Auto-Off Amp**

When I turn my system (including a Sansui AU-D9 integrated amp and Infinity RS-II speakers) to about half volume, the AU-D9's power button starts blinking after about 45 seconds and then the amp shuts off altogether. What causes this problem, and what components should I add or change to avoid it?—
Eric V. Yosas. Madison, Wis.

The amplifier's protective circuitry evidently is being triggered by excessive current flow. Though we have not tested the RS-IIs, Infinity speakers traditionally have had rather low impedances. I wouldn't expect any speaker (unless its impedance were extremely low) to draw enough current at the halfway volume setting to shut down the AU-D9, however, so check the amp for a possible malfunction before considering replacing either it or the speakers.

#### EQ for Old Discs

Before the RIAA curve became standard, you published a column called "Dialing Your Discs" that recommended LP equalizations. I want to tape a bunch of old records, using either tone controls or an ADC ten-band equalizer to achieve the correct playback equalization. Could you give a nontechnical explanation of how to set the controls a little more accurately than by ear?—Jack Burke, Chicago, Ill.

Considering the big differences between tone controls-and the bigger ones between records (sometimes even from the same label) in the early years of the LPyour ear is still likely to be your best reference. For broad adjustments, particularly where a lot of boost or cut is necessary (say, in taming the shricking high end of early Oiseau-Lyre LPs), tone controls are probably the easiest to use and will give you smooth curves. Because of its added flexibility, the ADC unit will do better for touching up individual ranges—a weak mid-bass or a peaky high end, for instance—but the more controls an equalizer has, the more difficult it is to set right.

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



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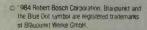


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#### The Autophile

Going on the road with stereo

by Gary Stock

#### Letters from The Road

THIS MONTH 1 TURN my attention to the Autophile mailbox, with answers to some of your most interesting and offbeat questions. Next month 1'll have special expanded coverage of the new car stereo gear introduced at the Winter Consumer Electronics Show.

The only sizable flat surface in my hatchback's interior is the large panel in the rear that runs below the sloping window. The panel hides luggage and parcels from prying eyes and can be folded down when necessary. Since most people feel that rear speaker placement is best, would this panel be suitable for a set of 6-by-9s?

Yes, if you're willing to do a little bit A of work. If the "modesty panel" (that's what it's called in the car biz) is made of metal, rigid plastic, or heavy particle board with relatively little flexure, you can proceed as though the panel were simply a big, movable rear deck. Make your speaker holes using the appropriate saw, and bolt the speakers firmly into place. Because a modesty panel doesn't provide an airtight seal between the passenger area and the luggage compartment beneath, you'll need to construct some kind of enclosure around the backs of the speakers-1/4inch plywood boxes will do nicely. (If you don't want to build enclosures for the drivers, try placing foam weather stripping along the edges of the panel to help seal off one compartment from the other.)

If your modesty panel is made of flimsy, upholstery-covered cardboard, you should replace it with a sturdier panel. Use waterproof plywood or good heavy particle board. After bolting down the speakers, cover the panel with carpeting or upholstery, and remember to build enclosures on the underside to baffle the drivers.

Going to all that trouble will probably give you a sassy-sounding system: The horn loading effect of the hatchback will improve efficiency, while the slightly distanced and yet symmetrical placement of the primary sound sources should give a good stereo image. It's no wonder that high-end installation shops have full woodworking facilities in their service bays.

Q I've been waiting patiently for the car stereo manufacturers to sort out the matters of stereo AM and radio traffic-information services before choosing a new AM/FM/cassette unit. But I don't want to wait forever. When will we know what the electronics bigwigs are going to do?

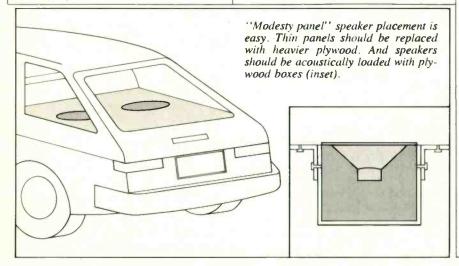
Most of the electronics executives I talk with spend a good part of their day trying to figure out what consumers really want, pondering and then putting off decisions on big issues like stereo AM formats and traffic-information circuits because they're hesitant about committing millions of dollars for tooling and advertising. This creates a particularly frustrating chicken-and-egg situation, the kind I've seen repeated dozens of times in the audio business.

To answer your question directly, neither I nor anyone who makes car audio gear knows when or whether stereo AM or traffic-information circuitry will catch on enough to be incorporated universally into radios. As an educated guess, I would venture that stereo AM will make it into many factory-supplied radios within the next two years (Delco, the giant in that business, seems to think consumers will want it) and into after-market units a short while later. As for traffic information, it's becoming popular in the densely trafficked Northeast, but until radio stations on the West Coast or in Sunbelt and Midwestern cities decide to adopt it, I don't see it approaching national demand. [Late word from Blaupunkt indicates that its ARI traffic-information service will be available soon in Detroit and should arrive in the Los Angeles area in time for the Summer Olympics.—Ed.]

After spending more than \$700 for a sound system for my sports car, I'm plagued by intermittent whining and crackling noise reproduced through the speakers. It's worst when I'm listening to AM, but even on tape I sometimes hear it. The installer suggests that I change my spark plug wires, but insists that he can't eliminate the noise.

If it's any consolation, your problem A. is not an uncommon one. Performance-oriented cars put the accent on horsepower, often with attendant compromises in the degree of anti-RFI (radio-frequency interference) measures employed. Your car may not have the suppressor spark plug wires, alternator bypass capacitor, and shielded wiring found on more plebian passenger cars, either to save weight or to improve the ignition system's efficiency under demanding driving conditions. All of these can be added-with some minor resultant cut in engine performance—as can more effective anti-RFI devices, such as power supply isolating chokes and filter capacitors for any electrical motors in the car. (The motors used for heater fans and electric window mechanisms are notorious sources of intermittent noise.)

By his refusal to track down the sources of the noise, your installer is being negligent. In our view it is an installer's responsibility to deliver a music system that's reasonably noise-free or else to inform you when you pick up the car that persistent noise problems are present and will cost x amount to cure. (I can't imagine a case where that amount would exceed \$100 or so, including labor.) The installer's job is to integrate a system properly with the car you bring him, and if he is not expert enough to accomplish that, you should insist on a partial refund.



13

#### **Basically Speaking**

Audio concepts and terms explained

by Michael Riggs

#### How HF Tests Cassette Decks: Part 2

LAST MONTH I EXPLAINED (in considerable detail) the way we measure the frequency response of cassette decks and the significance of the various curves we publish. Frequency response is the primary determinant of how any audio component sounds—provided noise and distortion are low enough to make listening a pleasure rather than a chore. This is something you can pretty much take for granted with modern electronics, and with a little care, it needn't be a serious concern in cassette recording.

Two things are required: Your cassette deck must have enough dynamic range, and you must take full advantage of it. Dynamic range is the difference (in decibels, or dB) between the softest and loudest sounds that can be recorded. It is limited at the bottom by the noise floor and at the top by the overload point (usually taken as the level at which third harmonic distortion reaches 3 percent).

You can determine the noise floor by looking at the figures for signal-to-noise (\$/N) ratio in the data column of our test reports. Diversified Science Laboratories makes separate measurements for each tape type (Type 1 ferric, Type 2 chrome or ferricobalt, and Type 4 metal) without noise reduction and with each of the noise reduction options available on the deck. These indicate how far below the standard DIN 0-dB recording level the noise floor is. Because the same reference level is used for all noise measurements, the results are directly comparable between decks. And the CCIR/ARM weighting-which simulates the ear's noise sensitivity with respect to frequency—is very similar to the Aweighting curve we employ for most other components.

Good cassette decks using good, lownoise tape typically deliver signal-to-noise ratios of a little more than 50 dB without noise reduction. Normally, the best results are obtained with Type 4 and (especially) Type 2 tapes, because of their 70-microsecond playback equalization. The more aggressive 120-microsecond EQ for Type 1 tapes puts them at a 2- to 3-dB disadvantage out of the gate. Even the particular brands and formulations used affect the results, because some have less inherent noise than others. But since we use the specific tapes for which the manufacturer adjusts the deck at the factory, our measurements reflect the best results you could expect from the machine out of the carton.

Unfortunately, a signal-to-noise ratio of 53 or 54 dB is seldom enough to prevent the addition of audible noise to music recordings. Indeed, more than any other single development, the Dolby B noise reduction system was responsible for transforming the lowly cassette (originally designed for dictating machines) into a high fidelity medium. Dolby B adds about 10 dB to the signal-to-noise ratio, making it pos-

#### Your cassette deck must have enough dynamic range.

sible to copy from most LPs or FM broadcasts without any audible accumulation of tape hiss, provided that you set recording levels correctly. All component cassette decks incorporate the Dolby B system.

Audiophile LPs and the prospect of digital Compact Discs spurred the introduction of more powerful noise reduction systems, such as Dolby C and DBX. The former adds about 20 dB to a deck's basic signal-to-noise ratio, the latter about 30 dB. Some sources are now good enough to demand these advanced noise killers, and they can also be used to make quiet recordings from less demanding sources with cheap tape. Most of the time, however, you can do without them; the less noise reduction you can get by with, the better, to minimize the potential for audible side effects.

The other side of the dynamic-range equation is headroom: how far above DIN 0 dB you can record without generating excessive distortion. In our test reports, this information is noted parenthetically next to the indicator readings for 3 percent distortion at 315 Hz. These figures added to the corresponding signal-to-noise ratios give the dynamic range for each tape type. To make your tapes as quiet as possible, you should try to use all of the available headroom. With most music, this can be achieved by setting recording levels so that the indicators peak at the midrange 3-percent distortion point (the figure just left of the headroom rating). However, with music

unusually rich in highs, this may cause dulling of the treble. The solution is to back off on the recording level until the highs are restored. If that doesn't work, it probably means that the deck's bias or Dolby tracking is not properly adjusted for the particular tape formulation you are using.

Distortion below overload should be reasonably low, although no analog tape recorder will give amplifier-like performance in this category. Included in our data are total harmonic distortion (THD) from 50 Hz to 5 kHz at -10 dB DIN and at 315 Hz at DIN 0 dB. And if you are using Dolby noise reduction, it is important that any 19kHz stereo pilot leakage be eliminated from your FM tuner's output when you are recording off the air, to prevent Dolby mistracking. For this reason, every component cassette deck includes a multiplex (MPX) filter. Its response (tabulated in our data column) should be nearly flat at 15 kHz and as far down as possible at 19 kHz.

Speed accuracy and flutter are two of the most basic measures of tape deck performance. The former is not particularly critical, however: Deviations of as much as 2 percent either way from the correct speed usually are tolerable. Nonetheless, we prefer to see it within 1 percent, especially if you do much swapping of tapes between machines. DSL uses an ANSI weighted peak flutter measurement that is more stringent and revealing than the weighted root mean square (WRMS) method employed by most manufacturers, which accounts for our typically somewhat higher figures. No high fidelity cassette deck should have more than ±0.2 percent peak flutter. As a rule of thumb, we consider  $\pm 0.15$  percent good,  $\pm 0.1$  percent very good, and  $\pm 0.07$ percent or less excellent.

When you rerecord a cassette, the previously recorded material must be erased before the new program can be laid down. This is the task of a special erase head just upstream of the recording head, which is automatically activated when the deck is in the recording mode. We like to see at least 60 dB of erasure at 100 Hz (i.e., the level of previously recorded information should be reduced by at least 60 dB). Metal tape is unusually retentive, however, with the result that many decks erase that well only with Type 1 and 2 tapes. As in other stereo components, midrange channel separation should be at least 20 dB, the line input impedance should be high (at least 10,000, or 10k, ohms, preferably 20,000 or more), and the output impedance should be low (preferably 1,000 ohms or less).

#### **New Equipment Reports**

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

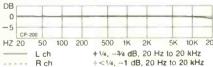


#### Sanyo's Best-Buy CD Player

Sanyo CP-200 Compact Disc player. Dimensions: 13¼ by 3¼ Inches (front panel), 10¾ Inches deep plus clearance for disc drawer (front) and laser housing (back). Price: \$550. Warranty: "limited," two years parts and labor. Manufacturer: Sanyo Electric Co., Ltd., Japan; U.S. distributor: Consumer Electronics Div., Sanyo Electric, Inc., 1200 W. Artesia Blvd., Compton, Calif. 90220.

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

#### FREQUENCY RESPONSE



DE-EMPHASIS ERROR

+1/4, -1/2 dB, 1 to 16 kHz

CHANNEL SEPARATION (at 1 kHz) 961/2 dB

CHANNEL BALANCE (at 1 kHz) ±<1/4

SIN RATIO (re 0 dB; A-weighted) without de-emphasis

98 dB 1021/2 dB

with de-emphasis 1021/2 dB

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

at 0 dB <0.01% at -24 dB <0.052%

WHEN WE FIRST HEARD, last summer, that Sears was readying a Compact Disc player in the \$600 price bracket, we were stunned. Everyone had thought it would be many months before player prices dropped that much. But here we are already, testing a \$550 model from a major manufacturer. How much performance or convenience do these newcomers force you to give up? On the basis of the Sanyo CP-200, we'd say not much.

The touch-panel controls are very simple and, in our experience, foolproof. In addition to the usual PLAY, PAUSE, and STOP, there are "access" controls that step the cueing toward the end or beginning of the disc, band by band. You can program the bands in any order by pressing PROGRAM to step the indicator to the desired number and then MEMORY to enter it, repeating the process for each selection you want in your playback sequence. Individual bands can be included more than once in the sequence.

A mistake is corrected (unless you've already gone on to the next programming

step) by pressing CLEAR. REPEAT will recycle the sequence until you cancel it, or, if you haven't programmed the player, it will recycle the entire disc with the bands in their normal order. As on many players, there's no provision for using the indexing function within bands, but most CDs are not indexed anyway.

The front-panel area just to the right of the disc holder acts as an open/shut button. The holder itself, protected from dust by a transparent door, is a drawer that slides out for insertion or removal of the disc. Popping a disc into the drawer couldn't be simpler, but getting it out isn't quite so easy. The only system we could arrive at (in the absence of any hints from the owner's manual) was to poke the disc upward with one hand-reaching a finger through an opening in the underside of the drawer and pushing on the "spindle" area-and grasp it with the other. It's not difficult, but similar drawers whose sides are cut away, enabling you to pick up the disc by its outer edges with one hand, are even handier.

There is one other control feature,

Report Policy: Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of High FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read

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PHILIP LYMAN

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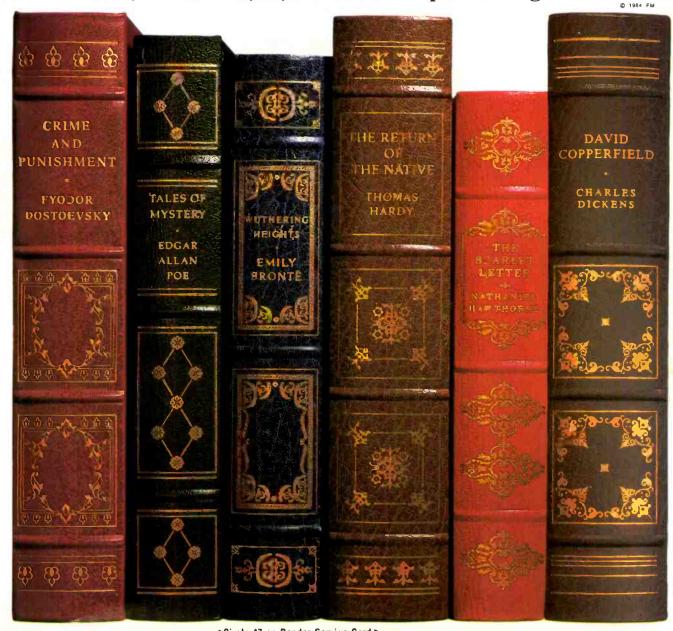
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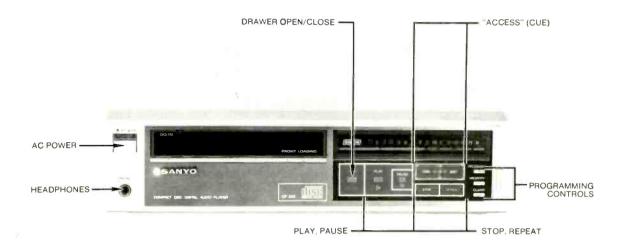


Dyna•Mite M/80 suggested retail \$129.95 each

## Thanks Koss



INTERNATIONAL HEADQUARTERS / 4129 N. Port Mashington Ayenue Milwaukee, Wisconsin 53212 Facilities Canada, England, Florida, France, Ireland



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

300 Hz to 20 kHz) 0 to -30 dB

< 0.01%

LINEARITY (at 1 kHz)

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

at -80 dB +11/4 dB at -90 dB +43/4 dB

TRACKING & ERROR CORRECTION

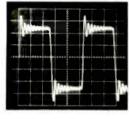
maxlmum signal-layer gap = 600 μm = 800 μm = 800 μm = 800 μm simulated-lingerprint test = pass

MAXIMUM OUTPUT LEVEL line output 2.03 volts

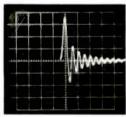
headphone output 7.07 volts
OUTPUT IMPEDANCE

line output headphone output 470 ohms 235 ohms

SQUARE-WAVE RESPONSE (1 kHz)



IMPULSE BESPONSE



though presumably it will work only with other Sanyo components. It is a mini jack on the back panel for an interconnection that synchronizes the player and a cassette deck, for easy dubbing. (The only reason we can imagine for copying a CD to cassette is for car or personal-portable use: To pay for a CD and then pass up its unique sonic qualities is like using mink to make earmuffs.)

The manual is fairly good, despite its tendency toward simplemindedness and uncolloquial English—the third of six languages included, all sharing a single set of illustrations at the front, which makes for some confusion. It does fail to mention one of the two transit screws that must be loosened before the player will work, but both are specified on a bottom-panel sticker. And neither can easily be lost: One is a captive screw, and the other is held in a threaded storage hole when it's not needed, so both are ready to go if you ever have to ship the player. We hope other manufacturers will adopt this arrangement.

The CP-200's performance is remarkable, considering its price, which is to say that it doesn't quite measure up to the standards of the best models we've tested. Frequency response, for example, is the least flat we've measured in a CD deck, though it's superb by the standards of any other sort of playback equipment—including FM tuners.

Impulses and square waves, however, show no more ringing than average, while distortion figures are better than average at normal music levels. At very low levels (-80 and -90 dB), compression and distortion measure somewhat higher than usual. This may be due, in part, to the marginally higher noise level of the Sanyo compared with most of the models we've tested recently, but again, the differences are small in any event and virtually nonexistent in contrast to the measurements you might expect from analog players.

Though the CP-200 performed flawlessly at all levels of the fingerprint and black-dot tracking and error-correction tests, it repeated (like a needle in a "stuck groove") when information-layer interruptions on the test disc exceeded 600 micrometers (µm). It behaved perfectly on music, however, even when playing CDs with visible scuffs.

For most music lovers, then, the CP-200 will do essentially everything the \$1,000 players will except perform some special programming functions—including any involving the promised (but seldom included) indexing feature of the discs. Thus, you stand to gain little in convenience and hardly anything in audible performance even if you're willing to spend twice as much. That puts the Sanyo in a class with few other consumer products.

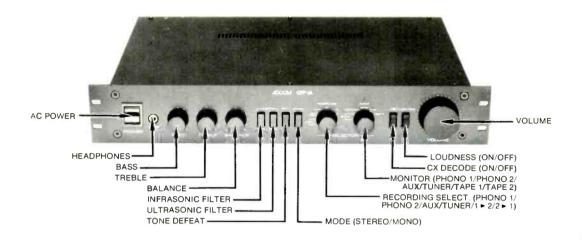
Circle 115 on Reader-Service Card

#### Adcom's Full-Featured Preamp

IF HIGH FIDELITY has traditionally been an industry of little companies offering finely crafted specialty products, then Adcom is heir to that tradition. This is the first time we've tested its electronics, and we're deeply impressed. Without indulging in any fussy folderol, the GFP-1A gives us just about everything—in features, technology, and performance—that we've ever really

wanted in a preamplifier. A built-in CX decoder is the most areane element in a scheme that is mainly a canny combination of good sense and good engineering.

There are two input selectors: one for recording—including dubbing in either direction between the two decks for which switching and connections are provided—and one for listening. The latter, labeled



Adcom GFP-1A preamplifier, with built-in CX dynamic range expansion for disc playback. Dimensions: 19 by 3 inches (front panel), 12 inches deep plus clearance for controls and connections. AC accessory outlets: two switched (400 watts max total), one unswitched (600 watts max.). Price: \$375. Warranty: "limited," one year parts and labor.
Manufacturer: Adcom, 11 Eikins Rd., East Brunswick, N.J. 08816.

OUTPUT AT CLIPPING (1 kHz)

main output headphone output 11.3 volts

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz)

FREQUENCY RESPONSE

+0, -1/4 dB, <10 Hz to 21.1 kHz; +0, -3 dB, <10 Hz to 78.1 kHz

RIAA EQUALIZATION (either phono input)

+1/4. -3/4 dB. 20 Hz to 20 kHz:

-7 dB at 5 Hz

SENSITIVITY & NOISE (re 0.5 volt; A-weighting)

sensitivity S N ratio aux Input 32.5 mV fixed-coll phono\* 0.52 mV 79 dB 681/2 dB moving-coil phono 135 uV

PHONO OVERLOAD (1-kHz clipping)

320 mV fixed-coll phono' moving-coll phono\* 84 mV

INPUT IMPEDANCE

57k ohms aux input

fixed-coll phono\* 47.6k ohms; 55, 175, or 235 pF moving-coil phono

150 ohms

**OUTPUT IMPEDANCE** 

main output 475 ohms 950 ohms tape output headphone output

CHANNEL SEPARATION (at 1 kHz) 581/2 dB

ULTRASONIC FILTER -3 dB at 29.5 kHz: 12 dB/octave

INFRASONIC FILTER -3 dB at 22 Hz: 12 dB/octave

"Fixed-coil" phono measurements made through the Phono 2 input; "moving-coil" phono measureme through Phono 1 with sensitivity switch set at 0.5 mV. "input," has positions for both decks (for monitoring). Other inputs include tuner and aux-here called "DAD/video," in recognition of Compact Discs (otherwise known as digital audio discs) and videodises or tapes with stereo sound.

The GFP-1A also has two separate phono inputs. Both can be used with most fixed-coil and high-output moving-coil phono cartridges; additionally, they offer options that cater to more specialized needs. Phono I has a sensitivity switch that cuts in a head amp to accommodate lowoutput moving-coil pickups, while Phono 2 has a three-position switch that selects nominal shunt capacitances of 47, 150, and 220 picofarads (pF) for the benefit of cartridges whose response depends on the load capacitance. Together, these options cover all the cartridge contingencies you might reasonably expect to confront.

In the recent past, some records were made with CX encoding. To decode these signals correctly and thus recover the recordings' full dynamic range, the switchable CX circuitry built into the GFP-1A's Phono 2 preamp must be adjusted to the sensitivity of your cartridge. Adcom supplies a pair of calibration LEDs and a pair of screwdriver adjustments, all on the back panel near the Phono 2 connections, and a calibration disc. You play the record, check the LEDs for a HIGH or LOW indication, and adjust each channel until both LEDs go out. That's it. You need not touch the adjustments again until you change cartridges.

If you want to use other signal-processing equipment, such as an equalizer, you can attach it to back-panel jacks normally fitted with short jumper cables similar to those across the pre-out/main-in connections on some integrated amps and receivers. There is no front-panel switching for this option: If you will want to disable the outboard device temporarily without replacing the jumpers, it must have its own bypass switch. There also are two sets of main output jacks on the back panel.

The Adcom's mono switch-like those on all other preamps we know of—is "downstream" from the tape connections (that is, in the monitoring section of the preamp, rather than in the section that feeds the recording outputs). But evidently it is unbuffered from them, because when you're monitoring and recording the same input source and push MONO, the two channels are combined in the recording feed as well as in the main output to the amplifier.

Sometimes this is a useful optionone that even the owner's manual (written in straightforward, thoroughly idiomatic American English, for a change) fails to recognize. For instance, if you're setting up to record and want to be sure that the deck's channel balance is properly set-which is difficult in stereo-the mono switch will instantly turn a stereo source into an appropriate "test signal." If you turn the main (monitor) selector to a different source. however, the recording feed reverts to stereo because it's no longer tied to the portion of the preamp circuitry where the mono switch is located.

The advantage of having separate monitoring and recording selectors is that you can record or dub from one source while you listen to another. Since there are two completely separate phono preamps (not just separate inputs, as in many other preamps), you can even tape from one disc while listening to another. At the same time (and unlike some other preamps with dual selectors), no combination of switch positions can create a feedback loop by making a tape deck its own recording source. The system is, in short, very well thought out.

The tone-defeat button is normally in the defeat position: You push it in to switch the tone controls into the circuit, implying (not unreasonably) that their use is the exception, rather than the rule. Apart from the BALANCE, which is next to the tone controls, and therefore some distance from the VOLUME (with which it is naturally associ-



What comes out of your audio cassette deck is only as good as what goes in. And if you want unmatched dynamic performance, you need the highest performance audio cassette you can get. You need a TDK Pro Reference Series cassette. Each is designed to maximize the untapped potential of your cassette

deck by generating clear, crisp, fullbodied sound.

Take our SA-X high-bias cassette. It offers you a degree of sound clarity, quality and fidelity virtually unmatched by any other cassette on the market. Its exclusive dual coating of Super Avilyn particles provides optimum performance for all frequency ranges. And SA-X's super-wide dynamic range and higher MOL handle high signal levels without distortion or saturation.

You also get high-powered performance from TDK's famous MA-R metal and AD-X Avilyn-based normal-bias cassettes. And to make

sure the energy never fluctuates, each TDK cassette is protected by our specially engineered cassette mechanisms for reliable, troublefree performance. Plus a Full Lifetime Warranty.

Before you waste energy on any other brand, put more life back into your cassette deck with TDK's Pro Reference Series cassettes. They're pure Sonic Tonic.



# EVEN FANATICS CAN BE REASONABLE.



V-300—DC Servo Capstan Motor. Soft-Touch Transport Control. Brilliance Circuitry (High End Boost). Dolby B NR.º 8-dot LED L & R Peak Meters. Auto MPX Filter.

3 Step BIAS/EQ Selector. Record Mute. Timer Capability. LED Lights for Rec/Rec Mute/Pause. L & R Input Level Control. V-350C—Same features as V-300 plus
Dolby B&C NR. V-400X — DC Servo Capstan Motor. IC Logic Transport Control. dbx NR.º dbx Disc.º Dolby B NR.º 13-dot LED L & R Peak Meters. Auto MPX Filter.

3 Step BIAS/EQ Selector. Memory Stop. Auto Rec Mute to 4 seconds. Timer Rec/Play Capability. L & R Input Level Control. Output Level Control. V-500X—Same features as V-400X plus Dolby C NR.º Cobalt Amorphous Head. Multi-Electronic Counter w/TRT (Tape Run Time). Memory Play/Stop. Block Repeat.

If it were up to us there would be only one Teac model. We would simply build into it every advancement, every feature, and the most impressive specs our unceasing devotion to recording science has made possible.

But even Fanatics have to be reasonable. And if we only built Teacs that encompassed everything we're capable of, you'd have an immoderately magnificent deck only a few could own. Therefore, though we never compromise, we do offer options. You can own a Teac which is merely superb. Or one that is unbearably superb. Each priced in fair proportion.

The marvelous thing about Teac is that you can go as far as you want, but you can never go too far.

TEAC MADE IN JAPAN BY FANATICS.

COPYRIGHT 1983 TEAC CORPORATION OF AMERICA. 7733 TELEGRAPH ROAD, MONTEBELLO, CA 90640. \*DOLBY: IS A REGISTERED TRADEMARK OF DOLBY LABORATORIES, INC. \*\*dbx\*\(^0\) IS A TRADEMARK OF DOLBY LABORATORIES.

ated), the controls are all very logical and easy to use, requiring a bare minimum of cogitation and squinting when you need them.

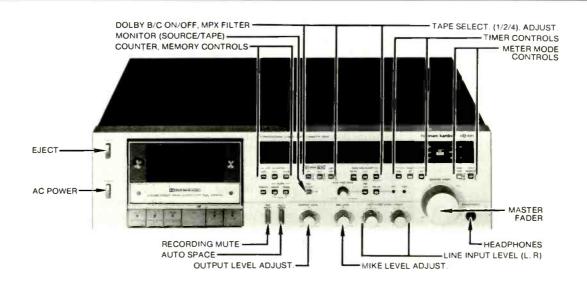
The loudness compensation follows modern research, affecting the very deep bass moderately, the very high treble only slightly, and the range in between hardly at all. Maximum compensation is applied when the VOLUME is set at nine o'clock or below, where Diversified Science Laboratories measured a rise of about 6 dB per octave below 150 Hz or so and a similar rise above 15 kHz.

The tone controls also concentrate on the frequency extremes. The TREBLE has virtually no influence below 1 kHz and offers a maximum boost/cut spread of about ±6 dB at 6 kHz and ±12 dB at 15 kHz. The BASS is a little less well behaved. At some settings it slightly influences the response above 1 kHz, and at many it produces a small "overshoot" in the midrange (centered somewhere around 500 Hz), creating about a 1-dB rise in this range at cut settings

and a corresponding droop for boost settings.

The switchable infrasonic filter is exemplary, adding almost 30 dB of attenuation at 5 Hz (where most record warps are concentrated) to the 7 dB of rolloff inherent in the phono preamps, but with very little influence on the audible band (above 20 Hz). The ultrasonic filter is equally effective within its range (above 25 kHz) and impinges even less on the audible band (below 20 kHz).

That response and distortion measurements are above reproach goes almost without saying. The headphone output has its own gain stage (which some other preamps don't), and the feel and appearance of the controls further inspire confidence. Had we not been delighted by what we heard through the GFP-1A, we would have been astonished. But the only real surprise was the price, which is modest relative to those of some of the high-tech preamplifiers to which its performance invites comparison. Circle 111 on Reader-Service Card



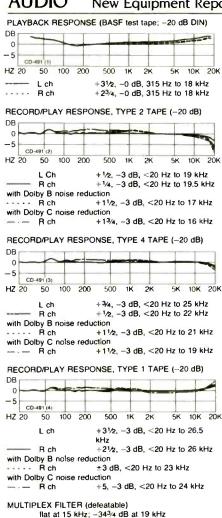
#### Harman Kardon's Best Deck Made Better

Harman Kardon CD-491 cassette deck, with Dolby B and C noise reduction and Dolby HX Pro headroom extension. Dimensions: 17½ by 4½ inches (front panel), 12½ inches deep plus clearance for controls and connections. Price: \$785. Warranty: "limited," one year parts and labor. Manufacturer: made in Japan for Harman Kardon, inc., 240 Crossways Park West, Woodbury, N.Y. 11797.

ABOUT TWO YEARS AGO, when Harman Kardon unveiled its new line of cassette decks, it doubtless hoped to continue its tradition of offering something a little out of the ordinary, combining both good performance and good value. For a company that is not strictly a tape specialist, its track record in this respect has been remarkable, and the new line did a good job of maintaining it—as our test report on the flagship CD-401 documents (August 1982).

That model is now replaced by the CD-491, which is quite similar in appearance, performance, features, and price. Its looks are perhaps a little more convention-

al, and it has a new closed-loop dual-capstan transport for reduced flutter, but it retains the Dolby HX Pro headroom extension, which we considered an important (and relatively radical) element in the original design. And the CD-491 has addressed some of the earlier model's weaknesses. The owner's manual, which we found to be poor the first time around, is now in reasonably communicative English. The controls have been rearranged to group them more logically. And the left- and right-channel meters are now arrayed one above the other (rather than side by side), making it much easier to assess stereo signals.



S/N RATIO (re DIN 0 dB; R/P; CCIR/ARM-weighted) Type 2 tape Type 1 tape Type 4 tape without noise reduction

511/2 dB 501/4 dB with Dolby B noise reduction 601/4 dB 611/2 dB 62 dB with Dolby C noise reduction 703/4 dB 701/4 dB 691/4 dB

INDICATOR READINGS FOR DIN 0 DB (315 Hz) 0 dB (with 1.8% THD) 0 dB (with 0.66% THD) Type 4 tape +1 dB (with 0.89% THD) Type 1 tape

INDICATOR READINGS FOR 3% DISTORTION (315 Hz) +3 dB (for +2 dB DIN) Type 2 tape +7 dB (for +61/2 dB DIN) Type 1 tape +5 dB (for +31/4 dB DIN)

DISTORTION (THD at -10 dB DIN; 50 Hz to 5 kHz) Type 2 tape Type 4 tape  $\leq 0.60\%$ ≤ 0.44% Type 1 tape ≤ 0.57%

ERASURE (at 100 Hz)

651/4 dB Type 4 tape 471/2 dB

CHANNEL SEPARATION (at 315 Hz) 441/2 dB

Furthermore, the "ballistics" switch for the metering, which we considered only marginally useful, has been replaced by an indicator-EQ button. This enables you to read signals during recording either with or without equalization. The EQ option (provided by some other manufacturers as well) delivers a metering sensitivity curve that is roughly parallel to the tape overload curves. As a result, the meters will read the level as approximately the same number of dB below (or above) overload no matter what frequencies are present in the signal. This is not true of conventional (unequalized) meters, which display absolute signal values and therefore fail to warn that, for example, a 10-kHz tone at -10 dB may be closer to overload than a 500-Hz tone at 0

The CD-491 also provides all the usual features: timer and memory/counter modes, Dolby B/C and multiplex-filter switching, muting/spacing, and so on. There are selectors for Type 1 ("LN" ferric), Type 2 ("chrome"), and Type 4 (metal) tapes. Like most manufacturers these days, Harman Kardon has not allowed for recording on Type 3 ferrichromes (which require, roughly, Type 1 bias combined with Type 2 recording equalization), but the 70-microsecond playback EQ of the Type 2 and 4 settings also is correct for Type 3 tapes.

There are separate test-tone buttons and adjustments for bias and level (Dolby tracking) calibration, but not for each tape type individually. The bias control is a knob with a detented "normal" position in the center, so you can easily return to it as a reasonable approximation for good branded tapes if you're too rushed to run the full matching procedure, which takes about half a minute with most tapes. The recessed screwdriver Dolby trimmers (for which a special tool is supplied with the deck) have no "normal" calibration. Because any adjustment affects all three tape settings, recalibration is in order after you have used a tape whose sensitivity is sufficiently nonstandard to require settings near the extremes of the screwdriver controls' range.

Perhaps in an effort to limit the damage should this stricture not be observed, Harman Kardon has kept the control ranges relatively narrow. As a result, we found that we could barely reduce the bias enough for best results on some samples of TDK D (the company's least souped-up ferric) and could just get sufficient recording-level gain for good Dolby tracking with BASF Pro II. (A true chrome, Pro II is presumably closer to the IEC Type II standard than are the more sensitive ferricobalts for which the Type 2 settings on most decks are adjusted.) If you try recording on very old tapes, you may find them beyond the adjustment range in one or both respects. (And because the CD-491's metal tape erasure is somewhat below par, you may want to bulk or double erase any Type 4 cassettes before reusing them.)

Diversified Science Laboratories used TDK SA ferricobalt for most of the tests, TDK MA metal for those with Type 4 tape, and Maxell UDXL-I ferric for Type 1. In each case, the tape-matching procedure was carried out before measurements were tak-

To further align the testing procedure to the way users are expected to operate the machine, the lab fully advanced the master fader-identified in the manual as a convenience feature for fading in or out during recording-and adjusted recording levels at the separate line input controls for each channel. (There also are quarter-inch phone-jack mike inputs on the back panel, whose levels are influenced by the master fader, but not by the line adjustments. This enables you to mix line and mike inputs by adjusting the level of the former at the separate knobs and the level of the combined signals at the master fader.)

Frequency response with all three tapes and noise reduction options is considerably flatter than average. The Type 1 Dolby C curve wanders a little, but most decks exhibit a good deal more waywardness in this respect. The very top ends are not particularly flat, however. Above 5 kHz or so, the Type 2 curves start rolling off very gradually, while the Type 1 curves begin rising toward a moderate peak; only the Type 4 curves are quite flat to above 10 kHz. But except at the extreme top of the range (near the limits of typical adult hearing), the CD-491's behavior is near-exemplary.

So is the response at very high levels. Because of the HX Pro circuit, the 0-dB curves for this deck are as good as those at -20 dB for many run-of-the-mill models. With the Type 4 tape, they are perfectly flat to beyond 10 kHz, and the Dolby C curve is, if anything, even better than that shown here at -20 dB. The Type 1 high-level curve is excellent, too, and although there is some compression as low as 2 kHz with the Type 2 tape, it is no slouch either.

#### **A Quick Guide** to Tape Types

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

Type 0 tapes represent "ground zero" in that they follow the original Philips-based DIN spec. They are ferric tapes, called LN (low-noise) by some manufacturers, requiring minimum (nominal 100%) bias and the original,

"standard" 120-microsecond playback equalization Though they include the "garden variety" formulations. the best are capable of excellent performance at moderate cost in decks that are well matched to them.

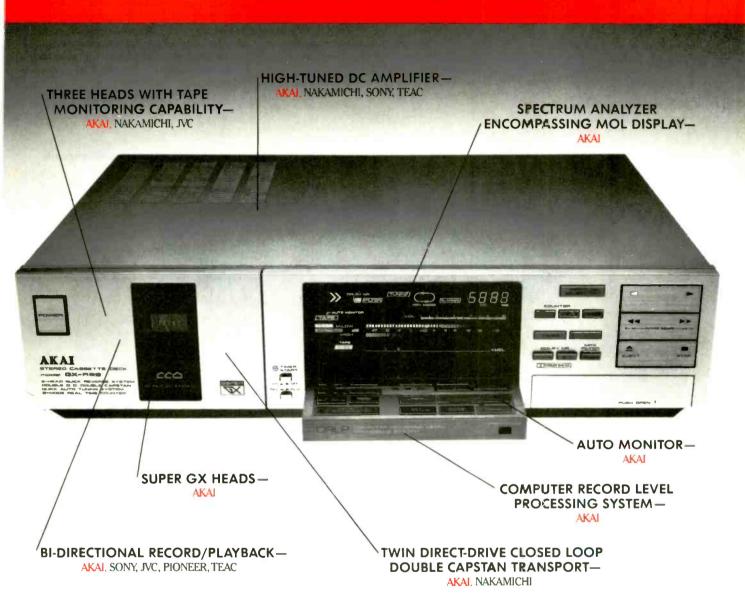
Type 1 (IEC Type I) tapes are ferrics requiring the same 120-microsecond playback EQ but somewhat higher bias. They sometimes are styled LH (low-noise, highoutput) formulations or "premium ferrics.

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

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

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

## YOU'RE LOOKING AT THE SIX BEST AUTO-REVERSING DECKS YOU CAN BUY.



Staying ahead of the competition in autoreversing cassette decks has been an AKAI tradition for the past 14 years. Now we're introducing the all-new GX-R99, a deck that has so many advanced features you'd have to buy six other auto-reversing decks to get them all. Features like our Computer Record Level

Features like our Computer Record Level Processing System, that sets a tape's bias, equalization and tape sensitivity, measures a tape's MOL, then sets the optimum recording level. A Spectrum Analyzer encompassing MOL display, which displays frequency response with greater accuracy. AKAI's exclusive Auto Monitor. And our super GX heads. So super, they're guaranteed for 17½ years of continuous play.

It's easy to see why the GX-R99, just one of four great AKAI auto-reversing decks, is called the Dragon Slayer. And to find out why it's getting

more praise than all the other guys combined, write to AKAI, P.O. Box 6010, Dept. H9, Compton, CA 90224.



#### **AUDIO**

#### **New Equipment Reports**

0.50 volt

| 110010                            | THEN LYU        | ipinent    |  |
|-----------------------------------|-----------------|------------|--|
| INDICATOR "BALLIST                | rics" .         |            |  |
| Response time                     |                 | 5 msec     |  |
| Decay time                        |                 | 980 msec   |  |
| Overshoot                         |                 | 0 dB       |  |
| SPEED ACCURACY                    | 0.6% fast, 105  | to 127 VAC |  |
| FLUTTER (ANSI weigh               | hted peak; R/P) | ±0.060%    |  |
| SENSITIVITY (re DIN 0 dB; 315 Hz) |                 |            |  |
| line input                        |                 | 33 mV      |  |
| mike input                        |                 | 1.0 mV     |  |
| MIKE INPUT OVERLO                 | AD (clipping)   | 45 mV      |  |
| INPUT IMPEDANCE                   |                 |            |  |
| line input                        |                 | 18.8k ohms |  |
| mike input                        |                 | 500 ohms   |  |
| OUTPUT IMPEDANCE                  | -               | 720 ob     |  |
| OUTFUL IMPEDANCE                  | =               | 730 ohms   |  |
|                                   |                 |            |  |

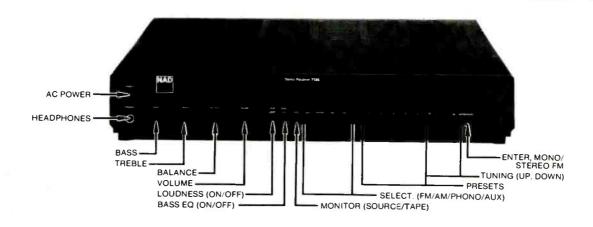
MAX. OUTPUT (from DIN 0 dB)

The manual recommends that momentary peak levels be allowed to go no higher than +1 dB on the meters with Type 2 tape, +5 dB with Type 4, or +3 dB with Type 1. This would allow you to drive Type 1 tapes 2 dB harder than Type 2 tapes, which would help compensate for the latter's reduced high-frequency headroom and, in any event, seems consistent with the lab's findings on distortion at DIN 0 dB and midrange headroom at 3 percent distortion. Correct level setting is also facilitated by the metering's basic design, which provides good range (-30 to +10 dB), resolution (1-dB steps between -3 and +3 dB), and

action (including a two-second retention of the top cursor when the peak-hold function is engaged).

Harman Kardon has a long history of individuality in its approach to cassette gear, and the CD-491 is no exception. Nor is it an exception to the company's generally sterling priorities in deck design. Though one user's frill is another's basic necessity, the features and functions of this deck have been chosen with a canny eye to real utility at an affordable price. In that sense, it is certainly one of the best top-of-the-line decks around.

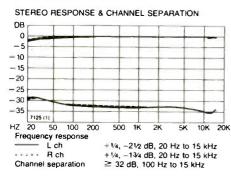
Circle 112 on Reader-Service Card



#### A Budget Receiver From NAD

NAD Model 7125 AM/FM receiver. Dimensions: 16½ by 3 inches (front panel), 9½ inches deep plus clearance for controls, heat sink, and connections. AC convenience outlet: one unswitched (unrated). Price: \$300. Warranty: "limited," two years parts and labor. Manufacturer: made in Japan for NAD (USA), Inc., 675 Canton St., Norwood, Mass. 02062.

#### FM tuner section



NAD HAS BUILT ITS REPUTATION on offering maximum musical performance per dollar, putting as little as it could into flashy faceplates, proprietary circuitry of greater theoretical than audible virtue, and glitzy new features-the elements with which most manufacturers seek to bedazzle. In the process, it has created an elegant minimalism, housed in charcoal brown with neat rows of square buttons and usually outperforming competing models at higher prices. The 7125 makes no pretense of confronting the flagship receivers from the Japanese giants, however; essentially, it is an effort at making as simple and inexpensive a receiver as possible without abandoning high fidelity.

The row of buttons at the center of the front panel (just to the right of the LOUD-NESS and BASS EQUALIZATION, which we'll describe later) provides input and tape monitor switching. (There is only one set of tape connections on the back panel, so if you want to dub, you must connect the source deck to the aux input.) Farther to the right are five presets, each of which will accept one FM and one AM frequency. The tuning steps up or down in discrete hops if you simply tap the control, or at high speed if you keep it pressed in. The increments are 50 kHz (a quarter-channel) in FM and 10

kHz (a full channel) in AM.

To "memorize" a station, you press the rightmost button and then whichever preset you want. But the memory button has two other functions as well. If you hold it in for about two seconds while you're tuned to an FM station, it will switch the reception mode—from stereo to mono or back. (Only FM enjoys the mono option.) And if you press in this button while you're tuning, it will increase the scan speed to a dizzying blur.

The only other front-panel controls are those for level (VOLUME and BALANCE) and for various forms of equalization. Used for moderate boost or cut, the TREBLE shelves above about 2 kHz; at its extreme settings, it has its maximum effect just shy of  $\pm 10$ dB at 20 kHz. The BASS is a little broader in its coverage—both in maximum boost and cut and in frequency range. Relative to the unadjusted response curve, it can deliver about ±11 dB of equalization below 50 Hz. At moderate settings, it shelves in a manner similar to the TREBLE except that it overshoots a little in the region between 500 Hz and 1 kHz. In particular, it produces a slight boost in this region when adjusted for bass

According to NAD, the LOUDNESS is

#### THE ONLY WAY YOU WILL BUILD A BETTER DIGITAL AUDIO PLAYER IS IF YOU KNOW MORE ABOUT DIGITAL AUDIO.

While other manufacturers talk of "second generation" CD Players, Denon has already produced 5th generation PCM Digital Recorders (having first developed the process of digital recording in 1972).

While CD software makers are just now experimenting with microphone placement to improve digital sound, Denon has already recorded over 650 digital titles and pressed many of the

In the process Denon discovered that the key to musicality in a CD player is the reduction of distortion in the digital-to-analog (D/A) conversion process. Therefore, Denon uses two D/A

converters in the DN-3000FC Professional CD Player and Direct

Digital-to-Analog Circuitry (DDAC) in the new DCD-1800.

The DCD-1800 also adopts the DN-3000FC's single-pivot transport system for greater shock resistance, and fastest access time. This speed makes possible unprecedented CD operational ronvenience (ex., 10-key Direct Program Access, Block Repeat, Program Sampling and Index Location Cueing).

While other manufacturers are trying to build cheap CD players that sound like a good deal, Denon builds one that sounds a good

deal better.

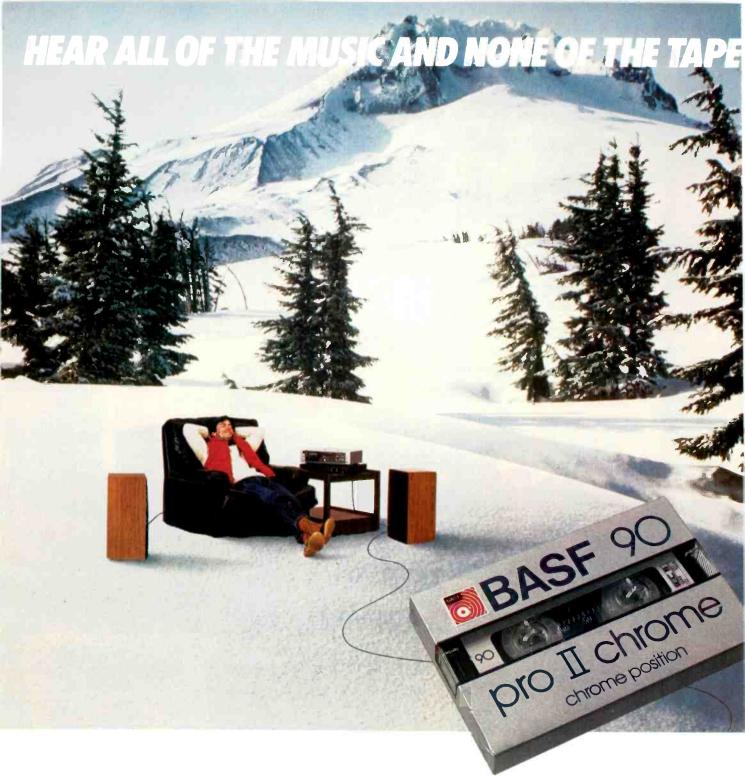


CR 20 W W W S





# G



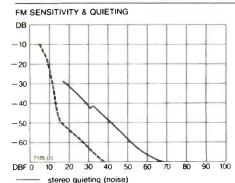
#### SWITCH TO BASF CHROME AUDIO TAPE

#### THE WORLD'S QUIETEST TAPE

If you won't settle for anything less than pure music, accept nothing less than BASF Pure Chrome audio tape. Unlike ferric oxide tapes, BASF Pure Chrome is made of perfectly shaped chromium dioxide particles. And the exclusive Chrome formulation delivers the lowest background noise of any tape in the world, as well as outstanding sensitivity in the critical high frequency range. And this extraordinary tape is designed especially for the Type II Chrome Bias position. So make sure you're hearing all of the

music and none of the tape. Make the switch today to the world's quietest tape. BASF Chrome.

BASF
Chrome Audio & Video Tapes



Stereo sensitivity (for 50-dB noise suppression)

411/2 dBf at 98 MHz, with 0.35% THD+N (41 dBf at 90 MHz; 391/2 dBf at 106 MHz) Mono sensitivity (for 50 dB noise suppression) 163/4 dBf at 98 MHz

| Stereo threshold             | 161/2 dBf |
|------------------------------|-----------|
| Stereo S N ratio (at 65 dBf) | 683/4 dB  |
| Mono S/N ratio (at 65 dBf)   | 753/4 dB  |
| ,                            |           |

CAPTURE RATIO 2 dB

SELECTIVITY alternate-channel adjacent-channel

65 dB 61/4 dB

#### HARMONIC DISTORTION (THD+N)

|                      |                              | Stereo | MONU   |
|----------------------|------------------------------|--------|--------|
|                      | at 100 Hz                    | 0.32%  | 0.175% |
|                      | at 1 kHz                     | 0.17%  | 0.059% |
|                      | at 6 kHz                     | 0.18%  | 0.095% |
|                      | STEREO PILOT INTERMODULATION |        | 0.062% |
| IM DISTORTION (mono) |                              |        | 0.032% |

AM SUPPRESSION 631/2 dB PILOT (19 kHz) SUPPRESSION 77 dB

SUBCARRIER (38 kHz) SUPPR. >100 dB

Amplifier section

RATED POWER 14 dBW (25 watts)/channel

OUTPUT AT CLIPPING (at 1 kHz; both channels driven)\*
8-ohm load 16 dBW (40 watts)/channel
4-ohm load 171/4 dBW (53 watts)/channel

DYNAMIC POWER (at 1 kHz)\*

8-ohm load 1634 dBW 4-ohm load 18 dBW 2-ohm load 19 dBW

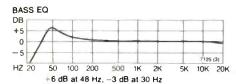
DYNAMIC HEADROOM (re rated power, 8-ohm load) +23/4 dB

HARMONIC DISTORTION (THD; 20 Hz to 20 kHz) at 14 dBW (25 watts) ≤0.050% at 0 dBW (1 watt) ≤0.032%

FREQUENCY RESPONSE + < 1/4, -1 dB, 22 Hz to 21.5 kHz; + < 1/4, -3 dB, 15 Hz to 37.6 kHz

RIAA EQUALIZATION + 1/4, -3 dB, 22 Hz to 20 kHz; -40 dB at 5 Hz

SENSITIVITY & NOISE (re 0 dBW; A-weighting) sensitivity SIN ratio aux input 37 mV 81 dB bhono input 0.59 mV 77 dB



'At 8-ohm setting: see text.

designed to alter response only at relatively low volume settings, but over the 20-dB range of Diversified Science Laboratories' measurements, its effect does not vary. The bass below 100 Hz is lifted about 5 dB above 1-kHz response, while the top octave or so of the treble is raised 3 to 4 dB. This is quite moderate as loudness compensation circuits go. If you want a more extravagant effect, you can always supplement it at the tone controls. But we think NAD was quite right not to build it in.

The most interesting of these controls, perhaps—and certainly the most unusual—is the bass EQ. It very much resembles the bass equalizers that are part of some "electronically assisted" loudspeaker designs. The EQ adds a boost below the woofer resonance frequencies of typical small speakers to maintain their response below 100 Hz. Starting at about 45 Hz, it rolls off steeply to prevent record warps and other very low frequency noise (or music) from overdriving the amp or the woofers.

If your speakers have adequate deep bass response, you won't need this feature. (NAD even warns that its 6 dB of boost can cause excessive amplifier clipping at very loud playback levels.) But with speakers more in keeping with so modest a receiver, it can be valuable. So can the infrasonic filtering, though even with the EQ disengaged the electronics roll off at about 20 dB per octave below 15 Hz. There also is a rolloff in the ultrasonic region: about 10 dB per octave above 37.6 kHz, in DSL's measurements. This band limiting is intended to minimize distortion caused by unwanted signals outside the audible range. The importance of the additional infrasonic filtering built into the EQ will depend both on the magnitude of the warps in your records and on the behavior of your speakersparticularly if they're ported systems.

The only other adjustment on the receiver is a back-panel switch to match the amplifier's output characteristics to the impedance of your speakers. According to the manual, this switch normally is preset to the 8-ohm position on units delivered in this country, and DSL left it there for most of the bench tests. The 4-ohm position is for use either with 4-ohm speakers or with paralleled pairs of 8-ohm speakers, though the latter setup is not recommended and there are no output connections or switching for a second speaker pair.

NAD says that available output power into typical 8-ohm speakers (with a minimum impedance of 4 to 6 ohms) is greater with the switch in the high-impedance position. But the manual also warns that use of

this setting with loads of lower impedance running at high volume levels may overheat the amplifier—a consideration that the lab's tests seem to confirm. At the 4-ohm setting, the usable per-channel output is decreased somewhat: to 15½ dBW (33 watts) continuous at clipping into 4-ohm loads (13½ dBW, or 24 watts, into 8 ohms) and to 16 dBW (40 watts) dynamically into 4 ohms (14½ dBW, or 27 watts, into 8 ohms).

So even at the 4-ohm setting, output power is adequate, particularly in small rooms or at moderate listening levels. At the 8-ohm setting, approximately 2 dB more power is available (depending on which measurement you look at)—enough to justify a rating of 40 watts per channel, perhaps, and certainly more than a bare minimum in a modestly priced receiver. Distortion is not quite as low as we're used to seeing these days, but the difference is not enough to be worrisome.

The FM sensitivity is a little better than that of some relatively spiffy receivers we've tested, but it isn't in prizewinning territory either. We don't know what to make of the discontinuity in the stereo quieting curve between 30 and 35 dBf, but it doesn't seem to cause any problems in actual use. Beause there is no signal-strength display or any other antenna-tuning aidonly single LEDs to indicate reception of the main carrier and stereo pilot—the 7125 probably is not a good choice for deepfringe areas. Thus, the receiver's lack of muting (except during the actual tuning process) and good but not excellent sensitivity must be evaluated in the context of suburban or urban listening, where it's not likely to matter anyway. Capture ratio is acceptable, selectivity is very good, AM suppression is excellent, and pilot and subcarrier suppression are superb. The AM section strikes us as better than average.

Perhaps the strongest aspect of the whole design, technically, is dynamic range. The FM noise figures are unusually low (it's rare that the stereo quieting curve goes right off the bottom of our graph, as it does here), and the figures for the phono and aux inputs need make no apologies either. Admittedly, the 7125 is not a very flexible receiver, but a great many music listeners don't need the extra inputs, switching, and other features that make typical receivers cost so much more. And this one has something that they very seldom have: a manual that speaks to you on an adult level in a style that is informative, comprehensive, and comprehensible. Circle 113 on Reader-Service Card

PHONO OVERLOAD (1-kHz clipping) 175 mV

INPUT IMPEDANCE aux Input phono input

160k ohms 48.6k ohms; 110 pF OUTPUT IMPEDANCE (to tape)

400 ohms

DAMPING FACTOR (at 50 Hz)

95

CHANNEL SEPARATION (at 1 kHz) 68 dB

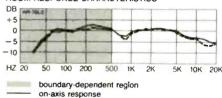
### AR Combines Past and Present



Acoustic Research AR-78LS loudspeaker system, in wood enclosure with walnut veneer finish. Dimensions: 15 by 2634 inches (front), 1134 inches deep (including 2-inch grille). Price: \$430 each. Warranty: "fuli," five years parts and labor. Manufacturer: Teledyne Acoustic Research, 10 American Dr., Norwood, Mass. 02062.

ROOM RESPONSE CHARACTERISTICS

off-axis (30°) response



SENSITIVITY (at 1 meter; 2.8-volt pink noise, 250 Hz to 6 kHz) 913/4 dB SPL

AVERAGE IMPEDANCE (250 Hz to 6 kHz)
6.5 ohms

BACK IN THE SIXTIES, Acoustic Research began producing what is now viewed as a classic loudspeaker: the appropriately named AR-3, a three-way acoustic suspension system with dome-diaphragm drivers for both midrange and highs, in addition to the usual cone-diaphragm woofer. The company changed details (creating the AR-3a, AR-5, and AR-2ax as near-clones of the original model) but kept the basic design in continuous production until it was overtaken by the new loudspeaker technology of the late Seventies. Acoustic Research was a leader in that technological revolution. Now, the company has used its newly honed computer-assisted design techniques to create the AR-78LS, combining past and present in a single model.

It, too, is a three-way system having a sealed (acoustic suspension) enclosure with an interior volume of approximately two cubic feet. The woofer, a 12-inch cone, is crossed over at 700 Hz to a 11/2-inch dome midrange unit, which crosses over at 5 kHz to a 3/4-inch dome tweeter. The drivers all represent modern engineering and construction methods. Particularly notable is the way the two domes are combined in a single magnet and mounting structure to minimize the spacing that creates interference patterns between drivers in the crossover range-a technique first used in the company's flagship model, the AR-9LS (test report, December 1982).

For the same reason, the midrange/tweeter assembly has been kept as close as possible to the woofer. And to promote good stereo imaging, all three drivers are aligned vertically along the baffle's center line. They are covered by a brown stretch grille fabric, which is held about two inches away from them by a lightweight plastic frame. Spring-loaded connectors for the signal leads are recessed into the back panel.

The speakers are large enough to be placed on the floor without looking lost or aiming their treble output at your ankles. The owner's manual contains a very sensible, informative discussion of speaker placements, the tradeoffs involved, and the use of tone controls to ameliorate the effects of less-than-ideal placements. It suggests putting the speakers on the floor, against the back wall, and at least two feet from the nearest side wall. Diversified Science Laboratories followed this advice in testing the AR-78LS. In this position, the on-axis response is quite flat, with a dip of about 3 dB near 800 Hz, a slight prominence centered on the region between 200 and 250 Hz, and a very gradual rolloff toward the top of the range

The resulting balance strikes us as very natural—neither shrill (as speakers with

flatter top ends sometimes are) nor dull. When we moved the speakers out into the room, we did find that they needed a little bass boost at the tone controls (just as the manual had predicted), and a slight reduction in treble also seemed in order. But the manual makes plain that this is not the best position for the speakers.

Measured off-axis response is very close to the on-axis response, implying that the tonal balance will remain much the same even when you move out of the ideal listening area. Our auditioning confirmed this, as well as the excellent stereo imaging that the vertical alignment of the drivers seemed to promise. (AR says that because the drivers are so close together, the imaging will be acceptable even if you turn the speakers on their sides, but we'd prefer to give them their best shot in this regard.)

The AR-78LS's sensitivity is fairly high, aided by its moderately low impedance, which draws more power from typical transistor amplifiers than would a higher impedance. AR rates the impedance at 3.6 ohms minimum, 4 ohms nominal. These figures are very close to the lab's measurements on the test sample, whose impedance curve ripples between a high of just over 14 ohms (at 40 Hz) and a low of just under 4 ohms (at 100 Hz and 4.5 kHz). Our pinknoise "music band" measurement shows an average of 6.5 ohms. These numbers add up to a single conclusion: The AR-78LS's impedance is low enough to make parallel connection of two pairs unwise, but high enough to make the load of a single pair safe for any competently designed amp.

Power handling, too, is excellent. AR rates the speaker for amplifiers to 200 watts, but in the 300-Hz pulse test the lab fed it more—all the test amplifier could deliver—with no sign of strain. In the process, it got out a whopping calculated peak sound pressure level (SPL) of 119 dB. Distortion at 100 dB SPL (the lab's highest test level) averages about 1 percent from 63 Hz up, which is better than par. At lower test levels, the distortion also is lower, averaging about ½ percent at the moderate test level of 85 dB SPL.

Nobody needs proof that the fundamentals of the old AR speakers were sound: Their popularity and longevity established that beyond question. Nor do we need any proof that modern computer-assisted design nets results, for any given speaker type, that are dramatically superior to those of the old-fashioned cut-and-try school. Using contemporary techniques, Acoustic Research has taken a classic configuration, retained all that was best about its past incarnations, and made it radically better at the same time.

Circle 110 on Reader-Service Card

#### **UPDATE**

The suggested list price of the Technics SL-P7 Compact Disc player we

reviewed last month has been reduced to \$600.

#### **Retsoff's Remedies**

Simple solutions to common system problems

by Alexander N. Retsoff

#### **Switcher Salvation**

IF YOUR VIDEO SETUP is like most people's, it is arranged to do only one thing: route signals to a TV set. But should you want to do something different—say, dub from one VCR to another or send the stereo output of a videodisc player to a Beta Hi-Fi deck—you'll be confronted with the chores of tracing signal paths through a snaggle of cables, of reconnecting components, and eventually of putting things back in their original configuration. However, with one additional component and a little bit of planning, you can eliminate many of these signal-routing headaches.

The extra component is a video switch box. One of the two main varieties handles RF signals only; the other switches direct video and audio signals. A good example of the former is the Channel Master Model 0770 (see "Hands-On Report," March 1983). It can route one of four RF signals (from an antenna, video game console, VCR, or videodisc player, for example) to one of three receivers for viewing or recording. Thus, you can tape a broadcast while playing a video game or view a videodisc on the main TV receiver while your kids watch a videotape on another set.

Such RF switchers are inexpensive (around \$50), and they do have limitations. They handle only RF signals, so audio and video information must be modulated onto a carrier (usually Channel 3 or 4) by the VCR or videodisc player and subsequently demodulated at the receiver. Running a signal through needless modulation/demodulation stages, however, increases audio and video noise and distortion. You should also realize that an RF link can accommodate mono audio only.

A direct audio-video switch box is a better choice for the component-TV enthusiast. These devices handle the separate baseband signals: standard composite video and ordinary audio. They'll route any video signal to your monitor or VCR's video input and simultaneously shunt the companion audio (in mono and sometimes stereo) to whatever receiver you wish. Because direct switchers must manage three signals simultaneously, they are more complex and therefore more expensive than the RF-only variety, but they offer increased control of your system with less noise and distortion. Of course, if you have a plain-Jane TV set with just an RF input,



you won't be able to use a direct switcher unless you interpose a modulator between it and the set.

Some switchers are hybrids, controlling RF as well as direct signals. For instance, the Showtime Video Ventures Model 5000S (see "Hands-On Report," March 1983) not only feeds one of four RF signals to one of two receivers, but also accomplishes direct switching by routing any of four audio-video inputs to any of four outputs. In addition, this model enables you to switch an external video processor into the direct-video lines, albeit at the expense of one set of video inputs and outputs. This capability is especially welcome, since some direct-video switch boxes do not provide a means for inserting a video processor between various inputs and outputs without unplugging and replugging cables-the nuisance a switcher is supposed to eliminate.

Audio signal processors do not fare as well as their video brethren, even with sophisticated switchers. If the processor is operated strictly for listening, it can be hooked into an unused tape-monitor loop (or external-processor loop) on your preamp or between your preamp and power amp. But if the processor has applications in the recording chain as well as in the listening chain (an equalizer or noise reducer, for instance), I know of no audio-video switcher on the market that lets you make the swap.

The secret to getting the kind of flexi-

bility you need is planning. Before you invest in a component video setup, make a series of signal-flow charts, one for each viewing and recording situation you'll require. Keep the audio and video signal lines separate in your diagrams. If you have a video component capable of recording or reproducing a stereo soundtrack, you'd be well advised to choose a direct audio-video switcher.

Be sure to include only those components needed in each chain. For example, you'll probably want to put your stereo simulator (and the means to defeat it) in the audio listening chain, but not in the recording chain. Even if your VCR is capable of stereo recording, feeding it a pseudostereo signal doesn't make much sense. The simulation won't be any better if it's done prior to recording, and the audio signal-to-noise ratio of the VCR is likely to be slightly worse in stereo than in mono.

Now compare your diagrams. Which devices are always connected and which get reordered or even defeated under certain conditions? Components that stay connected can be permanently wired together and considered as one. Also, some special-purpose processors are equipped with their own bypass switching, in which case there's often no need to provide external switching for them. From these drawings you should now be able to determine exactly what signal-routing capabilities you need. Your task now is to find the right switcher. Good hunting!

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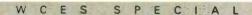
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# VHS Hi-Fi, second-generation Compact Disc players,

8mm video, and more at the Las Vegas Winter Consumer Electronics Show.



integrated amp and

PROTON .930 receiver (top)

#### ELECTRONICS

FOR SOME REASON, every Consumer Electronics Show brings a great wave of new power amplifiers, so it was no surprise to see plenty of them at this winter's gathering. What's peculiar is the dearth of other electronic offerings, receivers especially. Normally, receivers constitute the bulk of the semiannual introductions-which means, I suppose, that there will be a veritable riptide of them six months from now at the Summer CES.

Perhaps the most interesting of the new models that were on display is Pioneer's top-ofthe-line receiver, the SX-V90 (\$800), with switching for three video sources (and their associated audio) in addition to a full complement of conventional audio inputs. A switchable stereo simulator and DNR (Dynamic Noise Reduction) round out its video-oriented features. The SX-V90 is rated at 125 watts (21 dBW) per channel into 8 ohms and incorporates

the Direct Digital Decoder circuitry developed for the company's F-90 tuner (see test report, October 1983).

Proton has introduced its first home receiver, the Model 930 (less than \$400), which includes the Schotz FM detector circuit for improved sensitivity and a soft-clipping circuit in the amplifier section. Sansui offers two new low-price receivers: the S-X1030 (\$250) and the S-X1050 (\$300), rated at 25 and 35 watts (14 and 151/2 dBW), respectively. The latter also is distinguished by a builtin five-band graphic equalizer. Radio Shack's introductions are likewise at the low end: the STA-450, a \$160 receiver rated



puts essentially the same sensitivity-enhancing, interferencebucking circuitry used in the company's remarkable TX-11 (test report, January 1983) in a smaller, less expensive (\$375) package with six prescts, rather than 16. The TX-2 also includes an AM section. NAD's 4125 attacks the same problems with a novel dynamic high-blend circuit-developed by Larry Schotz-whose action is keyed to both signal strength and modulation level. It is said to increase the tuner's effective stereo sensitivity and to reduce the audible ill effects of multipath interference without degrading the stereo image. This new circuit replaces the original Schotz variable bandwidth detector used by NAD in the 4150

A more mundane but nonetheless very practical bent is evident in the Pioneer F-101T (\$270), which has a built-in clock/timer that can be programmed to turn the tuner and any other components connected to it on and off at selected times twice a day. Amber's Model 7 (\$350) is a digital AM/FM tuner designed to match its other components. The Technics ST-G7 (\$400) has a pulse-

tuner (test report, May 1983).

100 dB. It also has an automatic IF-bandwidth selector. And Denon has two new tuners: the \$350 TU-767 and the \$275 TU-747. The first is particularly interesting because it incorporates the company's new "Super Searcher System," which is said to enable you to tune out multipath or adjacent-channel interference.

#### AMPLIFIERS

Denon also has a new integrated amplifier—the PMA-737 (\$300)—rated at 60 watts (17¾ dBW) per channel. It incorporates "Dual Super Non-NFB" circuitry to minimize distortion while maximizing stability. And Mission, which never before offered an integrated, now has two, both said to be capable of driving difficult loudspeaker loads.

Every year we see at least a few new power amplifiers that look like they should come with a baby elephant to help you tote them home from the store. The 90-pound Quicksilver MX-190 falls into this category. Rated at 95 watts (19¼ dBW) per channel (or about a watt per pound), this sophisticated tube design sells for \$2,495. Quicksilver's 65-watt (18¼-dBW) mono amp is priced at \$495.

to beyond 135 kHz without ringing or distortion, according to the company.

PIONEER packs

a video switcher into the

Because it has no output transformers, Counterpoint's SA-4 mono tube amp (\$4,495) weighs only about half as much as the above-mentioned monsters. This direct-coupled design is rated at 100 watts (20 dBW) into 8 ohms and 200 watts (23 dBW) into 16 ohmsthe reverse of what one would expect from a similar solid-state amp. Audio Research now has a big brother to its D-70 tube amp-the D-115 (\$2,995), rated at 115 watts (201/2 dBW) per channel into 16 ohms. And Precision Fidelity has two new power amps. The all-tube M-7B is a dual-mono unit rated at 85 watts (191/4 dBW) per channel with an amazing 6 dB of dynamic headroom. The M-8 is a hybrid design using tubes at the input and transistors at the output. It is rated at 100 watts (20 dBW) per channel into 8

ohms (with 2 dB of dynamic headroom).

Also in the no-feedback camp is Threshold with its Series II line of Stasis amplifiers, ranging from the S-150 (\$1,375), rated at 75 watts (18¾ dBW) per channel into 8 ohms, to the mono S-1000 (\$3,450), rated at 500 watts (27 dBW). Improvements include higher current capability (for better performance into lowimpedance and highly reactive loads), increased damping factor, and suppression of turn-on and turn-off transients. Other companies with new high-current designs include Streets Electronic Systems, with its 95watt (193/4-dBW) Model 950 (\$1,950), and Robertson Audio, with its Model Sixty Ten (\$2,550), rated at 200 watts (23 dBW) per channel into 8 ohms, 400 watts (26 dBW) into 4 ohms, and 1,600 watts (32) dBW) into 1 ohm.

All of the above power amplifiers are fairly hefty units. Bucking that trend is Soundcraftsmen's 23-pound PCR-800 (\$450), which uses MOS-FET output devices and what the company calls "Phase Control Regulation" to deliver 205 watts (231/4 dBW) into 8 ohms and 300 watts (243/4 dBW) into 4 ohms. Also using MOS FETs are Acoustat, in its \$795, 120watt (203/4-dBW) TNT-120 (built according to the same design principles as those of the highly regarded TNT-200. which we reviewed in November 1982), and Symmetry, in its Defined Operation amplifier, rated at more than 100 watts (20 dBW) per channel.

All American Audio has



two new Sumo power amps. The Polaris (\$400) uses MOS FETs to deliver 100 watts (20 dBW) per channel into 8 ohms, 175 watts (221/2 dBW) into 4 ohms, and 300 watts (243/4 dBW) into 2 ohms. The Class A Model Nine+ (\$780), a redesigned version of the Nine, is rated at 65 watts (18 dBW) per channel into 8 ohms and 120 watts (203/4 dBW) into 4 ohms. Tandberg is using a MOS-FET output stage in its new TPA-3006A (\$995), and Technics has introduced a 150-watt (213/4-dBW) power amp-the \$700 SE-A5MK2—employing its "New Class A" sliding-bias circuit to eliminate switching distortion

A number of manufacturers are marketing new secondstring preamplifiers that cost

introduced its SA-2 preamp for \$800. Threshold's FET Two Series II (\$1,190) boasts a very simple circuit topology, in which the signal passes through a minimum of active devices ROBERTSON SIXTY TEN, the

(all carefully selected fieldeffect transistors). Counterpoint has a new low-price tube preamp, the \$495 SA-7, and a tube moving-coil pre-preamp, the \$450 SA-6. And NAD is offering an update of its Model 1020 (test report, December 1981), with a switchable highgain option for low-output moving-coil pickups and a mono switch in place of the MUTE. Price for the 1020A is \$200.

Post 7

The Technics SU-A6MK2 preamp (\$500) contains an eight-position input selector: Four can switch audio only, the other four both audio and video. Precision Fidelity's C-8 (\$595) is a hybrid tube/transistor design, which the company says allows for a combination of high gain, excellent performance, and moderate price. B&K sticks to transistors in its PRO-10, using them in a configuration that yields a constant-feedback active RIAA equalizer in the phono stage.

Sansui's C-2301 (\$2,700) is a high-performance preamp

with a built-in moving-coil step-up transformer and both balanced and unbalanced outputs. It is intended primarily for use with the company's \$2,600 B-2301 Super GF power amplifier. Audio Research was showing its top-of-the-line SP-10 tube preamp (\$3,450), as well as its "budget" SP-12 model (\$995).

Power amps abound: THRESHOLD S-500 (top),

SUMO POLARIS

from ALL AMERICAN

Several new moving-coil step-up devices made their first appearance at the show. Certainly the most intriguingly named is John Curl's latest design, the Vendetta Research SCP-1 (\$750), which uses a direct-coupled circuit consisting of a complementary FET pair operated without feedback. Symmetry says that computer modeling was required to arrive at the design of its AS-1 Defined Operation pre-pream-

less than their top models while retaining a strong family resemblance in both looks and circuitry. Perreaux, for example, has plifier. And finally, Carver has what it says is its first "feature-less" product: the MC+ mov-

ing-coil step-up transformer, priced at \$130.

"sandwich" head in which the

-Michael Riggs

#### TAPE EQUIPMENT

SO FAR, THIS DOESN'T look like a startling year in audio tape equipment-though it is an important one for magnetic recording media. This winter's Consumer Electronics Show was the first at which I could find no new open-reel consumer decks of any description. In the future, that may well be the rule, rather than the exception. Even cassette deck introductions were limited in number, though you'll find several intriguing new models in stores this spring.

Nakamichi has added to its unidirectional automatic-reverse line. (The first and least expensive model, the RX-202, was the subject of a test report in the February issue.) All models turn the cassette around (rather than swiveling the head assembly) to achieve both bidirectionality and the rock-solid azimuth performance of nonreversing decks. And the new decks have Nakamichi's Diffused-Resonance dual-capstan transport and Silent Mechanism transport control.

In addition to the RX-202's features, the \$890 RX-303 includes a bias adjustment to fine-tune the deck to the tape, a skip feature, and a switchable infrasonic filter. To that the \$1,090 RX-505 adds a monitoring head scheme (separate heads for recording and playback—not, as Nakamichi hastens to point out, a two-in-one

elements are not individually adjustable), an automatic recording-pause feature like that on the Nakamichi Dragon (which switches from recording to recording-pause and rewinds to just after the last recorded signal when it senses a silence longer than 45 seconds), and two cueing speeds (one-third and one-sixth normal fast-wind speeds).

The company also has in-

The company also has introduced two moderately priced models without the reversing mechanism but styled to resemble the RX series. The BX-150 (\$495) comes equipped with Dolby B and C; the BX-100 (\$349) passes up Dolby C and the 150's output level control. Both have dual-speed master faders, repeat, and Silent Mechanism transport controls. And both come in a silver finish, in addition to the traditional Nakamichi black.

If long continuous playing time is the name of your game, Sony has a bidirectional deck that should interest you. The playback-only MTL-10 (\$250) with Dolby B will hold ten cassettes in each JL-10 magazine (one is supplied, additional magazines cost \$15). Tapes can be played in any order, and such features as repeat and blank skip further automate music listening. You can even set the playback EQ for each tape in advance. Sony also offers the more conventional TC-K666ES (\$650), with completely separate "laser amorphous" recording and erase heads, Dolby B and C, and a direct-drive threemotor transport.

Akai, too, is selling a pair of new decks that reverse automatically in recording as well as playback. The more elaborate—the \$800 GX-R99—includes a multimode system for optimizing recording parameters. A quick-evaluation auto-

matic bias/EQ/level adjustment scheme can also identify the overload characteristics of the tape and adjust the deck accordingly. There are three display modes in the metering: peak, "VU," or dual-frequency, the last for measuring the spectral distribution of energy in the source signal. Also, an automatic level adjustment option is provided.

Most of the GX-R99's features—including Dolby B and C, off-the-tape monitoring, dual-capstan direct drive, quick reverse, quick memory search, blank search, and intro scan—are shared by the \$600 GX-R88. For more modest budgets, Akai has the unidirectional HX-1C (\$200) with Dolby C.

Teac's new mid-price decks resemble the Z Series models introduced a year ago (see our test report on the Z-6000 last May) but are without their more professional-oriented features. Even so, all have monitoring heads, program search, Dolby B and C, and adjustable bias. The \$725 V-900X does its tape-tuning adjustments automatically and is fitted with Teac's CA (Cobalt Amorphous) heads. It includes DBX noise reduction as well as Dolby. The \$600 V-800X offers DBX too; the "budget" model is the \$475 V-700X.

Denon introduced two

dual-capstan monitoring-head decks at the Consumer Electronics Show: the \$600 DR-M44 and the \$500 DR-M33. The latter has a manual bias adjustment; the flagship uses automatic tape matching and has a servo-controlled direct-drive capstan motor. Both employ Denon's nonslip reel drive to keep tape tension more nearly constant throughout the cassette length.

A new model in Kenwood's Basic Series is the \$350 X-1. It has a "computerized" random-access music-search system and an advanced constant-current head-drive circuit. Pioneer's CT-A9 (\$800) includes all the convenience features that have become more or less standard on that brand's best decks but adds a bias-shaving option: Higher than normal bias maximizes midrange headroom, while lowered bias maximizes high-frequency headroom

Two entries from Technics are both moderate-price automatic-reverse models. The RS-B68R (\$330) includes DBX and Dolby B and C noise reduction. Technics's AX amorphous head, repeat, blank skip, and cue/review. The RS-B78R (\$400) adds automatic selection search, a multifunction electronic counter, and an output level control. Meanwhile, Onkyo presents an automaticreverse deck with a difference: It has two wells (both bidirectional) and can act as a dubbing deck. The \$415 TA-RW11 has six motors, Dolby B and C, and automatic music search.

The latest deck in Aiwa's current horizontal-control series is a dubbing model as well. The \$460 AD-WX220 (like the

NAKAMICHI'S three-head

dual-capstan reverser,

RX-505 (far left); PIONEER'S

best deck, CT-A9



earlier WX110) will dub in real time, at twice normal speed. and on both eassette sides simultaneously at double speed. In addition, it offers random access and both Dolby noise reduction options. Another dubbing deck with both options is Hitachi's \$400 D-W800. The same company has introduced the D-E5 single-well Dolby B/ C deck, priced at \$230. Sansui. which markets dubbing decks in two new integrated systems. also has two separates: the \$340 automatic-reverse D-390R and the \$240 unidirectional D-290. Both incorporate Dolby B and C and microphone mixing.

NAD, the first company to offer a Dolby C deck in the U.S., has added the Model 6125 as a still simpler (though more elegantly styled) descendant of the 6050C. Sherwood's S-450CP (\$300) provides Dolby B and C, fine bias adjust-

ment, random access, and repeat,

#### ACCESSORIES

If you've got the urge to try some live recording this year, Audio-Technica's six microphones in the new 9000 series are worth investigating. Dynamics and electrets are both included. The mikes range from a low-cost home model (the \$13 AT-9300) and several directional units to one that can be converted from an ultradirectional "shotgun" to a handheld omni (the \$80 AT-9300). And though Crown's PZM microphones may be a little rich for the tastes of most home recordists, they've been enhanced by three "boundary" baffles to increase directionality and bass pickup.

Recent reader correspondence tells us that some home recordists have been looking for multi-event timers. Akai America is importing two of three models made by its parent company. The \$100 DT-A2 will program a deck having a timer mode (most component-grade decks are equipped with a timer switch) for two events within a

or two events within a

automatic reversing,

ONKYO TA-RW11 (left)

Automatic tape tuning and

DBX in new mid-priced

TEAC V-900X (right)



24-hour period. The \$150 DT-220 will handle four events over seven days. (Unfortunately, the most elaborate and therefore the most interesting of the models available in Japan was judged prohibitively expensive for the U.S. market.) Akai also offers a very interesting audio-video tape switching center, complete with a built-in 4-inch black-and-white video monitor, in the \$350 AV-U8.

In the endless list of recorder maintenance products

that emerged from the Winter CES, one new line stands out for the breadth of its offerings. The AM line (actually "am"—or, as it appears on the package, "a77") is marketed by BSR and includes both an automatic cassette-tape head cleaner and a stick-and-pad system for manual maintenance. Each kit has cleaning fluid and costs less than \$10. A head demagnetizer (ECD-3, \$27) also is sold in the AM line.



#### TAPES

Most of the news in audio tape is occasioned, more or less directly, by what's going on in consumer videotape. TDK HX (not to be confused with the Dolby circuit of the same name) is a metal-pigment cassette tape that is formulated for use with the Type 2 ("chrome") settings on home decks. Not surprisingly, it is called Extra High Grade (like the premium videotapes). Its metal particle is considerably larger than that in the company's conventional metal formulations (MA and MA-R) and requires less bias. Greater headroom and lower noise are claimed for it, compared with TDK's existing SA Type 2 tape.

Konica, the camera company, has both video and audio tape on the market. Two of its four audio cassette formulations

are ferries: ML (Master Low Noise) and GM-I (Grand Master I). The Type 2 ferricobalt is GM-II (Grand Master II), and the metal is called, simply, Metal (or Metal Particle). Another photographic company to follow Kodak into tape marketing is Polaroid—which, for the time being, offers only videocassettes.

PD Magnetics has updated its full array of video and audio cassettes. The Beta and VHS cassettes come in HG Chrome and Super HG StereoChrome. The audio cassettes are available in two lines. One consists of Ferro and Tri-Oxide Ferro Type 1 tapes and 500 Crolyn Type 2 chrome. The HG (that term again) premium series includes Tri-Oxide Ferro HG (Type 1), 500 Crolyn HG (Type 2), and 1100 Metal HG (Type 4).

—Robert Long

arm is fitted with a detachable headshell that should appeal to those not ready to commit themselves to the P-Mount conhad from Denon for \$200, with a turntable thrown in. The DP-15F is a direct-drive design with Denon's exclusive speedcontrol system, which uses a series of magnets on the inner rim of the platter and a specially



RECORD-PLAYING GEAR

changers. The models 1258 and 1254 each handle as many as six discs and are priced close to \$200.

The feedback-controlled tonearm, a device with servomotors in its pivot assembly that combat the worst effects of

EVEN THE MOST ARDENT prodigital fans will admit that there's life left yet in the analog LP. But for the most part, activity in record-playing gear was minimal at the Winter Consumer Electronics Show.

Dual has only one new turntable—the direct-drive CS-630Q (\$250)—and four up-

dated machines, two of them belt-driven. The four-point suspension system, which isolates the platter and tonearm from the base on a rigid subframe, is retained in the Dual units, as is the Ultra Low Mass arm. The

warps and lateral thrusts, was a tremendous—and tremendously expensive—novelty just a few years ago. Now it can be designed pickup head on the base as a servotachometer.

The Harman Kardon T-45, T-35, and T-25 turntables (\$295, \$235, and \$185, respectively) are classic belt-driven designs, with shock-mounted wood bases said to provide a suspension resonance of approximately 41/2 Hz. The T-45 has a control that trims the capacitive load presented to the cartridge over a range of 200 picofarads (pF), thus giving you a fair shot at flat frequency response with any cartridgepreamp combination. In the bargain basement, the LT-32 radial tracker from ADC is beltdriven and comes with an ADC ML-1 cartridge—all for a mere

#### CARTRIDGES

If new turntables were rare at the show, new cartridges were comparatively common—but certainly not commonplace. Sumiko's latest Talisman moving-coil model (\$425, with sapphire cantilever) is almost twice as costly as its top-of-the-line predecessor, but its considerably increased output obviates the need for



transformer or active step-up devices and hence represents an overall savings. Other new Talisman pickups have prices of \$355 and \$255; they sport linecontact or elliptical styli and magnesium-aluminum or boron cantilevers. Sumiko also unveiled the Grace F-9E Super cartridge (\$200), with improved tracking and a grain-oriented stylus tip.

Increased moving-coil output is on Ortofon's mind too, and the new MCP-100 Super has about 0.2 millivolt (mV) more output than its predecessor, thanks to a lighter armature assembly that permits more coil windings with no increase in mass. The cartridge comes in the P-Mount configuration, as does the new fixedcoil OM-5E, which uses the company's variable magnetic shunt (VMS) transduction principle. Prices are about \$250 and \$65, respectively.

The story is much the same for Adcom and Denon. The former's five newest models, all moving-coils, are characterized by higher output and compliance and by lower mass. The most expensive, the SXC-VDH (\$450), includes a Van den Hul stylus and a tubular sapphire cantilever. Denon, for years Japan's most prominent moving-coil manufacturer, has introduced two new high-output designs, the DL-160 and DL-110, at \$125 and \$90-a real price breakthrough from a company known for expensive pickups.

Signet has a new movingcoil as well, the MK-220E with a boron cantilever, and Audio-Technica is offering a P-Mount, the AT-312EP at \$145. But more significantly, AudioTechnica displayed at the show its first cartridge with a Micro-Line stylus, the \$250 AT-160ML, and has released data suggesting that intermodulation distortion is reduced by an average of 48.5 percent with the new tip configuration! Ralph Hodges

#### LOUDSPEAKERS

As THE COMPACT DISC can ruthlessly reveal inadequacies in recordings, so can it dramatize weaknesses in loudspeakers.

The speaker manufacturers at

this Consumer Electronics Show seemed well aware of this, and just about every new model on display had the word "digital" in its product literature.

B&W, for instance, calls all five of its new speakers "digital monitors." Each uses drivers, developed by means of laser interferometry, whose effective radiating areas decrease as frequency increases. This broadens dispersion and smoothes the transition from driver to driver in a multiway system. Two of the new designs, the DM-3000 and DM-2000, have enclosures that are pentagrams in lateral cross section: Their diagonally abutting rear surfaces help prevent the buildup of standing waves within the enclosure.

This season Technics has shallow panel speakers for wall mounting. The Model SB-R200 (\$600 per pair) uses a three-way coaxially mounted driver array with a 9-inch woofer. The diaphragms are flat honeycomb discs, and the system is protected by a thermal sensing circuit. A smaller design with a 7inch woofer (Model SB-R100) is available for \$260 per pair. Also equipped with flat honeycomb drivers are Sony's two new conventionally boxed three-ways, the \$1,200 APM-77W and \$800 APM-55W.

Both Martin-Logan and Sound Lab have been concerning themselves with controlling the directional characteristics of full-range electrostatic systems, and both have hit upon the same solution—curved diaphragms. Martin-Logan, seeking to control dispersion, opts to cover 30 degrees of lateral arc with its Monolith model; Sound Lab. in its new A-3, continues to aim for 90-degree dispersion. The two manufacturers also favor subwoofers: Martin-Logan uses dynamic drivers housed below the electrostatic panel, while Sound Lab has come up with two electrostatic bass add-ons. All this will be academic to

**► HARMAN KARDON'S** 

"classic" belt drive, T-45

(bottom left);

DUAL CS-630Q with

four-point suspension (left);

and DENON DP-15F

with servo-controlled

warp-fighting tonearm

(above)

A dynamic system with

dipole drivers,

WHARFEDALE'S

OPTION 1 (right) was

the biggest surprise

in speakers at the Consumer

Electronics Show.



1 9 8 4



trostatic device, the ESTA-4u Extra (\$1,100 per pair), is perhaps the only self-energized electrostatic speaker currently on the market. It derives its polarizing voltage from the audio signal itself. At \$1,395 per pair, the Acoustat One-Plus-One is more compact in some respects than other electrostatics (11 inches wide, 3 inches deep), but it does stand almost eight feet tall. An optional dynamic subwoofer is avail-

in the new MG-III.

The exquisitely crafted small loudspeaker (exemplified, in particular, by the celebrated Celestion SL-600) is just beginning to gather momentum in this country. As apartments shrink to closet size—and as consumers increasingly desire to own large-screen video and perhaps even four speakers for

reproduction of feature-film surround effects—the little speaker should finally have its day.

KEF's latest small speaker is the two-way Chorale III (\$225 per pair). Wharfedale's entry is the Diamond, another two-way, with a height of only ten inches. A strong newcomer in small-speaker manufacturing is Innovative Techniques Corporation, which has been using electronic equalization to tailor

A small KEF, the

CHORALE III (top left); a

panel speaker from

TECHNICS, SB-R200; and

DAHLQUIST'S

vertically configured DQ-20

the response of its diminutive two-way systems. The company's most recent design is the Model 2 (\$500 per pair).

Among more conventionally sized speakers, the Dahlquist DQ-10 has spawned progeny in the form of the vertically configured DQ-20. Said to have better response at the frequency extremes and greater sensitivity than its predecessor, the DQ-20's smaller "footprint" should make it as easy to place as to listen to. The Snell Type A now carries the Series III suffix. which indicates that the system provides greater spectral accuracy for early- and late-arriving sounds. Designer Peter Snell has also outfitted the Series III with a rear-firing tweeter to enhance the system's power response. And Matthew Polk, the acoustic brain at Polk Audio, has been busy modifying the much-acclaimed SDA series of speakers; both the SDA-1A and smaller SDA-2 are said to be better balanced and less prone to exaggerate studio-generated reverb and echo. There's also a small, two-way system from Polk, the Model 5ir, that seems a real bargain at \$250.

-Ralph Hodges

Circle 18 on Reader-Service Card ▶

conventionally oriented di-

poles. The midrange/tweeter

module is also attached to the columnar support, but can be

swiveled to obtain the best ste-

reo image. Actually, consider-

ing that the Option 1 includes

four separate 150-watt amps

and the necessary electronic

crossover circuits, its \$12,000

ticket doesn't seem quite so

the tallest yet, attempts cylin-

drical-section propagation by

electronically delaying the out-

puts of two side elements that

flank the non-delayed central

element. (The Quad ESL-63

attempts hemispherical propa-

gation through basically the

same technique.) The system is

called the ELS-F83, and it costs

An electrostatic from Stax,

extravagant.



#### The Casio KX-101.

Casio's new computerized audio system does more than just double on keyboards. It lets you

record your own hits.

For Casio has packed a complete audio entertainment center into 16 portable pounds of state-of-theart wizardry.

the only sound system around that gives you an AM/FM stereo radio. Detachable speakers. A cassette player and recorder. A

three-channel keyboard. And a mini

recording studio.

So you can not only tune into some beautiful music-you can make your own. The 37-key keyboard has monophonic and polyphonic channels that let you record melodies, chords, and accompaniment—then dump them

And the computerized tape recorder's nine different automatic scanning functions allow you to program and play back your tapes in a variety of ways.

Sound too good to be true? Just check out the new Casio KX-101. And discover the lightweight virtuoso that projects the most sound per

Where miracles never cease

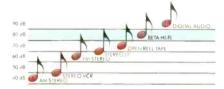


# IF YOU WANT TO KNOW HOW BETA HI-FI WILL TURN ON YOUR TELEVISION, TURN ON YOUR STEREO.

Go ahead, turn on your stereo and listen to your favorite music. Take a moment to hear how good it sounds.

Now turn on your television. It looks good, but you'll notice that something's missing: great sound. And that's always been the problem. You could enjoy what you're watching—or what you're listening to, but never together.

Which is why Sony created Beta Hi-Fi. A videocassette recorder that connects to your television <u>and stereo</u>—finally giving you the best of both!



(Dynamic Range, measured in dB, is the ratio of the softest to the loudest sounds an audio medium can handle.)

Notice we didn't call it just stereo—Beta Hi-Fi goes beyond any ordinary stereo experience. As you can see on the chart, new Beta Hi-Fi from Sony has sound quality better than any AM or FM stereo broadcast, any stereo LP stereo cassette or reel-to-reel tape. It's even better than you get at most movie theaters.

If Beta Hi-Fi were hooked up to your stereo and television right now, you'd experience movies, concerts and music video in ways you never could before: Suddenly, the sound blows you away, your TV picture seems larger almost three-dimensional. You're engulfed in the power and action of movies like Raiders of the Lost Ark...the pulsating rhythms of Flashdance... the dramatic intensity of An Officer and a Gentleman...the spectacular rock video of David Bowie

That's only a hint of what Beta Hi-Fi is really like. To find out for yourself, go to your local Sony dealer for a demonstration. While you're there, check out all the Beta Hi-Fi movies, concerts and Video 45's™ already available. No other format can give you such



a broad selection of prerecorded tapes that look and sound as good. And to help you stay up-to-the-second, Sony's got a special toll-free number you can call for the latest titles and where to get them: 1-800-221-9982 (1-800-522-5229 in New York).

So for the most exciting home entertainment experience available, just say "I want the Sony Beta Hi-Fi." It's like nothing you've ever seen... and heard!

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Kodak, Canon, Polaroid, Konica, and Fuji in attendance, the Winter Consumer Electronics Show might well have been mistaken for a convention of camera makers. Yet these traditional photography companies earned the lion's share of attention at the show by virtue of their headlong jump into the home video market.

Crowds clustered around Kodak's booth attempted to take a close look at the world's first 8mm portable video system, which includes a one-piece camera/recorder, or camcorder. Scheduled to reach the stores this fall, the Kodavision system accommodates either of two different camcorders, priced at \$1,600 and \$1,900 (suggested retail) according to the degree of automation. Joining the 8mm ranks, GE and RCA announced that their camcorder systems will be available shortly after the Kodak models.

Several Japanese manufacturers were caught offguard by all the excitement. Sanyo and its subsidiary, Fisher, hurrying to show that they have the technology to make their own 8mm video systems, flew in a prototype

consisting of a separate VCR and a video camera built to resemble a typical SLR film camera. (Kodak's camcorders are being built in Japan by Matsushita, parent company of Panasonic and JVC.) Taking the opposite tack, Hitachi told the press that it has no intention of "confusing the consumer" with overhasty introduction of a new video format.

To complement its camcorders, Kodak will offer two grades of 8mm videotape. However, Big Yellow has set its sights on a share of the half-inch tape market as well, and will also offer two grades each of Beta and VHS tape. Likewise, Polaroid, Canon, and Olympus are bowing in with their own branded halfinch formulations. Fuji and TDK have new super-high-grade tapes whose virtues are said to include a 2-dB improvement in luminance and chrominance signal-to-noise ratios and much lower dropout rates compared to their current high-grade tapes. And PD Magnetics joins Fuji in marketing the first T-160 and L-830 super-high-grade video-cassettes.

the full-featured MODEL

2400 (top). GE (far left)

and RCA are ready to join

in with their own units

This Consumer Electron-

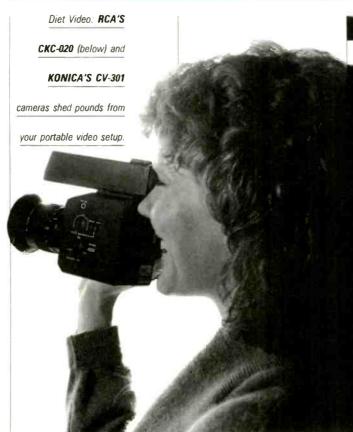
record as the scene of formal introduction of the VHS Hi-Fi system. Developed by JVC and Panasonic in response to Sony's Beta Hi-Fi, the VHS technique involves the use of an extra pair of heads on the rotating head drum to lay down the frequency-modulated (FM) stereo soundtrack. Beta Hi-Fi, in contrast, mixes the audio FM and video signals together and records both via the video heads alone. (See "How Beta Hi-Fi Works." August 1983.) VHS Hi-Fi is claimed to offer a virtually flat frequency response from 20 Hz to 20 kHz, a dynamic range in excess of 80 dB, and less than 0.005 percent wow and flutter. Interestingly, the first decks so equipped will

#### STEREO TV: GETTING CLOSER

WITH THE RECENT recommendation by the Electronies Industries Association (EIA) of a single standard for broadcasting television with multichannel sound, the advent of stereo TV is on the horizon. The EIA's Multichannel Sound Subcommittee—composed of representatives from the major American TV net-

works, broadcasting associations, and broadcast equipment and receiver manufacturers—spent several years testing and evaluating a number of proposals before finally endorsing the Zenith transmission system and a compansion (noise reduction) technique developed by DBX.

The EIA will now file its



#### SMALLER SMALLEST

WHILE ONE-PIECE 8mm camcorders promise to make home video movie-making easier and more convenient than everbefore, the down-sizing of video cameras intended for use with 1/2-inch portable VCRs should intrigue those of you who'd rather stick with one recording format. RCA's 21/4-pound CKC-020 is being promoted as a "Small Wonder," a description that seems accurate to us. This miniature camera uses a metal-oxide semiconductor (MOS) image sensor instead of a pickup tube, for an overall reduction in size and weight. The MOS imager is also said to be free of the image lag associated with tube-type pickups. The camera has a 6:1 power zoom lens and automatic white balance circuitry. According to RCA, it is compatible with any brand of VHS recorder.

Even smaller and lighter. however, is Konica's 11/2pound CV-301. The company's canny engineers managed to keep size and weight down by designing an ultraminiature 1/2-inch pickup tube. Equipped with a 3:1 manual zoom lens and a four-position white-bal-

ance control, the camera sells

Peter Dobbin

Price is \$995.

for \$700.

example is Hawkeye Satellite including a 71/2-foot fiberglass deck, and plug in a few wires. in the Midwest only; the manufacturer is working on a larger model for use in the North-

A quick glance at new television receivers suggests continuing excitement over high-performance separates. Monitors from such companies as Panasonic, Sanyo, JVC, Sony, Magnavox, RCA, NEC, and Teknika come in at anywhere from \$800 to \$1,200 for units with screen sizes from 19 to 25 inches. In several cases, manufacturers claim that this season's monitors offer an improvement in horizontal resolution from 280

Company's Cardinal system, dish, ring mount, receiver, and wiring—all for \$1,700. Installation seems to be simplicity itself: Just set the dish into the ring mount, bolt the ensemble to the roof or patio There is a caveat, however. The Cardinal's gain is adequate for receiving locations east, Northwest, and Florida-areas where small-dish reception is marginal or sometimes impossible.

lines to 360 lines or better. And finally, thanks to an aggressive marketing campaign during the past year by Sony, Casio, and Seiko, the ultrasmall television receiver

not come from JVC or Pana-Price for the whole package is lis shortly before Thanksgivsonic, but from Hitachi, RCA, \$1,400. NEC and Toshiba and Quasar this spring. And will continue marketing their here's a shocker: Zenith, long Beta Hi-Fi VCRs, but both known as a stalwart in the companies announced they Beta camp, has defected to will soon offer VHS decks in the VHS side, and one of its addition to their current Beta first components in the new models. format will be a VHS Hi-Fi Last fall in Tokyo, direct deck broadcasting from satellites Lest anyone consider (DBS) was the big news, with burying Beta Hi-Fi, Aiwa in-

receivers and small dish antennas in evidence from just about every manufacturer. At the Winter CES, however, DBS equipment was hardly to be seen at all, even though the first U.S. system actually started operating in Indianapo-

mono channel that broadcasters probably will use initially for second-language voiceovers. As with stereo FM transmissions, the quality of a stereo TV signal will depend on reception conditions, though the EIA proposal states that the signal-to-noise ratio will typically be greater than 60 dB and that separation should ing. General Electric's mammoth exhibit did include a display panel explaining how DBS systems work, but company representatives said it was strictly informational in nature and was not meant to imply that any DBS products are on the drawing board. Even General Instrument, supplier of most of the equipment for the Indianapolis market test (and owner of a significant share of United Satellite Communications, the company providing the DBS programming), did not have any DBS antennas in its exhibit.

In large-dish antennas, the trend is toward easy-to-install, relatively inexpensive complete systems. The best

#### exceed 30 dB.

To receive stereo transmissions you will need a television equipped with the proper demultiplexing circuitry. However, many recent sets have multiplex output jacks.

decision with the Federal Communications Commission for approval. Though the FCC could conceivably exercise its veto power, most observers feel it will move positively on the proposal some time this year.

troduced a nifty little system

first shown at the Tokyo Au-

dio Fair last fall-a portable

recorder and tuner/timer and a

separate stay-at-home Beta Hi-

Fi adapter/integrated amplifi-

er. (See test report, page 53).

The Zenith/DBX system offers three channels of audio-a stereo pair plus a

and if the FCC adopts the proposal, add-on stereo TV adapters should become readily available. -Peter Dobbin

#### NEW TECHNOLOGIES WCES SPECIAL

is no longer merely a novelty item. The first teeny receivers were all black-and-white, so it's not surprising that the second-wave sets sport color pictures. You can now buy battery-operated color television receivers with 31/4-inch screens from Panasonic and Quasar for \$400 and \$450, respectively.

-William Mowrer

#### CD PLAYERS

IN ITS PROTOTYPE form, the Philips-developed Compact Disc could hold just 45 minutes of stereo music. The diameter of the disc was increased for 75 minutes of playback (to its present 41/4 inches) only after Sony, which worked with Philips on digital error-correction techniques, insisted that the new medium should be capable of accommodating the entire Beethoven Ninth Symphony on a single side. It's fitting, therefore, that we start our coverage of new digital hardware introduced at the Winter Consumer Electronics Show by acknowledging the first complete Beethoven Ninth on a single CD--Denon's 71-minute version performed by the Staatskapelle Berlin under Otmar Suitner.

The question on everyone's mind when considering
new CD players is "How
much?" No one really expects
"suggested retail" prices of
this year's players to dip below \$450 or so, but one dealer I spoke to at the show told
me that as soon as he could
get delivery on the latest \$550
models he would discount

them to about \$475. And the rumor persists that General Electric's first CD player could be discounted to an even lower price.

No matter what you're willing to pay for the ultimate fidelity and convenience of CD playback, you'll have an incredibly wide range of "second generation" players to choose from this season. Toshiba's XR-Z70K is said to contain new large-scale integrated circuits (LSIs) that give it twice the error-correction power of earlier players. The 16-selection programmable unit comes with a full-function remote control and is priced at \$800. NAD is using some of Toshiba's LSIs in its first player, the Model 5200, and claims similar ability to track flawed discs. The NAD unit, however, lacks programmability and is described by the company as the digital equivalent of a "high-perforprints of a Japanese magazine article that claims the company's new DP-1100B (\$900) is superior sonically to several other models. Although such judgments are hard to verify, the new player—with 16-track programmability and an infrared remote control—seems bound to win admirers in the U.S. as well. Meanwhile, Pioneer's P-D70 (\$750) lets you program as many as ten selections, and its front-panel LCDs monitor peak output.

Denon says that its DCD-1800 unit borrows extensively from the technology used in its professional CD player. The new consumer model uses advanced error-correction circuits and a fan-shaped laser transport for high resistance to external vibration. The \$900 player is fully programmable.

Sony has two new players—the \$800 CDP-400 and the \$850 CDP-610ES—bringing its total number to five. The CDP-400 is similar in features to the original CDP-101 (see "Digital Sound: It's Here!," December 1982) but has simplified operating controls and new eleventh-order low-pass output filters with

lower phase shift at high frequencies. The CDP-610ES will be marketed as part of Sony's high-end ES series of components and is said to use the same digital-to-analog (D/A) converter LSI and error-correction circuits as the top-of-the-line CDP-701ES (test report, October 1983). According to Sony, such circuit refinements give the player superior tracking ability, precise cueing, fast access, and high resistance to external shock. A remote control with the 610ES offers direct access to any selection and a line-out volume control.

Magnavox adds elapsed time displays and direct-access capability to two new models, the top-loading FD-2020SL (\$590) and the drawer-loading FD-3030SL (\$700). Sansui joins the ranks of those companies offering second-generation players with its programmable PC-V500 (\$700). And Marantz packs an elapsed-time indicator, 24-track programmability, and a remote control into its CD-54. The unit will be introduced in May; no price has yet been announced.

-Peter Dobbin



Listening to SANYO'S

\$550 CD player (see test

report, page 15) was a

priority for many at the

CES. At \$850, the SONY

CDP-610ES is for

audiophiles.

A P R I L 1984

# (commodore

## For Your Most Important Computing Needs

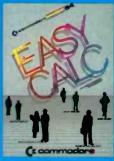
Commodore is your best value in practical software—just take a look at the programs shown here—we've got everything from wordprocessing to business accounting, from electronic spreadsheets to computer graphics. Use the Software Selection Guide to find the programs which best meet your needs, then see your Commodore dealer!



#### EasyScript 64 Displays 764 lines × 240 characters. Prints to 130 columns. Works with EasySpell 64.



EasySpell 64 000 word Master Dictionary and automai c spelling checker. Works with EasyScript 64.



EasyCalc 64 Multiple electronic spread-sheet with color bar graph feature. 63 columns × 254 rows.



The Manager Sophisticated database system with 4 built-in appli-Text, formulas, graphics



SuperExpander 64 21 special commands Combine text with high resolution graphics. Music and game sounds.



**Loan Analysis** 12 loan functions. Bar graph forecasting as well as calculation.



Analysis 16 stock investment functions. Investment bar graph.



Investment Analysis 16 capital investment

functions. Bar graphs.



Management 21 business management features. Bar graphs.



Easy Finance V-Statistics and Forecasting Assess present/future sales trends with 9 statistics and forecasting



Accounts Payable/ Checkwriting 11 functions. Automatic

billing. 50 vendors/disk. statements



Accounts Receivable/Billing 11 billing functions. Printed



General Ledger 8 general ledger options. Custom income statement. trial balances, reports.



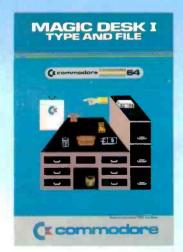
Inventory Management 1000 Inventory items. Full reports.



Payroll 24 different payroll functions. Integrated with G/L system.

## SOFTWARE SELECTION GUIDE

| APPLICATION            | SOFTWARE                                                                                                  |
|------------------------|-----------------------------------------------------------------------------------------------------------|
| Budget/Calculation     | EASYCALC 64                                                                                               |
| Business Accounting    | ACCOUNTS PAYABLE/CHECKWRITING, ACCOUNTS RECEIVABLE/BILLING, GENERAL LEDGER, INVENTORY MANAGEMENT, PAYROLL |
| Business Management    | EASYFINANCE IV—BUSINESS MANAGEMENT                                                                        |
| Children's Programming | ZORTEK & THE MICROCHIPS                                                                                   |
| Cooking/Recipes        | MICRO COOKBOOK                                                                                            |
| Data Base Management   | THE MANAGER                                                                                               |
| Electronic Spreadsheet | EASYCALC 64                                                                                               |
| Filing/Recordkeeping   | MAGIC DESK, THE MANAGER, INVENTORY MANAGEMENT                                                             |
| Financial Investments  | EASYFINANCE II—BASIC INVESTMENT ANALYSIS, EASYFINANCE III—ADVANCED INVESTMENT ANALYSIS, FINANCIAL ADVISOR |
| Graphics/Sound         | SUPEREXPANDER 64                                                                                          |
| Learn Programming      | INTRODUCTION TO BASIC—PART 1                                                                              |
| Loans/Mortgages        | EASYFINANCE I—LOAN ANALYSIS, FINANCIAL ADVISOR                                                            |
| Mailing List           | EASYMAIL 64                                                                                               |
| Music                  | MUSIC COMPOSER, MUSIC MACHINE                                                                             |
| Programming Aids       | SUPEREXPANDER 64, SCREEN EDITOR, ASSEMBLER 64                                                             |
| Reference Books        | PROGRAMMERS REFERENCE GUIDE, SOFTWARE ENCYCLOPEDIA                                                        |
| Spelling Dictionary    | EASYSPELL 64 (for use with EASYSCRIPT 64)                                                                 |
| Statistics/Forecasting | EASYFINANCE V—STATISTICS & FORECASTING, EASYFINANCE IV—BUSINESS MANAGEMENT                                |
| Teacher's Aids         | EASYLESSON/EASYQUIZ, LOGO, PILOT                                                                          |
| Telecommunications     | VICMODEM, AUTOMODEM, TERM 20/64, RS232 INTERFACE                                                          |
| Wordprocessing         | EASYSCRIPT 64, MAGIC DESK, WORD MACHINE/NAME MACHINE                                                      |



#### MAGIC DESK I-TYPE & FILE

Only Commodore brings you the magic of MAGIC DESK... the next generation of "user-friendly" software! Imagine using your computer to type, file and edit personal letters and papers—without learning any special commands! All MAGIC DESK commands are PICTURES. Just move the animated hand to the picture of the feature you want to use (like the TYPEWRITER) and you're ready to go. MAGIC DESK is the "ultimate" in friendly software!



#### Special "Help" Menus

Not only is MAGIC DESK easy to use ... it's hard to make a mistake! Just press the COMMODORE key and one of several "help menus" appears to tell you exactly what to do next.



First In Quality Software

Circle 17 on Reader-Service Card

# TechnoTeens

BY

JEFFREY SCHECHTER

#### KIDS CONFRONT COMPUTER MUSIC-MAKING AT SUMMER CAMP.

THE THEORY AND techniques involved in digital music synthesis are complex enough to intimidate even professional musicians, yet children seem to take to the new medium with amazing ease. At least, that's the impression I got from a weekend spent observing a group of youngsters tackling music creation on one of the most advanced synthesizers available, New England Digital's Synclavier II.

Workshops in the use of the Synclavier were given last summer as part of the curriculum at the Appel Farm Arts and Music Center, a camp for creative children, located in Elmer. N.J. The fully configured Synclavier that was lent to the camp has a purchase price of about \$50,000 and consists of a piano-style keyboard, a 16-bit minicomputer with typewriter keyboard and high-resolution monitor, dual floppy disk drives, a Winchester hard disk, and a dot matrix printer.

A full list of the system's capabilities would constitute an article in itself; suffice it to say that the Synclavier can create music via additive digital synthesis, sample and record sounds for playback and manipulation, and notate and orchestrate compositions automatically. Its ability to simulate the sound of "real" (that is, analog) instruments and its on-board 16-track digital recorder have made it popular with musicians, who can create complex, multitrack compositions without recourse to conventional tape recorders or instruments.

Perhaps because the children at Appel Farm were not aware of the machine's entire capabilities and incredible internal complexity, they approached it with little trepidation. Instead, depending on their level of musical knowledge and need, they quickly learned how to use it to get the job done.

Jon, a fourteen-year-old with eight years of piano lessons under his belt, was interested in creating sound effects for broadcast on his daily radio show. (Appel Farm has its own AM station.) Sitting at the keyboard, he experimented with one sound after another. Not satisfied, he tried combining sounds—but the effect still wasn't right. "The tone is so empty," he complained to the instructor. A conversation followed about perfect fourths, partials, and the effects of harmonics on a pure tone, and Jon soon had a taped copy of a sound that

seemed right for broadcast.

Interestingly, some of the youngsters I spoke with occasionally criticized the Synclavier. For instance, after recording a Mozart variation using a combination of harpsichord and guitar sounds, Ari Shimada commented to me that she was not overwhelmed by either her creation or the Synclavier. She admitted, almost apologetically, that she preferred the dynamics of a piano for the piece, but liked the convenience of the Synclavier. Maryalice, another musically gifted young girl, agreed with Ari, adding that the Synclavier was interesting because it enabled her to express her musical ideas quickly and easily: "Ending up with a printed version of what was just an idea in my head is exciting. I just look at it and think, wow, I did that."

Most children will never have access to a machine as sophisticated as the Synclavier, but some of the capabilities offered by dedicated digital synthesizers can be approximated on home computers, and there are scores of programs available geared to music education and creation (see "A Beginner's Guide to Music-Synthesis Software," December 1983). If you decide to expose your child to the creative possibilities of digital music synthesis, think seriously about investing in a computer with soundcreation capabilities, such as the Commodore 64

ARI SHIMADA,
a camper at Appel
Farm last summer,
tackles Mozart
on the Synclavier.

Jeffrey Schechter is a free-lance writer based in New York City.



# HITACHI

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.....

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Just like the Mitsubishi DP-103 does. Today.

# **★MITSUBISHI**

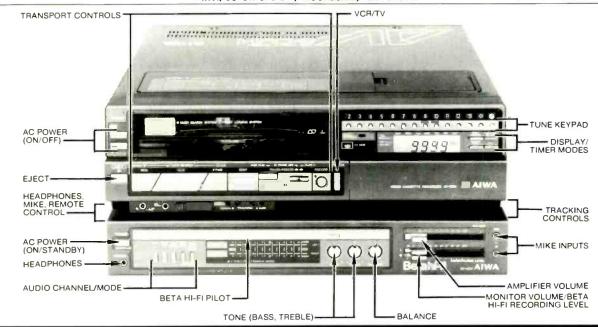
Even If You Can't Have The Best Of Everything, You Can Have The Best Of Something.

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



# AIWA V-5 BETA HI-FI VCR SYSTEM

Aiwa AV-50M portable Beta-format videocassette recorder with built-in tuner/timer and wired remote control, and SV-50M Beta Hi-Fi adapter and integrated amplifier. Dimensions: 13 by 3¾ inches (front panel), 12 inches deep plus clearance for connections (AV-50M); 13 by 2 inches (front panel), 12 inches deep plus clearance for connections (SV-50M). Price: \$1,395. Warranty: "limited," one year parts, 90 days labor. Manufacturer: Aiwa Co., Ltd., Japan; U.S. distributor: Aiwa America, Inc., 35 Oxford Dr., Moonachie, N.J. 07074.



ARDLY A MONTH goes by without the making of another audio-video marriage. Aiwa, long known for audio cassette decks. recently introduced the V-5 video system, which consists of a front-loading Beta-format VCR (the AV-50M) and a Beta Hi-Fi adapter (the SV-50M). The CV-5M video camera, SV-C10 shielded two-way speakers,

and other options complete the Aiwa video lineup.

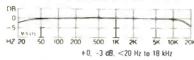
Unlike other portables, the AV-50M combines VCR and tuner/timer in a single 13½-pound package. Its NP-1 battery is rated for approximately one hour of recording with the CV-5M camera but takes 24 hours or more to recharge, so you're well advised to carry a few spares. The battery also

STEVEN MARK NEEDHAM

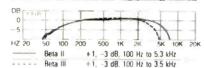
#### VCR SECTION

Except where otherwise indicated, data are for both speeds-Beta II and Beta III. All measurements were made at the direct audio and video outputs, with test signals applied to the direct audio and video inputs. For Beta Hi-Fi, the 0-dB reference input level is the voltage required to produce 3 percent third-harmonic distortion at 315 Hz. for the standard audio recording mode, it is 10 dB above the voltage at which the automatic level control (ALC) produces 3 dB compression at 315 Hz. The 0-dB reference output level is the output voltage from a 0-dB input. The ALC operates only in the standard recording mode (not in Beta Hi-Fi).

#### BETA HI-FI RECORD/PLAY RESPONSE (-20 dB; stereo)



#### STANDARD RECORD/PLAY RESPONSE (-20 dB; mono)



| AUDIO S/N RATIO (   | re 0-dB output; R. | P; A-weighted) |
|---------------------|--------------------|----------------|
|                     | Beta II            | Beta III       |
| Beta Hi-Fi (stereo) | 813/4 dB           | 801/2 dB       |
| etandard (mono)     | AR AR              | A7IA dB        |

| INDICATOR CALIBRATION (315 Hz; Beta | Hi-Fi) |
|-------------------------------------|--------|
| for 0 dB input                      | "Over" |
| for -10 dB input                    | + 6 dB |

| DISTORTION (THD .   | t -10 dB input; | 50 Hz to 5 kHz) |
|---------------------|-----------------|-----------------|
|                     | Beta II         | Beta III        |
| Beta Hi-Fi (stereo) | ≤ 0.76%         | ≤ 0.71%         |
| standard (mono)     | ≤ 1 90%         | ≤ 2.39%         |

62 dB

#### CHANNEL SEPARATION (315 Hz) INDICATOR "BALLISTICS"

| Response Time | 1.5 msec  |
|---------------|-----------|
| Decay time    | =350 msec |
| Overshoot     | n dB      |

keeps the timer clock operational for a maximum of 30 minutes, which gives you a fighting chance at unattended recording during or after a power outage.

The AV-50M's cable-ready tuner covers 105 channels, any 14 of which are immediately accessible via a row of pushbuttons. These are "tuned" by means of three-position band-selector switches and thumbwheels under a topcover lid. Replacing the lid automatically engages the AFT (automatic fine tuning) circuit. Your VHF antenna (or cable) attaches to a standard F connector, and a second F connector feeds VHF signals through to your TV tuner or receiver. The UHF antenna connector is one we've never seen before, but Aiwa rescues the situation by including an adapter that simultaneously mates both F connectors and the special UHF input. F connectors on the box duplicate those of the VCR, while screw terminals are available for a 300-ohm UHF antenna feed. A short length of twin-lead emerges from the box to connect with your television set's UHF input. Although this system works fine, it seems a needless complication.

The timer is a simple seven-day/ single-event design, but it does allow for daily unattended recordings of the same time/channel slot throughout the week. It and the clock are set using a group of buttons behind a front-panel door. Behind the same door are the two-position recording mode and threeposition selector switches. The AV-50M can record at either the Beta II or Beta III speed and will play back tapes recorded in the now-defunct Beta I format. The input selector chooses among LINE, TUNER, and CAMERA. (A back-panel slide switch should be set to PCM if you're recording the output of a digital audio processor rather than a "true" video signal through the line input.)

The AV-50M provides a fairly extensive complement of playback features: two-speed forward and reverse search (at 15 or 25 times normal Beta III speed), double-speed forward playback with sound, automatic search for the start of the current program (or for the beginning of the next one) on tapes recorded with a start-cue mark, still frame, manual frame advance, and slow-speed frame-by-frame advance. The system also permits separate audio and video "insert editing" of a

recorded program.

The special playback features are operated via the front-panel transportcontrol buttons and are fairly easy to master despite Aiwa's less-than-lucid manual. For example, if REWIND is pressed from the stop mode, the tape rewinds to the beginning without picture. If you press PLAY and REWIND simultaneously, playback starts automatically when the tape has rewound. In PLAY, lightly pressing REWIND causes the tape to rewind with picture (but no sound) until you push PLAY again. And if the AV-50M is in PLAY and you press REWIND firmly, the tape rewinds with picture until the machine finds the start-cue mark, at which point it stops and replays at normal speed. Exactly the same functions are available in FAST FORWARD, except that SEARCH looks for the beginning of the next program.

PAUSE freezes the picture. Two buttons within the pause bar then advance the picture either one frame per push or in a quasicontinuous manner. Once the picture is "frozen," pressing "2X" (also on the pause bar) plays the picture at double speed with sound.

The AV-50M's six-function wired remote control is as basic as its timer. Although you can stop, pause/freeze, fast-forward, rewind, play, and enter the recording mode from the RC-V10 remote, you cannot use it to operate the special features. Interestingly, the method of entering RECORD is different on the remote than on the front-panel keyboard. Using the RC-V10, you press RECORD and PLAY simultaneously; on the main panel, a single press of RECORD suffices. (The main-panel button is slightly recessed to minimize the possibility of accidental recording.)

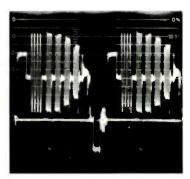
The AV-50M's companion SV-50M unit contains the system's Beta Hi-Fi circuitry and a 5-watt (7-dBW) stereo amplifier. A single 28-pin connector at the end of a short umbilical cord fits a corresponding jack on the AV-50M, inserting Beta Hi-Fi audio into the video information stream. When the two units are interconnected, even TV audio received by the AV-50M's tuner is recorded in Beta Hi-Fi and reproduced with fullrange response by the SV-50M. (The same information is simultaneously recorded on the normal audio edge track for compatibility with

conventional Beta systems.) In playback, the SV-50M automatically senses the presence of a Beta Hi-Fi signal, illuminates the Beta Hi-Fi pilot, and presents that information instead of the normal edge-track audio.

The system can be used as a highquality audio tape recorder merely by feeding left- and right-channel audio signals into the SV-50M. The two channels can be a stereo pair or contain totally independent information. In playback, you can choose either channel (left or right) or present both in stereo. To replace TV audio with a sliders for an appropriate indication on a pair of 11-segment peak-reading meters. The recording-level sliders also affect output level and therefore must be set properly in playback as well. (Most of the time, the center detents should do just fine.)

The SV-50M's BASS. TREBLE.
BALANCE, VOLUME, and "DSL"
(Dynamic Super Loudness) function
only when you use its built-in power
amplifier, and they have no effect on
the line output. Because Beta Hi-Fi
probably will appeal mainly to
audiophiles, who would not be satisfied

| Ham |  |
|-----|--|
|     |  |



MULTIBURST RESPONSE for the AV-50M's recorder section running at Beta II (left) and for its TV tuner (right). (Response in Beta III is virtually identical to that in Beta II, so we have omitted the multiburst photo for the VCR at the slower speed.) No VCR's video response extends appreciably beyond 2.0 MHz (the third of the six bursts), which accounts for the limited resolution of videocassette recordings compared to broadcasts or optical videodiscs. Up to that point, however, the Aiwa's record/play response holds up very well. The tuner section's response is better still, remaining unusually flat from 500 kHz (the first burst) to 3.0 MHz (the fourth). There is just a slight rolloff at the 3.58-MHz color-carrier frequency followed by a sharp drop in the last band, at the 4.2-MHz upper limit of the NTSC broadcast system.

stereo FM simulcast, you feed the SV-50M's aux inputs from your FM tuner, press the aux switch on the SV-50M, and select the tuner recording mode on the AV-50M. A multiplex (MPX) filter can be engaged to eliminate the 19-kHz stereo FM pilot if necessary.

Beta Hi-Fi recording levels are set with a pair of sliders on the SV-50M. (Edge-track recording level is determined by an automatic level control, or ALC.) A center detent on each slider suggests the best setting for recording a TV broadcast, so you needn't concern yourself with adjusting level when taping from the AV-50M's tuner. If you're using the aux or microphone inputs, you adjust the

with a 5-watt power amp, Diversified Science Laboratories did not test these features.

The V-5 system's Beta Hi-Fi performance is excellent. Response is flat throughout most of the audio band and down no more than 3 dB at 20 Hz and 18 kHz. DSL measures Beta Hi-Fi response at a recording level 20 dB below the midrange 3-percent distortion point, and high-frequency response may be affected by the pre-emphasis used in the Beta Hi-Fi noise reduction system. At lower recording levels, treble response probably is even more extended.

DSL measures distortion in Beta Hi-Fi at a recording level 10 dB below

| FLUTTER (ANSI wei        | Beta II            | Beta III       |
|--------------------------|--------------------|----------------|
| Beta Hi-Fi (stereo)      |                    | < ±0.01%       |
| standard (mono)          | ±0.25% avq.        | ±0.22% avo     |
|                          | 3                  | ± 0.22% avi    |
| SENSITIVITY (for 0-      |                    |                |
|                          | mike               | line           |
| Beta Hi-Fi (stereo)      | 3.1 mV             | 380 mV         |
| standard (mono)          | not measured       | 1,350 mV       |
| AUDIO OUTPUT LEV         | EL (from 0-dB inpu | t; 315 Hz)     |
| Beta Hi-Fi (stereo)      |                    | 1.34 volts     |
| standard (mono)          | _                  | 0.55 volt      |
| AUDIO INPUT IMPE         | DANCE (line)       |                |
| Beta Hi-Fi (stereo)      |                    | 47k ohms       |
| standard (mono)          |                    | 79k ohms       |
| MIKE INPUT OVERL         | OAD (1-kHz clippin | a: Beta Hi-Fi) |
|                          |                    | 46 mV          |
| WIDEO DECOMPONIO         | W Brenower         |                |
| VIDEO RECORD/PLA         | Beta II            | Date 10        |
| at 500 kHz               |                    | Beta III       |
| at 1.5 MHz               | −11/2 dB           | -6½ dB         |
|                          | -61/2 dB           |                |
| at 2.0 MHz<br>at 3.0 MHz | -11 dB             | -101/4 dB      |
| at 3.0 MHZ               |                    |                |
| LUMINANCE LEVEL          |                    | standard       |
| GRAY-SCALE NONLI         | NEARITY (worst co  | sel = 11%      |
| CHROMA LEVEL             |                    |                |
| Beta II                  |                    | 3½ dB low      |
| Beta III                 |                    | 2 dB low       |
| CHROMA DIFFEREN          | TIAL GAIN          | 4%             |
| CHROMA DIFFEREN          |                    | ≈ + 3°         |
|                          |                    | 3              |
| AVERAGE CHROMA           | PHASE ERROR        | 0°             |
| Beta II                  |                    | _              |
| Beta III                 |                    | +4°            |
| "Too low to measure      |                    |                |

#### TV TUNER SECTION

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

#### 

+ 1/2, -3 dB, 34 Hz to 20 kHz

| 1 72, -3 40, 34 (               | IZ TO ZU KITZ |  |
|---------------------------------|---------------|--|
| AUDIO S/N RATIO (A-weighted)    |               |  |
| best case (no video signal)     | 51 dB         |  |
| worst case (crosshatch pattern) | 47 dB         |  |

#### RESIDUAL HORIZONTAL SCAN COMPONENT (15.7 kHz) -601/2 dB

|                                      | -601/2 d <b>B</b> |
|--------------------------------------|-------------------|
| AUOIO OUTPUT LEVEL (100% modulation) |                   |
| maximum                              | 1.36 volts        |
| recording level controls at detent   | 0.40 volt         |
| AUDIO OUTPUT IMPEOANCE               | 2.030 ahms        |
| VIOEO FREQUENCY RESPONSE             |                   |
| at 500 kHz                           | flat              |
| at 1.5 MHz                           | flat              |
| at 2.0 MHz                           | -1/4 dB           |
| at 3.0 MHz                           | -11/4 dB          |
| at 3.58 MHz                          | -31/4 dB          |
| at 4.2 MHz                           | -19 dB            |
| LUMINANCE LEVEL                      | 7% high           |
| GRAY-SCALE NONLINEARITY (Worst case) | ≈ 10%             |
| CHROMA LEVEL                         | -3 dB low         |
| CHROMA DIFFERENTIAL GAIN             | ≈36%              |
| CHROMA DIFFERENTIAL PHASE            | = = 61/20         |
| CHROMA PHASE ERROR                   |                   |
| ted                                  | ± 6°              |

magenta blue

CYAN

green

yellow

d 200 yt. 0 do. 100 do



VCR COLOR ACCURACY is very good and nearly the same in Beta II (shown here) and III. Beta II is a shade better than Beta III in chroma phase (hue) accuracy and a little worse in chroma level (color saturation). The left-hand photo shows the uncorrected color. A 3½-dB increase in chroma gain brings all six color vectors (the white blobs near the circumference of the grid) onto the small targets, as shown in the right-hand photo. This simulates the best results one could obtain using the color control on a monitor, which, in this case, is excellent. The correction for Beta III would be a 2-dB increase in chroma gain and a 4-degree clockwise phase rotation (with the tint control), which would yield equally good results. The diffuseness of the color vectors (caused by chroma noise) is slightly greater in Beta III.

the midrange 3-percent distortion point. On the SV-50M, this corresponds to a meter indication of +6 dB. This may seem high, but the +6-dB segment is the topmost green indicator (suggesting safe operation) and is the level reached on a fully modulated broadcast when the recording level controls are set at their detents. Above the +6-dB segment are two orange warning segments and, lastly, red "over" lights that do not illuminate until distortion approaches 3 percent. At the -10-dB test level, distortion is less than 0.75 percent from 50 Hz to 5 kHz and just touches 2 percent at 10 kHz. The increase in high-frequency distortion may be due to the Beta Hi-Fi preemphasis and, in any event, is no cause for alarm when one takes into account the falling music-energy distribution.

Flutter is unmeasurably low, and because this is an FM system, performance is essentially the same at both recording speeds. The only speed-dependent difference DSL found was in signal-to-noise (S/N) ratio, which is a tad better at Beta II than at Beta III. But since the dynamic range is greater than 80 dB at both speeds, the difference is inconsequential.

Comparing Beta Hi-Fi and conventional edge-track recordings clearly demonstrates the vast sonic improvement Beta Hi-Fi offers. On the edge track, bandwidth is barely better than that of a typical AM radio, dynamic range is only 48 dB, distortion is between 1 and 2 percent throughout the audio band, and flutter averages about  $\pm 0.25$  percent, with peaks as high as  $\pm 0.42$  percent.

Video performance is quite good and very similar in both Beta II and III. Luminance level is right on target at both speeds, gray-scale nonlinearity the same (at a modest 11 percent), and the chroma differential gain and phase are identical (and very low). Chroma level (color saturation) is somewhat low at both speeds, Beta III actually being the better of the two; average chroma phase (hue) error is low at Beta III and nonexistent at Beta II. Thus, aside from the improvement in chroma noise (indicated by the sizes of the "fuzzballs" in the vectorscope photos), there's little reason to waste tape on Beta II operation when Beta III's video performance is virtually the same. And from the audio standpoint, performance at both speeds is identical as long as you use the SV-50M Beta Hi-Fi adapter.

The AV-50M's tuner performs adequately in most regards. Luminance level is close to the mark, and though chroma level is a shade low, it can be corrected with a monitor's color control. Gray-scale linearity is quite

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

good, but there is substantial chroma differential gain and phase, suggesting that color saturation and tint will shift with scene brightness. The loss in saturation occurs almost entirely at the highest luminance level, so only the brightest scenes are affected. However, chroma phase shifts stepwise with luminance, indicating a gradual change in tint as scene brightness varies. The median chroma phase error (9 degrees) can be corrected with a monitor's tint (hue) control, but the  $\pm 5$ -degree spread around the median suggests a slight but perceptible error in some hues. Video frequency response holds up well to the color-burst frequency (3.58 MHz). which should provide a horizontal resolution of approximately 300 lines if the tuner output is fed directly to a good monitor.

The tuner's audio performance is first rate. Its response is quite flat and extended, and its signal-to-noise ratio is about the best we've measured. Even under worst-case conditions (a convergence test pattern), there is very little buzz. The horizontal-scan whistle is also very well suppressed.

To give the Beta Hi-Fi system a good workout, we copied a Compact Disc, being careful to limit the recording level so that the first orange indicator flashed only occasionally. Provided the tape was free of dropouts, the results were impressive: Even direct A/B comparison with the CD revealed little sonic degradation. But on bad sections of tape, the system lost lock with the Beta Hi-Fi recording and reverted to edge-track reproduction, with a very obvious increase in noise. decrease in bandwidth, and collapse of the stereo image. The moral is clear: If you want to use Beta Hi-Fi for serious audio recording, use top-quality tape and avoid the dropout-prone regions at both ends.

As a straight video recorder, the AV-50M is very satisfactory. Color noise is a bit worse at the Beta III speed than in Beta II, but in neither case is it worse than average. Other than chroma noise, there is no visible performance difference between the two speeds, and it is a pleasure indeed to have high-quality sound as well.

Aiwa's first entry into the video arena is distinctive both in performance and configuration. Some users undoubtedly would rather have the Beta Hi-Fi circuitry built into the recorder itself and the tuner separate,





TUNER COLOR ACCURACY is acceptable. The vectorscope photo at left indicates low color saturation (chroma level) and some hue (chroma phase) error. The photo at right—made with 3 dB additional chroma gain and approximately 9 degrees of clockwise phase rotation—simulates the best results one could obtain using the color and tint controls on a monitor. This adjustment brings all six color vectors (the white dots near the circumference of the grid) into or near their targets, which is very good performance.

for even greater portability combined with high fidelity stereo audio recording capability. But this is really a question of personal needs and preferences. As it stands, in two relatively compact packages, the Aiwa V-5 comprises a complete recording system whose video performance ranks with that of good conventional Beta VCRs and whose audio performance is markedly superior, rivaling that of the digital Compact Disc.





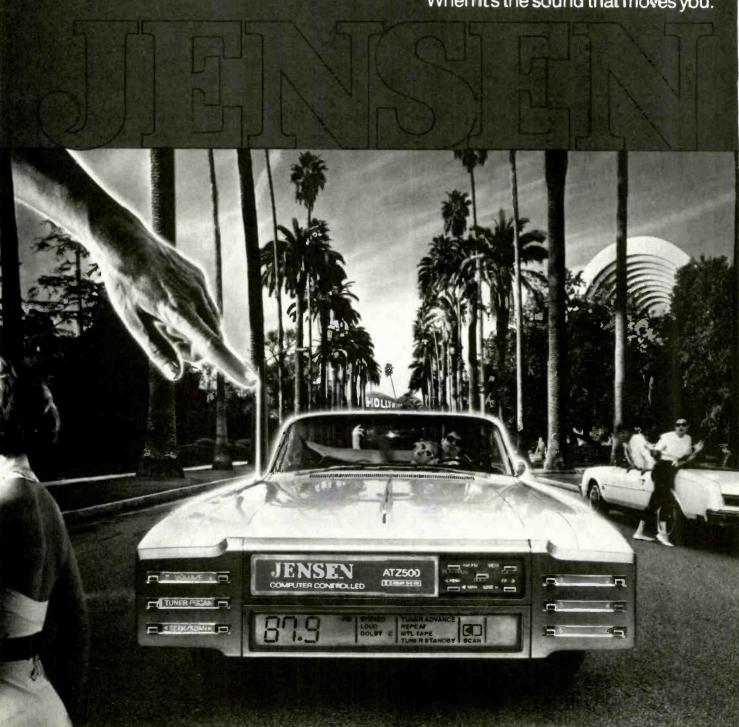
COLOR CONSISTENCY for the AV-50M's recorder section running at Beta II (left) and for its TV tuner (right). (The results for the VCR in Beta III are only marginally different from those in Beta II, so we have omitted the vectorscope photo for the slower speed.) In each case, the ideal would be for the cluster of dots toward the left edge of the grid to be a single dot at the intersection of the nine-o'clock axis with the circumference. The radial spread of the dots indicates chroma differential gain, which is a measure of how much color saturation (chroma level) varies with changes in scene brightness (luminance). The angular spread shows the chroma differential phase, which tells how much hue (chroma phase) shifts with changes in brightness. The VCR performs well in this test; the results for the tuner, though respectable, are not as good.



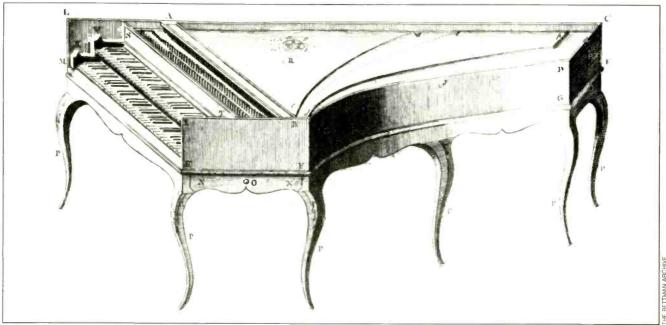
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When it's the sound that moves you.



# The Keyboard, Baroque and Before



Copper engraving of 18th century clavichord

# Four recent recordings on authentic instruments, from the clavichord to the fortepiano Reviewed by Kenneth Cooper

"The confused but agitated talk about periods, style, national atmosphere, old instruments, and so forth... is all typical of materialism, it is a diversion from the essential to the exterior, a facilitation of judgment, a safety-valve..., a pessimistic disbelief in the force of things as they are..., a pretext, an

escape, or a kind of relief. . . . '
(Artur Schnabel, 1942).

"To some people, music is like food; to others like medicine; to others like a fan." (Arabian Nights, c.

900-1100 A.D.).

N THIS LATEST DOSE of antibiotic non-Steinway recordings, the tastiest portion is undoubtedly Christopher Hogwood's distillation of previously released material: Elizabethan, pre-Classical, and pre-Romantic keyboard music played on 11 gorgeous, almost exactly contemporaneous instruments. Dates of instruments are not always relevant, but in this case the selection was made with superb propriety and a discriminating ear for beauty (not just darkness) of sound. The musical discrimination, expectedly, was a bit more difficult, but the pieces here exhibit styles that are least translatable onto other instruments and therefore are done a service. The virginal and organ works contain much beauty; the 1568 Marco Jadra spinet, for example, which transposes down a fourth, gives the Johnson/Byrd Pavana Delight and Galiarda a hot glow.

Hogwood, on a circuitous sidetrack to "authenticity," attempts (deliberately, we hope) to convey something of the original amateur intent of these works by constantly arpeggiating the strong beats, even in the polyphonic pieces, and by simplifying dozens of trills. The manuscript was created,

Internationally renowned harpsichordist Kenneth Cooper has most recently recorded J.S. Bach's Sonatas for Viola da Gamba and Harpsichord with cellist Yo Yo Ma (CBS) and will appear this summer at the Charleston Spoleto Festival and the Santa Fe Chamber Music Festival. He is a professionally trained musicologist with a PhD in musicology from Columbia University.

after all, by the wealthy Catholic amateur Francis Tregian, who, for refusing to attend the services of the Church of England, was imprisoned for ten years in London's Fleet Prison. If indeed he had a spinet or a virginal in his cell to while away the hours, it is certain that, like the proverbial virtuoso of the shower, he needed to please no one but himself. The two Thomas Arne sonatas are idle pieces, crying to be helped by melodic, coloristic, or virtuoso ornamentation. Hogwood warms up somewhere in the Affettuoso of Sonata No. 6, but elsewhere safety prevails. The artist is at his stirring best in the startling and sensitive C.P.E. Bach works, played zestfully and vibrantly on a 1770s Heilmann fortepiano and an exquisite 1761 Hass clavichord. It is time, perhaps, for Hogwood to record C.P.E. Bach's six sonatas with the composer's own "varied reprises."

Richard Burnett's Clementi disc is also of interest; it contains two of the last works (1821) performed on a Clementi piano of 1822. I am not sure which ought to be more enlightening, to hear what the piano does for the music, or the reverse.

"Clementi has now achieved a more melodic and noble style of performance after listening attentively to famous singers, and also by means of the perfected mechanism of English pianos, the construction of which formerly stood in the way of a cantabile and legato style of playing." (Ludwig Berger, Clementi pupil, 1806).

Didone abbandonata—Scena tragica, published as one of three sonatas dedicated to the famous opera composer Luigi Cherubini, is a disturbing and passionate work exploring instrumentally the laborings of the abandoned Dido's mind as she contemplates suicide. Burnett's playing is completely involved with the realization of the music on this instrument, his enthusiasm not dampened by occasional coarse passagework. Also undampened are some lovely places in the Adagio dolente, where the pedal is coloristically used; while modern-piano practitioners have to experiment with partial pedaling and other fancy footwork to achieve similar results, the full pedal here blends discordant sounds into a very pleasant blur

The 12 Monferrinas, which are not Austrian cereals but waltzlike dances from Monferrato in the Piedmont area of northern Italy, display with Burnett's help a Schubertian grace and occasional Rossinian mischief. The engineering on this record is

quite elegant, although there are a few piano-tuning problems.

Luciano Sgrizzi's plaving on his new four-disc Scarlatti set is bright and Christmassy, but after a few sonatas, a method emerges: first time loud, second time soft, second repeat omitted. With their symmetry altered, their registration limited, and their concept standardized, we begin to lose faith in the depth, variety, and individuality of these great sonatas, and Scarlatti's elusive genius once more remains unexplored and misunderstood. I particularly do not understand why, despite virtually unequivocal documentation and unquestionable musical aestheties. Sgrizzi feels it necessary to yield to 1980s (or is it 1880s) fashion in principal-note trills. Why take the trouble to restore a 1737 Jean Bas harpsichord if one chooses not to attend to the most basic stylistic manner of the period? This is only Volume III; we can put up with some dotty details, but can we survive 21,000 wrong trills?

> "When one has sublime thoughts, one should not spoil them by a bad handwriting." (Denis Diderot, 1771, paraphrased by Wanda Landowska).

Gustav Leonhardt's new release of Bachand-son-do-it-in-D-minor has left me even more perplexed. Emanuel Bach's concerto (W. 23) has some strong and stormy (okay, forward-looking) ideas, but they are extended at length rather than developed with depth or insight. (The differences between this work and the ones that Hogwood plays are related to Emanuel's double life. He was excellent at his job, as court cembalist to Frederick the Great, but was frequently bored, demoralized, and disillusioned; at home after-hours, his writing, playing, and improvising of clavichord music "for music-lovers and connoisseurs," as he later termed it, was inspired, sensitive, emotional, profound, romantic, witty, daring, and surprisingly gripping.)

conhardt's playing of the C.P.E. Bach concerto is alive and not as troubling as that of the J.S. Bach work. We have learned not to expect too much extroversion or theatricality of Leonhardt, although both characteristics epitomized the Italian-style concerto of the day. But his point of view seems so repressed here that I am at a loss actually to find it. I would have loved more revelation of the character contrasts, the dramatic development, or the inner meaning of this incomparable Bach harpsichord masterpiece-by means of rubato, perhaps, or registration change, variation of articulation, or, dare we say it, ornament. I am sure Leonhardt is trying not to get in Bach's way, but since the concerto, according to the sleeve note, is a " 'Romantic' work of unrelenting momentum and a stark yet emotionally compelling angularity," I would gladly have settled for any of these qualities. Especially the compelling.

The Italian manner of playing is arbitrary, extravagant, artificial, mysterious, frequently bold and bizarre, and difficult in execution: it permits many additions of graces, and requires a good knowledge of harmony.... The French manner of playing is slavish yet modest, distinct, neat and true in execution, easy to imitate. neither profound nor mysterious. but comprehensible to everyone. and suited to amateurs; it requires little knowledge of harmony since the embellishments are generally prescribed by the composer; but it gives connoisseurs little to reflect upon. . . . Italian music depends upon the performance almost as much as the composition, and in some cases almost more." (Johann Joachim Quantz, 1752).

Why, Mr. Leonhardt, deny us your interpretation? We know what the notes are; does all your knowledge of the performance practice and the rhetorical tradition of the time lead you to believe that the score as scientifically inscribed without dynamics, phrasing, etc., is self-sufficient? How then do you differentiate yourself, a master, from a diligent student?

Leonhardt might well have reserva-(Continued on page 91)

#### CHRISTOPHER HOGWOOD: Keyboard Music.

Hogwood, harpsichord, virginal, spinet, fortepiano, and clavichord. [Peter Wadland, prod.] OISEAU-LYRE DSLO 609, \$10.98.

BULL: Fantasia. PHILLIPS: Galiarda passamezzo. FARNABY: Giles Farnaby's dreame; His rest; Farnabye's conceit; His humour. JOHNSON/BYRD: Pavana delight; Galiarda. GIBBONS: Fantasia; The Italian ground. Lincoln's Inn masque; The Queen's command. BACH, C.P.E.: Fantasy in C; Sonata No. 2. ARNE: Sonata No. 3, in G.; Sonata No. 6, in G minor.

CLEMENTI: Sonata in G minor, Op. 50, No. 3 ("Didone abbandonata—Scena tragica"); Twelve Monferrinas, Op. 49.

Richard Burnett, piano. [Gef Lucena and David Wilkins, prods.] AMON RA SAR 8, \$12.98 (distributed by Qualiton Records, 39-28 Crescent St., Long Island City, N.Y. 11101). Cassette: CSAR 8, \$12.98.

SCARLATTI: Sonatas for Harpsichord (70).

Luciano Sgrizzi, harpsichord. [Pierre Lavoix and Yolanta Skura, engs.] MUSICAL HERITAGE SOCIETY 844753M, \$31.80 (four discs) (\$19.80 to members) (add \$1.90 for shipping; Musical Heritage Society, Musical Heritage Building, Ocean City, N.J. 07712).

Sonatas:

Side I: in G, K. 201; in B, K. 244; in B, K. 245; in E minor, K. 394; in E, K. 395; in A minor, K. 451; in D, K. 333; in F, K. 354; in F.

K. 355.

Side 2: in C. K. 117; in C minor, K. 158; in C. K. 159; in G. K. 169; in D, K. 400; in D, K. 401; in B flat, K. 439; in B flat, K. 440.

Side 3: in E flat, K. 123; in C minor, K. 139: in F, K. 468; in F, K. 469; in C, K. 501; in C, K. 502; in A, K. 452; in A, K. 453.

Side 4: in G minor, K. 121; in B flat, K. 472; in B flat, K. 473; in B flat minor, K. 128; in F, K. 505; in F, K. 506; in C, K. 308; in C, K. 309

Side 5: in D, K. 345; in D, K. 346; in G, K. 431; in G, K. 432; in G, K. 433, in D minor, K. 396; in D, K. 397; in B flat, K. 488; in B flat, K. 489.

Side 6: in D, K. 388; in D, K. 389; in F, K. 256; in F, K. 257; in A minor, K. 341; in A. K. 342; in C, K. 384; in C, K. 385.

Side 7: in D, K. 443; in D, K. 444; in A, K. 499; in A, K. 500; in G, K. 493; in G, K. 494; in C, K. 356; in C, K. 357; in G, K. 449; in G minor, K. 450.

Side 8: in A minor, K. 382; in A minor, K. 383; in C, K. 548; in C, K. 549; in B flat, K. 410; in B flat, K. 411; in G, K. 538; in G, K. 539; in B minor, K. 497; in B minor, K. 498.

BACH: Concerto for Harpsichord, in D minor, BWV 1052. BACH, C.P.E.: Concerto in D minor, W. 23.

Leonhardt Ensemble, Gustav Leonhardt, harpsichord and cond. [Wolf Erichson, prod.] PRO ARTE PAD 139, \$9.98 (digital recording) (distributed by Intersound, Inc., 14025 23rd Ave. North, Minneapolis, Minn. 55441). Cassette: PCD 139, \$9.98 (chromium dioxide tape).

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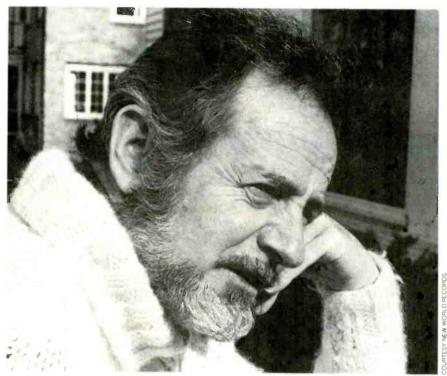
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# Reviews



Colgrass: a percussionist-turned-composer with a true melodic sense

BACH: Goldberg Variations, S. 988; Chromatic Fantasy and Fugue, in D minor, S. 903; Four Duets, S. 802-805.

Andras Schiff, piano. [Michael Haas, prod.] LONDON LDR 73013, \$25.96 (digital recording; two discs, manual sequence). Cassette: LDR5 72013, \$19.96 (two cassettes)

Sonic "authenticity" in the performance of pre-Classical music is an issue worth defending, and there are certainly many recorded performances that ably support the argument that the early-18th-century repertoire is most convincingly and conveniently realized on the instruments for which it was designed. On the other hand, there are enough good recordings of performances in various ways "nonauthentic" to prove the point that in the long run all that really matters is the validity of the music-making. The late Glenn Gould's award-winning second recording of the Goldberg Variations [(CBS IM 37779), reviewed in Jan. '83] features interpretive mannerisms that blatantly violate many of the canons of Baroque performance practice, yet even scholars who specialize in this area grant that the interpretation is overwhelmingly effective.

Although it, too, is delivered on the modern grand piano rather than the two-manual harpsichord cited on the title page of the original 1742 edition. András Schiff's new Goldberg set is likely to win approval from musicologists without raising their eyebrows. It's a wonderfully clean reading in which the thirty-year-old Schiff's

makes full use of the piano's capacities for voice leading and dynamic contrast but diligently avoids the sustain pedal. His tempos are refreshingly unremarkable—the toccata-like sections are dazzling, indeed, but one is always more mindful of the clarity of the player's technique than the mere speed at which the music moves, and in none of the slower variations is the pace so deliberate that it calls attention to itself. The phrasing is similarly "normal" and, in a way, even predictable. That's not to say that Schiff's version lacks surprises—octaves are shifted in the repeats of Variations Nos. 7, 18, and 19, for example, and the second go-rounds of most of the others feature countless ear-catching ornaments. But what Schiff does with this music seems so perfectly natural; rather than responding with "Aha! How interesting," the listener who knows this piece intimately just says, "Of

The virtues that characterize Schiff's unpretentious and thoroughly elegant performance of the *Goldberg* Variations also govern his treatments of the *Chromatic Fantasy and Fugue* and the four Duets (the latter—actually ''duets'' for the two hands of one player—published in Leipzig in 1739 and originally designed for organ). Schiff plays the modern instrument, but his interpretations feature maximum fidelity to the spirit of the music. The second is excellently recorded, and my only complaint (from a listener who likes to compare various artists' approaches to specific varia-

tions) is that the three sides devoted to the *Goldbergs* are not divided into bands.

JAMES WIERZBICKI

#### COLGRASS: Déjà vu\*; Light Spirit†. DRUCKMAN: Aureole\*.

David Starobin, guitar†: Members of the Saint Louis Symphony Orchestra, Catherine Comet, cond.† Saint Louis Symphony Orchestra, Leonard Slatkin, cond.\* [Marc Aubort and Joanna Nickrenz, prods.] New WORLD NW 318, \$9.98.

One can hardly imagine a more apt combination of works than those represented here. Michael Colgrass and Jacob Druckman have much in common in their philosophical outlook and aesthetic orientation. Both were influenced by jazz in their youth (though Colgrass's interest was more profound and long-lasting); both are fascinated by percussion (though, again, it is Colgrass who was the professional percussionist); both have a highly refined coloristic sense that makes them master orchestrators. But most important, both dutifully produced atonal serial works for many years and then, in the mid-Sixties, had a change of heart. Says Colgrass, "I came from a world of music where you improvise, and have close contact with your audience, and the music is not intellectualized. . . . So 1 started saying to myself, if you're really a good composer, then you should be able to conduct people who are nonspecialists in your art.

Druckman—director of the provocative New York Philharmonic Horizons '83 festival that posed the question, "Since 1968, a new Romanticism?"—sees in recent music "a steady reemergence of those Dionysian qualities: sensuality, mystery, nostalgia, ecstasy, transcendency." He adds, "Being touched by musical pieces, we begin once again to use the word 'beautiful,' which hasn't been used in so many years."

Here, therefore, are two composers who value communication and who are in love with sheer beauty of sound. Yet the parallels go further to include a shared fascination with memory, with paraphrase, with quotation. Many of their orchestral works incorporate thematic recollections: one might only mention Druckman's Prism, which quotes Cavalli, Charpentier, and Cherubini, or Colgrass's Concertmasters, which literally paraphrases the history of the violin concerto from the Baroque to the present. Colgrass and Druckman, however, are careful to fully integrate their quotes or historical references with the sort of rigorous logic that betrays a serial

Aureole (1979) is, in Druckman's words, built around "a constant but shifting, shimmering melody from which all the



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#### CLASSICAL Reviews

music springs." Imbedded in this melody is the Kaddish tune from the Symphony No. 3 of Leonard Bernstein, who commissioned Aureole and received its dedication. It is a coloristic tour de force by one of today's greatest masters of instrumentation. Fragmented, almost impressionistic dabs of color dot this sonic canvas, from powerful percussion to delicate filigree in the winds to string glissandos and snarls of brass. At strategic intervals, the Kaddish tune eerily appears in the winds, as if fleetingly heard through the parting mist. Of course, it is not always possible to be a tone painter and melodist simultaneously, and one sometimes feels that there is more shimmer than substance here. Yet the piece is still a sonic stunner.

Colgrass takes Druckman's eclectic mixture of past and present, of tonality and atonality, one step further. Déjà vu (1977), which was originally intended to be a concerto for the New York Philharmonic's principal percussionists, evokes both personal and universal pasts. On the one hand, it recalls the composer's early career as a percussionist; on the other, it uses vague historical allusions, apparent when the unifying theme is transformed into styles ranging from classic to romantic to jazz to serial. Colgrass, as would be expected, handles his huge percussion section with aplomb. and he too is a fine orchestrator. Yet here the melodic parameter is cultivated from the lush lyrieism of the strings to the passionate outbursts of the brass. Most important, his wild eclecticism-which might spell selfdestruction in the hands of a lesser composer-never threatens the work's unity and integrity. An almost Ivesian joy in juxtaposing disparate material is obvious in one section, where Colgrass adroitly combines hushed, sustained strings with intrusions of jazz and Webernian pointillism. Light Spirit, a 1963 chamber work, likewise highlights percussion and displays a marvelously uninhibited yet convincing integration of

The Saint Louis Symphony, under Slatkin's dynamic leadership, plays these works with just the right combination of accuracy and abandon. As we have learned to expect from other recent Saint Louis releases, this is certainly one of the finest American orchestras. New World provides a flawless pressing, coupled with a sonic clarity, spatial separation, and timbral warmth characteristic of the very best analog recordings. James Wierzbicki contributes exceptionally detailed and intelligent liner notes. Anyone interested in where American music is heading would do well to add this release to his library

K. ROBERT SCHWARZ

#### MASSENET: Manon.

CAST

Manon Pousette Javotte

Heana Cotrubas (s) Ghyslaine Raphanel (s) Colette Alliot-Lugaz (s)

Rosette Martine Mahé (ms) Des Grieux Alfredo Kraus (t) Guillot Charles Burles (t) Lescaut Gino Quilico (b) De Bretigny Jean-Marie Frémeau (b) Hotelkeeper Jacques Loreau (b) Le Comte des Grieux José van Dam (bs-b)

Orchestra and Chorus of the Capitol de Toulouse, Michel Plasson, cond. [Eric Macleoud, prod.] Angel DSCX 3946, \$38.98 (digital recording; three discs, manual sequence). Cassette: 4X3X 3946, \$29.98 (three cassettes).

A right round welcome back to the mainline catalog for this irresistibly melodious and persuasive opera, an effusion of felicity and passion and sheer musical charm. Surely, Manon is second only to Carmen on the list of French operatic love stories. (Do I hear cries of Pelléas? I must proclaim an allergy. A Pelléas night is longer than a Nibelungen cycle to this operagoer.) It seems astonishing that until the appearance of this issue you could get stereo sets of Cendrillon, Le Cid. Le Jongleur de Notre-Dame, even Esclarmonde, all rare and arcane operas, while Manon, Massenet's most popular work, has been absent from SCHWANN since the Sills/Rudel set was withdrawn a few years ago. Of course, the glorious old mono recording with Victoria de Los Angeles in the title role and Pierre Monteux conducting is still around on Seraphim, but not always easy to find.

At any rate, here we have a modern and most competent performance that will give much pleasure. The production is very much in the Gallic opéra comique style, rather than the big-league international mode favored by the major record companies. And yet the principal singers are stars, members of the upper-crust opera circuit. The orchestra is perhaps not the top drawer but the chorus and supporting cast are autochthonous and idiomatic. And conductor Michel Plasson has clearly grown up in the tradition.

Since anybody seeking a stereo Manon has nowhere else to go, there does not seem much point in a detailed examination of every element. The most problematical feature concerns the title role and Ileana Cotrubas, who, wonderful singing actress though she is, does not do equally well in all aspects of the role. She restrains herself in saying farewell to "notre petite table" where others make that Act II air an extravaganza in pianissimo effects. She is suitably childlike and virginal in the first act, insufficiently meretricious later on, meltingly seductive in the St. Sulpice love duet, not quite sparkling enough on the Cours la Reine. (This was the scene of Beverly Sills's greatest coup as Manon, both in the New York City Opera production and the 1971 recording.) The Cotrubas performance, then, may be accounted a fine achievement if not a fully persuasive one.

Her partner, Alfredo Kraus, is not to be faulted. There is a scrupulous fidelity to the printed notes, which, coupled with an innate feeling for Massenet's manner.

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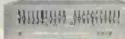
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BEETHOVEN: Piano Sonata. Michelangeli. DG 2543 505 Feb

BERWALD: Septet for Clarinet, Horn, Bassoon, and Strings, in B flat. JANAČEK: Concertino for Horn, Bassoon, Piano, and Strings. PROKOFIEV: Overture on Hebrew Themes for Clarinet, Piano, and Strings, Op. 34. Amsterdam Nonet. NONESUCH 71412B, Mar.

BRAHMS: Keyboard Works, Zimerman, Vasáry, Kempff. DG 2740 278 (11), Dec.

BRAHMS: Songs. Norman, Fischer-Dieskau, Barenboim, DG 2740 279, Jan.

CRUMB: Apparition. IVES: Songs (9). De-Gaetani, Kalish. BRIDGE BDG 2002, Dec.

**DEL TREDICI: In Memory of a Summer Day** 

(Child Alice, Part 1). Bryne-Julson; St. Louis Symphony, Slatkin. Nonesuch 79043, Feb.

FALLA: The Three-Cornered Hat. Boky, Hoenich: Montreal Symphony, Dutoit. LONDON LDR 71060, Jan.

FIELD: Concertos for Piano and Orchestra (7), O'Conor; New Irish Chamber Orchestra, Fürst. FIDELIO CSM 55-58 (4), Jan.

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HINDEMITH: Concertos for Cello and Orchestra; for Clarinet and Orchestra, Machula, Pieterson; Concertgebouw Orchestra, Kondrashin. ETCETERA ETC 1006, Feb.

MAHLER: Symphony No. 6, in A minor. London Philharmonic, Tennstedt, ANGEL DSB 3945 (2), Mar.

MOZART: Quintet for Clarinet and Strings, K. 581; Quintet for Piano and Woodwinds, K. 452. Stoltzman, Serkin; Tashi. RCA AGL 1-4704. Feb.

MOZART: Quintet for Clarinet and Strings,

K. 581. WEBER: Introduction, Theme, and Variation for Clarinet and Strings. Meyer; Philharmonia Quartet Berlin. DG 410 670-1,

PUCCINI: Orchestral Works: Operatic Excerpts. Berlin Radio Symphony, Chailly. Lon-DON LDR 71107, Nov.

PURCELL: Songs (15). Esswood, Sonnleitner, Mediam. Hyperion A 66070, Mar.

SZYMANOWSKI: String Quartets, Nos. 1, 2. Varsovia Quartet. PAVANE ADW 7118, Feb.

VERDI: Opera Arias. Tomova-Sintov; Bulgarian Radio Vocal Ensemble, Sofia State Philharmonia, Rayehev. TURNABOUT TV 34786, Jan. WOLF-FERRARI: Sly. Polaski, Bader, Reeh; Chorus and Orchestra of Niedersachsischen, Maxim. ACANTA 23.501 (3), Jan.

WOLPE: Suite im Hexachord for Oboe and Clarinet, Williams, West, Rendall, CRYSTAL S. 355, Mar.

NICOLAI GEDDA: Anthology of Swedish Song. BLUEBELL 121, 122, 127, 142, 147 (5),

KOYAANISQATSI. Ruiter; Philip Glass Ensemble; Western Wind Vocal Ensemble, Riesman. ANTILLES ASTA 1, Jan.

makes for an ideal stroke of casting. The vocal subtleties in the dream air ("Ah, fuyez, douce image", to take just one example, will repay many playings. Nor can anybody quibble with the choice of José van Dam as Des Grieux the elder. The combination of rich tone, sureness of line, and a supremely French way with words—all this grafted onto a fine piece of character creation-makes such moments as the fatherson duet in St. Sulpice very treasurable. Hear him try to persuade the Chevalier to give up his idea of retreating into the church and to go marry some fine girl ("Épouse quelque brave fille") and you will hear how skilled a theatrical creator Massenet can be when the right people are put on his stage.

Gino Quilico, as Lescaut, has a striking solo in Act III and turns out to be a worthy baritone son of a baritone father. The other featured singers are, as noted, skilled and able. Anyone who finds Massenet's melodies agreeable and his passion convincing will not wish to be without this recording. GEORGE MOVSHON

#### PROKOFIEV: Cinderella, Op. 87.

London Symphony Orchestra. André Previn. cond. [Suvi Raj Grubb, prod.] ANGEL DSB 3944. \$27.98 (digital recording: two discs, manual sequence). Cassette: 4X2S 3944, \$19.98 (two cassettes).

In Tchaikovsky's day, Swan Lake, The Sleeping Beauty, and The Nutcracker were thought "too symphonie" for dancing. Today, anything goes. Choreographers have used everything: the St. Matthew Passion; the Goldberg Variations; dead silence; aleatory bleeps; talking; song eyeles of Brahms and Mahler; and symphonies, by composers from Haydn and Beethoven to Mahler and even Tchaikovsky. No wonder,

then, that Prokofiev's Cinderella passes as a ballet score. It was actually composed as such.

All the same, it is a sorry specimen of the genre. Not that it is theatrically without merit. The personages of Cinderella's household and the court register in swift, vivid sketches. (The pictorial ease recalls Peter and the Wolf and, still closer to home, Romeo and Juliet.) The key moments of the story (the appearance of the disguised fairy godmother, the braying curfew, the prince's quest) are aptly and inventively rendered. And Prokofiev wisely took a page or two out of Tchaikovsky's book in some other respects: There is a modestly elaborate system of telling musical reminiscences that some might please to call leitmotifs; there are expansive romantic cantilenas. But the two-hour, three-act score splinters up into no fewer than 50 numbers, practically all of them end-stopped, so that the symphonic sweep that is precisely one of the glories of Tchaikovsky's ballet scores never materializes.

Nor is Prokofiev terpsichorean within the limits of his tiny movements, inspired though some of them purport to be by the court dances of the eighteenth century. With their self-conscious chromaticisms and wide intervals, the big tunes have an overripe, lugubrious cast. But what weighs the music down most inexorably is the heavy orchestration. Between the booming tubas and buzzing contrabasses at the bottom of the staff and the screeching flutes and fiddles at the top (not to mention all the windy stuffing in between), the melodies never have a chance graciously to lift off. Even in the glorious waltz (the one sounded at the close of the first and second acts, with its subtle convexities and concavities within a single vaulting line-not the one Prokofiev

himself designated as "grand"), the give-'em-the-works scoring conjures up a squadron of pounding boots, not silken slippers whirling in a ballroom. Fleshed out, the brilliant strain is antithetical to dancing, or at any rate to ballet. It has all the buoyancy of a brilliantly trimmed and painted lead balloon.

André Previn's deluxe reading makes no attempt to lighten Prokofiev's textures: It presents what is there with perfect clarity and no excuses. The glossy London Symphony does justice to every gaudy flash of coloristic invention and every nuance of the wide-ranging dynamics. The recording far surpasses what one will hear from the pit of a theater, and as a display of instrumental virtuosity, it has some appeal. But hardly enough. Any reservations about the garrulous Cinderella as a ballet score are as nothing to reservations about it as a symphonic poem. MATTHEW GUREWITSCH



Richter: "Where is the heart?"

SCHUBERT: Moments Musicaux, Op. 94, D. 780: No. 1 in C, No. 3 in F minor, No. 6 in A flat; Impromptus, Op. 90, D. 899: No. 2 in E flat, No. 4 in A flat. SCHUMANN: Fantasiestücke, Op. 12: No. 5 ("In der Nacht"), No. 7 ("Traumes Wirren").

Sviatoslav Richter, piano. [Shoo Kaneko, prod.] Vox Cum LAUDE D-VCL 9029, \$7.98 (digital recording; recorded in concert, Tokyo, February, 1979). Cassette: D-VCS 9029, \$7.98.

"Schubert's naïveté leaves room for a good deal of sophistication," Alfred Brendel wrote in his *Musical Thoughts and Afterthoughts*. Nowhere is the validity of his observation more clearly confirmed than in Schubert's cameolike works for the piano, the *Moments Musicaux* and the *Impromptus*. And nowhere are the exquisitely concentrated moments of poignancy and charm more difficult to capture in performance.

In spite of his extraordinary abilities. Sviatoslav Richter does not seem an interpreter capable of projecting an intimate sense of identification with Schubert's bittersweet world. For Richter is a titanic performer-all too frequently a pianist of extremes. He recorded the three Moments Musicaux on this disc once before-in 1975 (Columbia Melodiya M 33826), four years after voluntarily absenting himself from recording activities for more than a decade. Unlike Glenn Gould, who preferred the privacy of the recording studio to live performance, Richter detests the world of microphones and electronic transcriptions. His is an artistry that thrives on contact with an audience. But, as recorded in recital during a 1979 tour of Japan, these latest interpretations of the Moments Musicaux, the Impromptus, and Schumann's Fantasiestücke are more contrived than communicative.

Here, as in the 1975 recording, Richter is deliberate and even stodgy. I found myself asking, "Where is the joy, where is the heart? Where is the special whimsy in Schubert's Weltschmerz?" Paradoxically, while Richter may need the presence of a live audience, there is little spontaneity, little sharing of the elegant nuances that so uniquely characterize these compositions. One longs for a more poetically animated and introspective revelation, a more subtle and delicate range of dynamics.

Instead, the pervading impression is one of a master technician at work, producing huge sonorities that are frequently granitelike in their unyielding movements and textures. The voicings are carefully chiseled, the lines severe and tensile rather than fluid, and the pedaling frequently overlavish. This is playing that is prodigious rather than patrician.

In the two Fantasiestücke, however, Richter does reveal that he is far more capable of identifying lovingly with Schumann's delicately sensual, contrapuntal language than with Schubert's singular

orchestration of keyboard timbres.

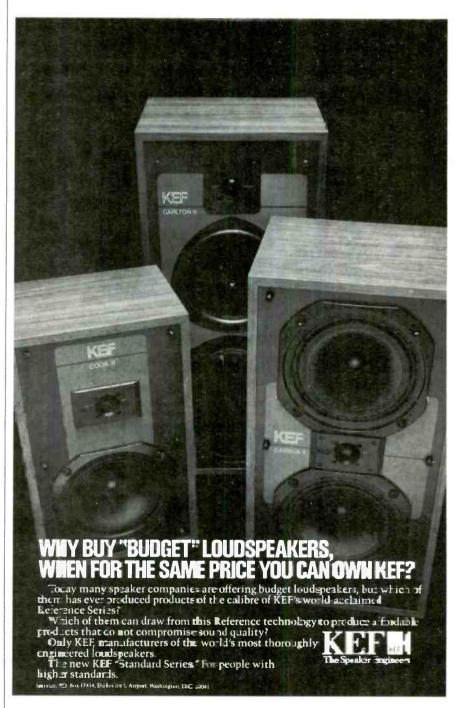
The Yamaha Concert Grand CF he plays is an uneven instrument, more impressive for the boldness of its sonorities than for its delicacies. Particularly distressing is the una corda pedal, whose use seems to drain the instrument of its vitalities.

JACQUELYNE SILVER

#### SCHUBERT: Quintet for Strings, in C, Op. 163, D. 956.

Heinrich Schiff, cello; Alban Berg String Quartet. [Gerd Berg, prod.] EMI ANGEL DS 38009, \$12.98 (digital recording). Cassette: 4XS 38009, \$12.98. To the true chamber music enthusiast, Schubert's C major Quintet represents one of the peaks (if not the peak) of the entire repertoire. It was composed during a month or two—August—September 1828—of incredible creativity, at the same time as his three last piano sonatas and the song cycle Schwanengesang. On or about October 2, a rehearsal of the Quintet took place—a preliminary reading, nothing more. Six weeks later, Schubert died at the age of thirtyone.

It is hard to believe that this Quintet, completed in every detail by the composer



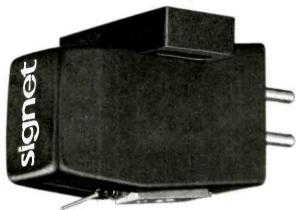
at the time of his death, had to wait 22 years for a first performance, which was given in November 1850 by the Viennese Hellmesberger Quartet. For the next three decades. Joseph Hellmesberger's interpretations of Schubert (and especially the Quintet) were considered unsurpassable because he alone was capable of capturing the uniquely Austrian spirit of the music. This praise came from Andreas Moser, the disciple of Joachim

Something of Hellmesberger's spirit must have come down through the ages to infect the Viennese musicians of the Alban Berg Quartet, for I must state that I have

never heard a more idiomatic, more "Austrian" performance of this score. Everything is perfectly balanced-intensity and relaxation, drama and lyricism; there are wonderful gradations of dynamics, from forceful attacks to the most hushed pianissimo opening of the slow movement. Both Scherzo and Finale have an engaging rhythmic drive. The tempos are lively without being rushed. The interpretation has an easygoing, natural flow; it is without rigidity yet never slack. Technically, the performance could not be bettered: Intonation, attacks, bowings, tone quality, all details of ensemble are polished to perfection.

Originally trained in Vienna, the members of the Alban Berg Quartet formed their ensemble in 1970 and accepted a scholarship to study for a year with the renowned LaSalle Quartet, in residence at the University of Cincinnati's College-Conservatory. (The LaSalle has players with a European background, which facilitated communication with the Viennese.) Upon returning to Vienna, the Alban Berg Quartet appeared regularly at the Konzerthaus, stressing the repertoire of the "Second Viennese School"; it has also toured in Europe, the United States, Australia, Canada. New Zealand, and Japan. The quartet has received a number of awards, including the Grand Prix du Disque. The assisting cellist. Heinrich Schiff, is also an Austrian and has appeared widely at a variety of fes-**BORIS SCHWARZ** 

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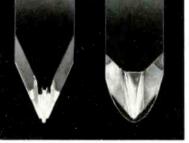
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## STRAVINSKY: Le Sacre du Prin-

Toronto Symphony Orchestra, Andrew Davis, cond. [Anton Kwiatkowski, prod.] CBC SM 5019 (digital recording) [price at dealer's option] (distributed by Intersound, Inc., 14025 23rd Ave. North, Minneapolis, Minn. 55441). STRAVINSKY: Concerto in E flat ("Dumbarton Oaks")\*; Concertino for 12 Instruments\*. BARTÓK: Three Village Scenes†; Contrasts††.

Olena Genyk-Berezowski†, alto; Elmer Iseler Singers†. Irving Ilmer††, violin; Victor Sawatt, clarinet; Raffi Armeniantt, piano. Canadian Chamber Ensemble. Raffi Armenian. cond.\* [Anton Kwiatkowski, prod.] CBC SM 5014 (digital recording) [price at dealer's option] (distributed by Intersound, Inc.).

After the Stravinsky Centennial in 1982. one would assume that a point of saturation had been reached. Not at all: Here are two new Canadian-produced recordings that include his music, one of them featuring Canada's most prestigious orchestra, the Toronto Symphony, under its permanent conductor, the British-born Andrew Davis. One might question the need for yet another recording of the overplayed Rite of Spring, but this score, by now seventy years old, is still a test piece for every major orchestra and a challenge for a young conductor (Davis is not yet forty). This is a solid, straightforward reading, showing strength in all sections of the ensemble, and the conductor controls the rhythmic intricacies of the work with a precise beat. In all, a very satisfactory achievement.

The Dumbarton Oaks Concerto, that neo-Baroque creation of 1938, also receives a delightful performance by the Canadian Chamber Ensemble under Raffi Armenian. There are no interpretative problems; the work needs efficient playing by technically accomplished musicians, and the group obviously has all the required resources. Though 27 names are listed as members of the Ensemble, it is impossible to tell precisely how many participated. (Continued on page 74)

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# Reviewed by Will Crutchfield

T COULD BE THAT ONLY a more sophisticated, or well-educated type of person [in Italy] will now go in for operatic singing; in which case, no doubt, the well-schooled, tasteful and sensitive style will develop among them and perhaps become pervasive. And perhaps then Italian singing will be no more important than English or Swedish or French; and then we shall remember the fable of the goose that laid golden eggs."

Thus wrote John Steane in The Grand Tradition, that irreplaceably eloquent appreciation of great singing in our century. Don't look now if you're squeamish, but the goose may be dead. Steane was writing in 1971 about the crop of Italians then current, and there was then I suppose only a hint that the ensuing decade would fail to reveal plausible successors to them as the older ones retired. The reasoning may not be quite right, since the singers we've been getting recently differ from those of the '50s and '60s not so much in their sophistication as in their markedly lower level of vocal aptitude and apparent confidence in the musico-dramatic tradition in which they

Perhaps Italian audiences in the 1950s compared their generation of singers to earlier ones in just such pessimistic termsand perhaps with reason. But if the "tradition" has described a descending arc since 1900 (Steane does not think so), this new series evokes a powerful nostalgia for the grandeur still present in the early postwar period. Just count the tenors: Here in their prime are Giuseppe di Stefano, Ferruccio Tagliavini, Mario del Monaco, Cesare Valletti, Franco Corelli, and Carlo Bergonzi. Try making the parallel list for the early '80s—start it with Pavarotti and don't even raise the question of how he'd fare in direct competition. Whose would be the other five names? Well, of course there are some



Callas, in splendid voice, and Di Stefano, working sostenuto magic.

good Italian tenors around—but they stack up more plausibly against the earlier generation's second string, represented here by Giacinto Prandelli, Gianni Raimondi, Agostino Lazzari, Luigi Infantino, and Salvatore Gioia. (Giuseppe Campora, Bruno Prevedi, Mario Filippeschi, and Gianni Poggi had their merits as well.)

Speculation is eminently worthwhile. A nation's great vocal traditions *can* die: Look at France. But they can also be reborn after a weak period: England (especially if one may include Australia and Canada) has seen it happen. For the present, though, better to offer a brief guide to this series.

The basic format is a pair of singers in alternating arias, framed with orchestral selections (sometimes omitted on these discs), and occasionally backed with chorus. From time to time the partners join for a duet (but not, maddeningly, on the Callas-Beniamino Gigli evening). The audience for these concerts was not after variety (Tagliavini appeared on three programs and brought along "Una furtiva" each time), and often a disc here will duplicate the same singers' commercial albums or be worthwhile only for one half of the pair. But in several cases those duplicated arias were captured here two or three crucial years earlier (Renata Tebaldi, Del Monaco, Callas, Di Stefano), and in general, though few will want the whole set, many, I imagine, will want portions of it.

The unexceptionable. Besides the Callas concerts (see below), three discs stand out as the most rewarding overall packages. LMR 5012 has four bands of prime Tebaldi (fresher than for her remakes of the arias, which include a ravishing "Selva opaca"). On the reverse, Fedora Barbieri sings a formidable "Divinités du Srx" (in Italian, transposed), and Valletti

offers an extraordinary, passionate "Quando le sere" that reminds us of the days when light voices could sing dramatic music on their own vocal terms (instead of futilely imitating the heavies) and make a considerable impact in it. If Pavarotti and José Carreras felt free to consider interpreting the aria in anything like this way, both their voices and our idea of Verdian singing would be in better shape. Sesto Bruscantini and Alda Noni on 5016 give a delightful souvenir of 1950s buffo at its best: He's elegant and full of smiles (singing Mozart and, in the tradition of Giuseppe de Luca and Riccardo Stracciari, the devil's solos from Dannazione di Faust); her tone (if not her fioratura) is neat as a pin, and her way with the familiar arias is always alive and full of individual touches. The mixed bag on 5024 has a highly attractive, nearly unknown lyric tenor in Salvatore Gioia (otherwise represented on my shelves only in the Cetra recording of Paisiello's Nina; he's a joy there too). There's also Magda Olivero singing exquisitely, and young Di Stefano, exciting in Favorita with the veteran Ebe Stignani, and faking "Nessun dorma" more convincingly than later.

The unsuspected. Several other discs, less attractive in toto, have buried gems, often where one would expect something routine. Di Stefano works sostenuto magic in a little song from *Maristella* (5015). Nicola Rossi-Lemeni, though woolly of tone, gives a vivid and rather Chaliapinesque "Non piu andrai" on 5013. On 5011 and 5031, Del Monaco sings Wagner in (bad) German with more vocal excitement than he was able to bring to his commercial recital of 1964. (He also sings standards like "Celeste Aida" in magnificent voice, with more elegance than he's usually given credit for—that is, a little, rather than none at

all.) On 5004 Gertrude Grob-Prandl guests with fearless high Cs in "Ozean du Ungeheuer" and a passionate if not very idiomatic Ballo aria. Graziella Sciutti gives an interesting extension of her work in (good) English with the Rake's Progress solo on 5032; too bad (for me, I mean) that I think the aria itself a thudding bore.

The underrecorded. Three sopranos prominent on the Italian scene in the '50s and all but ignored by the record companies have since become prime items in the pirate trade. With Magda Olivero I can understand why, and she's as involving on 5020 (in the Loreley aria from Alda's famous record, and worthy of comparison with it) as in the potpourri described above. In the case of Leyla Gencer, I suppose it's a little surprising that such a clearly useful singer didn't make at least a few commercial completes, but I can't say I got much pleasure out of hearing her mark her way through "Marten aller Arten" on 5017 (any more than I did hearing Teresa Stitch-Randall dodge all the hard parts on 5027—she never recorded it commercially and now we know why). Virginia Zeani is somewhat more impressive on 5028, inevitably inviting, and suffering by comparison with Callas's elegance in Bolena and Puritani. But the ones I'd really like to hear more of are the "merely" competent Antonietta Stella (5005, 5031) and Gabriella Tucci (5029, with good sustained and staccato high Ds, which I wouldn't have expected from her). Giuseppe Taddei made plenty of records for Cetra in his prime, but the arias on 5022 and 5029 are the only currently available antidotes to his less impressive work of the mid-Sixties through early Eighties (5025 is less good; 5029 contains Wagner all'Italiana and other material otherwise unrecorded by him).

The unknown. The names you've never seen, except for Gioia, explain their own obscurity, although Maria Coleva on 5011 rises above routine competence for some floated top notes that are distinctly more than adequate. (This adds to the appeal of the Del Monaco cuts.) Lazzari is another nice lyric tenor (he's on the first Corena Pasquale), and his program with Margherita Carosio (post-prime) on 5010 offers interesting repertory (Giordano's Il re, Mascagni's Nerone and Lodoletta, Panain's Beatrice Cenci).

The unnecessary. With a few exceptions noted here and above, the Big Names duplicate material they've recorded at least as well on accessible standard discs. Giulietta Simionato does her French repertory in Italian with lovely highs and some sparkle in the Mignon "Styrienne," along with a ringing "Flower Song" from Tagliavini (his only, I think) on 5006. The Rimsky "Prophet" on 5009 reminds one how much we need a reissue of Boris Christoff's Russian song series for EMI. Elisabeth

Schwarzkopf did not record "Ach, ich fühl's" commercially, as far as I know, but the one on 5018 is no revelation, and the other Mozart there is done as well elsewhere. Carlo Bergonzi is at his plangent best on 5026, singing arias done elsewhere (but the "O paradiso" here is more beautiful) and also a "M'appari" in the style of Gigli, beside whose record it can stand without apology. On 5014 is the young Corelli (singing a "Flower Song" with rather extraordinary pianissimos) and the briefly celebrated Anita Cerquetti (except for a skittish *Ernani* cabaletta, the repertory duplicates her better-sung recital on London/Richmond).

The unforgettable. Finally, a word about the Callas material: These concerts have long been available in various pirate incarnations, but as far as I've noticed this is their first appearance under the celebrated Italian law that gives to the world by fiat anything broadcast in Italy 20 years or more ago. The sound is distinctly better than on other versions I own (in particular, a tape of her miraculous 1952 "Bell Song" that does not fade out in spots toward the end has been used for 5001). The main point is that this is absolutely prime Callas—in all three years the voice was in splendid condition,

and all the artistic fires were lit. Furthermore, several of the arias do not figure among her issued studio recordings (such as the hair-raising "Marten aller Arten" on 5002), or were made only at a late stage in her vocal decline. "Bel raggio" sounds far better on 5007 than on the 1964 EMI/Angel version: The coloratura peals forth with nearly unparalleled accuracy and absolutely unparalleled variety of touch between brio and dolcezza. And it's almost too much to ask that a singer who vocalizes Rossini's ornate tracery so exquisitely should also be the only one I've ever heard to make the aria sound as though it's about something (there is tenderness, expectancy, love in those repetitions of "Arsace qui verrà"). The Hamlet mad scene in Italian (also on 5007) is again breathtakingly sung and a wonderful complement to the French commercial recording, where the entire piece has been created afresh in response to the specific qualities of the "new" text.

In fact, although I've known these performances virtually by memory for years, I found I couldn't take them off the turntable. Anyone wanting to make the most extravagant claims for Callas's genius will hardly find better evidence than in these concerts, or readier agreement than from me. HF

#### CONCERTI MARTINI E ROSSI.

Broadcast concerts of operatic excerpts, sponsored by the Italian vintners Martini and Rossi (identified below by vocal participants and date). FONIT CETRA LMR 5001–50032, \$9.98 each (32 discs) (distributed by International Book and Record, 40-11 24th St., Long Island City, N.Y. 11101).

Maria Callas (s), Nicola Filacuridi (t), Feb. 8, 1952; LMR 5001.

Callas, Beniamino Gigli (t). Dec. 27, 1954; LMR 5002.

Margherita Carosio (s), Giuseppe di Stefano (t). Nov. 9, 1953; LMR 5003.

Gertrud Grob-Prandl (s), Ferruccio Tagliavini (t). Dec. 24, 1953; LMR 5004.

Rosanna Carteri (s), Gigli; Feb. 9, 1953. Antonietta Stella (s), Gigli; Dec. 21, 1953. LMR 5005.

Guilietta Simionato (ms), Tagliavini. Dec. 20, 1954; LMR 5006.

Callas, Gianni Raimondi (t). Nov. 19, 1956; LMR 5007.

Carteri, Tito Gobbi (b). Dec. 24, 1956; LMR 5008.

Elisabetta Barbato (s), Boris Christoff (bs), Jan. 12, 1953; LMR 5009.

Carosio, Agostino Lazzari (t). Dec. 31, 1956; LMR 5010.

Maria Coleva (s), Mario del Monaco (t). Dec. 9, 1957; LMR 5011.

Renata Tebaldi (s); Nov. 30, 1953. Fedora Barbieri (ms), Cesare Valletti (t); Dec. 10, 1951. LMR 5012.

Ebe Stignani (ms), Nicola Rossi-Lemeni (bs). Jan. 31, 1955; LMR 5013.

Carteri, Franco Corelli (t); Jan. 16, 1956. Anita Cerquetti (s); Dec. 17, 1956. LMR 5014. Simionato, Di Stefano, Nov. 26, 1956; LMR 5015.

Alda Noni (s), Sesto Bruscantini (b). Dec. 3, 1951; LMR 5016.

Leyla Gencer (s), Luigi Infantino (t). Feb. 10, 1958; LMR 5017.

Sena Jurinac (s), Mario Petri (bs); Jan. 4, 1954.
Elisabeth Schwarzkopf (s); Dec. 1, 1952.
LMR 5018.

Fiorenza Cossotto (ms), Ivo Vinco (bs). Dec. 25, 1961; LMR 5019.

Onelia Fineschi (s), Stignani, Magda Olivero (s), Pia Tassinari (s), Anna de Cavalieri (s). Misc. dates; LMR 5020.

Maria Manni Jottini (s), Giacomo Lauri-Volpi (t). Feb. 11, 1957; LMR 5021.

Lauri-Volpi, Christoff, Giuseppe Taddei (b). Misc. dates; LMR 5022.

Tebaldi, Giacinto Prandelli (t). Feb. 27, 1961; LMR 5023.

Stignani, Di Stefano; Dec. 8, 1952. Olivero, Salvatore Gioia (t); Jan. 27, 1958. LMR 5024.

Teresa Berganza (ms), Taddei. Dec. 16, 1957; LMR 5025.

Carteri, Carlo Bergonzi (t). Jan. 30, 1960; LMR 5026.

Teresa Stitch-Randall (s), Bruscantini, Nov. 9, 1959, LMR 5027.

Tassinari, Tagliavini; Nov. 25, 1957. Virginia Zeani (s), Rossi-Lemeni; Nov. 10, 1958. LMR 5028.

Gabriella Tucci (s), Taddei. Feb. 15, 1960; LMR 5029.

Coleva, Valletti. Dec. 4, 1961; LMR 5030.

Cossotto, Del Monaco; Feb. 2, 1959, Stella; Jan. 25, 1960, LMR 5031.

Graziella Sciutti (s); Feb. 9, 1959. Marcella Pobbe (s). Cesare Siepi (bs); Dec. 7, 1959. LMR 5032. (Continued from page 70)

The Concertino for 12 instruments is the 1952 arrangement of the Concertino for String Quartet, which was composed in 1920 for the famous Flonzaley Quartet. At its premiere, the work was a "clamorous failure" (as reported by the composer Alfredo Casella). Actually, the original version is rather ungrateful, and the enlarged instrumentation offers some improvement. There is a prominent violin and cello part, called "obbligato"; the remaining ten instruments are all winds (wood and brass). Though well played, the piece is not particularly engaging.

Bartók's Five Village Scenes, based on Slovakian folksongs, was written in 1924. The entire song cycle deals with a peasant wedding (not unlike Stravinsky's Les Noces) and retains the Slovak tunes intact while taking certain artful liberties. In 1926 the composer arranged three of the songs (recorded here) for women's voices and chamber orchestra for the League of Composers in New York. The Elmer Iseler Singers bring an infectious spirit to their work, and the lullaby is marked by a sense of introspection. Contrasts does not fare so well. The Canadian players are violinist Irving Ilmer, clarinetist Victor Sawa, with Armenian at the piano, and they are all clearly skilled technicians. But the idiom escapes them. One remembers the exemplary rendition by the composer with Joseph Szigeti and Benny Goodman, and that is indeed difficult to match.

BORIS SCHWARZ

TOENSING: Sounds and Changes II\*; Sounds and Changes III\*; Sounds and Changes IV†; Variations for Piano††.

David Shuler, organ\*; John Galm, percussion†; Peter Takåcs, piano††. [Thomas Steenland, prod.] Owl. 27, \$8.98.

Richard Toensing is a tough, uncompromising composer. After a half-dozen hearings, the listener is still attempting to absorb this angular, craggy music, striving to understand the intellectual processes and motivic relationships that form its bedrock. Toensing, born in 1940, is on the composition faculty at the University of Colorado at Boulder, the city that is also the home of Owl Records. He is evidently enamored with the ultrarationality of extended serial techniques, but he is no dogmatist, so surprising flights of fancy emerge from what otherwise could have been stultifying academic meanderings.

Toensing's Variations for Piano (1977), 20 minutes in length, are loosely constructed around a 12-chord harmonic progression. This is dissonant, atonal music, accenting the percussiveness of the keyboard. Toensing favors broad contrasts: There are sudden changes of register: rapid juxtapositions of distant dynamics; and explorations of the extremities of piano technique, from fanciful cascading arpeggios to brutal sforzando chords. The centerpiece of the work is a marvelous variation played entirely inside the piano. Here, delicate plucked lines are accompanied by strummed harmonies, providing a needed respite from the tension of the rest of the piece. Variations builds to a fearsome climax, as pounding sonorities in the instrument's lowest register are layered one over the other, eventually producing a thunderous mass of sound.

Three works for organ occupy Side 2 of this disc. All are entitled *Sounds and Changes*, and all explore the wide variety of timbral possibilities available on the organ. *Sounds and Changes II* (1966) and *Sounds and Changes III* (1969) are characterized by abrupt contrasts of stops and registers, closely juxtaposed dynamic shifts,

glissandos, massed sonorities, and chordal clusters. In effect, this is organ music that is an extension of the electronic studio, with more concern for the instrument's range of colors than anything else. Toensing, much involved with electronic music at Boulder, admits that in Sounds and Changes IV (1979) "the timbral richness and subtlety available in the electronic studio were translated to conventional instruments." This work combines the organ with a variety of percussion, including drums, cymbals, and vibraphone. Sometimes the composer attempts to weld the organ and percussion into an indistinguishable sonic blend; other times the two are diametrically opposed.

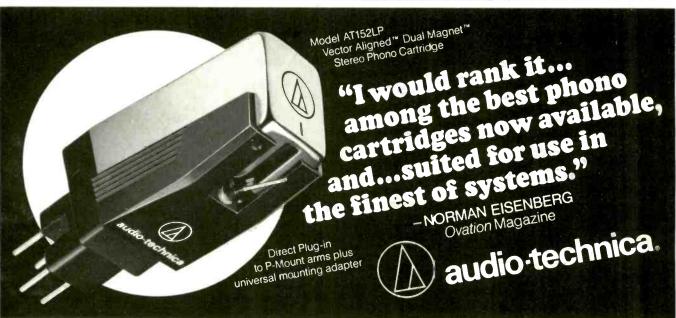
Despite all there is to admire here—a gift for the violently dramatic, a sense of climax, a rich harmonic palette, an acute ear for unusual sonorities—Toensing still appears to be two-dimensional, for any melodic profile is sorely absent. This is not to say that his work should have the melodic warmth of Brahms or Schoenberg. But even in this type of music, one cannot ignore the sense of line so conspicuously; it is not enough to delight the ear with colorful contrasts and the mind with structural logic.

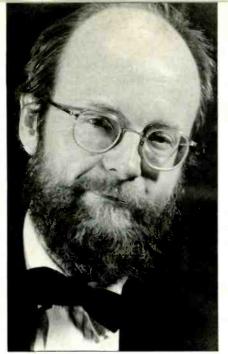
Owl Records provides a silent pressing of a recording that accurately captures the wide dynamic ranges of the piano and organ. The performances are of virtuoso caliber: This is enormously difficult music, and the composer is lucky to have found pianist Peter Takács and organist David Shuler. Both men approach these pieces not just with diligence, but with real interpretive insight.

K. ROBERT SCHWARZ

VERDI: Ave Maria; Laudi alla Vergine Maria; Stabat Mater; Te Deum.

Arleen Augér, soprano; Swedish Radio Choir; Stockholm Chamber Choir: Berlin Philharmonic Orchestra, Riccardo Muti, cond. [John





Wuorinen: the "uptown" aesthetic

Mordler, prod.] ANGEL DS 38000, \$12.98 (digital recording). Cassette: 4XS 38000, \$9.98.

This recording of four sacred pieces would make a fine quiz for somebody who claims to know all the Verdi works. Hide the sleeve and put down the needle at the second band on Side 2—the start of the *Te Deum*. There is a half-minute of plainchant, so unlike anything in the canon that the victim—unless he knows the *Quattro Pezzi Sacri*—would be most unlikely to identify the music as late, prime Verdi.

The four settings of religious texts are indeed the composer's last published works, dating from 1898. Two of them were written before *Falstaff* (1892), the others after it. They were not intended to form a single composition, but Verdi grouped them for an 1898 performance in Paris.

Our quiz victim would not be stumped if he started out by listening to the *Stabat Mater*, for, at 12 minutes, that is almost a miniature *Requiem*, complete with all the cantabile elements as well as the pity and terror of the *Dies Irae*. The *Ave Maria*, unaccompanied, is not very memorable musically. The *Laudi*, also without instruments, has an Italian text from Dante and rises to pure and serene plateaus of felicity. The closing *Te Deum* is atmospheric, mysterious, entirely original, and unlike any other Verdi work—this in the composer's 83rd year.

The disc offers thoroughly competent choral singing from the Swedish Radio Choir and Stockholm Chamber Choir. As you might imagine, the Berlin's playing is sumptuous, though one might have wished for a little more presence and immediacy from the microphone placement. There are two good versions in the record catalog—Giulini's (Angel S 36125) and Solti's (London 26610)—and Muti's is in the same league.

Soprano Arleen Augér is named as the



Lieberman: the joy of exploration

soloist here, though her contribution amounts to no more than 15 seconds of high, distant singing just before the end of the *Te Deum*.

GEORGE MOVSHON

WUORINEN: Tuba Concerto\*. LIE-BERMAN: Dialectic†; Music for Ten Stringed Instruments††.

David Brainard, tuba\*; Group for Contemporary Music, Charles Wuorinen, cond.\* New Music Consort, Glenn Lieberman, cond.† New York String Ensemble, Paul Zukofsky, cond.†† [Carter Harman, prod.] COMPOSERS RECORDINGS SD 491

In New York, Charles Wuorinen is sometimes seen as the quintessential "uptown" composer: His music is ultra-rational in organization, academically oriented, serial in technique. The more irreverent "downtown" products (such as minimalism, artrock, and performance art) are antithetical to both his musical style and philosophy. Wuorinen's widely ranging activities—as teacher of composition, as founder and director of the prestigious Group for Contemporary Music, as conductor, pianist, and polemicist-allow him to exert enormous influence on the uptown musical establishment. In fact, the music of one of his disciples. Glenn Lieberman, occupies the second side of this disc. Considering their personal relationship and shared aesthetic orientation, it is interesting to note the similarities and differences between the two composers, particularly as they relate to the paths new music is following today

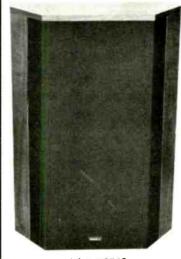
Wuorinen's Tuba Concerto (1970) is really more accurately described by its original title, Chamber Concerto, since the tuba part is no more difficult (nor prominent) than the fiendishly intricate writing for the other instruments. Scored for 12 winds, 12 drums, and tuba, the work is a remarkable tour de force in blending diverse sonorities, from wispy piccolo to growling tuba. The

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fact that the piece is completely governed by a 12-tone set doesn't seem to hinder Wuorinen's imagination in the least; this sort of intellectual rigor is precisely what inspires him to greater heights.

The Concerto is tough, unrelenting, fiercely complex, though ultimately quite approachable after several hearings. Yet certain of its characteristics (shared with so much serial music of the 1960s) seem inescapable: Melodically, it is almost entirely fragmented and disjunct; metrically, it willfully rejects any regular rhythmic sense. The end result is that, while admirable, the Concerto seems almost a period piece, a

product of another era. In the last decade we have seemingly rediscovered that it is all right for new music to present a readily discernible melodic, rhythmic, and harmonic profile without fear of being ridiculed.

It is this direction that is indicated to some degree by both Lieberman works. Dialectic (for oboe, clarinet, cello, and piano) and Music for Ten Stringed Instruments both date from 1978. At first, Lieberman's affinity to his teacher's aesthetic is most apparent. Dialectic, especially, features the same disjunct melodic writing and rhythmic complexity as the Wuorinen Concerto. But Music for Ten Stringed Instruments indi-

cates a change: Here we discover long-spun melodic passages, a more regular rhythmic sense, and a marvelous joy in the exploration of string sonority. Lieberman describes this work as dealing "with the interaction between tonal and atonal elements." Those tonal elements eventually resolve the piece, which closes with a hauntingly lovely chordal section capped by a climactic tonic pitch. It is this freedom and spontaneity, this healthy eclecticism, that characterize the best new music today. Music for Ten Stringed Instruments is the disc's most appealing work and a heartening sign of the times.

The performances here are presumably definitive: All three works are played by the organizations that premiered them, and two of the three are conducted by the composers. The playing is superb, with neither the complex wind and brass writing of the Tuba Concerto nor Lieberman's devilishly difficult string writing seeming to pose any problems. An obtrusive and annoying background hiss permeates *Dialectic*, but the pressing itself is excellent.

K. ROBERT SCHWARZ

# ANNOUNCING A MUSICAL AMERICA

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# Recitals and Miscellany

RONALD BORROR: Trombone Recital.

Lucy Shelton, soprano\*; Ronald Borror, trombone; Edmund Niemann, piano. CRYSTAL S 388, \$8.98.

BERNSTEIN: Elegy for Mippy II. COWELL: Hymn and Fuguing Tune No. 13. KROEGER: Tres Psalmi Davidis\*. LUENING: Sonata for Trombone and Piano. PRYOR: Annie Laurie (Air Varie). STEVENS: Sonata for Trombone and Piano.

It would be fortunate if every instrument had a Ronald Borror, someone whose musical curiosity leads him to rescue little-known works from obscurity. Borror's excavations in the trombone literature have enabled him to assemble a disc of conservative, tonal, well-crafted American works that are worth an occasional hearing.

Four of the six compositions have solidly American musical material as their basis. Halsey Stevens's Sonata for Trombone and Piano (1965) mingles the rhythmic energy of Bartók and the brittle clarity of Prokofiev with modal American-inspired melodies—all to delightful effect. Henry Cowell's Hymn and Fuguing Tune No. 13 (1960) is one of 18 such two-part works that the composer wrote for various instruments between the 1940s and the 1960s. This little gem of Americana consists of a modal, pseudo-Colonial hymn tune followed by an energetic fugue. The four miniature movements of Otto Luening's Sonata for Trombone and Piano (1953) are all likewise



Borror: not for aficionados only

inspired by facets of American folk music, from naive, almost intentionally vulgar dances to a chorale-like hymn. Leonard Bernstein's Elegy for Mippy II (1950) combines a jazz-inflected monody in the solo trombone with relentless foot tapping beneath.

The two remaining works lack a peculiarly American inspiration. Karl Kroeger's

Tres Psalmi Davidis (1979) skillfully blends the diverse sonorities of soprano and trombone-not at first glance the most grateful of pairings. The texts are sensitively portrayed in material that ranges from imitative lyric passages to more severe declamatory sections. Arthur Pryor's Annie Laurie (Air Varie) is this disc's real curiosity. Pryor, trombone soloist with the Sousa band from 1892 to 1903, wrote what is in effect a joyous exercise in turn-of-the-century kitsch. A falsely pathetic introduction in worst Victorian manner is followed by a naive little theme and several increasingly virtuosic variations. While this faded period piece is far from a masterwork, it is nonetheless amusing in its own trivial

Borror is a fine trombonist, able to negotiate the difficult double-tonguings of the Pryor and Luening with ease. He is also a sensitive musician, one who can communicate innumerable nuances of tone and phrasing. Pianist Edmund Niemann aptly captures the energy and joy of these works, though his instrument sounds strident, perhaps because it was too closely miked. Soprano Lucy Shelton gives a magical performance of the Kroeger: her clear tone and varied timbres blend beautifully with Borror's trombone. In all, one does not have to be a trombone aficionado to enjoy this recording. K. ROBERT SCHWARZ

### **Theater** and Film

MY ONE AND ONLY. Original Broadway cast recording.

Music by George Gershwin. Lyrics by Ira Gershwin, Jack Lee, cond. [Ahmet Ertegun and Wally Harper, prods.] ATLANTIC 80110-1, \$9.98. Cassette: 80110-4, \$9.98.

The original-cast album of My One and Only pulls off a very neat trick. It gives you the show. The songs are stitched together by little snatches of voice-over that place each lyric clearly in context. There's not much to the plot, of course. Once boy has met girl, you've got the essentials figured out. But not even so simple a tale as this one tells itself. The Broadway production does the job with great charm, and so, in a deft way of its own, does the record.

The score, you may recall, is a Gershwin potpourri scattered through a brandnew book. If it seems superfluous to fabricate mock-Thirties scenarios when plenty of real ones are lying about gathering dust. spend an evening at the current bona fide Gershwin revival of On Your Toes and learn what real boredom is. Dialogue that holds up nicely, even brilliantly, at the movies.



### CLASSICAL Reviews

where the pastness of it all is stamped on every frame, crumbles to powder the instant it comes to "life." It's not just that the likes of Fred and Ginger deliver the stuff better than anyone today (please, nobody mention Makarova), but that the terms of naiveté and sophistication have shifted. Play back Thirties smart talk *come scritto*, and you'll just sound dumb. The script for *My One and Only* is like those famous forgeries (Van Meegeren's Vermeers, for instance) that at the time of their creation recapture perfectly the contemporary sense of the spirit of a bygone era. The illusion doesn't last; a few years later, any bozo can spot the fake. But

for a little while, it has, in a way, been 'real.' My One and Only is the perfect Thirties musical for the early Eighties.

And why would anyone want such a thing? Most of all for the songs. They wear their excellences lightly, perpetuating essences of their vanished age in a realm of pure poetry. They need no doctoring. From I Can't Be Bothered Now and Blah, blah, blah to Boy Wanted and Nice Work if You Can Get It, 's wonderful, and there's lots more.

All the same, the disc affords few pleasures. In the theater, Twiggy and Tommy Tune's charming eagerness to please



Twiggy: golden material, tinny pipes

prevails over many impediments. On disc, they are harder to indulge. Neither has a voice worth listening to, and their delivery in no way tips the balance. At his best, Tune dispenses the least cherishable mannerisms of a Thirties juvenile: sloppy phrasing, sagging pitch, disconnected registers. Twiggy's tinny little instrument shakes and quivers like a timid horn whistling in the dark at some deserted Salvation Army outpost. To her credit, though, she plays with rhythm, even if her spontancity more often than not seems a shade premeditated.

The leading couple shares very little of the album's playing time with anyone else. If only they had been more generous. For they are in good company. Charles "Honi" Coles, who joins Tune in the title number (a lesson, via singing and dancing, in highstyle romance). has, in the twilight of a long and varied career, little more than the husk of a mellow baritone to work with, but how lovely a sound he still makes! In Sweet 'n Low Down, which he performs with the stars on the album in an arrangement different from the one in the show, he puts the headliners to shame. (High Hat, the other selection Coles has some part in on Broadway, did not make it onto the disc; on the other hand, Little Jazz Bird, a duet for Tune and Twiggy that was dropped during the Boston tryouts, is included—it may be the pair's best recorded number, though that is tepid praise.) Roscoe Lee Brown's wondrous exaltation in Kickin' the Clouds Away makes one long for more, as does the debonair bounce of the New Rhythm Boys, who back Tune up in I Can't Be Bothered Now at the start of the course and thenceforward are inconvenienced no further. Denny Dillon and Bruce McGill have their moment in an appealingly sandpapery rendition of Funny Face. The band, led by Jack Lee, puts lots of spin on Michael Gibson's inventive arrangements; the riffs for keyboard, trumpet, sax. flute, and violin fly by like the airy bons mots of an understatedly scintillating conversationalist.

MATTHEW GUREWITSCH



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### The Tape Deck

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

### **Voicings**

ALTHOUGH I OCCASIONALLY DO switch primary scrutiny from predominantly instrumental works to the choral and operatic repertories, I never before could welcome so many vocal releases that are at once as refreshingly novel and incalculably rewarding as those that have transfixed me this month.

Contemporary national overtones as well as sheer musical stature warrant precedence for the first recordings of Penderecki's Te Deum and Lachrimosa (Angel digital/ferric 4XS 38060, \$9.98), the latter from his as-yet-unfinished Polish Requiem. This is poignant devotional music of timeless greatness presented in fervently moving performances by Polish Radio soloists, chorus, and orchestra under the direction of the composer. And Penderecki's voicing of his people's deepest faith is ineffably enriched by its historical pertinency: The monumental Te Deum was inspired by one friend (Pope John Paul II), and the Lachrimosa was written at the request of another (Lech Walesa) for the unveiling of the Gdansk martyred workers' monument. This release also is newsworthy as the first Angel single-play cassette to include notes-a milestone belittled by their inexcusable skimpiness and lack of accompanying texts.

Angel atones by giving us the first digital recording, with full texts as well as notes, of an earlier wartime musical monument: Britten's grandly conceived War Requiem (prestige-box digital/ferric 4X2S 3949, \$19.98). Led by Simon Rattle, the performers are the City of Birmingham Chorus and Orchestra, Elisabeth Söderström, Robert Tear, and Thomas Allen. Though this rendering never supersedes the matchless, c. 1963 composer's version for London, it persuasively makes the most of intervening technological progress.

There are even earlier revelations this month. The Belgian Edgar Tinel (1854–1912) is only a reference-book entry until one hears his enchanting Opus 41 Mass (Spectrum SC 269, \$7.98; notes but no texts). The accompanying Joseph Rheinberger Mass, Op. 109, is just as magical for lovely floating vocalism—by the Connecticut Pro Arte Chamber Singers under Arthur Sjögren—but here Romantic idioms are less imaginatively transcended. And even Handelian connoisseurs are likely to be unfamiliar with the delectable "musical interlude," The Choice of Hercules (not to

be confused with the larger scaled *Hercules*, to be welcomed below). It's hard to judge the actual worth of this divertimento when one is so exhilaratingly intoxicated by Max Pommer's zestful performance with the New Bach Collegium Musicum, starring Arleen Augér and the finest countertenor I've ever heard, Alaine Zaeppffel (Pro Arte digital/chrome PCD 150, \$10.98; notes but no texts).

After such infectious exuberance, not even John Eliot Gardiner (burdened by soloists still partially captive to Victorian oratorio traditions) nor his fine Monteverdi Choir and English Baroque Soloists can render the latest periodthentic *Messiah* with full conviction (Philips prestige-box digital/chrome 7654 107, \$35.94).

Fresh appeal also characterizes this month's operas, beginning with my first two Orfeo/Pantheon sets of digital/chrome cassettes in handsome book-type packaging, albeit with skimpy notes and no texts (price at dealer's option). One is the "other" Bohème, Leoncavallo's, in its first studio recording (CS 23823). Here, Alexandrine Milcheva's Musetta costars with Lucia Popp's Mimi, and the gaiety of the first two acts contrasts incongruously with the melodrama of the last two. But it's good to hear, as a change from Puccini, in Heinz Wallberg's effective performance with the Munich Radio Chorus and Orchestra. Welcome, too, is the more inexplicably neglected 1776 Paris version of Gluck's Alceste (CS 27823). Serge Baudo's justtoo-stately reading, with the Bavarian Radio Chorus and Orchestra, at least stars the sumptuously voiced Jessye Norman in the title role.

Two very different reissues justify themselves no less differently. Harnoncourt's period-instrument Purcell Dido and Aeneas (Telefunken TelDec/chrome 4.42919, \$10.98; notes but no texts) features a more regal Queen, Ann Murray, than the girlish Emma Kirkby's in the Chandos/Musical Heritage version (see January "Tape Deck"), and the overall performance is a more dramatic one. But it just can't match the other's youthfulnesstrue to the girls-school nature of the original 1689 production. In the case of Janáček's Jenufa, Jilek's c. 1977 Supraphon version is now challenged by the latest in the superb London series of Janáček operas conducted by Charles Mackerras (prestige-box digital/ chrome LDR5 73009, \$32.94). As in several earlier appearances, Elisabeth Söderström is well-nigh ideal in the title role,

along with mostly Czech soloists and the Vienna State Opera Chorus and Philharmonic Orchestra. Not only are the full dramatic potentials vividly realized, but both the original Overture ("Jealousy") and Finale are restored.

Yet there is still room in this august company for a Baroque Era music drama every bit as original and profoundly moving: Handel's rarely performed Hercules, unsuccessfully produced in 1745 as a secular oratorio (Deutsche Grammophon/ Archive prestige-box digital/chrome 3383 004, \$35.94) [see LP review next month]. My—and surely every Handelian's—joy in hearing the complete masterpiece is lamentably tempered by its makers' failure to present it uncut, long as it may be. In some compensation, two of the leading soloists, Sarah Walker and Jennifer Smith. are brilliant singer/actors, while Gardiner's Monteverdi Choir and English Baroque Soloists are in top form and admirably recorded. A flawed masterwork-but one no Baroque Era connoisseur can afford to miss.

By serendipitous coincidence, the latest open-reel releases from Barclay-Crocker (313 Mill St., Poughkeepsie, N.Y. 12601) feature three 20th-century scores in which voices, choral or solo, play no less significant roles than symphonic instruments. The 1980 Abbado version of Prokofiev's Alexander Nevsky, starring Elena Obraztsova with the London Symphony Chorus and Orchestra, is particularly valuable for its unidirectional processing that increases the arresting sonic power without distortion or channel-spillover risks (Deutsche Grammophon/B-C DGR 2531 202, \$12.95).

Yet conventional two-way reel processing also enhances the radiance of Gundula Janowitz's 1974 reading of the Richard Strauss "Four Last Songs"—as well as the vulgar sumptuousness of the accompanying Tod und Verklärung, also by the Berlin Philharmonic under Herbert von Karajan (DG/B-C DGR 2530 368, \$10.95). I haven't been able to make direct reel-cassette comparisons of the Shostakovich Symphony No. 13 (Babi Yar) recorded live by Kondrashin-with tenor John Shirley-Quirk and the Bavarian Radio Male Chorus and Orchestra—just before the conductor's tragic death in March 1981. But I'll bet that the reel edition (Philips/B-C H 6514 120, \$11.95) has the usual slight superiority in sonic weight and breadth, as well as, here, even grimmer pathos. However, it inexcusably lacks the vital texts, as did the original disc and cassette editions.

# BACKBI

# Caught in an Elevator

The assortment of artists on a Was (Not Was) album appears accidental. But it's not. Really.

### by Sam Sutherland

How DID MEL TORME, Ozzy Osbourne, Mitch Ryder, and once and future Knackmeister Doug Feiger wind up on the same piece of vinyl? A fevered lapse on the part of an overworked K-tel programmer? No, that unholy alliance—along with a bewildering cross section of funk, hard rock, and free-jazz stylists—was forged by David Weiss and Don Fagenson, aka Was (Not Was). Clearly, they relish bizarre juxtapositions.

Under their collective nom de disque, Weiss and Fagenson have presided over two successive albums ripe with musical and thematic contradictions. Melodramatic soul ballads, jackhammer guitar rock, percolating electronic dance music, and careening avant-pop laced with blasts of musique concrete or tape-looped dialogue all figure prominently in their work. To those generic crosscurrents, largely manipulated by arranger, instrumentalist, and self-proclaimed "Zen-gineer" Fagenson, Weiss adds his similarly schizophrenic lyrics. Surrealist poetry, fractured nursery rhymes, street jive, and psychobabble may be evoked in the course of his delirious raps, anguished laments, and off-center anecdotes, all conjured in the service of "mutating rock," to use one of several appropriate self-descriptions.

Friends since junior high school, the pair point most often to geography to explain their provocative style. "That Detroit heavy iron," as Weiss calls it, alludes not only to the Motor City's long tradition for industrial-strength hard rock,

but also to rhythm and blues, jazz, and other regional reference points. "The why of our sound is sociological," he continues. "Blacks were getting out of the South, looking for jobs, bringing that fine music with them, and Detroit was just a stop up from Chicago,"

"There was pride in our hometown music," adds Fagenson. "We saw a heavy dose of it, like at our high school, where we had George Clinton and the Parliaments when they were still a standup vocal group dressed like hippies."

As teenagers, Weiss and Fagenson shared a conspiratorial flair for off-kilter music and humor. Fagenson's open-reel tape machine served as their first laboratory and enabled them to experiment with free-wheeling raps modeled after the Firesign Theatre; their musical curiosity also earned them something of a reputation among their classmates.

"When we were growing up, they had the most eclectic taste of anybody," recalls Feiger. "I had never been exposed to any of the styles they listened to regularly. The first time I ever heard any jazz, they were already into Sun Ra, Pharoah Sanders, Eric Dolphy. And they're real fans, too."

After high school, Fagenson began working in bar bands and learning the ropes of production at a local eight-track studio. Weiss headed for college and eventually moved to Los Angeles, where he became jazz critic of the *Herald Examiner*. Their partnership was revitalized several years later when Fagenson's growing dissatisfac-



Was Bros. Donald Fagenson (above) and David Weiss (below): childhood friends

tion with the numbing routine of lounge dates and dead-end studio projects prompted him to contact Weiss and sound a warning signal. Now destitute and, like his friend, responsible for a family. Fagenson was on the verge of planning a robbery if he couldn't devise a money-making musical alternative. Weiss returned to Detroit in 1980 and, with money borrowed from his family, bankrolled the production of the first two cuts that carried the Was (Not Was) moniker.

Wheel Me Out was recorded at Detroit's Sound Suite with the help of an early believer, producer Jack Tann. Ze Records executive Michael Zilkha's early forays into adventurous urban dance music made him a likely target, and he responded favorably to the tape the Was Bros. submitted, enabling the duo to complete their first, eponymous album, released in 1981 on Ze/Island. Encouraged by their acceptance, Weiss and Fagenson began to collaborate across the miles on a routine basis, becoming one of pop's stranger songwriting teams

"Mostly, I give him a lyric, and if we're lucky, I'm in town when he works on it," explains Weiss. "Most of the time, though, Don's there in Detroit laying everything down on his own." Thus far, neither is ready to relocate, although increasing production offers from outside labels bring Fagenson to both coasts more and more frequently. "It's a difficult way to work," acknowledges Weiss, "because it's usually too late to change things when I finally get to hear them. But Don is his own check and balance: He starts tracks and rejects 'em."

Still, there are surprises, the most vivid of which was Mel Torme's lustrous reading of Zaz Turned Blue, which concludes the duo's second album, "Born to Laugh at Tornadoes." "I heard the thing as a sort of punk-rockish cadence." says Weiss with a chuckle. "All of a sudden, it turned out to be a ballad.

"I thought of the song as this bamboo bridge over a river with alligators in it. Then Don walked an elephant across the bridge. Now that put a lot of weight on it. Not only that, he put a lead rider on the elephant—Mel Torme. So it was in the hands of a guy who approaches a song in only one way—as John Houseman might put it, 'as a classic.'

There's no question that such inspired castings lend the group a certain cachet. But both men confess a hope that their next project will be "more seamless," admitting that "Tornadoes" did evolve into a somewhat conscious pop review, with its shifting roster of vocalists. While Fagenson suggests that was accidental, Weiss says they both relished having Ryder, Torme, Feiger, Osbourne, and band regulars Sweet Pea Atkinson and Harry Bowens split the singing chores.

Although the album's new, cryptic raps follow in the oblique tradition set on the first LP, its songs adhere more faithfully to familiar rock, soul, and pop blueprints. Fagenson's shifting listening habits, as well as the pressure of the duo's move to Geffen Records, may explain why. "On the first album," notes Fagenson, "we were thinking about getting records out, and not so much about getting hits. We saw opportunities: We looked at people like James White and saw some white guy doing dance music and sticking in Albert Ayler. That's what finally inspired us, because we'd been doing the same thing for years.

"At the time, dance music was the most open kind of music—it was after the first rush of disco, after Saturday Night Fever, and it seemed to be the freshest thing. You could put almost anything on top of the beat—the stranger, the better."

By the time they began "Tornadoes," the situation had changed. Fagenson was no longer as excited by funk and dance music: "I couldn't listen to funk stations while we were making this album," he recalls. "Everything seemed so repetitious. It's weird, but what I was listening to when we really got going was pop—things like Dionne Warwick."

The switch to Geffen also may have

affected the sound of the second disc. For one thing the Wases were more self-conscious on the new label: "It was like going right to jail without passing 'Go.' 's says Weiss. "It was a bit confusing, being the Funk Dadaists from Island, the wacky bad boys, all of a sudden dealing with some very serious record-business people who like to have hits. And we would, too, while maintaining that original worm's-eye perspective."

Fagenson notes that their apprehension was probably unnecessary, but that both were haunted by some chilling precedents: Geffen had sent Elton John and Donna Summer back to their respective drawing boards after rejecting their initial album offerings.

While "Was (Not Was)" was completed for about \$30,000, Fagenson says, the second LP ballooned to nearly \$200,000. "We probably didn't have to go to Miami to put Mel Torme on this thing," he says, wincing. "But a lot of it had to do with starting over, and with our insecurity over being on Geffen. I mean, (Return to the Valley of) Out Come the Freaks took ten minutes. The problem was the four versions that preceded it. I liken it to surfing: You're sitting there, waiting for this wave, and when it finally comes. . . ."

What the next album will sound like is anybody's guess. Fagenson gleefully notes his partner's half-joking suggestion that they travel to the Arctic, taking recording equipment with them, and nurture their next songs in isolation. Weiss points out that his plan is only a few steps removed from their existing modus operandi: Fagenson is known for his marathon stints behind locked doors at the Sound Suite, and Weiss for his insistence on holing up in his cell-like workroom in L.A. to shape his lyrics.

Weiss says that the next set "won't have this ring of anthology to it," though he does stress the importance of using the best soloists available to augment his own alto sax and flute. They plan to support the

### **Discography**

WAS (NOT WAS)

Wheel Me Out/Hello Operator (twelve-inch single. Ze/Antilles AN 805; 1980.
Was (Not Was). Ze/Island 9666; 1981.
Born to Laugh at Tornadoes. Geffen/Ze GHS 4016; 1983.

DAVID WEISS, DONALD FAGENSON, producers

Sweet Pea Atkinson: Don't Walk Away. Island 9007: 1982.

Christina: Sleep It Off. Mercury 814 980; 1983.

album by going to the stage with "as large a group as we can afford, to create the effect we had on our first tour—kind of one of everything." Weiss still laughs at the memory of that band: "We had this weird-looking academic type on violin, who'd played with the Brubecks, and then we had the Brides of Funkenstein. It looked like a group of people who had gotten caught in an elevator. I was worried about it, but Don had faith. I said, 'All we've got here is the heterosexual Village People'; I thought we'd have a bad party band. But what we ended up with was a good party band."

Likely candidates for the next goround include vocalists Atkinson and Bowens, keyboard player Luis Resto, saxophonist David McMurray, and two of the group's three regular guitarists, Bruce Lazarian, Randy Jacobs, and former MC5 member Wayne Kramer. A reliance on old friends prompted Weiss to crack, "It's like getting into political office and letting all your friends in."

Whatever else happens, though, it's unlikely that the Was Bros. will go Hollywood. Fagenson still prefers the lack of regimentation at the Sound Suite, despite its locale in "a known heroin corridor." Both men retain their gnomish pallor and appear able and ready to continue mutating pop. HF



### **BACKBEAT**

### Reviews

Atlantic Records History of Rhythm and Blues Vocal Groups Cat/Atlantic 90132

In the Drifters, the Coasters, and the Clovers, Atlantic records (and its Atco subsidiary) had three of the most important r&b vocal groups of the 1950s, and in the Chords' Sh-Boom, released in 1954, the company had an early example of the style that was evolving into rock and roll. This new compilation traces, on a dozen songs, the label's contribution to the genre, from Sh-Boom through 1957's Mr. Lee by the Bobbettes, and while it can't claim to be a definitive chronicle, it is an entertaining and instructive crash course in black vocal harmony. You can hear how, as the sound was absorbed into the pop mainstream, r&b records became both more sophisticated (as in the playlets Jerry Leiber and Mike Stoller created for the Coasters) and more "teenage" in orientation (on the songs by the Royal Jokers and the Sensations).

What's still striking about Sh-Boom almost 30 years after it was recorded is its nonstop ebullience-from the a cappella kickoff to the bluesy guitar-and the vocal gymnastics that never let up, even during the sax solo. There's a contagious sense of fun on the record, and a certain sense of freedom. Radio programming policies being as racist as they were, the Chords couldn't expect to get airplay on pop stations (a pale cover version by the Crewcuts became a much bigger hit), so there was minimal attempt to smooth out the performance. But it was the combination of rawness and vocal precision that caught white ears when pioneers such as Alan Freed began playing "race records."

Sh-Boom starts off this LP, as it should, but from that point, chronology is tossed aside, and not all of the selections are



Don and Phil Everly at London's Royal Albert Hall, 1983: timeless

as apt. (The album was put together and annotated by Tim Hauser of the Manhattan Transfer.) How can any Atlantic anthology of r&b groups exclude Clyde McPhatter's groundbreaking singing with the Drifters? Why are the Clovers only represented by one track, a not necessarily typical ballad? Both Smokey Joe's Cafe by the Robins and Down in Mexico by the Coasters are included, but Hauser doesn't mention how the first group was transformed into the second, or that both chili-joint scenarios were produced and written by Leiber & Stoller.

Despite these odd omissions and oversights, "History of Rhythm and Blues Vocal Groups" has many delightful moments: the Cardinals' breezy Come Back My Love, with its one-note guitar hook; Please Mr. Disc Jockey by the Sensations, an acknowledgment of the deejay's role as liaison between the music and its audience; Ruby Baby by the "transitional" Drifters of 1955 (after McPhatter's departure and before Ben E. King's arrival). Records as dreamily sentimental as the Clovers' Devil or Angel and as ingeniously constructed as

Smokey Joe's Cafe are emblematic of a particular moment in American pop music, but in the intervening three decades their charm and vitality have remained undiminished.

MITCHELL COHEN

Chad Stuart & Jeremy Clyde Chad Stuart, producer Rocshire XR 22018 The Everly Brothers Reunion Concert Tony Clark, producer Passport PB 11001 (two discs)

Here are two recent reunions that are worthy of attention, though on vastly different levels: the Everly Brothers, together again after more than ten years apart, and Chad & Jeremy, those mellow fellows from the British Invasion who haven't recorded since 1967.

Phil and Don Everly have had a profound impact on pop music. Their plaintive ballads and rockabilly bashes from the '50s and '60s—Crying in the Rain. Take a Message to Mary, Cathy's Clown, Wake Up Linte Susie—bridged country to rock and rock to pop in a way that makes them true classics. When you hear an old Everlys tune on the radio today, with its ringing harmonies and rocking beat, it isn't simple nostalgia that makes it sound good.

On the other hand, Chad Stuart and Jeremy Clyde's polite pop ditties—Yesterday's Gone, A Summer Song—were disposable fluff. Still, anyone who turned misty-eyed at their folk-based ballads and soft harmonies will want to latch onto their eponymously titled new release. Though it doesn't come close to Chad & Jeremy's early efforts (or even to their two late-'60s forays into psychedelia), this is much more than simply a back-together-again deal. Zanzibar Sunset, with its exotic imagery and keen a cappella chorus, recalls the pair's 1966 hit Distant Shores; keyboardist



Jeremy Clyde and Chad Stuart: disposable fluff, but more than a nostalgia act

Mike Moran gets an ethereal wind chime sound from his synthesizer and the rhythms move in a kind of quasi-reggae strut as Stuart and Clyde croon a lovely, sleepy pop reverie

The best tracks-That's All There Is to Say and How Many Trains-are quiet and eloquent. Dreams bobs along at mid tempo atop Stuart's simple piano lines, while Al Hodge's slick, wiry guitar runs lend a taut edge.

The album fails with its hokey attempts at generic rock: Bite the Bullet and I've Seen the Signs are standard upbeat numbers with flimsy horn arrangements and standard session-musician riffs. Chad & Jeremy were never Mick and Keith, and they sound pretty foolish when they try to assert themselves over clichéd guitar licks and thumping drums. At the opposite extreme is Seascape, which is so treacly, so rampant with bad poetic imagery about horizons and shorelines, that it is virtually embarrassing to listen to. But at least half the material is up to snuff, lush and lovely in a refreshingly cornball sort of way.

The two-disc "The Everly Brothers Reunion Concert" is a far more consistent and truly gratifying collection. Recorded at London's Albert Hall last September and premiered on Home Box Office, the concert marked the first time the brothers had played together since Phil smashed his guitar and walked offstage during a 1973 performance at Knott's Berry Farm in Califor-

Backed by an exceptional band of British studio players and featuring keyboardist Pete Wingfield and guitarist Albert Lee, the Everlys offer 20 of their 25 hit singles and a batch of other tunes. Some of their harmonies are a bit wobbly (Walk Right Back, Roy Orbison's Claudette), but the emotional level is so high that a few clunkers don't matter.

They sing medleys of some of their biggest records, romping through the hillbilly-rock of Bird Dog, and the raucous Be Bop a Lula; in a wild encore of Good Golly & Miss Molly, Lee lets loose one of his staggeringly dexterous solos. But the high point of the brilliantly paced, well-recorded concert is Let It Be Me. Don sings each note with heartfelt deliberation, the harmonies are sweet and urgent, and the moment is powerfully poignant.

Perhaps because this is the first time he and Phil have sung together in ages, there is nothing stale here, no harmonies by rote, no weary run-throughs. These songs about innocent love and broken hearts are rendered with skill and spirit and are as evocative as they were 20 years ago. And though the Everlys bring to this material the experience-good and bad-of men in their middle age, nothing sounds dated, nothing rings wrong. They sing of the present, looking ahead, not back. STEVEN X. REA



George Clinton: funk gestalt

### George Clinton:

You Shouldn't-Nuf Bit Fish George Clinton, Junie Morrison, & Gary Shider, producers. Capitol ST 12308

P. Funk All-Stars:

### Urhan Dancefloor Guerillas

Clinton, Shider, Morrison, Sylvester Stewart, & William "Bootsy" Collins, producers. CBS BFZ 39168

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ubiquitous production hand, a host of groups and album concepts emerged and flourished. Then his grandiose scheme to make funk a household word, via such strategies as a proposed Parliament-Funkadelic cartoon show, seemed possible. But as the '80s dawned, so the Clinton empire began to fade, due to mounting legal problems with record companies (his acts were often on different and competing labels). intraband squabbles, and, one suspects, simply spreading his funk too thin. A new gang of funksters appeared (Rick James, the Gap Band) to fill the void. Then last year Clinton reappeared on a new label under his own name for the first time-with a hit electrofunk single (Atomic Dog) and album ("Computer Games"). With his "You Shouldn't-Nuf Bit Fish," and a new LP by the newly formed P. Funk All-Stars, he is back on the scene in full force, perhaps a little wiser and with some scaled-down expectations.

"Urban Dancefloor Guerillas" shows him at the height of his lyric, philosophic, and mesmerizingly rhythmic powers. It is every bit as quirkily inventive and compulsively danceable as One Nation Under a Groove and his first wave of '70s hits. On Catch a Keeper, written and arranged with Sylvester Stewart (a.k.a. Sly Stone), a complex fishing metaphor is worked and reworked to cover everything from police harassment to the human condition, over a burbling and vaguely ominous groove. Pumpin' It Up employs a pile-driving bass line to frame an optimistic discourse on funk music's restorative powers, replete with raw gospel harmonies from the Parliament vocal group. For Clinton, funk is something akin to a gestalt or transcendent world view; on this song and the equally potent Hydraulic Pump, hypnotic chanting, swirling Jimi Hendrix-like guitars, terse lyric homilies, and penetrating Afro-electric rhythms embody his doctrine as eloquently as anything he has ever recorded.

"You Shouldn't-Nuf Bit Fish" is slightly less effective though nonetheless fascinating, with Clinton alternately sillier and more serious. The title track opens with a soliloguy on the foothardiness of "nuclear fishin'," Clinton's inspired wordplay relentlessly implying that humankind is both fisherman and bait, hooked by its own lines. Over the springy electronic rhythms of Nubian Nut, Clinton, who by the way is one of rap's founders, spins a tall tale of legendary African King Nut. As the song progresses, the King is reincarnated 'around 2000 A.D., raising a spear that shoots laser beams" and, of course, bearing a remarkable similarity to the rapper himself.

"You Shouldn't . . ." is much heavier on irony than "Urban Dancefloor Guerillas"; if Clinton has a didactic, preachy streak, this is where it emerges. But that just makes these two LPs all the more complimentary. Along with James Brown and

Sly Stone, Clinton is one of the true avatars of post-'50s dance music, and he is now functioning once again at near optimum capacity.

CRISPIN CIOE



Pat Cloud: boppish dreams

Pat Cloud: Higher Power
Harry Orlove & Pat Cloud, producers
Flying Fish FF 284
Marty Cutler: Charged Particles
Marty Cutler, Michal Shapiro,
& Henry Sapoznik, producers
(Green Linnet SIF 1046
70 Turner Hill Rd., New Canaan,
Conn. 06840)
Tony Trischka:
A Robot Plane Flies Over Arkansas
Tony Trischka, producer
Rounder 0171

In the late '70s, a succession of recordings by technically adroit guitarists, mandolinists, and violinists led to the coinage 'new acoustic music,' a genre marked by its diversity of inspirations. Given the almost magnetic role that bluegrass has played in this new stepchild of folk and jazz, it was probably inevitable that the banjo would join its stringed cousins, and these three essays in unfettered banjo music offer proof of its suitability to the task.

The five-stringed instrument is considerably less forgiving than the guitar or mandolin, its thin, metallic tone and eccentric tuning schemes requiring expert technique while restricting the player's harmonic latitude. Perversely enough, the very lack of sustain that undermines its usefulness for chorded rhythm work also confounds lyrical solo excursions. To maneuver around its inherently staccato character, generations of stylists have had to rely on speed and dexterity, building a vocabulary of finger-picked phrases' and accents to supply melodic shape.

Representing the most dramatic break from the instrument's usual backdrop is

Marty Cutler's "Charged Particles." Cutler builds his attack around traditional bluegrass and country lore, and his playing is ripe with modified fingering techniques. But rhythmically he leaps into muscular syncopations and breezy polyrhythms spanning jazz and rock. Clearly he relishes mixing up the conventions: Vibes, moaning electric guitar, and fretless bass are called into play, as Cutler plies blues and rockguitar ideas side-by-side with his more familiar banjo musings.

Pat Cloud's work is at once less spectacular and more fully realized. Instead of blazing arpeggios and sudden idiomatic turnarounds, he seeks a smoother, less ruffled ensemble context. With a focal base in melodic jazz, these performances sketch a swinging, small-group sound in which Cloud's five-stringed ''ugly duckling' metaniorphoses into a graceful, if puckish, solo voice. The material and the execution allude to a boppish dream of string music that makes it tantalizing to imagine what Cloud might do with Monk. As it is, he does an admirable job of presenting the Ellington/Strayhorn classic *In a Mellotone* 

Alongside Cutler's mixed bag and Cloud's cool one, Trischka's sound is more familiar and closer to bluegrass heartlands. He is a staggering musician, possessed of remarkable speed and skill. Together with Bela Fleck and a handful of other players, Trischka is already something of an old hand at hot-wired banjo music, and "A Robot Plane Flies Over Arkansas" preserves ensemble lineups closer to stringband conventions. He builds his songs around folk and bluegrass armatures before leaping giddily into uncharted territory, and forgoes percussion altogether.

Trischka, too, enlists some established stylists, one-upping Cutler by drawing not only David Grisman's band but its former right-hand man, guitarist Tony Rice, and mandolinist Andy Statman. The spirit of collaboration within these three albums isn't coincidental: Probably the healthiest aspect of this new genre is the open climate that prevails among its proponents. Apparently they enjoy themselves too much to let competition foil a good time.

SAM SUTHERLAND

The History of Latino Rock, Vol. 1— 1956–1965: The Eastside Sound Zyanya RNLP 061 (1201 Olympic Blvd., Santa Monica, Calif. 90404)

Two sides of the same 45, recorded in 1958, established the ground rules for a decade of Latino-American rock and roll. That's the conclusion that can be drawn from "The History of Latino Rock," one of the initial releases on Zyanya, a label devoted to uncovering the roots and exposing contemporary variations of the music made by Southern California's Latino community. The single was La Bamba b/w Donna by



Lennon and Ono, Browning and Barrett

Ritchie Valens (né Valenzuela): One side was a festive, frenzied rock and roll number sung in Spanish, the other a gloomy and intimate ballad. Valens's death in February 1959 in the same airplane crash that killed Buddy Holly suddenly immortalized *La Bamba*, and for years no Latino-American reached Valens's national stature. Many of the 16 songs that make up this collection reflect his influence.

"History of Latino Rock" spans a tenyear period that begins before Valens's emergence (with Lil' Julian Herrera's r&bstyled 1956 ballad, Lonely, Lonely Nights) and concludes in the mid-Sixties. As the story is told by these songs, formulaic ballads were far more prevalent for the first half of the period, with groups such as the Velveteens, the Carlos Brothers, and Rene and Ray writing and performing tunes that trickled like teardrops. One notable exception was the raucous Hippy Hippy Shake by Chan Romero (1959), a record that, while not a success in the U.S., was somehow picked up by a number of English groups. (The Beatles used to play it, and it was a chart hit for the Swingin' Blue Jeans.)

It wasn't until the '60s that Latino rock and roll really started to build on La Bamba and Hippy Hippy Shake, as bands sprung up that rolled soul, rock (even surf music), and Latin rhythms into a jubilant, sometimes gleefully nonsensical sound. Using as their base Motown (the Blendells' La La La La), New Orleans (Cannibal and the Headhunters' Land of a Thousand Dances), or novelty r&b (the Premiers' Farmer John), these groups created a loose, spontaneous atmosphere, the sound of a party in progress, to the point of bringing audiences into the recording studio to whoop it up.

The most popular of these bands, Thee Midniters (which have their own Zyanya LP), sounded like West Coast counterparts of the Young Rascals. Their instrumental Whittier Blvd., replete with trilling "arri-

ba!"s, tambourines, and frolicking organ, is, along with Land of a Thousand Dances, the essence of the L.A.-Latino scene, continuing a chain of celebratory rock and roll that started with Valens and is alive today in the music of such bands as Los Lobos. With "The History of Latino Rock," Zyanya fills a long-standing gap by focusing attention on an overlooked genre of California music.

### John Lennon & Yoko Ono: Milk and Honey

John Lennon & Yoko Ono, producers. Polydor 817 160-1 Y-1

"Milk and Honey," Part 2 of the John Lennon-Yoko Ono "heart play," reveals more accurately than "Double Fantasy" the mature resonance of their intertwined personal and professional lives. That album turned inward with oblique confessions and expiations, private enough to make us feel voyeuristic and uneasy yet sufficiently unspecific and sugar-coated as to leave our fantasies hanging. "Milk and Honey" ventures out in public, piling up details of a content love and settling-in life.

Fans of their marriage—those who looked to it for guidance-will enjoy the unapologetic declarations of Lennon's (Forgive Me) My Little Flower Princess, a vocal samba, and Ono's Your Hands, alternately sung in Japanese and whispered-spoken in English. There's a pleasurable sense here that security in love doesn't have to mean suffocation or retreat from the world—as lined out in the album's single Nobody Told Me ("there'd be days like these") by Lennon and O'Sanity, Ono's wish to escape from same. Fans of their music will hear the sharp tension that informed and propelled their best work together and the positive influence of Lennon's textbook rock on Ono's conceptual artfulness and vice versa. ("Milk and Honey" was in progress at the time of the recording of "Double Fantasy"; it must be mentioned that the production on Ono's songs-her most fully resolved and melodic yet-was sharpened in 1983 sessions and forms a marked contrast to Lennon's thin, semicomplete arrangements.)

Parallel thematic construction, from lyrics ("thank you, thank you, thank you," a hymn each sings to the other) to motifs (occasional restlessness, enduring love), is the moving force on "Milk and Honey," which ultimately turns on the axis of Let Me Count the Ways and Grow Old with Me, Ono's paraphrase of Elizabeth Barrett and Lennon's take on Robert Browning, respectively. In the reggae lope of Ono's Don't Be Scared and eerily prophetic reggae rag of Lennon's ("living on") Borrowed Time. each sums up the hope and fear in all of us. What's most heartening about "Milk and Honey" (aside from Ono's appearance, finally, as Lennon's equal) is its range within the context of a pas de deux. Great love



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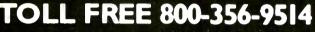








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### BACKBEAT

can produce great, or anyway good, art. LESLIE BERMAN

Reviews

Teena Marie: Robbery

Teena Marie, producer Epic FE 38882

The first line of Teena Marie Brockert's new album finds her on familiar ground, "standing on the corner of rhythm and blues"-the same turf she staked out so passionately on her four earlier LPs. But she hardly has been standing still: "Robbery" is her first work away from Motown, away from mentor Rick James and his stateof-the-funk band, and she sounds more authoritative and confident than ever. Clearly, she learned her lessons and moved

Lady Tee isn't a punk-funk protégée out to cop some riffs. She's one of the most distinctive voices in contemporary r&ban achievement all the more remarkable considering she's white-and one of the very few to blend traditional (emotional) soul, jazz, and slick L.A. funk without sliding off the deep end into mere pop. Writing, arranging, and producing her own material, Brockert is a less neurotic, more plainly erotic Laura Nyro and she's not afraid to take crazy risks, to put herself over the edge. Though she flounders when she tries for poetic depth, even her flawed lyrics have intensity and wit, and when she sings, she makes them click: She scats and croons, shouts and wails, swooping over and darting through the arrangements with such ease and delight that it all seems blissfully uncalculated-a rush of emotion rather than a jolt of theatrics. Brockert sounds that way because she is so caught up in her songs, nearly all of them about roguish lovers-playboys, Valentinos, "midnight magnets," Casanovas with "more girls than Howard Hughes had money"-who have her seesawing constantly between wariness and surrender. She changes the subject only once, just slightly, to sing about interracial love, reminding us that society's child is still in real pain.

But even if the lyrics take her into despair, her music, subtle and fluid throughout, usually jumps with joy and promise as Brockert wails her way back to a kind of bruised ecstasy. Standing on the corner of rhythm and blues. Teena Marie creates a world all her own, and "Robbery" is her most vivid realization of it so VINCE ALETTI

The Pretenders: Learning to Crawl Chris Thomas, producer Sire 9 23980-1

Few bands have succumbed to the dreaded sophomore jinx as thoroughly as the Pretenders. "Pretenders II" was one of the worst records of 1981, an album whose loathsome self-absorption and rock-star showboating did much to obscure the virtues that radiated from the band's 1980 debut.

"Learning to Crawl" is yet another flip-flop and contains some of the Pretenders' finest music to date. The hit singles deserve their status: Middle of the Road has a great guitar hook and subtle politics, while Back on the Chain Gang has a great guitar hook and people chanting "Oof! Oof!" in the background.

More important to the reformation of this band's spirit, however, is that there are good songs here that will never be hits: Time the Avenger, whose discrete title and lyric elude any conventional narrative; Watching the Clothes, a tune about doing the wash and being a waitress that will never please the cocaine-and-video crowd; and I Hurt You, which includes the couplet, "If you'da been in the SS in '43/You'da been kicked out for cruelty." Best of all—or almost so—is My City Was Gone, a lament for Akron, Ohio, in which singer Chrissie Hynde mourns the passing of a train station and rails against shopping malls.

You could call "Learning to Crawl" the rebirth of the Pretenders if the deaths of half the original members didn't make that line a sick pun. Although Hynde's dark, smoky alto and conversational but carefully metered lyrics continue to be the band's trademarks, the contributions of new guitarists Robbie McIntosh and Malcolm Foster are substantial. McIntosh gooses Hynde's hooks just the way James Honeyman-Scott used to, but without the latter's frequent lapses into histrionic feedback; Foster and drummer Martin Chambers achieve a rubbery rhythm section that bounces the beat off Hynde's voice.

But what really makes this a good record is the aggressive humanism of Hynde's lyrics: She's now pushing love and forgiveness as feistily as she used to assert revenge and bitterness. And for all that, she wants you to know she still likes sex and getting drunk. What more could you ask of a woman who named her album after what her baby was doing while Mom was recording?

KEN TUCKER

### Jazz

**Duke Ellington: All Star Road Band** Bob Thiele, producer Doctor Jazz W2X 39137 (two dises)

Duke Ellington's foresight in squirreling away his band's '50s and '60s performance tapes, when there was no immediate prospect of releasing them, continues to pay off. This two-record set documents a 1957 dance the band played in Carrolltown, a small Pennsylvania farming village. The group is not only more relaxed than it might have been in a recording studio, but, in responding to the excitement of the dancers, it gets hotter and looser as the evening

progresses.

The occasion brought out pieces that Duke might not have played in concert: *Star Dust*, with Shorty Baker's beautifully shaded trumpet singing the melody and digging into its substance; *All of Me*, to which alto saxophonist Johnny Hodges brings an insinuating swing with cool effortlessness.

To Ellington followers, much of the material will be familiar; still, with Duke there were always variations. Here. *Mood Indigo* is an eight-minute opus with an introductory trio (originally muted trumpet, muted trombone, and clarinet) of two trom-



Ellington: hot dance tapes

bones and bass clarinet. On *Such Sweet Thunder*—a very new Ellington composition at the time—the Duke makes glorious use of his supple brass: wah-wah trumpets vs. stentorian trombones.

There is, to my taste, too much of Paul Gonsalves's trudging tenor saxophone marathons on *Cop Out* (an apt title) and on a 12-minute *Diminuendo and Crescendo in Blue*, a reflection of his then-recent triumph with the piece at the Newport Jazz Festival. But for both Ellington aficionados and the uninitiated, "All Star Road Band" is a definitive example of the master's work and a vivid demonstration of his charisma.

JOHN S. WILSON

### The Charles McPherson Sextet: The Prophet

Albert L. Marx, producer Discovery DS 882 (Box 48081, Los Angeles, Calif. 90048)

In the liner notes for "The Prophet," alto saxophonist Charles McPherson says that he learned how to write for trombone from working with Kevin Quail, the trombonist who plays with him here. Quail has a throaty, rough-edged tone, basically burry and blowsy, sometimes wistful, sometimes robust and jabbing. There is a suggestion of Bill Harris about him and a bit of Roswell Rudd and all the classic trombonists that Rudd came from. McPherson's alto is light-toned and sinuous, yet he has managed to

use Quail's forthright individuality as a pastel color in their duets, while giving him total free rein on his solos.

The two horns lend an unusual and absorbing sound to the sextet. On the mood pieces that give this album its character, The Prophet and Mantra, McPherson uses, respectively, a warm, singing tone and a pulsing, ringing attack. He has a variety of ways of ducking and dodging through the uptempo moments, shifting his levels of intensity, diving headlong into hop-skip-and-jump lines, or just bouncing happily along.

Even at his most intense, there is a suaveness about McPherson that makes a provocative contrast to Quail's rumpled tone. Their chemistry, along with McPherson's imaginative writing, gives "The Prophet" a sense of structure and variety rarely achieved in the usual loose blowing of small jazz group recordings.

JOHN S. WILSON

Swingrass '83 Buell Neidlinger, producer Antilles AN 1014

The title of this album could not be more misleading. Though it suggests a package of jived-up bluegrass, and though all the musicians involved have country-music credentials, they have also been touched by jazz and blues. Mandolinist Andy Statman plays in klezmer and bluegrass groups, the late harmonica player Peter Ivers was a disciple of blues harpist Little Walter, and violinist Richard Greene has been with the Blues Project and Bill Monroe. The guiding influence is apparently Buell Neidlinger, a protean bassist who has played in symphonies on both coasts and whose jazz experience ranges from Eddie Condon to Cecil Taylor and Ornette Coleman.

For "Swingrass '83," Neidlinger and Mary Krystall arranged some Duke Ellington and Thelonious Monk tunes and used mandolin, harmonica, violin, and Krystall's tenor saxophone as their primary instruments. As such, the pieces take on fascinating new dimensions and, at faster tempos, keep edging toward hoedowns without ever committing themselves completely. Although there are solos, the overall effect is of ensemble music, filled with unusual harmonies and colors.

Ellington provides the best and most varied bases. The settings range from a strongly swinging Mainstem through nudging riffs on Subtle Slough (listed as Subtle Sluth on the disc and Subtle Sleuth on the sleeve, but better known as Squeeze Me [But Please Don't Tease Me]) through a Sophisticated Lady whose brisk mandolin solo, backed warmly by violin and harmonica, recalls Django Reinhardt's guitar.

The Monk pieces—Skippy, Little Rootie Tootie, and Friday the 13th—retain his essential feeling, but their execution (Continued on page 91)

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### **BACKBEAT REVIEWS**

(Continued from page 87)

tends to exaggerate Monk's angularity. Neidlinger and Ivers each contribute an original—one jumpy (Neidlinger), the other weird (Ivers), and both entertaining. But they are the least of the merits of this unusual collection.

JOHN S. WILSON

The Henry Threadgill Sextet: Just the Facts and Pass the Bucket

Ed Rishman, Alan Ringel, & Larry Shengold, producers About Time AT 1005 (New Music Distribution Service, 500 Broadway, New York, N.Y. 10012)

Saxophonist/composer Henry Threadgill's new album wavers uncertainly between gutsy contemporary jazz and self-conscious concert music. The six pieces on "Just the Facts and Pass the Bucket" are performed by an ensemble that includes such excellent musicians as bassist Fred Hopkins and trombonist Craig Harris. Yet despite the players' panache and enthusiasm, something is missing.

The problems are most apparent on the less rhythmic works. Cover, Cremation, and parts of A Man Called Trinity Deliverance are generally structured around a succession of held notes that blend and flow from one instrument to another. There is little of what can be described as "melody" or "rhythm," with interest sustained primarily by Threadgill's crisply dissonant ensemble clusters.

The looser, more improvisatorysounding pieces—especially Black Blues, the title track, Gateway, and Trinity Deliverance—provide the only real access points for most listeners. But even here, the momentum of the performances gets distracted by out-of-context accents and stylistically odd sidebars. Gateway is based on a Kurt Weill-like theme, very much on the beat and oddly anachronistic-sounding in its interpretation. Black Blues is more energetic, no doubt because of its triplet-heavy, gospel-tinged rhythms. Still, its almost total dependence upon short, repeating, and largely unresolved vamp patterns lends a peculiar sense of stasis.

Threadgill's best use of his material, in fact, is in Trinity Deliverance. It is constructed from a wealth of elements: A hightension ensemble passage that could easily be a film score's "chase" passage; a slow, highly dramatic middle section that spotlights Dara's odd, electronic-sounding trumpet declamations; a fine Harris solo; and, perhaps most important, a sectionalization that offers dramatic contrast from one moment to the next. Unlike many of the other tracks, which find a narrow expressive range and then stick to it, Trinity Deliverance opens up a broad, unpredictable arena. It suggests a breadth of creativity that bodes well for Threadgill's future work.

DON HECKMAN



Threadgill: gutsy or self-conscious?

### **Uptown Express**Doug Sertl & Herb Wong, producers Palo Alto PA 8048-N

Uptown Express is a tight, articulate sextet that plays appropriately tight, clean arrangements by Chick Esposito and Bobby Shew. Its flair and polish ride on the closely supportive rhythm of bassist George Mraz and drummer Dave Calarco. To a degree, the eponymous disc is designed to highlight trombonist Doug Sertl as leader of a small combo. But the real stars are trumpeter Shew and Nick Brignola, a saxophonist who has never received the recognition he deserves.

In memory of Art Pepper, Shew contributes Art Appreciation, a charming and affecting composition that he also arranged. His crisp trumpet gives the group a secure core, while his solos move through an easy, relaxed flow of balanced phrasing. But it is the versatile and discerning Brignola who is really in the spotlight on his soprano, alto, tenor, and baritone saxophones. He is primarily a baritone player, and his lithe, rugged drive on that instrument balances the bumptious joy of Gerry Mulligan with the slithering flow of Pepper Adams. Yet he is in debt to neither.

Brignola's baritone is an exuberantly propulsive factor in Uptown Express's airy reading of Miles Davis's *Tune Up*. At an opposite extreme, he plays a superbly warm, full-bodied, and gracious alto solo on *Art Appreciation*. His soprano is appropriately lean and sinuous on Luis Bonfa's bossa nova, *The Gentle Rain*, and his tenor, the least distinctive of his four instruments, is a lighter voiced version of his baritone on *Relaxin*', a catchy little piece by Frank Strazzeri. On all his horns, Brignola's approach is firm and positive, whether he is providing the group with driving punch or singing soulfully on Shew's ballad.

Sertl is an agile, flutter-note trombonist who shows some Bill Watrous influence. He is at his best on *The Gentle Rain*, providing rich, mellow lines and sliding phrases that gain interesting accents from an occasional burry touch. JOHN S. WILSON

### THE KEYBOARD

(Continued from page 62)

tions about how his art is represented on this disc. The digital engineering and the church architecture have combined to do us all a disservice by drowning a diffuse (Dowd) harpsichord tone in a tub of Lutheran acoustics. The resulting fog suggests the effect of Bach as seen through religion, rather than spirituality through Bach. Even in the orchestra there is so little dynamic variation that textures seem not to change, tension wilts, and atmosphere evaporates.

"Normally, at the direction piano or p, everyone should immediately play so softly and tenderly that one barely hears them; at the direction forte or f, with so full a tone, from the first note so marked, that the listeners are left, as it were, astounded at such vehemence." (Georg Muffat, 1701).

In the Adagio, the nice long-short on each quarter note is repeated the *same* way with the *same* stress at the *same* dynamic *all* the way *through* the movement, bulldozing in its wake phrases, lines, and transformations of the material through different keys, different dissonance treatments, and different obbligatos. Not even Stokowski ever committed that sin. The last movement (Allegro) seems held back by a pulse of three beats to a bar; it might have been propelled more excitingly with one to a bar, or preferably none.

It has not escaped our notice that, for an outstanding harpsichordist, Leonhardt indulges little in improvised ornamentation. Could he feel that it is more "dispensable" now than in Carl Philipp Emanuel's day? Or is freedom to be avoided because of its potential (indeed, certain) abuse? With his greater participation, Leonhardt's widely felt influence could change profoundly the quality of Baroque music performance worldwide and restore an "authentic" degree of responsibility to recreators' hands.

"But where does one learn what notes are given ornaments or at which point of the melody this or that ornament ought to be introduced?... For it is impossible to devise rules to meet all possible cases, as long as music remains an inexhaustible ocean of options, and one man differs from the next in his appreciation." (Friedrich Wilhelm Marpurg, 1756).

"Will I then have to lose myself in this abyss of freedom?...I shall overcome my terror and be reassured by the thought that I have...at my disposal...riches that all the activity of human genius will never exhaust." (Igor Stravinsky, 1947)

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